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## Calendar 2008-2009

## Fall Semester 2008

| Day and Evening Classes Begin | Monday, Aug. 25 |
| :--- | ---: |
| *Labor Day (Day and Evening) | Monday, Sept. 1 |
| Veteran's Day observed (staff holiday; classes held) | Monday, Nov. 11 |
| **Thanksgiving Break | Thursday-Saturday, Nov. 27-29 |
| Classes Resume | Monday, Dec. 1 |
| Final Instructional Day | Saturday, Dec. 6 |
| Final Examination Period | Monday-Saturday, Dec. 8-13 |
| Commencement | Saturday, Dec. 13 |
| Final grades due | Tuesday, Dec. 16. |
| Spring Intersession (Winter Recess) | Saturday-Saturday, Dec. 20, 2008-Jan. 10, 2009 |

## Spring Semester 2009

| Day and Evening Classes Begin | Monday, Jan. 12 |
| :--- | ---: |
| "Martin Luther King Jr. Day | Monday, Jan. 19 |
| "Presidents' Day | Tuesday, Feb. 17 |
| Spring Recess | Monday-Saturday, March 16-21 |
| Classes resume | Monday, March 23 |
| Finai Instructional Day | Saturday, May 2 |
| Final Examination Period | Monday-Saturday, May 4-9 |
| Commencement | Saturday-Sunday, May 9-10 |
| Law School Commencement | Sunday, May 17 |

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## University Closing Policy

The safety of students, faculty and staff is the University's highest priority. When severe weather is predicted or when emergencies arise, the president or designee will determine when conditions necessitate closing or canceling classes at the entire University or any of its specific units.
The president or designee will make a decision to close based on recommenda tions from:

- University police, safety and facilities personnel, who will be checking the condition of campus sidewalks and parking lots;
- City and county law-enforcement agencies, who will report on road conditions on highways and roads in areas surrounding the University;
- The Ohio State Patrol and the County Sheriff, who may issue advisories related to the weather; and
- Additional sources as needed.


## Summer Session I 2009

Day and Evening Classes begin for first 5 -week (5WI) and first 8 -week ( 8 WI ) terms

Monday, May 18
*Memorial Day
Final instruction Day for first 5-week (5Wi) term
Monday, May 25
Saturday, June 20

## Summer Session II 2009

Day and Evening Classes Begin for second 5-week (5WII) and second 8-week (8WII) terms
*Independence Day
Final Instructión Day for first 8-week (8WI) term
Monday, June 22
Friday, July 3
Saturday, July 11

## Summer Session III 2009

Day and Evening Classes begin for third 5-week (5WIII) term Monday, July 13
Final Instruction Day for second 5-week (5Wil) term
Final Instruction Day for third 5-week (5WIII) and second 8 -week (8WII) terms
Commencement
Saturday, August 15
Saturday, August 15

Closing information will be announced as early and as simply as possible. This information will be relayed to students in several ways:

- Radio and TV: Closing information will be provided to major radio and television stations in Akron, Canton and Cleveland.
- On the Web: Closing information will be posted on the University's home page at www.uakron.edu and on ZipLine at htto://zipline. uakron.edu.
- E-mail: A message will be sent to students' and employees' University mailboxes.
- Text messaging: A message will be sent to anyone who subscribes to our Z-Alert text messaging service. Learn more about it at http://wwwuakron.edu/info/z-alert.pho.
- By phone: The University's emergency information phone line is updated around the clock as conditions warrant. The number is 330-972-SNOW or 330-972-6238 (TDDNoice).
University colleges/departments are encouraged to establish a method for communicating the closing decision to department personnel.


## Inquiries

Address inquiries concerning:
Admissions information, campus tours, and transfer of credits to the Office of Admissions, The University of Akron, Akron, OH, 44325-2001. (330) 972-7100, or tollfree, (800) 655-4884. FAX (330) 972-7022.
Financial aid, schoiarships, loans, and student employment to the Office of Student Financial Aid, The University of Akron, Akron, OH 44325-6211. (330) 972-7032. Toll free (800) 621-3847. Fax (330) 972-7139.

Athletics to the Athletic Director, The University of Akron, Akron, OH,44325-5201. (330) 972-7080.
Registration, records, graduation, DARS, scheduling, Ohio Residency, and military services to the Office of the University Registrar, The University of Akron, Akron, OH 44325-6208. (330) 972-8300.

Graduate study to the Graduate School, The University of Akron, Akron, OH 44325-2101. (330) 972-7663.
The University switchboard number is (330) 972-7111.

## Accredited by:

The Higher Leaming Commission
A Commission of the North Central Association of Colleges and Schools
Dr. Sylvia Manning, Director
30 North LaSalle Street
Chicago, IL 60602
800-621-7440
www.ncahigherlearningcommission.org
For information on accreditation and to review copies of the accreditation documents, contact the Associate Provost for Academic Policies, Procedures and Review, The University of Akron, Buchtel Hall 106, Akron, OH 44325-4703.

## Disclaimer

While every effort is made to provide accurate and up-to-date information, the University reserves the right to change, without notice, statements in the Bulletin series which include, but are not limited to rules, policies, procedures, fees, curricula, courses, programs, activities, services, schedules, course availability, or other matters. For example, programs may be modified due to limited resources or facilities, unavailability of faculty, insufficient enrollment, or other such reasons as the University deems necessary.
Please note that editions of this Undergraduate Bulletin prior to $1994-95$ were titled the "General Bulletin."

## THE UNIVERSTY OF AKRON IS AN <br> EOUAL EDUCATION AND EMPLOYMENT INSTITUTION

Operating under nondiscrimination provisions of Titles VI, VII, of the Civil Rights Act of 1964 às amended and IX of the Educational Amendments of 1972 as amended. Executive Order 11246, Vocational Rehabilitation Act Section 504, Vietnam Era Veterans' Readjustment Act, and Americans with Disabilities Act of 1990 as related to admissions, treatment of students, and employment practices.
It is the policy of this institution that there shall be no unlawtul discrimination against any individual at The University of Akron because of race, color, creed, sex, age, national origin, handicap or status as a veteran.
The University of Akron will not tolerate sexual harassment of any form in its programs and activities, and prohibits discrimination on the basis of sexual orientation in employment and admissions.
The nondiscrimination policy applies to all students, faculty, staff, employees and applicants.
Complaints of possible sex and other forms of discrimination should be referred to:
AAVEO Office
ASB, Room 125D
Akron, OH 44325-4709
Phone: (330) $972-7300$
ation on Title IX may be obtained from
Trile $X$ X Coordinator
ASB, Room 125D
Akron, OH 44325-4709
Phone: (330) 972-6462
mericans with Disabilities Act may be obtained from
ADA Coordinator
ASB 125 D
Akron, OH 44325-4709
Phone: (330) 972-6462

The Undergraduate Bultetin is published once each year by Office of the Senior Vice President and Provost, Buchtel Hall 102

## The University of Akron Undergraduate Bulketin <br> (USPS 620-400)

## Important Phone Numbers

University Area Code (330)
All phone numbers are subject to change without notice. For numbers not listed, call the University Switchboard (330) 972-7111

General Campus Information Center .................................972-INFO (4636)

## Colleges

Buchtel College of Arts and Sciences .................................................972-7880
College of Business Administration....................................................972-7041
College of Education..........................................................................972-6970
College of Engineering ........................................................................972-7816
College of Fine and Applied Arts ........................................................972-7564
College of Nursing ............................................................................972-7551
College of Polymer Science and Polymer Engineering.......................972-7500
Honors College ...................................................................................972-7966
The University of Akron Wayne College ...................................(800) 22.1-8308
Northeastern Ohio Universities College of Medicine .......................... 325-2511
Summit College ..................................................................................972-7220
University College..............................................................................972-7066
Other Offices
Academic Achievement Programs ......................................................972-6804
Educational Talent Search ............................................................972-5771
S.T.E.P. (Strive Toward Excellence Program) .................................972-6819

Upward Bound Program...............................................................972-5839
Upward Bound Math and Science Program.................................972-5105
Academic Advisement Center ............................................................972-7430
Accessibility, Office of .......................................................................972-7928
TTY/TDD ....................................................................................972-5764
Admissions, Office of ........................................................................972-7100
Toli-Free..............................................................................(800) 655-4884
Associated Student Government.......................................................972-7002
Athletics, Director ...............................................................................972-7080
Buchtelite, The (student newspaper)...................................................972-7919
Center for Career Management.........................................................972-7747
Center for Child Development ............................................................972-8210
Commuter Central..............................................................................972-8690
Counseling, Testing, and Career Center
Counseling Services ..................................................................972-7082
Testing Services .........................................................................972-7084
Developmental Programs .................................................................972-7087
Math Lab (Bierce69) ...................................................................972-5214
Polsky 333............................................................................972-6550
Reading Lab and Study Skills Center (POL332) ...........................972-6551
Tutorial Programs (Bierce68) ........................................................972-6552
Writing Lab (Bierce69) .................................................................972-6548
Polsky 303...........................................................................972-6984
Education Abroad................................................................................972-7460
English Language Institute ................................................................972-7544
Financial Aid, Office of Student .........................................................972-7032
Scholarships (non-University)......................................................972-6368
Scholarships (University)............................................................972-6343
Student Employment......................................................................972-7405
Student Volunteer Program .........................................................972-6841
Toll-Free ..............................................................................(800) 621-3847
Work Study ...............................................................................972-8074
Game Room .......................................................................................972-8462
Graduate School ...............................................................................972-7663
Greek Life .........................................................................................972-7909
Health Services, Student....................................................................972-7808
Hub . . .............................................................................................972-7021
Information Centers
Polsky's High Street Info Center
.972-3531
Polsky's Main Street Info Center
.972-3532
Student Union
972-INFO (4636)
International Programs ..... 972-6349
Education Abroad ..... 972-7460
Immigration
Immigration Issues - Current Students. ..... 972-6296
Immigration Issues - Prospective Students ..... 972-6740
H-1B Issues/Permanent Resident Issues ..... 972-6493
J-1 Scholar Issues/SEVIS ..... 972-8391
International Undergraduate Academic Advising ..... 972-6194
International Undergraduate Admissions ..... 972-6934
Intramural Sports. ..... 972-6956
Leadership and Development ..... 972-7021
Libraries, University
Bierce Library ..... $.972-8161$
Law Library ..... 972-7330
Science and Technology Library ..... 972-7195
University Archives ..... 972-7670
Military Services Coordinator and Counselor. ..... 972-7838
Multicultural Development, Office of ..... 972-7658
Academic Support Services ..... 972-6769
Access and Retention ..... 972-6769
New Student Orientation ..... 972-5347
Ohio Residency Officer ..... 972-7836
Office of Student Academic Success
Math Lab (Bierce69) ..... 972-5214
Tutorial Services (Bierce68). ..... 972-6552
Writing Lab (Bierce69) ..... 972-6548
Pan-African Culture and Research Center ..... 972-7030
Parking Services ..... 972-7213
Peer Counseling Program ..... 972-8288
Photocopying
DocuZip (Student Union). ..... $.972-7870$
Polsky Building. ..... $.972-2043$
Registrar, Office of the University ..... 972-8300
Registration, records, graduation, DARS, scheduling, transcripts, enrollmentand degree verification, Ohio Residency, and military services
$.972-7800$ Residence Life and Housing ..... $972-7800$
ROTC
Army (Military Science and Leadership) ..... 972-7454
Air Force (Aerospace Studies). ..... 672-2182
SOuRCe.
972-2483
Student Affairs, V.P. for ..... 972-7067
Associate V.P. and Dean of Student Life ..... 972-2672
Associate V.P. for Campus Life ..... 972-7274
Associate V.P. for Enrollment Services. ..... 972-8294
Student Judicial Affairs ..... 972-6380
Student Life, Administration Office ..... 972-7866
Student Recreation and Wellness Center ..... 972-BFIT (2348)
Student Union, Information Center .972-INFO (4636)
Reservation Line ..... 972-8689
Ticketmaster ..... 972-6684
Tours (of the University) ..... 972-7077
ZIPS Programming Network ..... 972-7014
Work Study ..... 972-8074
WZIP-FM Radio Station ..... 972-7105
Emergency Phone Numbers
Police/Fire/EMS ..... 911
Police (non-emergency) ..... 972-7123
Campus Patrol ..... 972-7263
University Switchboard ..... 972-7111
Closing Information .972-SNOW (7669)

## About The University of Akron

## Background

## HISTORY

The connection between The University of Akron and its surrounding community has been a recurring theme in its history. The institution was founded as a small denomi national college in 1870 and has grown to its current standing as a major, metropolitan, state-assisted university, It is significant that the efforts, energy, and financial support of an Akron manufacturer of farm equipment, John R. Buchtel, were instrumental in persuading the Ohio Universalist Convention to build its college on a hill overlooking the town that stretched along the Ohio Canal. The grateful trustres responded by naming the school Buchtel College. It is also significant that during its first four decades, the struggling institution was repeatedly aided in its efforts to survive by various local entrepreneurs who pioneered and prospered in such industries as cereals, clay products, matches, and rubber. Buchtel College's emphasis on loca rather than denominational interests became increasingly clear, and by 1913 those strong ties and the school's financial situation caused its trustees to transfer the instir tution and its assets to the city. For the next 50 years, The Municipal University of Akron received its principal support from city tax funds and swelled from an enroll ment of 198 to nearly 10,000 .
The growth of the college paralleled the remarkable expansion of the community itself. From 1910 to 1920, Akron was the fastest-growing city in the country, evolving from a thriving canal town of 70,000 to a major manufacturing center of 208,000 , thanks in large part to a boom in local factories that bore names such as Goodyear, Firestone, Goodrich, and others. The age of the automobile - and the demand for inflatable rubber tires - changed the complexion of Akron forever.
Changes within the Municipal University's curriculum reflected the strong interrelationship of town and gown. In 1914 a College of Engineering began instruction, and other professional schools followed: Education (1921), Business Administration (1953), Law (1959), Community and Technical College (now Summit College) (1964), Fine and Applied Arts (1967), and Nursing (1967).

Considering the institution's location in the heart of a burgeoning rubber industry, it seemed only appropriate that the worrd's first courses in rubber chemistry would be offered at Buchtel College, in 1909. From those first classes in Professor Charles W. Knight's laboratory would evolve the world's first College of Polymer Science and Polymer Engineering (1988). During World War II, University of Akron researchers helped fill a critical need in the U.S. war effort by contributing to the development of synthetic rubber. The University's polymer programs have produced some of the worid's most able scientists and engineers, and today attract millions of dollars annually in research support, as well as top graduate students from around the world.

Research, innovation, and creativity actively take many forms at the University - in the sciences, and in the arts and humanities. Today, University faculty study ways of matching workers with jobs to maximize performance; develop new ways to synthesize fuel; write and produce plays, wite poetry, choreograph dance works; explore improved methods of tumor detection; evaluate water quality in northeast Ohio; provide speech and hearing therapy to hundreds of clients; aid the free enterprise system by sharing the latest in business practices with new and established companies alike; provide health care in community clinics; and study political campaign financing and reform. Faculty are awarded patents each year for their work on new tectinologies and products. The University of Akron's continuing and central commitment to the liberal arts is signified by the perpetuation of the institution's original name in the Buchtel College of Arts and Sciences.
The University has a long tradition of serving the needs of part-time and full-time students through day and evening classes, and it attracts traditional and nontraditional students of all economic, social, and ethnic backgrounds. Committed to a diverse campus population, the University is at the forefront of all Ohio universities in recruiting and retaining students of diverse backgrounds.
The University's first doctoral degree was, appropriately enough, awarded in polymer chemistry in 1959, but master's degrees were granted as early as 1882. The University of Akron now offers 17 doctoral degree programs and seven law degree programs as well as more than 100 master's degree programs and options. The University offers undergraduate students a choice of more than 200 majors and areas of study leading to associate and bachelor's degrees. Hundreds of noncredit continur ing education courses, certificate programs and specialized training opportunities are available for individuals and organizations.
in 1963 the receipt of state tax monies made the University a state-assisted municipal university, and on July 1, 1967, The University of Akron officially became a state university. Today, more than 24,700 students from 44 states and 76 countries are enrolled in its 10 degree-granting units. The University of Akron is the public research university for Northern Ohio. It is the only public university in Ohio with a science and engineering program ranked in the top five nationally by U.S. News \& World Report. Its College of Polymer Science and Polymer Engineering also is the nation's largest
academic polymer program. The University excels in many other areas, including global business, organizational psychology, educational technology, marketing, dance, intellectual property law and nursing. Alumni of the University number more than 140,000 and include scientists, engineers, artists, lawyers, educators, nurses, writers, business people, and other professionals at work in every state and throughout the world.

The 222acre Akron campus, with 87 buildings, is within walking distance of downtown Akron and is located in a metropolitan area of 2.8 million people. The University's presence in Northeast Ohio provides numerous opportunities in recreation, major collegiate, amateur, and professional sports, concerts, cultural events, and commerce, all within easy driving distance and many accessible via public transportation. Arts venues on campus include Daum and Sandefur theatres, Guzzetta Recital Hall, the Emily Davis Gallery, and E.J. Thomas Performing Arts Hall, the flagship performance venue for the region. The critically acclaimed Akron Symphony Orchestra, Tuesday Musical and UA Steel Drum Band perform at Thomas Hall. The University joined the Mid-American Conference in 1991 and participates on the NCAA Division 1 level in 19 sports.
The University's ongoing, major campus renovation that began in 2000, the "New Landscape for Leaming," has added 11 new structures, including two classroom buildings, a Student Union and Student Recreation and Wellness Center as well as 30 acres of green space. This transformation continues today - UA's first on-campus foothall stadium is scheduled for completion in time for the Zip's 2009 home opener.
For more than 138 years, The University of Akron has been an active participant in Akron's renaissance of commercial and artistic endeavor, a leadar in the metropolitan area's intellectual and professional advancement, a center for intemationally lauded research efforts and a source of enrichment, education, and vitality for Northeast Ohio. Our history is a long and proud one - yet at The University of Akron, our eyes are on the future, for our students, our faculty and staff, our community, and our world.

## MISSION STATEMENT

The University of Akron, a publicly assisted metropolitan institution, strives to develop enlightened members of society. It offers comprehensive programs of instruction from associate through doctoral levels; pursues a vigorous agenda of research in the arts, sciences and professions; and provides service to the community. The University pursues excellence in undergraduate and graduate education, and distinction in selected areas of graduate instruction, inquiry, and creative activity.

## CHARTING THE COURSE

Today, the University stands on the threshold of a fundamental shift in thinking and a sweeping recommitment of institutional taients, energies and resources toward attaining even greater excellence. The blueprint for change is "Charting the Course," an ongoing and dynamic process of strategic thinking that begins with the University's fundamental strategies and builds to where the institution envisions itself in the future.

Objective and documented excellence tells us that The University of Akron is already the leading public university in northem Ohio and signals a clear promise and destiny. We have framed our vision as a Statement of Strategic Intent:

## The University of Akron intends to be recognized as the public research university for Northem Ohio.

That recognition will be gained by building upon the documented excellence that has enabled the University to achieve its current high level of achievement, and by strategic investments, partnerships and initiatives.
The University will continue to build a leadership position in information technology to better prepare our students for today's technologically advanced knowledge economy, to make learning more accessible and dynamic, and to increase the effectiveness of the University's planning and operations.

We will attain technological and programmatic excellence throughout the University by taking full advantage of our metropolitan setting and long-standing relationships with area business and industry. We will act decisively to form and optimize strategic partnerships that will benefit our students and our community.
Enabling student success will continue to be the hallmark of The University of Akron. We recognize, importantly, that students are the responsibility of all of us at the University. We will work to strategically shape and determine the quality, diversity and size of our student body. And, we will strive to offer students the chance to apply what they are learning in the classroom through hands-on research, service, internships, cooperative education or similar opportunities.
Student success is our number one priority.

## A CIVIL CLIMATE FOR LEARNING: STATEMENT OF EXPECTATIONS

The University of Akron is an educational community of diverse peoples, processes, and programs. While all of us have our individual backgrounds, outlooks, values, and styles, we all share certain principles of personal responsibility, mutual respect, and common decency. Our campus culture requires that we maintain and extend those principles, for without them we cannot thrive as a humane and worthwhile university. To keep ourselves aware of these shared principles, this statement articulates some of the expectations and responsibiities of a civil climate for learning on our campus.

## Principles of Our Campus Culture

Our campus culture acknowledges the importance of all in our community for their participation in our common enterprise as a university. We value the contributions and we respect the needs of students, faculty, contract professionals, staff, administrators, maintenance and service personnel, and everyone else whose work and dedication enable us to pursue our individual and collective academic goals.
Together we maintain an intellectual culture that is accessible, disciplined, free, safe, and committed to excellence.
By our behavior with one another, we endorse a culture of diversity, celebrating the uniqueness of the individual and developing our understanding and tolerance of differences in gender, ethnicity, age, spiritual belief, sexual orientation, and physical or mental potential.
We take responsibility for sustaining a caring culture, nurturing growth and fulfillment in one another and in the larger communities of which we are a part.
We insist on a culture of civility, united in our rejection of violence, coercion, deceit, or terrorism. We work to increase collaboration, cooperation, and consensus within rational dialogue characterized by mutual respect and consideration.
Ours is a responsible cutture. We expect each member of our community to carry out responsibly his or her duties for preserving the integrity, quality, and decency of our environment and our discourse.

## Expectations and Responsibilities

To preserve and propagate the Culture of The University of Akron, everyone must engage in certain specific behaviors. Anyone new to this campus must be aware of the expectations we have of each other and be committed to fulfilling his/her responsibility in maintaining our culture.

## Inside the classroom

Inside the classroom, facuity are expected to respect the sanctity of the teachingleaming process by honoring their commitment to students in terms of time, fairness, and enthusiasm. It is the responsibility of faculty to set and enforce the classroom ruies of conduct. Faculty members are expected to treat men and women, persons of all colors and ethnicities, and persons with varying abilities, spiritual preference, or sexual orientation with equitable respect and consideration. Faculty should value and pursue excellence in teaching as well as research. Faculty shall not engage in sexual or other forms of harassment or engage in inappropriate dual relationships with students. Faculty must not tolerate academic dishonesty nor discrimination or harassment from students to other students.
Students are expected to respect the sanctity of the teaching/learning process by expressing respect for the faculty member as the organizer and guide through this learning experience, as well as for fellow students. Disruptive, disrespectful, discrimi natory, harassing, violent andor threatening behavior is explicitly prohibited. Academic dishonesty will not be tolerated. Students are expected to to take responsibility for their own leaming and, in return, can expect responsible teaching from the faculty member. Students should report unprofessional behavior on the part of faculty members. Students have a right to expect that they will not be sexually or otherwise harassed, intimidated, or threatened.

## On the campus

On the campus, everyone is expected to respect and protect the dignity and freedom of each other. There must be the opportunity for expression of all points of view, free from namecalling or ridicule. All members of the University family are expected to be civil and tolerant of others. It is the responsibility of each member of the University community to express dissatisfaction with anyone who fails to meet the responsibility of civility and to request that they do so. In the event that cooperation can not be attained, proper authorities must be involved to insist upon these minimum expectations. Only by campus-wide compliance to these expectations can we achieve a clear sense of our campus culture and, accordingly, a sense of mutual pride.
Students can expect that all representatives of all departmental and administrative offices will treat them with respect, a sense of cooperation and with concern for their welfare. Students can also expect appropriate coordination of services among departments.
Everyone is expected to respect the campus environment by behaving in ways that protect the safety, order, and appearance of all campus facilities. Each person must take steps to preserve the ecological and aesthetic aspects of the campus.

## Additional Behavioral Expectations

All members of the University community are required to abide by all laws and regula tions of The University of Akron, the City of Akron, the State of Ohio, and the Federa! Government. Students are expected to abide by the Student Code of Conduct and the University Disciplinary Procedures. Faculty, contract professionals, administrators, and staff are expected to abide by all University regulations and procedures.

## ACCREDTTATION

Accreditation assures that degrees are recognized and approved by select regional and national education associations, societies and councils. Accreditation serve two fundamental purposes: quality assurance and institutional and program improvement.
There are two types of accreditation of educational institutions: institutional accredita tion and specialized accreditation. Institutional accreditation evaluates the entire institution and accredits it as a whole. The University of Akron has been approved by The Higher Learning Commission of The North Central Association of Colleges and Schools ( 30 North LaSalie Street, Suite 2400 Chicago, IL 60602 (800) 621-7440) since 1914 and has been reaccredited at the highest level as a comprehensive doctoral degree-granting institution.
Institutional accreditation is separate from the accreditation given by professional associations or organizations. Specialized accreditation evaluates particular units, schools or programs within an institution and is often associated with national professional associations or with specific disciplines.
Accreditation provides the security of knowing that the University will honor most credits earned at a similarly accredited college or university. Degrees eamed at the University are respected and sought after by prospective employers.
Institutional Accreditation:
The Higher Leaming Commission of The North Central Association of Colleges and Schools

## Specialized Accreditations:

AACSB-The Intemational Association for Management Education
Accreditation Board for Engineering and Technology
American Association for Fomily and Consumer Sciences
American Association of Marrigge and Family Therapy (provisional)
American Association of Nurse Anesthesia - Council on Accreditation
American Dietrtic Association
American Psychological Association
American Speech-Language-Hearing Association
Association of Collegiate Business Schools and Programs
Commission on Accreditation for Athletic Training Education (CAATE)
Commission on Collegiste Nursing Education
Committee on Allied Heatth Education and Accreditation of American Medical Association
Council for the Accreditation of Counseling and Related Educational Programs (provisional)
Councilon Social Work Education
Foundation for Interior Design Education Research
Intemational Fire Service Accreditation Congress
National Association of Schools of Art and Design
National Association of Schools of Dance
National Association of Schools of Music
National Association of Schools of Public Affairs and Administration
National Centification Board of Pediatric Nurse Practitioners and Nurses
National Council for Accreditation of Teacher Education
National League of Nursing Accrediting Commission
Ohio Department of Education
Professional Society for Sales \& Marketing Training
The School of Law is accredited by or holds membership in the following: Amenca Bar Association
Association of American Law Sctiools
League of Ohio Law Schools
Council of the North Carolina State Bar
State of New York Court of Appeals
The University also holds membership in the following educational organizations:
American Association of Colleges for Teacher Education
American Association of Colleges of Nursing
American Association of Community Colleges
American Association of State Colloges and Universities
American Council on Education
American Society for Engineering Education
American Society for Training and Development
Council of Graduate Schools
Department of Baccalaureate and Higher Degree Programs (National League for Nursing)
international Council on Education for Teaching lassociatel
Midwestem Association of Graduate Schools
National Association of Graduate Adrrission Professionals
National Association of State Universities and Land-Grand Universities
North Amenican Association of Summer Sessions
Ohio College Association
Ohio Continuing Higher Education Association
United States Association of Evening Students
University Council on Education for Public Responsibility
University Continuing Education Association
University Sales Center Alliance
The American Association of University Women grants membership to women graduates with approved baccalaureate degrees from The University of Akron.

## Academics

The University of Akron offers comprehensive programs of instruction leading to the associate (twoyear), bachelor's (four-year), master's (graduate), and doctoral (graduate or professional) degrees. A student may study in the College of Business Administration, Buchtel College of Arts and Sciences, Summit College, College of Education, College of Engineering, College of Fine and Applied Arts, University College, School of Law, College of Nursing, and College of Polymer Science and Polymer Engineering.

## GRADUATE SCHOOL

The Graduate School offers advanced study to students who wish further education beyond the baccalaureate degree with programs leading to the master's degree as well as the doctoral degree.
A separate publication detailing admission procedures and individual study requirements for graduate work is available from the Graduate School. The Graduate Bulletin may be obtained online at http://www.uakron.edw/gradsch.

## Graduate School, The University of Akron <br> Potaky Building, Room 469, <br> Akron, OH 44325-2101

Graduate degree programs are listed below. A dagger ( $\dagger$ ) indicates programs that offer doctorates only; an asterisk (*) signifies programs that offer both master's and doctoral degrees; the remaining disciplines offer master's degrees only.
You may contact the Graduate School via email at gradschoolouakron.edu or visit the World Wide Web site at http:/humwuakron, eduloradsch/for more information.

|  | Accourting BSMS Accelerated Program |
| :---: | :---: |
|  | Accounting-Information Systems |
|  | Biology Integrated Bioscience $\dagger$ |
|  | Biomedical Engineering* |
|  | Business Administration |
|  | Electronic Business |
|  | Entrepreneurship |
|  | Finance |
|  | International Business |
|  | International Business for International Executive |
|  | International Finance |
|  | Law/MBA Joint Program |
|  | Management |
|  | Management of Technology and Innovation |
|  | Strategic Marketing |
|  | Supply Chain Management |
|  | Healthcare Management |
|  | Chemical and Biomotecular Engineering* |
|  | Chemistry* |
|  | Civil Engineering* |
|  | Communication |
|  | Computer Science |
|  | Courseling Psychology* |
|  | Counselor, Education and Supervision* |
|  | Classroom Guidance for Teachers |
|  | Community Counseling |
|  | Counselor Education ${ }^{\dagger}$ |
|  | Mariage and Family Therapy* |
|  | School Counseling |
|  | Curriculum and Instruction |
|  | Economics |
|  | Educational Administration |
|  | Administrative Specialists |
|  | (admissions suspended) |
|  | Educational Research |
|  | Educational Staff Personnel |
|  | Administration |
|  | Instuctional Services |
|  | Pupil Personnel Administration |
|  | School-Community Relations |
|  | Higher Education Administration |
|  | Principalship |
|  | Superintendent |
|  | (admissions currently suspended) |

## Accounting

BCDS Acceration

Biology
Integrated Biosciencet
Biomedical Engineering
Biness Administration
Entrepreneurship
Finance
hination Busines
iness for international
Executa
Law/MBA Joint Program
Management
Innovation
Stratagic Marketing
Supply Chain Management
Healthcare Management
Chemistry*
Civil Engineering*
Communication
Counseling Psychology*
vision
lassroom Guidance for taachers
Community Counseling
Mariage and Family Theragy*
School Counseling
Cumculum and Instruction
Economics
nal Administration
(admissions suspended) cational Research

Administration Pupil Personnel Acdministration Schoot-Community Relations

Principaship
Superintendent
(admissions currently suspended)


Nursing*
Clinical Nursing Spocialist
Adilt/Gerontological Heath
Nursing Nurse Practitioner
Adult/Gerontological Heath Nursing Nurse Spocialist
Behavioral Heatth Nursing Clinical ClinicalNurse Specialist Advanced Practice Psychiatric Mental Heath Nursing
Child/Addoscont Health Clinica! Nurse Spocialist
Chily/Adoblescent Health Nurse Practitioner
Nursing Anesthesia
Nursing Services Adrninistration
Public Heath
RNMSN
Nutrition/Dietetics
Outtoor Education (admissions temporarily suspended)
Physical Education
Exercise Physiology and Acult Fitness
Sport Science and Carching
Physics
Political Science
Applied Politics

Polymer Engineering*
Polymer Science*
Psychology*
Adult Development and Aging*
Counseing*
Industria/Gerontological"
Industria/Organizationa/*
Public Administration and Uiban Studies
Law/Public Administration Joint Program
Public Administration
Urban Studies
Unban Studios and Public Affais"
Secondary Education*
Social Work
Sociology*
Speech-Language Pathology and Audiology Audiology ${ }^{\dagger}$
Speech_Language Pathology
Statistics
Taxation
Law/kaxation Joint Program
Technical Education
Instructional Tachnology
Thacching
Fraining
Theatre Arts
Arts Administration

The following graduate certificate programs are also available:

Acute Care Nurse Practitioner
Addiction Counseling
ladmissions temporanily suspended)
Adult/Gerontological Health Nursing CN Specialist (Post-Masters)
Advanced Certificate in Family Conflict
Advanced Certificate in Global Conflict
Advanced Practice Psychiatric Mental Heath Nursing
Advanced Role Specialization in
Nursing Management and Business
Adult/Gerontological Nurse Practitioner
Applied Politics
Case Management for Children and Families
Child/Adolescent Health Nurse Practitioner
Child/Adolescent Health Nurse Acute Care (Post-Masters)
Composition
Cross-Cultural Negotiation (Middle
Eastern track)
Cross-Cultural Negotiation (South and East Asia track)
Divorce Mediation
E-Business
E-Learming
Environmental Engineering

Environmental Studies
Gender Conflict
Geographic Information Sciences
Geotechnical Engineering
Gerontology
Higher Education
History - Asian Studies
History — Middle Eastern Studies
Home-Based Intervention Therapy
Human Resource Management
Literature
Management of Technology and Innovation
Motion and Control Specialization
New Media Technologies
Nurse Anesthesia
Nursing Education
Parent and Family Education
Postsecondary Teaching
Public Affairs
Racial Conflict
Structural Engineering
Teaching English as a Second Language
Technical and Skills Training
Transportation Engineering
Women's Studies

## SCHOOL OF LAW

The School of Law provides legal education through day and evening classes and fulland part-time programs leading to the Juris Doctor degree. An applicant must take the Law School Admission Test and have a baccalaureate degree from an accredited college or university for J.D. admission. No particular course of undergraduate study is required for admission.

A separate publication detailing admission requirements and the procedure for applying may be obtained by calling (330) 972-7331, or (800) 4-AKRON-U, or by email: lawadmissions@uakronedu.
Visit The University of Akron School of Law's home page at hitt://hwmuakronedulaw/for more information.
Or you may write to:
Assistant Dean of Acdmissions and Financial Aid
School of Law
The University of Alkron
Alron, OH $\mathbf{4 3 5 2 5 - 2 9 0 1}$
Law degree programs are listed below:
Juris Doctor
Juris DoctorMaster in Business Administration
Juris DoctorMaster of Science in Management - Human Resource Management
Juris Doctor/Master in Taxation
Juris Doctor/Master in Public Administration
Juris DoctorMaster of Applied Politics
LL.M. in Intellectual Property Law

## BACCALAUREATE PROGRAMS

The University of Akron believes that the student should master basic courses in the humanities, social sciences, and physical sciences before proceeding to advanced work in the major. Both the University College concept and Summit College's College Success Program guarantee this mastery. Direct, Standard or Adult admit students seeking a baccalaureate degree and having attained less than 30 college semester credits study in the University College before transferring to a degree-granting college. General admit students seeking a baccalaureate degree study in Summit College's College Success Program before transferring to a degree-granting college. Studies in the University College develop students' abilities to understand and express ideas effectively and to comprehend the processes involved in accurate thinking. After completing the general studies phase, students are admitted to a degree-granting college, where they then concentrate on courses in their specific academic interests. Baccalaureate programs are offered in:

Accountancy
Professional Accounting
Advertising
eMarketing and Advertising
Anthropology (Interdisciplinary Program)
Applied Mathernatics
Art
Art Education
Ceramics
Graphic Design
Metalsmithing
Painting and Drawing
Photography
Printmaking
Scupture
Studio Art
Art History
Automated Manufacturing
Engineering Technology
Biology
Animal Physiology
Botany
Ecology/Evilution
Microbiology
Zoology
Biomedical Engineering
Biomechanics Frack
Instumentation, Signals and Imaging
Frack
Biomatenials and Tissue Engineering Track
Business Administration

Education
Adolescent to Young Adtut Chemistry
Earth Science
Integrated Language Ats
Integrated Mathematics
Integrated Social Stucies
Lite Science
Life Science and Chemistry
Life Science and Earth Science Life Science and Pnysics Earth Science and Chemistry
Earth Science and Physics
Physical Science (Chemistry \& Physics)
Physics
Earty Childhood Education
Intervention Specialist
Early Chilthood
Mild/Moderate
Moderate/ntensive
Middle Childhood
Reacing \& Language Ats
Mathematics
Science
Social Studies
MultiAge
Dance
Drama/Theatre
Foreign Languages
French
German (Adrnissions suspended)
Latin (Admissions suspended) Spanish
Music
Physical Education
Visuad Ats
Postsecondary technical Education
Sport Science and Wellness Education Athletic Fraining Education Program Sport Studies
Exercise Science
Vocational Education Family \& Consurner Sciences
Electrical Engineering
Electronic Engineering technology
Emergency Management
Engineering
English
Family and Consumer Sciences
Dietetics Coordinated Program
Dietetics Didactic Program
Family and Chidd Development Child Development
Child Life Specialist
Family Development
Family and Consumer Sciences Teacher Education
Food and Consumer Sciences
Fashion Merchandising
Apparel Fack
Home Furnishings Fack
Fiber Ats frack
Interior Design
Finance
Corporate Financial Management
Financial Services

French
Geography and Planning
Geography Fack
Planning Track
Geography/Geographic information
Sciences
Geology and Emvironmental Science
Engineering Geology
Geophysics
Earth Science Frock
Envionmental Frack
History
Humanities
Interdisciplinary Studies
Interior Design
International Business
Management
eBusiness Technologies
Human Resource Management
Information Systerms Management
Supply ChainOperations
Management
Marketing
Marketing Management
Sales Management
Mathematics
Mechanical Engineering
Polymer Engineering Spercialization
Motion and Control Specialization
Mechanical Polymer Engineering
Mechanical Engineering Jechnology
Music
Accompanying
History and Literature
Jazz Studies
Music Education
Performance
Composition
Natural Sciences
Combined B.SM.D.
Divisional Major
Nursing
Philosophy
Physics
Political Science
American Politics
Criminal Justice
Internationa/Comparative Politics
Lav, Courts, and Politics
Psychology
Respiratory Therapy
Social Sciences
Social Sciences PPE Track
Social Work
Sociology
Sociology/Criminology \& Law Enforcement
Spanish
Speech-_anguage Pathology and Audiology
Statistics
Statistical Computer Science
Actuanal Science
Surveying and Mapping technology
Thearte

## ASSOCIATE PROGRAMS

Our fast-paced age of technological development needs persons specifically trained for work in the semiprofessional, technical, and highly skilled professions. Most critically needed are laboratory technicians, health technicians, engineering assistants, sales people, supervisors, secretaries, and management assistants. The following is a list of associate degree programs:
Note: The Step-Up programs are cooperative courses of study that allow students to complete a specific associate degree program followed by a related upper college course of study that results in the baccalaureate degree. All associate degree programs of technology are "step-up's" with the School of Communications in the College of Fine and Applied Arts and with the College of Education's Technical Education Program. Summit College does not guarantee that courses successfully completed within the College will transter to colleges on this or any other campus. Acceptance of all transfer courses is determined by each individual college or school. Colleges also determine what the overall grade point average is prior to acceptance to their college. See your academic adviser for these requirements.

## Eummit Colloge Programs

Associate of Ats
Business Management technology
Accounting
General
Small Business Management
Community Services Technology
Addiction Services
Gerontology
Social Services
Criminal Justice Technology (Step-Up)
Corrections Option
Public Safoty and Secunity Administration Option
Computer Information Systerms (Step-Up) Computer Maintenance and Networking Frogramming Specialist
Microcomputer Spocialist
Web Development
Constuction Engineering Tech. (Step-Up)
Drafting and Computer Drafting Technology
Early Childhood Development
Electuomechanical Service Toctrnology (Inectived
Electronic Engineering Technology (Stepolp)
Emergency Medical Services Tecthology
Fire Protection Technology
Geographic and Land Information Systems (GISNLIS)
Hospitality Management (Step-Up)
Culinary Arts
HotelLodging Management
Hotel Markoting and Salos
Restacrant Management
Individualized Study
Manufactung Engineering Tectrology (Step 1 p) Computer Aided Manufacturing Industrial Supervision

Marketing and Sales Technology (Step-Up)
Advertising
Fashion
Retailing
Sales
Mechanical Engineering Technology (Step-Up)
Medical Assisting Technology
Office Administration
Administrative Assistant
Medical Secretaria!
Paralegal Studies
Radiologic Technology
Real Estate (Inactive)
Surgical Technology
Survejing Engineaing Technology (Siep (l)
Wayne Colloge Programs
Associate of Arts
Associate of Science
Associate of Technical Studies
Associate of Applied Business
Business Management Technology Accounting
General Business
Health Care Office Management
Office Technology
Application Software Business Office Manager Computer Support Specialist Health Care Administrative Assistant Networking Support
Associate of Applied Science
Paraprotessional Education (Step Up) Social Services Technology (Step-Up)

## CERTIFICATE PROGRAMS

Students may add a dimension of depth to their education beyond a chosen major by pursuing one of the University's interdisciplinary or interdepartmental programs, which provide concentrated work in the following areas.

Accourting Specialist
Addiction Services
Advertising
Aging Services
Applied Politics
Biotechnology Specialization
Business Management Technology
Child-Care Worker
CISCO Networking Technology
Computer Information Systems
Computer Physics
Computer Science
Conflict Management
Construction Management
Criminal Justice/Corrections
Criminal Justica/General
Criminal Justice/Secunty
Database Development
Digital Electronics and Microprocessors
Drafting and Computer Drafting Technology
Emergency Managernent
Entrepreneurship
Environmental Studies
Fiald Archaeology
Financial Planning
Fire Protection Technology
Geographic and Land Information Systerms
Geographic Information Sciences and
Cartography
Gerontology
Heay Construction
Heath Care Seling
Home Based intervention
Hospitality Management:
Culirary Arts
HotelLodging Management
Restaurant Management
International Business
International Development
Latin American Studies
Linguistic Studies
Manual Communication
Marketing and Sales Technology
Materials Testing Technology

Medical Billing
Motion and Control Specialization
Office Administration:
General Office Assistant
Office Software Specialist
Office Supervision
Pan-Aftican Studies
Paralegal Studies
Parent and Farnily Education
Piano Pedagogy
Planning with an emphasis on City or
Regional Resource Studies
Polymer Engineering Specialization
Post Secondary Teaching
Professional Communication
Professional Selling
Programming
Quality Control
Real Estate
Residential Building Technology
Retail Marketing
Russian Area Studies
Small Business Management
Supervision and Management
Surveying Technology
Teaching English as a Second Language
Technical Skills and Training
Transportation Planning
Utban Planning
Victim Studies
Webmaster
Web Site Development
Womeri's Sudios
Wayne College Certificate Programs
Gerontological Social Services
Information Specialist
Medical Billing
Medical Transcription
Network Support Specialist
Therapentic Activities
Workplace Communication

## HONORS COLLEGE

The University's Honors College provides scholarships, curriculum options, special housing, and other advantages to especially motivated and high-achieving undergraduates who meet the program's admission requirements. The Honors College student completes a major in one of the bachelor's degree granting colleges, selects a set of Honors Distribution courses in place of the Universitys General Education Program, participates in a series of Honors Seminars (Colloquia), and creates a Research Honors Project. The successful Honors College student is recognized at graduation with the designation of University Honors Scholar.

## EDUCATION ABROAD

Global awareness, intemational experience, and ability to appreciate languages and cultures are critical for the university graduate. Education Abroad enhances the stur dent's academic background; develops critical thinking and decision making skills; increases intercultural, political and economic understanding; and enhances selfesteem.
The. University of Akron has Education Abroad direct exchanges and affiliations with universities in Denmark, France, Germany, Israel, Japan, Mexico, The Nethenands, the People's Republic of China, Peru, Romania, Russia, South Korea, and the United Kingdom. In addition, UA has affiliation agreements with AustraLearm, the Institute for Study Abroad at Butler University, Cultural Experiences Abroad (CEA), and the Ohio Intemational Consortium. Programs are available to all students regardless of major, languages, training or financial means. Education Abroad may be undertaken for an academic year, a semester, or a summer, depending upon the host institution.
Short-term education abroad programs are also available though UA. Among these are departmental programs such as "Teaching and Learning in China" (Education), "Three-Week China/Korea Study Tour (International Programs), "Arts of England (Myers School of Art), Public Relations in London (Communication), "StudyNWork in London" (Marketing and International Business), "Come to India!" (Management), "Summer Study in the French Alps" (Modern Languages), "Health Care in Germany"(Nursing Instruction), "Study Abroad in Greece and Italy (Management), "Directed Spanish Study Abroad" in Spain (Modem Languages), "Wayne College Abroad" at numerous destinations, and various field study programs in Biology. International internships are available through the Ray C. Bliss Institute of Applied Politics. International Student Teaching is available through the College of Education. The Alumni Association also offers interesting destinations for alumni and friends of the University.
Students receive elective credit towards graduation for all courses in which they eam a D- or better. Some courses may be applicable to the University's language and General Education requirements, with prior permission. Credits toward a major, minor, or certificate may be completed abroad with the consent of the student's College. Education Abroad credits are an automatic exception to the restriction of 18 total credit hour maximum for transient work.
Intemational internships are available and are designed to provide an educational work experience to students who want to enhance academic and career prepara tions. Students may also arrange for student teaching abroad through the College of Education.
Students may use their financial aid for all University education abroad programs that are credit bearing. The programs are affordable, and some programs are at or below the average residential cost of attending The University of Akron. Students may also pursue scholarships, fellowships and grants such as the Freeman-Asia Award Program, Fulbright, Gilman, Marshall, National Science Foundation, National Security Education Program (NSEP), Rhodes, Rotary, and the Truman Foundation. For study or research abroad after graduation, students should inquire about scholarship programs during their junior year.
The Education Abroad Library in the Office of Intemational Programs houses details of nationally competitive scholarship awards as well as study, work, teach, volunteer, and travel abroad literature and intemational career information.
Intemational Student/Teacher Identity Cards are available for purchase in the Office of International Prograrns. The International Identity Cards are endorsed by UNESCO and are recognized worldwide as proof of student and teacher status. The card provides access to special student airfares and travel discounts, budget accommodations, rail and bus passes, insurance benefits, and emergency services.
For further information, attend a special event such as "Study Abroad 101," an "Education Abroad Forum," or the annual "Education, Travel Abroad Fair." Students may call (330) 972-6349 to make an appointment for a personal planning session. The Office of International Programs is located in Polsky 483. The Web site is manw.uakron.edw/oio/StudyAbroad.

## Official ISIC lssuing Office

## OFFICER TRAINING PROGRAMS (ROTC)

The University of Akron supports and promotes a robust officer training program Army Reserve Officer Training Corps. ROTC produces leaders for the Army while building better citizens for America. ROTC is a military educational program designed to give men and women the opportunity to become officers while eaming a college degree. ROTC offers scholarships, leadership training, and many other experiences simply not available to your average coliege student. ROTC classes and leadership training will help you sharpen your analytical skills. You'll learn to evaluate changing conditions and make appropriate decisions. Being in ROTC requires you to take an added class and lab in addition to your other college courses. Typically, ROTC class credits can be applied as general elective credits toward your degree, and if you complete all four years of ROTC courses, you can earn a minor in the respective disci pline. For more information, see the ROTC section under Undergraduate Academic Programs.

## WAYNE COLLEGE

To meet the needs of citizens in Wayne, Holmes, and Medina counties, The University of Akron Wayne College opened its doors in 1972. Wayne College offers eight technical programs as well as the first 64 credits of many baccalaureate programs. The following degrees are available from The University of Akron Wayne College: Associate of Arts; Associate of Science; Associate of Technical Studies; Associate of Applied Business in Business Management Technology, Health Care Office Management and Office Technology; Associate of Applied Science in Paraprofessional Education, and Social Services Technology. Please refer to Section 4 in this Bulletin for more information about Wayne College programs.

## OFF-CAMPUS PROGRAMS

As an urban institution of higher leaming, the University clearty identifies and supports its public service role through a variety of off-campus programs. Work force Development and Continuing Education Division offers special institutes, workshops, and course professional groups through the academic departments, through credit and noncredit continuing education, and through Developmental Programs.

## The University also operates educational centers at the following locations:

## Medina Professional Development Center

The University of Akron Medina County University Center (MCUC), developed through a unique partnership with leaders and citizens of Medina County , represents an innovative extension of The University of Akron within Northeast Ohio . Upon opening in January 2008, the MCUC became the first physical facility in Medina County focusing on higher education. The 33,000 square foot, $\$ 9.5$ million building enables local residents and businesses to take advantage of college courses and degree programs as well as professional development workshops and workforce training opportunities close to home. Technology in the center provides enhanced leaming in traditional classrooms and specialized labs as well as distance leaming classrooms. More information is available by caling MCUC at (330) 7212210.

University Partnership Program - Lorain County Community College
The University Partnership Program brings colleges and universities, including The University of Akron, to the LCCC campus to offer the coursework and programs that students need for bachelor's and master's degrees. Degrees offered paralkel those that LCCC offers, enabling students to move into higher level degrees without leaving LCCC. More information is available by calling the Center at (800) 995-5222, ext. 7873.

Partnership with The University of Akron, Cuyahoga Community Coliege, and Cuyahoga Valley Career Center will boost career and educational opportunities for students coming through secondary programs to associate, baccalaureate programs and beyond.

## OFFICE OF MULTICULTURAL DEVELOPMENT

The mission of the Office of Multicultural Development at The University of Akron is to prepare students to live and excel in a global society. As an advocate for equity and social justice, we ensure that students of diverse ethnic, social and cultural backgrounds achieve their fullest potential, in an affiming environment which supports access, retention, and successful completion of their goals. This mission is characterized by extensive student-focused collaboration of all segments of the campus community.
The Office of Multicultural Development strives to:

- Support the creation and establishment of quality educational programs to a wide variety of diverse student populations
- Support and nurture in students, faculty and staff, intellectual growth and openness to a range of diverse ideas and human possibilities
- Instill in students an overarching sense of integrity and social justice so they may contribute as responsible citizens in a diverse-community and pluralistic society
- Present cultural, social and intellectual activities for campus and local community enrichment
- The Office of Multicultrual Development is the primary advocate for establishing a welcoming environment which focuses on access, retention and academic success
- We regard ongoing student assessment as the foundation for engagement and inclusive excellence
The Office of Multicultural Development includes: Academic Support Services and the Pan-African Center for Community Studies.
Through aggressive, innovative and proactive programming, the Office of Multicultural Development seeks to involve all students in improving the campus climate. The promotion, coordination, and cooperation of various offices, programs, acadernic departments and service units, will enhance student success. It is through the involvement and interaction of all concerned, that needs are met and academic and social development occurs.


## Academic Support Services

Academic Support Services, a unit within the Office of Multicultural Development, supports the university in its goal retain students of color by providing a variety of programs and services geared toward assisting first-year ştudents in their adjustment to college through programs such as:
ADVANCE Orientation program provides high school graduates who intend to enter The University of Akron as fulltime baccalaureate freshmen with guidance and advance preparation for the college experience. ADVANCE stands for Akron's Diversity Voice Addressing New College Experiences. Various campus faculty, administrators and current UA students facilitate this program. Extended Orientation activities include parent sessions, assessment and skill enhancement activities, faculty guidance concerning educational expectations in college and social activities.
The PASSAGE Program stands for Preparing Akron Students for Success and Great Expectations. The PASSAGE program is a structured leaming community experience that promotes the academic and social integration of students of cotor into the university. Through PASSAGE, we help students develop a strong affiliation with the academic culture of the university. The PASSAGE program promotes student leaming and retention through collaborative and cooperative learning and promotes the use of learning technology.
4PAS stands for Four Phase Advising System. The Office of Multicultural Development offers this supplemental and student-focused advising program, 4PAS provides students of color enrolled at The University of Akron with unique, personal ized academic and career-related advising. The program focuses on enhancing students' potential for learning, while investing in their personal and professional growth. The advising relationship between advisors and advisees will also facilitate the process of students becoming self- and socially aware individuals.
Peer Mentoring Services functions within the Office of Multicultural Development which focuses primarily on enhancing students' academic achievement, providing them with important tools for academic success. Students participating in PASSAGE and Four Phase Advising System (4PAS) will be paired with a mentor, who is a committed, dedicated upper-ciass student, willing to share his/her time, energy, talents and knowiedge with members entering first-year class. Through regular meetings and activities, the mentor/student relationship will also place great value on the social integration of students with campus life. Peer Mentors serve as a support system to incoming first-year students of color during their transition to college life at The University of Akron. Peer mentors will also help students identify different resources, programs, and activities that could contribute to their experience both in and out of the classroom.

Students of any academic rank experience academic, personal, social, and cultural support through programs such as:
The Sociocultrual Groups increases students of colors' feelings of connection to the University resulting from having opportunities to participate in experiences that affirm their identity The EPC Groups addresses issues related to ethnicity, racial identity, and cultural effects on peer relationships. Healthy peer relationships and affirmed identities have a positive impact on students' coping strategies such as self-disclosure, self-direction, confidence, and social support. Expected student outcomes from these programs are related to enhancing student retention and the assisting students of color with developing positive peer networks

- SistahFriends Network provides an outlet, especially for women of color, to discuss the issues, needs, excitement and joys related to success in campus and community life.
- Student African American Brotherhood (SAAB) is an organization established specifically to assist our students to excel academically, socially, culturally, professionally and in the community. SAAB is primarily comprised of male students who are encouraged to embrace leadership by being positive examples for each other through a strong commitment to academic achievement, brotherhood and community service.
- The Latin Circle provides first-year Latino/Latina stưdents opportunities for the fellowship at The University of Akron. In addition to sharing experiences with your peers, you'll help the Office of Multicultural Development create the kinds of socio-cultural experiences that promote the recruitment, retention, and graduation of Latino/Latina students. The Latin Circle also will introduce you to key campus administrators, faculty, and community leaders of Latin decent.
The Office of Multicultural Development is located in the Buckingham Cultural Center, Room 115. For more information, please contact the office at (330) 972-6769.


## Pan African Center for Community Studies

The primary focus of The Pan African Center for Community Studies is to provide opportunities for faculty, staff and students to develop an understanding and appreciation of African-based cultures, which have developed throughout the world. The Center also provides information to support and stimulate student research. Services offered include a variety of lectures, seminars, programs, workshops and activities, which promote student development and contribute to a more comprehensive understanding of the African Diaspora, with an emphasis on the African American experience. The Pan- African Culture \& Research Center is guided by the philosophy of "Legacy, Leadership and Excellence" which forms the basis for a "Beloved Community," espoused by Dr. Martin Luther King, Jr. It is through understanding our past, preparing leaders for the future, and embracing excellence that this theme is realized.
The Pan African Center for Community Studies is an innovative center, which combines the best of the academic world with the best of the social and community world. It combines the many missions of the urban university to be both socially and academically engaged with the society at large. It also provides information to support and stimulate student research. It also is designed to connect the University to the community making the Center a resource for those who are interested in Akron's African American past. Services offered include a variety of lectures, seminars, programs, workshops, and activities, which promote student development and contribute to a more comprehensive understanding of the African Diaspora, with special emphasis on the African American experience.
In the Dr. Shirla R. McClain Gallery of Akron Black History and Cufture, you can see the history and experiences of African Americans who have helped develop and shape this city. It also serves as a show place for the research activities of the Pan African Center for Community Studies. The center's Black History lecture series continues to bring top-notch intellectuals to share their research with the greater Akron community. The presence of these intellectuals is due in large part to another exciting part of our program the synergies developed between the University and the business community. Several businesses have contributed to this series to fund these exciting lecturers. The Ohio Humanities Council and several companies such as Alltel Communications, Bank One, The Akron Beacon Journal and the Steward Calhoun Funeral Home have all contributed funds to make this lecture series a success and we thank them for their support.
All students at The University of Akron are encouraged to learn more about the history and culture of African and African American people. For more information, please contact the Center at (330) 972-7030.

## UA ADULT FOCUS

## (Office of the Senior Vice President and Provost)

UA Adult Focus (formerly the Evening Division and Adult Resource Center) is a comprehensive service unit for all undergraduate adult learners on main campus, and reports to the Senior Vice President and Provost. Their mission includes community outreach, marketing, recruitment, and pre-admission counseling, along with academic, social and emotional support for adult students. Some of the services provided by UA Adult Focus include:

- Adult-centered day and evening orientation programs
- "Transitions" Workshops for incoming adult students
- "Focus on Success" intensive academic skills workshops
- Computer lab and study lounge
- Career Quest (pre-enrollment interest and aptitude assessments)
- Adult Learner Mentor Program
- Adult Learner Handbook
- Adult Learner student organization
- Parenting Network
- Child Care Referral
- Parenting Handbook
- Alpha Sigma Lambda national scholastic honorary
- Verna Trushel Displaced Homemakers Scholarship
- Scholarship search assistance
- Adult Learner Emergency Book Loan
- Specialized pre-admission academic advising for adults
- Community outreach
- Evening hours Monday through Thursday

Contact Adult Focus at (330) 972-5793 or by e-mail at adultfocus@uakron.edu. Comprehensive information is located on their Web site at http:/hwwuakron, edu/uaaf.

## THE UNIVERSITY OF AKRON WORKFORCE DEVELOPMENT AND CONTINUING EDUCATION

The mission of the Workforce Development and Continuing Education is to serve the people of Northeastern Ohio by offering courses and programs that increase access to, and links The University of Akron with community, business and industrial workforce needs.
Workforce Development and Continuing Education at The University of Akron provides a wide range of educational, technical, and research services that enhance the effectiveness and quality of workforce learning. In addition, Workforce Development and Continuing Education provides services that require the special expertise of the faculty and staff to better serve the economic and social development of Northeastern Ohio.
The University of Akron has a strong tradition of service to the community through research, consultation, business partnership and continuing education. Buchtel College's first class (1872) was comprised of 46 regular freshmen and 164 preparatory noncredit students, including civil war veterans. Within a year, Buchtel College enrolled noncredit students in business courses in an outreach center in Barberton.
Workforce Development and Continuing Education is the liaison between external constituencies in search of services and technical expertise available through the University and academic and professional units and individuals who can best supply those needs.

## Primary goals include:

- Providing workforce, professional and continuing education.
- Support the development of Ohio business and industry.
- More efficiently use The University of Akron's resources to meet important social and economic needs.
- Facilitate certification of health care, human service, human resources and other professionals.
- Enhance articulation between the University and area schools.
- Service to non-traditional students.

Workforce Development and Continuing Education is located in the Polsky Building, Room 466. For more information, call (330) $972-7577$ or find them on the World Wide Web at hitp://www,uakron, edu/ce.

# The Campus 

Currently the Akron campus covers more than 222 acres and encompasses more than 87 buildings. Recent and continued growth with new academic, administrative and recreational spaces, in addition to major renovations to existing buildings are attributable to the University's commitment to provide an "Infrastructure for Academic Success."

## LOCATION

The University is situated in a large metropolitan area. The campus, although centrally located within the City of Akron, features park-like pedestrian areas. Students have easy access to retail outlets, transportation, and churches. The University of Akron is located between East Market Street and East Exchange Street on the eastside of the downtown area. Akron is easily reached by automobile from major national east-west routes (Interstates 80,90,76, and the Ohio Tumpike) and northsouth routes (Interstates 71 and 77), all of which link Akron to the surrounding states and regions. For airline passengers, limousine service is available from the Cleveland Hopkins Intemational Airport located to the north and the Akron-Canton Regional Airport, located to the south.

## BUILDINGS

Many of the buildings on campus bear the names of prominent persons who are recognized for their contributions in administration, education, business, science, or University service. Major buildings include:
100 Lincoln Street Building. This building houses the Information Technology Services (Electronic Repair and Distributed Technology Services), Purchasing Department, Telecommunications Department and Office of The Vice President, Capital Planning and Facilities Management.
277 Broadway Street Building. This building houses the Department of Institutional Marketing.
Administrative Services Building. This building houses the Office of the Associate Vice President for Business and Finance; Office of the Associate Vice President, Controller; Office of the Executive Director, Human Resources, Central Stores, Printing Services and Mail Services.
Akron Polymer Training Center. The Akron Polymer Training Center at 225 East Mill St. is an instructional classroom and laboratory facility for Polymer Engineering and Engineering and Science Technology Polymer Science classes.
Coliege of Arts \& Sciences Bullding. Located at 290 E. Buchtel, the College of Arts \& Sciences Building is occupied by the Dean of the Buchtel College of Arts \& Sciences, Computer Science, Economics, Geography and Planning, History, Mathematics, Statistics, Psychology and 16 classrooms.
Louis and Freda Stile Athletic Field House. The building is adjacent to the Student Recreation Center and the Ocasek Natatorium and is one of the best indoor facilities in the nation. The field house features a full 120 -yard Astro Play field, 300 -meter sixlane Mondo track, 8,000 -square foot strength and condition center, batting cages, indoor golf training facility, locker rooms, sports medicine and rehabilitation center and spectator seating for 1,200 .
Aubum Science and Engineering Center. Named for Dr. Norman P. Auburn, 10th president of the University, this complex is one of the largest academic buildings in the state. This complex houses the College of Engineering Dean's office, the Engineening Co-op Office; Mechanical, Electrical, and Civil Engineering; as well as the Science Technology Library and Department of Biology and Biology Research Facility.
Ayar Hall. Named for the first dean. of the College of Engineering, Frederic E. Ayer, Ayer Hall provides classrooms and offices for the Physics' department and Academic Achievement programs.
Bierce Library. This building is named for General Lucius V. Bierce, an Akron mayor, lawyer, historian, state senator, philosopher, philanthropist, and soldier. In addition to the book and periodicals collections, the facility houses audio-visual materials, maps, and microforms.
Buchtel Hell. Originally builh in 1870, this structure was destroyed by fire in 1899 and rebuilt in 1901 (Buchtel Hall 11). The administrative center of campus, Buchtel Hall was completely restored in 1973 following a devastating fire in 1971. It is the University's link with its predecessor, Buchtel College. It provides office space for numerous administrative officials of the University.
Buckinghem Center. Located at 220 Wolf Ledges Parkway in the renovated Union Depot Building. This building houses the offices of the Associate Provost Multicultural Development, Office of Multicultural Development, Black Cultural Center, Academic Achievement Programs, classrooms and a repository of AfricanAmerican history.

Business Administration Building. This facility, located at 259 South Broadway, houses offices, classrooms, and laboratory facilities for the dean of the College of Business Administration, the George W. Daverio School of Accountancy, and the departments of Finance, Marketing, and Management.
Center for Child Development. This former Gir Scout regional headquarters building at 108 Fir Hill has been renovated to accommodate the University's' Center for Child Development.
Computer Center. This building located at 185 Carroll Street houses the University's Information Services offices, main computers, and workrooms.
Crouse Hall. Crouse Hall houses the Department of Geology and Environmental Science, the Center for Environmental Studies, classrooms, and seme of the College of Education offices as well as the H.K. Barker Center for Economic Education.
E.J. Thomas Performing Arts Hall. Named for Edwin J. Thomas, prominent industrialist and dedicated member of the University Board of Trustees from 1952 to 1975, this cultural center was formally opened in 1973. Designed to accommodate concerts, opera, ballet, and theater productions, the hall is a masterpiece in architecture, acoustics, and creative mechanisms. It stands at the corner of University Avenue and Hill Street.
Exchange Street Residence Hall and Retail Center. This recently completed complex will provide space for two-and fourbedroom apartments in addition to single occupant rooms. The ground floor will provide space for retail space and service providers.
Folk Hall. This building, at 150 E. Exchange St., provides modern, wellequipped facilities for the Mary Schiller Myers School of Art. Studios are available for graphic arts, photography, drawing, painting, metalsmithing, ceramics, and computer design. The Emily Davis Art Gallery is also located in the facility.
Gallucci Hall. This building, located at 200 East Exchange Street, is a coed residence hall and home for the Hospitality Management Department and Crystal Room dining facility.
Mary E. Gladwin Hall. Housing the College of Nursing and biology laboratories, this building was named in honor of distinguished alumna Mary E. Gladwin (1887), who rendered unparalleled service to the nation during World War I. The $\$ 10$ million complex opened in 1979 and includes the administrative offices of the College of Nursing, faculty offices, the Center for Nursing, a Leaming Resources Center that includes patient care simulation areas, an audio-visual center, and a state-of-the-art computer learning center.
Goodyear Polymer Center. This building, located at 170 University Avenue, houses offices for the dean of the College of Polymer Science and Polymer Engineering, the Vice President for Research and Dean Graduate School and the Office of technology Transfer. The facility features a 200-seat lecture hall, offices, classrooms, and research laboratories for the Institute and Department of Polymer Science.
Guzzetta Hall. Located at 157 University Avenue, Guzzetta Hall is occupied by the Dean of the College of Fine and Applied Arts and the Department for the School of Dance, Theater and Arts Administration, Firestone Conservatory and the School of Music in addition to student practice rooms, an experimental theater and a 300-seat recital hall.
James A. Rhodes Arena. This structure on Buchtel Common is connected to Memorial Hall by a pedestrian bridge and contains an intercoliegiate basketball and volleyball arena with seating for 5,500 . The facility also serves as a concert and special event venue, and houses an indoor walking/jogging track, physical education laboratories, classrooms, meeting rooms, department of intercollegiate offices, locker rooms, a sports medicine room and a ticket office.
Honors Complex and Residence Hall. This newly constructed facility, located at 180 and 188 South College Street, is home of the Honors College and Residence Hall.
Hower House. Located on Fir Hill, this 19th-century mansion has been designated a Historic Place by the National Park Service.
Infocision Stadium-Summa Field. Located at 289 South Union, this is a state-of-the-art multiplex facility scheduled for completion September 2009.
Knight Chemical Laboratory. This complex is named in honor of Di. Charles M. Knight, who taught the first courses in rubber chemistry at Buchtel College as early as 1909. Opened in 1979, the building houses the Department of Chemistry and features many innovative laboratories with the most sophisticated safety equipment, as well as classrooms and faculty and administrative offices.
Kolbe Hall. Named for the first president of the Municipal University of Akron, this building was remodeled for the School of Communication. Additions to and remodeled space within the building have provided space for faculty and staff offices, TV studio areas, WZIP-FM radio station, computer labs and classrooms. The building also houses the Paul A. Daum Theater.
Leigh Hall. Leigh is named in honor of Warren W. Leigh, first dean of the College of Business Administration. This building is occupied by the offices of Distributed Education, Institute of for Teaching and Learning, and Institutional Research, in addition to The John S. Knight Auditorium.

Paul E. Martin University Center. Located at 105 Fir Hiil, the Paul E. Martin University Center has changed from a private club serving dues-paying members to a University-operated restaurant and banquet center. The table service restaurant is open for lunch between 11:30 a.m. and 2 p.m. Business and departmental functions, banquets, receptions, and parties can be scheduled during the hours of 7:30 a.m. to noon. The office of the Department of Development is located on the upper floors of the building.
McDowell Law Center. Named for C. Blake McDowell, prominent local attorney, alumnus, and benefactor of the University, the center houses the School of Law. Opened in 1973, it provides space for the law library, classrooms, moot courtroom, appellate-review office, seminar rooms, and faculty offices. An addition provides library and support space, and a second expansion has linked McDowell Law Center to West Hall, providing additional administration office space. The law complex stands at the corner of University Avenue and Wolf Ledges Parkway.
Memorial Hall. Dedicated to the memory of Summit County men and women who died in World War II, this is the companion building to the Rhodes Arena. It contains the Office of Sports Science and Wellness Education, a multi-functional gymnasium with spectator seating, two smaller gymnasiums, a motor learning lab, a human performance lab, an athletic training lab, a weight training and fitness center, an athletics batting cage, and several classrooms.
Ocasek Natatorium: Named for former Ohio State Senator, Oliver Ocasek, the natatorium houses an Olympic-size swimming pool with adjacent spectator seating area, and locker rooms and showers. It also houses eight racquetball courts as well as cardiovascular fitness and weight training areas.
Olin Hall. Named in honor of Professor Oscar E. Olin and Mr. Charles Olin, this facility houses the following departments and institutes: Arts \& Sciences Careers Program, Ray C. Bliss Institute of Applied Politics, Philosophy, English Language Institute, Sociology, Political Science, Center for Conflict Management, English, Modern Languages, Classical Studies, Anthropology, and Archeology.
Olson Research Center. This facility, adjacent to the new Polymer Engineering Academic Center on Forge Street, houses space for the Department and Institute of Biomedical Engineering and the Department and Institute of Polymer Engineering.
Physical Facilities Operations Center. This building, located at 146 Hill Street, houses physical facilities offices, craft shops, the central heating and cooling distribution center, and the Campus Police/Security Department.
The Polsky Building. The largest academic building in Ohio, this renovated downtown department store is home to the Summit Coliege dean's office, and the departments of Business Technology, Public Service Technology, Allied Health Technology, and Associate Studies. Also located here are the University Archives, the Archives of the History of American Psychology, the School of Speech-Language Pathology and Audiology and its Audiology and Speech Center, the Department of Public Administration and Urban Studies, the School of Social Work, the Continuing Education Office, the Office of International Programs, the Graduate School's Office, the Office of Research Services and Sponsored Programs, and the Institute for Policy Studies offices, the Center for Health and Social Policy and Taylor Institute for Direct Marketing. A University food service facility and a campus bookstore are in operation on the High Street level (third floor).
Polymer EngIneering Academic Center. This newly constructed 31,900 sq. ft . addition to the Olson Research Center houses departmental, faculty and graduate student offices, the Rubber Division offices of the American Chemical Society, classroom space and a 134-seat lecture hall.
Robertson Dining Hall. This building houses the cafeteria and a dining room for students.
Ouaker Square Complex. This complex, located at 135 South Broadway, once used by the Quaker Oats Company, now houses the Quaker Square Inn and Quaker Square Residence Hall, in addition to academic uses, retail, banquet, office and dining facilities.
Rubber Bowt. This off-campus stadium at 800 George Washington Blvd., four miles from campus, features an artificial turf playing field, seating for 35,000 , locker rooms, concessions, and a press box.
Schrank Hall. Named for Harry P. Schrank, longtime member and chairman of The University of Akron's Board of Trustees. This complex, which adjoins Auburn Science and Engineering Center, is composed of two academic structures and a parking deck. Schrank Hall North contains space for Adult Focus, Biology, College of Engineering, Computer-Based Assessment and Evaluation, Summit College and Women's Studies. Schrank Hall South contains space for the School of Family and Consumer Science, ROTC-Military Science, in addition to Summit College's Engineering and Science Technology Department.

Simmons Hall. This building, located at 277 East Buchtel Avenue, is occupied by departments of Student Affairs, University College, and Business and

Finance. Major services provided in this building are Admissions, Center for Career Management, Counseling. Testing and Career Center, Student Financial Aid, Office of the Registrar, University College, New Student Orientation, and Business and Finance (Student Financials).
Stitzlein Alumni Association Center. Named for Harry P. and Rainey G. Stizlein, this recently remodeled building, north of East Buchtel Ave. at Fir Hill, houses the Office of The Alumni Association.
Student Recreation and Wellness Center. This complex houses facilities and services that support student recreation and wellness along with Intramural Sports and Student Health Services.
Student Union. The Student Union, located in the center of campus, serves as a hub for social and educational activities for students, faculty, and staff. This facility houses various food venues, a ballroom and meeting rooms, theater, game room, Computer Solutions - the computer technology store, DocuZip copy center, bank, Information Center, Ticketmaster outlet, Planet Underground - a DVD/CD store, Starbucks, Zip Card office and Barnes and Noble Bookstore. Visit our Web site at http://wwwiuakron,edu/studentife.
Whitty Hall. Located at 200 Buchtel Common, Whitby Hall is named in honor of G. Stafford Whitby, a pioneer in the development of polymer science.This building is occupied by the Department of Chemical Engineering department offices; faculty offices and research labs; a computer lab and classroom.
Zook Hall. Named to honor George F. Zook, president of the University from 1925 to 1933, this Buchtel Common faciitity houses the Coilege of Education offices of the Dean, Associate Dean for Academic Affairs and Assistant Dean for Student Affairs and admission advisement offices. Other facilities include a lecture room that seats 245, general classrooms, a science and mathematics classroom/laboratory, a distance learning classroom, a Center for Literacy, two technology-enhanced demonstration classrooms, two computer-training classrooms, and a multi-media laboratory.

## FACILITIES AND EQUIPMENT

The University's addition of modem teaching aids demonstrates its recognition of the need, in this technological age, for up-to-date facilities and equipment. Many of these facilities are described below.

## Buchtel College of Arts and Sciences

The Department of Biology houses greenhouses, controlledenvironment chambers, an animal research facility, a molecular biology research center, modem laboratories, and equipment that includes advanced light microscopes (differential interference contrast, fluorescence), electron microscopes (scanning and transmission), scintillation counters, ultracentrifuges, DNA sequencing apparatus, and physiographs; vehicles, boats and a 400-acre nature preserve are available for fieldwork. Many biology courses use the department's student computer lab for review of multimedia presentations, data analysis, simulations, Intemet and Web assignments, teleconferencing, scanning, word-processing, and printing.

The Department of Chemistry is located in the Knight Chemical Laboratory building. The department is home to state-of-the-art facilities for the spectroscopic identification and characterization of compounds. These include the centers for Laser spectroscopy, Mass spectrometry, Nuclear Magnetic Resonance spectroscopy, and X-ray crystallography. Students have access to the department's computer lab for intemet and Web assignments, data analysis, computations, word-processing and printing. The Chemical Stores facility maintain an inventory of more than 1,100 items, including chemicals, glassware, and apparatus. Additional information about the department, faculty, and programs can be found on the department Web site located at unwichemistryuakron,edu.
The Department of Classical Studies, Anthropology and Archaeology has a Macintosh-based computer lab which gives easy student access to a collection of several thousand original digital images of ancient Mediterranean buildings, artifacts and art works, to the Perseus program, a digital multimedia database on the Greek world ( 20,000 images and most of Greek literature both in Greek and in translation), and to the Internet and the Web.

Interdisciplinary anthropology has laboratories for biological anthropology, cultural anthropology, and archaeology. The biological anthropology lab features hominid fossil, primate and human casts, plus computer stations for student laboratory exercises. The cultural anthropology lab has workstations and software for a range of interview and analysis methods. The archaeological laboratory houses collections and equipment used for field research projects. Students use computers equipped with ArcGIS and qualitative software, and they access our extensive col lections. Anthropology labs have dual monitor authoring workstations; desktop machines; flatbed and film scanhers; and an accelerated 100 base-T local network connected to the University backbone. Digital investigation and creation are quite commonplace in anthropology classes.

The Department of Computer Science is located on the second floor of the College of Arts and Sciences Building. Students in Computer Science have access to a wide variety of computing facilties, operating environments, languages and software in laboratories maintained in and by the department. In addition to a PC lab, a UNIX lab and a Graduate Research lab, the department has a cluster computer available for research and instruction. Our facilities are state-of-the-art and provide a broad range of experience that is attractive to potential employers.
Department computers provide access to the Internet, the World Wide Web, and the computational resources of the Ohio Supercomputing Center in Columbus. In addition, there are connections to the VBNS Internet II network. Many department computers are accessible via the University diahup lines or the Internet.
The proximity of the faculty offices to the computer laboratories encourages regular interaction between students and faculty. Staff members provide introductory seminars and are always available to assist and guide students. A friendly, informal, helpful atmosphere makes the department an enjoyable place to learn and gain practical experience.
The Department of Economics is housed on the fourth floor of the College of Arts and Sciences Building in a modem office complex with space for both faculty and graduate students. Economics as a discipline has become increasingly analytic. The department has a computer laboratory for faculty and students. It is equipped with the latest equipment, running in a Windows environment. In addition, the department has a variety of software, including economic tutorials, word processing programs and SAS. The lab is also equipped with a laser printer. Network access allows students to search for books, joumal articies, the latest economic data, etc., remotely from either Ohio Link or the World Wide Wob. The lab is located in close proximity to the faculty offices which facilitates interaction between faculty and students, and enhances the students' educational experiences. Additional information about the department, the faculty, and the programs is availabie on the department Web site at munuakron, edulecion.
The Department of English is located on the third floor of Olin. Hall. The department offers freshmen the opportunity to take composition classes in its state-oftheart computer classrooms. Students have the opportunity to submit written work for literary prizes every spring as well as apply for various English scholarships. The Department hosts the Literary Guild for students, runs a joumal of creative witing for students, and sponsors an open mic night featuring poetry and fiction reacings by students. Additional information about the department, the faculty, and the programs is available on the department Web site at umwuakron.edwenglish.
The Department of Geography and Planning has an instructional computer lab and specialized labs for reseerch and production work in cartography, geographic information systems (GIS), remote sensing, and soils analysis. These labs have a variety of cartographic, GIS, remote sensing, database, spreadsheet and statistical analysis software as well as digitizers, scanners, printers and plotters. The department also houses a diverse collection of maps, aerial photographs and satellite images.
The Department of Geology and Environmental Science has modern instrumentation for field and laboratory studies that include an environmental scanning electron microscope, automated electron microprobe, environmental scanning electron microscope, and automated $x$-ray diffrractometer. An ion-coupled plasma spectrometer, atomic absorption spectrometer, ion chromatograph, and coal and sulfur anaiyzers support geochemical studies. Environmental magnetism and paleomagnetism of sediments are analyzed with an alternating gradient magnetometer, magnetic susceptibility equipment, spin magnetometer, altemating fieid demagnetizer, and a pulse magnetizer. Geophysical research is conducted with a gravimeter, field magnetometer, automated resistivity gear, seismic-surveying equipment, ground-penetrating radar, and a field gradiometer. In addition to the standard equipment used to prepare and analyze rocks and sediment, the department has Giddings Soil Probe, Zodiac boat, pontoon- supported aqueous driling platiorm, one four-wheel drive vehicle, and two 15 -passenger vans. Data analysis and presentation preparation are supported by a variety of modern computers, printers, and plotters.
The Department of Hustory occupies one wing on the second floor of the College of Arts and Sciences Building. This new office complex includes a multi-media room for Wab-based computer work in close proximity to faculty offices, enhancing students-faculty interaction. The endowed interdisciplinary Sally A. Miller Humanities Center is housed within the department and offers fellowships, sponsors speakers and runs pedagogical workshops. The online Joumal of Northeast Ohio History which offers both editorial experience and opportunities of scholarty publication, has its office in the department. The History suite contains three separate seminar rooms, where undergraduate and graduate students work closely with faculty. More information about the department can be found on its Web site: umb3.vakron.eduhistory.
The Depertment of Moctem Languages has a Language Resource Center in Olin Hall. The Language Resource Center contains facilities for students to listen to audiotapes and view videotapes as a class or individually. Fourteen networked mut timedia computers have software for additional language practice and foreign larguage word processing. Access to the World Wide Web provides students with the
opportunity to both read and listen to up-to-date news and cultural information in foreign languages. Magazines and dictionaries are also available for student use. Additional information about the department and its programs is available on the intemet at wuwuakron.edu/modlang/.
The Department of Philosophy is located on the second floor of Olin Hall. It houses a small computer lab and a private library for philosophy students. Brief biographies and pictures of each faculty member in the department can be found on the University Web site at munuuakron, edu/philosoohyl.
The Department of Physics is located on the first three floors of Ayer Hall. Facilities include research laboratories used for faculty and student research projects, laboratories for experiments associated with coursework and a computer lab for undergraduate and graduate student use, and smaller PC clusters for research. Additional information about the department, its faculty, and its programs is avaiable on the internet at htpp://www.uakron.edu/colleges/artsci/depts/ohvsics/index.phe. The smallness of the department provides ample opportunity for interaction with all faculty members. This interaction combined with the laboratory space, computing facilities and reading room offer a diverse leaming experience to the student in an attractive and hospitable environment.
The Depertment of Political Science is located on the second floor of Olin Hall. The department maintains an instructional computer lab consisting of 16 fast and frequently updated computers that are used by our students as they analyze real world political conflicts. The department also houses the facilities for the internationally known Bliss Institute of Applied Politics, one of the largest internship programs in the area, and the Center for Conflict Management.
The Department of Psychology is located on the third floor of the College of Arts and Sciences Building. The department maintains three computer labs that are available for undergraduate and graduate students in Psychology. All labs have access to the internet. Supported throughout the labs are statistical packages which include SAS, SPSS, MPlus and SurveyPro. Wordperfect and MS Word are available throughout the department for word processing. A full-time research programmer/analyst provides hardware and software support for the department and writes custom software for computerized research: In addition to the computer labs, a counseling clinic is maintained by the department and has videotaping capa bilities for the study of counseling processes and outcomes. Also, the department's Center for Organizational Research engages in outreach to the greater Akron community and provides applied research experience for students. Additional facilities of the Psychology Department include: research areas for individual computer research and for small group behavior research, a Test Room where current psychological testing materials are kept, and an Undergraduate Advising Office for psychoł ogy students. Additional information about the department, its faculty, and its programs, is available on the internet at htto://wuw.uakron.edu/psychology.

The Department of Sociology facilities include research laboratories used for funded research projects. The Newman Library, providing many current professional journals, is open for students' use. The Department is also affiliated with the Institute for Health and Social Policy.
The Department sponsors the "Sociology Club" for undergraduates and hosts a chapter of the International Sociology Honor Society, AKD. Additional information about the department, its faculty, and its programs is available on the intemet at htto:/hunwuakronedw/sociology.
The Department of Statistics maintains two instructional computer labs. One of these labs is used for class laboratory sessions for the general education mathematics requirement courses, Basic Statistics and Statistics for Everyday Life, and is located in the College of Arts and Sciences Building, Foom 108. The other lab, located in the College of Arts and Sciences Building, Room 109, is being used for various undergraduate and graduate statistics courses. The Center for Statistical Consulting, housed in the department and maintained by the Buchtel College of Arts \& Sciences, provides opportunities for students to gain valuable experience in the practical applications of statistics while interacting with faculty and clients.
The Department of Theoretical and Applled Mathematics is located on the second floor of the College of Arts and Sciences Building. It provides students in mathematics and applied mathematics with a wide variety of computing facilities, operating environments, programming languages, and software. These facilities are being constantly upgraded to maintain currency in a rapidly changing field. Most computers in the department also provide Internet access to encourage students and faculty to keep current on subjects of interest. Access to the facilities at the Ohio Supercomputing Center in Columbus is also avaitable for undergraduate students involved in research. The department home page at muwmath. uakron.edu provides updated information about the department, its facilities, faculty and programs.
The proximity of the faculty offices to the computer laboratories encourages regular interaction between students and faculty. The use of e-mails also enhances studentfaculty communication. Staff members provide introductory seminars and are always available to assist and guide students. A friendly, informal, helpful atmosphere makes the department an enjoyable place to learn and gain practical experience.

## Summit College

Most offices and specialized laboratories of Summit College are located in The Polsky Building and Schrank Hall South. However, the college also uses portions of Gallucci Hall and Schrank Hail North. In addition, Summit College classes are frequently scheduled in classrooms all over the University campus and at off-site locations.

The programs in the Business Technology Department consist of Business Management Technology, Computer Information Systems, Hospitality Management, Marketing \& Sales, and Office Administration. Computer Information Systems (CIS) offers hands-on experience to those students who are pursuing an associate degree as well as to those students who want to obtain one of the numerous certificates offered. The CIS program has a cluster of wellequipped computer labs to provide programming, microcomputer and networking classes. Each of our labs offers a variety of hardware and software to enable the students to experience different systems platforms and applications. CIS has partnerships with some of the largest software and hardware companies in order to offer professional certifications and maintain our leading edge. The Hospitality Management program is located in Gallucci Hall, where a complete restaurant (with kitchen and a 120 -seat dining room) serves food to the general public as part of its curricula in restaurant management, culinary arts and hotelhodging management. The Office Administration program has a model office lab and several computer labs dedicated to keyboarding, word processing, desktop publishing and computer-based graphic presentations, tape dictation, and information/records management.

The Department of Development Programs is located in Polsky 334. Its mission is to prepare UA students to achieve their personal and academic goals. Toward this end, it offers basic academic skills courses and, in conjunction with the Office of the Associate Provost for Student Academic Success, an array of academic support services. Basic skills courses are offered in writing, mathematics, and reading and study skills. To further support and maintain quality instruction in the General Education courses, Applied Study Strategies classes are offered to teach study skills applied specifically to challenging first-year courses. In addition to courses, Writing and Mathematics labs, the Study Skills Center, and peer tutoring are available to all University students. For the convenience of our students, tutoring and leaming labs are available in two locations - on the third floor of the Polsky Building and on the second floor of Carroll Hall.
The Engineering and Science Technology Department is located primarily in Schrank Hall South. Many computer-related laboratories provide hands-on experience for students. The Drafting and Computer Drafting Technology program maintains two dratting laboratories and a new Computer-Aided Drafting Laboratory. The ComputerAided Drafting Laboratory is equipped with microcomputer work stations utilizing AutoCAD and SolidWorks software. The Electronic Engineering Technology program provides a circuits laboratory, electronics laboratory, control system laboratory, digital circuits, and system laboratory equipped with personal computers and a facility for fabricating printed circuit boards. Computers in labs also contain industry grade software used in the design, simulation, construction and programming of circuits. The Mechanical Engineering Technology program maintains a mechanical design laboratory, a fluids and thermal laboratory, and a materials testing and metallographic laboratory. Manufacturing Engineering Technology labs include equipment for the study of robotics, CNC machining and programmable logic controllers. The Surveying \& Mapping Technology program maintains two computerized laboratories; one for map generation and GIS/GPS activities, and one for surveying instrumentation studies and practices. The Construction Engineering Technology program area maintains two laboratories; one for investigating the properties of construction materials and a computer lab. The computer lab is used for teaching software associated with estimating, project scheduling and construction administration. In addition, the department has laboratories for physics (mechanics, electricity, heat and light), chemistry and programming courses

The Allied Health Department is located in Polsky 124. The following labs are dedicated to the Allied Health programs: Polsky 112 Respiratory Care, Polsky 121 for Surgical Tectnology and Polsky 123 to Medical Assisting.

The Associate Studies Department is located in The Polsky Building, Room 131. The department has two labs equipped with a total of 55 computers. Located in Polsky 295 and 297, these labs are primarily dedicated to Englisharea courses, such as Technical Report Writing, Writing for Advertising and Writing for the World Wide Web.

The Public Service Technology Department is located in the Polsky Building Room 161. The Criminal Justice lab, located in Polsky 202, houses 30 computers and is where the Criminal Case Management classes are conducted. A dedicated classroom for Criminal Justice is located in Polsky 167. The Fire Protection program's extensive lab is located in Polsky 227. A classroom wired for internet connection, Polsky 223, is shared by the Fire Protection and Emergency Management programs. The Community Services program has "interviewing skills" breakout rooms located in Polsky 151A 151B, and 151C; its dedicated classroom is located in Polsky 152. The Early Childhood Development Program lab is located in Polsky 110 C with designated multipurpose rooms 110A and 110B. In addition, the Early Childhood Development Program interfaces with The University of Akron Center for Child Development

## College of Business Administration

The College of Business Administration is located in the 81,000 square-foot, fourstory College of Business Administration Building, which houses the college's offices, classrooms, computer laboratories, and advising services. The departments of Finance, Management, Marketing, the George W. Daverio School of Accountancy, the Fitzgerald Institute for Entrepreneurial Studies, the Fisher Institute for Professional Selling and the institute for Global Business share the CBA. All undergraduate and graduate programs are fully accredited by AACSB Intemational - The Association to Advance Collegiate Schools of Business, the most prestigious accrediting agency for business schools.

Tiered, amphitheater-style classiooms permit close contact between students and professors. The Milton and Hennietta Kushkin Computer Laboratory consists of three teaching labs, one homework lab, and two portable laptop carts. The teaching labs are each equipped with 36 student stations. Beginning with the 2008 fall semester, one of these teaching labs will be enhanced to include distance learning capabilities. The homework laboratory contains more than 75 computers for students. Each PC is equipped with Windows XP, Office 2007, Project 2007, Visio 2007, Oracle 10g, SQL Server 2005, Visual Studio, Adobe Studio 8, SAS, SPSS, and many other software applications.

The Car V. and Clyde A. Fisher Sales Laboratory provides the college with six group lab rooms connected by oneway mirrors to a central monitoring and control room. Sophisticated audiovisual equipment permits the recording of activities in each lab room which can then be shown to students to provide immediate feedback. This faciity is a key resource in college programs for training in sales, sales management, negotiation, leadership, and employment interview preparation.

The Goodyear Tire and Rubber Company Lecture Hall, the building's largest classroom, is equipped with a state-of-the-art audio-visual system capable of projecting textbook material, transparencies; slides, videotapes, computer screen images, and the like onto the room's 10-by-10 foot screen. Other classrooms also offer multi-media and intemet capabilities.
The Gary L. and Karen S. Taylor Institute for Direct Marketing occupies approximately 32,000 square feet on the fifth floor of the Polsky Building, a block away from the CBA and connected by skywalks. The facility boasts a creative lab, an analytical lab, a call center, an applied research center, several direct response laboratories; a student learning suite, an entrepreneurial incubator, offices for the Institute and an executive education suite. The college's direct marketing and executive education programs are housed in these facilities.
Facilities for seminars, continuing education programs, and student organization meet ings are provided in the John P. Murphy Executive Seminar Room and adjacent small group meeting room.
Offices of the college's 15 active student organizations are located in the James Dunlap Student Organization Office Suite just off the atrium lobby. Student Organizations offer opportunities for development of social, professional, leadership, and networking skills through interaction with business professionals and other students

## College of Education

The offices, laboratories, and other facilities of the College of Education are located in Zook Hall, Chima Hall, Crouse Hall, the James A. Rhodes Health and Physica Education Building, and Memorial Hall.

The Department of Counseling offers graduate programs leading to the Ph.D. as well as the Master's degree. The Ph.D. is offered in Guidance and Counseling (with speciatties in Counselor Education and Mamage and Family Counseling/Therapy) and Counseling Psychology (a collaborative program with the Department of Psychology in the College of Arts and Sciences). Masters programs are offered in Community Counseling, Marriage and Family Counseling/Therapy, School Counseling and Classroom Guidance for Teachers. The department also operates a multidisciplinary clinic, the Clinic for Child Study and Family Therapy.
The Department of Curricular and Instructional Studies includes the areas of early childhood, middle childhood, secondary (adolescent to young adult), preschool to grades 12 (P-12) education and the areas of special education as an intervention specialist for early childhood (P-3 mild/moderatefintensive), mild to moderate ( $\mathrm{K}-12$ ) or moderate to intensive (K-12). Initial teacher preparation programs are available at the undergraduate, post-baccalaureate and master's degree levels. The early childhood program prepares teachers to teach age three to grade three. The middle childhood program prepares teachers to teach grades four through nine with spe cialization in each of two areas selected from readinglanguage arts, mathematics, science and social studies. The secondary program prepares teachers in grades seven to twelve to teach language arts, mathematics, science, social studies or family and consumer science (grades 4-12). The P-12 program prepares teachers of foreign language, music, dance, drama, or visual arts. Endorsements are available in reading and teaching English as a second language. The special education options prepare undergraduates as intervention specialists/teachers for children with specia needs and graduate students to be master teachers and supervisors of special education programs. The University Center for Child Development, under the direction
of the College of Education, provides child care for children while serving as an experimental learning site for teacher education students.
The Department of Educational Foundations and Leadership serves undergraduate and graduate students in the College of Education. The department serves undergraduate students by providing instruction in core courses in teacher education and postsecondary technical education. In the area of leadership, the department provides graduate courses in school administration and higher education administration. The department members also teach the core curriculum of historical, philosophic, psychological, and social foundations requined in all graduate education programs. They teach, advise, and supervise problems, theses, and disserta tions of students in their degreegranting graduate programs, the master's programs in Educational Foundations, the master's and doctoral programs in Educationa Administration, the master's program in Higher Education Administration, undergraduate and masters programs in Postsecondary Technical Education, certificate in Technical \& Skills Training and certificate in Postsecondary Teaching .
The Department of Sport Science and Wellness Education prepares students for careers in teaching, athletic training, exercise science, coaching and related recreational fields. There are laboratories for the study of exercise physiology, anatomy, athletic training, motor behavior, teaching skills (microteaching), and computer utilization in physical and health education. The department has access to the James A. Rhodes Health and Physical Education Building (classrooms, the main gym, an indoor running track, a multi-purpose room, and four teaching station areas), Memorial Hall (classrooms, as well as large and small gyms), Ocasek Natatorium (classroom, swimming pool, racquetball courts, and cardiovascular fitness and weight training areas), Student Recreation and Wellness Center (cardiovascular fitness and weight training areas) Athletic Field House (sports medicine equipment), and Lee Jackson Field (an outdoor running track). Each of these facilities and resources is used in the presentation of our undergraduate academic programs.

## College of Engineering

The offices, undergraduate laboratories, classrooms, research facilities, machine shops, computer laboratories, and other facilities of the College of Engineering, are located in the Aubum Science and Engineering Center, Schrank Hall North, Whitby Hall, and the Olson Research Building.

The graduates from the College of Engineering's undergraduate programs regularty achieve the highest scores in the State of Ohio on the Fundamentals of Engineening Examination, which is the first step in professional licensure. Student teams that participate in national student competitions consistently are in the top $10 \%$ of the competitors. More than 80 percent of eligible undergraduates elect to combine practical industrial experience with their academic studies by participating in the Cooperative Education Program, which is one of the oldest and most successful Cooperative Education programs in the United States.
Every regular faculty member actively teaches at both the undergraduate and graduate levels while performing research and professional service to the community. The current active research centers include the Computational Mechanics Research Center, the Institute for Biomedical Engineering Research, and the Microscale Physiochemical Engineering Center. The College enjoys excellent relations with industry and the public sector. This relationship is formalized through the Engineering Advancement Council, which works actively on behalf of the College, and the Engineering Advisory Council.
The College's undergraduate programs in Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Computer Engineering, Mechanical Polymer Engineering and the Cooperative Engineening Program are fully accredited by the Accreditation Board for Engineering and Technology (ABET).
The College's new undergraduate program in Biomedical Engineering is under the direction of experienced faculty members and will be considered for ABET accreditation when eligible.

The master's programs in the College consist of departmentally administered Master of Science degrees in Chemical, Civil, Electrical, and Mechanical Engineering. The Dean's Office administers the Master of Science in Engineening degree with specializations in Biomedical Engineering, Polymer Engineering, and Engineering Management.
The Doctor of Philosophy in Engineening is offered in the interdisciplinary fields of Environmep̧tal Engineering, Mechanics, Systems Engineering, Materials Science, Transport Processes, Biomedical Engineering, Engineering Applied Mathematics, Chemical Reactions and Process Engineering, Microscale Physiochemical Engineering, and Polymer Engineering. This interdisciplinary degree integrates departmental disciplines and is administered by the Dean's Office. There is coordinated Doctor of Philosophy in Engineering Degree with Youngstown State University and a joint MD/Doctor of Philosophy Degree in Engineering with the Northeast Ohio Universities College of Medicine.
The Department of Biomedical Engineering is located in the Olson Research Center and has classrooms, instructional laboratories and research laboratories. The department provides educational opportunities at both the undergraduate level (BS

Biomedical Engineering) and the graduate levels (MS and Ph.D. in Engineering). Biomedical engineering graduate students may also participate in the joint MD/Doctor of Philosophy in Engineering Degree program between the College of Engineering and the Northeast Ohio Universities College of Medicine.
Research faculty members in the Biomedical Engineering Department have strong research programs in biomechanics, instrumentation, signals, imaging and bioma terials are active participants in the Institute for Biomedical Engineering Research. There are nine major research laboratories located in the Biomedical Engineering Department.

The Musculoskeletal Biomechanics Laboratory is equipped with materials testing equipment and finite element analysis capabilities. This Laboratory can also evaluate and test medical and surgical procedures and applications.
The Human Interface Laboratory conducts research in virtual reality, telemanipula tion, biofeedback therapy and minimally invasive surgery. The Rehabilitation Engineering Laboratory is equipped to conduct collaborative research on problems related to stroke, head injury and arthritic patients. The Biomedical Instrumentation Laboratory has continuous wave and Doppler ultrasonic equipment, temperature sensing devices, blood pressures and flow monitoring equipment.
The Vascular Dynamics Laboratory provides facilities to measure and analyze blood flow through steady and pulsatile in vitro models of cardiovascular importance using techniques such as flow visualization, 2-D laser Doppler anemometer and pulse Doppler ultrasound techniques.
The Motion Analysis Laboratory studies all aspects of human movement. This laboratory is equipment with a Vicon Motion Analysis System, two AMTI force plates, a MA-1-EMG system, and associated computer hardware and software.

The Biostereometrics Laboratory is equipped to perform spatial analysis using three-dimensional sensing technology, which includes a Kern Maps-200 Digitizing System and a JK Laser Holographic camera for laser holographic interferometry.
The Biomaterials and Tissue Engineering Laboratory provides equipment infrastructure to investigate all aspects of biomaterials. The facility includes a wet lab for formulation, development and analysis of biomaterials, including medical applications for nanotechnołogy. The tissue culture lab has equipment to investigate the interections of cells and tissues with biomaterials and to develop tissue engineening scaffolds for developing therapies in regenerative medicine.
The Department of Chemical and Biomolecular Engineering is located in Whitby Hall with undergraduate laboratories in the South Tower of the Auburn Science and Engineering Center and research laboratories in the North Tower of the Auburn Science and Engineering Center. The department provides educational opportunities for students at both the undergraduate and graduate levels in Chemical and Biomolecular Engineering. Undergraduates may eam Specialization in Polymer Engineering and Biotechnology by taking appropriate courses.
A major feature of the Undergraduate Laboratory is the 24 feet high distillation unit with the Corning Glassplant 6 -inch and 12 -inch columns configured as a 12-plate bubble-cap column, an 8 -foot high packed-bed column, and control systems. The laboratory has a pilot plant with a 5 -gallon agitated reactor and a packed-column stripping facility. Laboratory experiments include a fluid flow measurement appara tus, heat transfer study systems, ion exchange for separation, microporous material synthesis in a well mixed reactor, and enzymatic material synthesis. The undergraduate laboratory is associated with a variety of courses and is available for individual and team research projects. Demonstration units for biochemical degradation, chemical precipitation, and reverse osmosis are available as well as analytical instrumentation including atomic adsorption and gas chromatography.
The Department of Chemical and Biomolecular Engineering has an Undergraduate Computer Laboratory with excellent on-line computer access and up-to-date software. Software programs include word processing, numerical calculations and programming, process simulation software (ChemCAD), and computational fluid dynamics software (CFX). Students studying process dynamics and control make use of our Unix based UlitraSparc workstations, National Instruments process data acquisition hardware and software, as well as a variety of engineering software packages including Matlab, Mathematica, Maple, and Control Station. Undergraduate Design Laboratories are available for honors research, individual design projects, and team projects.
The Applied Colloid and Surface Science Laboratory has a state-of-the-art laser light scattering facility including a Lexel argonion laser, a vibration isolated optical bench, a Brookhaven correlation and probability analyzer, FTIR-flamen, TGA and an IBM PC-based data acquisition system. The Biochemical and Environmental Bioengineering Laboratory is a satellite center of the Ohio Bioprocessing Research Consortium, housing a state-of-the-art HPLC-MS with additional luminescence, UVNIS, and RI detectors. The labs are well equipped with several bioreactor assemblies, Soivail RC-5C refrigerated super centrifuge, Perkin-Elmer UVNIS spectrome ter and LS-50B luminescence spectrophotometer, and or-line NAD(p) H fluorome ters. The Biomaterials Laboratory is available for polymer synthesis and storage include a nitrogen hood, Sephadex separation columns, an oil bath, a dry bath, a vacuumi oven, a Buch rotary evaporator, and a Labconco lyophilizer.

The Catalysis Research Laboratory is equipped with high pressure and high temperature IR reactor system with a Nicolet MagnaIR 550 Spectrometer Series II, a Nicolet Magna-IR 560 Spectrometer E.S.P. and a Balzers Prisma QMG 200 Mass Spectrometer for in situ catalyst preparation, in situ characterization, temperature programmed desorption of NO, H2, and CO, and in situ reaction studies.
The Multiphase and Solids Processing Laboratory is equipped to do research in fil tration and flows through porous media. The labs are equipped with a gamma ray instrument for measuring porosity of packed columns and filter cakes, a Frazier Test to measure air permeability of filter media, a Hiac Royco BR8 particle counter, a Zeta Meter and a Brookhaven EKA Streaming Potential instrument for measuring zeta potentials. An optical system is set up to measure particle sizes and size distributions. The Nonlinear Control Laboratory is equipped with Unix based workstations and a variety of engineering software packages.
The Supercritical Fluids Laboratory, a key lab in the Ohio Supercritical Fluid Technology Consortium, is equipped with FTIR/RAMAN/ATR, GC/FID/TCD high pressure phase behavior apparatus, Berty Reactor, 1-liter stirred Reactor, dynamic light scattering, mechanical testing and high temperature GPC. The Thin Film Laboratory is equipped with plasma systems, thermal chemical vapor deposition, and in situ microbalance.
The Department of Civil Engineering is located in the Auburn Science and Engineering Center and Schrank Hall North and has five major laboratories. In the Environmental Engineering Laboratory, students leam to analyze water, wastewater and contaminated soils to assess its quality and to determine the most effective treatment techniques. Laboratory equipment includes UV-visible spectrophotome ters, respirometers, gas chromatographs, high-performance liquid chromatographs, toxicity analyzers, an atomic absorption spectrophotometer, and a total organic carbon analyzer. Water and wastewater analytical kits are available for field studies.

The Wendell Ladue undergraduate computer room is equipped with personal computers and associated facilities for civil engineering students for both class and personal use.

In the hydraulics laboratory a tilting flume enables the student to visualize water flow in streams and rivers. A pressurized pipe module is used to study frictional losses in different size pipes. Instructional laboratories introduce several hydraulic software tools such as FlowMaster for pressurized pipe and open channel flow car culations, EPANet, for water distribution pipe network analysis, HEC-RAS, for calculating water surface profiles for natural streams and channels, and Water CAD.

In the soil mechanics and foundation engineering lab, a student learns how to ana lyze soil by a variety of tests and equipment to determine shear strength, compaction characteristics, and consolidation. In addition to the standard equipment for routine testing, the laboratory has a computer-controlled cyclic triaxial testing system, flexible wall permeameters, and particle image analysis systems.
In the structural materials laboratory, students have the opportunity to observe the experimental verification of the behavior of structural materials, members and connections subjected to tension, compression, bending and torsion. Physical testing is accomplished through the use of two universal testing machines with a maximum capacity of 500,000 lbs., five closed loop servohydraulic testing machines with a maximum capacity of 100,000 lbs., a load frame used to test full scale members and structural systems and a Charpy impact machine. One of the closed loop machines has the capability to apply both axial and/or torsional loads. Further, a full a aray of data acquisition equipment is available.
The transportation lab is equipped with a complete signal control system supported by video and laser speed/range detection systems to provide traffic data for systems operation and analysis. The global positioning system tracks the position of probe vehicles on transportation network and the spread spectrum radio transmits the video and traffic data from one such system to another wirelessly.
The Department of Electrical and Computer Engineering is located in the South Fower of the Auburn Science and Engineening Center. The Department has an undergraduate program in Electrical Engineering and an undergraduate program in Computer Engineering. Both programs take advantage of the leaming facilities that are available in the Department of Electrical and Computer Engineering which include laboratories for the study of circuits, analog and digital electronics, control, computers, energy conversion, embedded systems interfacing, power electronics, and electromagnetics/microwaves. Laboratories follow instruction to help the student apply the material leamed in class.
In the circuits laboratory students learn the basics of circuit design, instrumentation and measurements. The laboratory is equipped with digital oscilloscopes, digital volt/ampere meters and other basic measuring equipment.
The analog and digital electronics laboratory builds on the circuits sequence and introduces the student to more advanced design tools and concepts, including computer simulation of circuits. In addition to digital oscilloscopes, the laboratory contains signal generators and the like, specialized equipment such as a transistor curve tracer, single-board microcomputers, development systems, personal computers and other specialized instruments.

The computer laboratory is an open laboratory with free access to students. The laboratory contains networked personal computers with all software necessary for other courses, as well as word processing and networking software. The laboratory also serves courses in computer engineering and many elective courses and for research purposes.
The two control laboratories teach the basics of analog and digital control. The laboratories are equipped with digital measuring equipment, analog and digital computers and interfacing components.
The energy conversion laboratory teaches electric machines, energy conversion, and machine control. The labpratory is equipped with motors, generators and controllers, both digital and analog. Emphasis is placed on computer control of machines.
The embedded systems interfacing laboratory is dedicated to interfacing the computer to the outside world. Students learn how to connect devices to computers, how to program them, and how these can be used in design. The laboratory uses a variety of real-world designs and projects to keep students up to date on this important engineering activity. The equipment in the laboratory includes personal computers, single-board micro computers and industrial controllers in addition to measurement equipment and components.
The power electronics lab is taught as part of a power electronics course and teaches design of power components and circuits for operation at high voltage, high current and high power. Digital controllers and all digital measuring equipment account for a very modern laboratory.
The electromagnetics/microwave laboratory uses basic experiments in transmission lines, waveguides and antennae to teach the principles involved. In addition to the basic equipment, the laboratory has a shielded room for specialized measurements.
A regularly updated computer laboratory is available for modeling and software development projects in all courses. The senior design project laboratories provide bench space and instrumentation for assembly and test of team projects.
Additional laboratories for signal processing and advanced control exist as part of elective courses.
The Department of Mechanical Engineering is located in the Auburn Science and Engineering Center and maintains laboratories that are used by the undergraduate programs in Mechanical Engineering and the undergraduate program in Mechanical Polymer Engineering. The undergraduate program in Mechanical Engineering is staffed by mechanical engineering faculty and the undergraduate program in Mechanical Polymer Engineering is staffed by faculty from the Department of Polymer Engineering and the Department of Mechanical Engineering. Polymer spe cialization courses for the Mechanical Polymer Engineering Program are dual listed under the Department of Polymer Engineering and under the Department of Mechanical Engineering.
There are eight laboratories in the Department of Mechanical Engineering. The Thermal and Fluid Science Laboratory has internal combustion engines, a gas turbine, a supersonic wind tunnel, a subsonic wind tunnel, and a water tunnel. The Heat Transfer Laboratory has temperature measurements systems, a gas laser, and a spectrum of heat exchangers.
The Mechanical Measurements Laboratory has a complete complement of transducers, calibration equipment and standards, signal conditioners, analog recording devices and microprocessor-based digital data acquisition systems. The Materials Testing Laboratory has a computer controlled servohydraulic structural testing machine and a uniaxial universal testing machine for performing static, quasistatic, cyclic and dymamic tests on a spectrum of engineering materials and several types of hardness testing equipment.

The Parker Hannifin Motion and Control Laboratory has hydraulic and pneumatic servo systems as well as several pilot systems controlled by PLCs and computer controllers.
The Experimental Mechanics Laboratory has photoelastic strain measuring equipment and associated facilities, coupled with a complete range of strain gage instrumentation for both static and dynamic measurements. The Mechanical Design Laboratory has several major software packages for computer-aided design connected to the College's Engineering Computer Network Facility (ECNF). The System Dynamics and Controls Laboratory is composed of several microprocessors, analog computers, and digital controllers, as well as equipment for process control and robotics.
The Micro Electro Mechanical Systems (MEMS) Laboratory has instrumentation to build and characterize MEMS devices.
The Vibration and Acoustics Laboratory has electromechanical shakers, sound pressure level instrumentation, and frequency spectrum analyzers for modal analysis. The Metallography and Failure Analysis Laboratory has a complete set of metallographic instrumentation for microstructural analysis of both conventional and advanced engineering materials, and electron microscopes for analysis of failure. Undergraduates in the Mechanical Polymer Engineering program use laboratory
faciilities in the Department of Polymer Science, the Department of Polymer Engineering, and the Maurice Morton Institute of Polymer Science in addition to the laboratories in the Department of Mechanical Engineering.
The facilities in the Department of Polymer Science contain extensive laboratories for polymer synthetic chemistry and for the characterization of macromolecules and polymer morphology. A nuclear magnetic resonance laboratory is maintained with several high-resolution instruments. The applied research section of the Maurice Morton Institute of Polymer Science operates a variety of analytical and compounding / processing laboratories to serve the needs of industry and government agencies for a reliable source of problem solving and data. Processing laboratories include unique blending/compounding ànd molding facilities.
The Akron Polymer Training Center serves as a laboratory for the processing and testing of rubber and plastic materials. This Center provides classrooms and laboratories for undergraduate students in the Mechanical Polymer Engineering program. The laboratories available in the Department of Polymer Engineering include the Extrusion Laboratory, the Electromagnetic Radiation and Electron Optics Laboratory, the Thermal and Dielectric Laboratory, the Rheological Laboratory, and the Mechanical Laboratory.

## College of Fine and Applied Arts

The mission of the Mary Schilier Myers School of Art is to provide a high quality education and leadership in the fine arts, art history, design and art education. We seek to provide excelience in teaching, research and community service, contributing in the visual culture of the region. The Myers School of Art combines a strong foundation program with high quality programs in eight studio areas as well as art history and art education. The faculty consists of practicing artists, designers and scholars who combine a dedication to excellence in teaching with creative and scholarly practice. The large number of faculty offers a diversity of approaches to art. An excellent faculty-to-student ratio and faculty mentoring allow extensive individual instruction. We offer two degrees designed to meet the needs of both our traditional and non-traditional students. The BA emphasis affords an opportunity for those interested in a broad background in the arts or work in related fields, while the BFA provides solid training and preparation for professional practice and life-tong learning. We recognize that there are many kinds of excellence. Our mission is to determine and encourage these within our diverse student body.
It is also our mission to offer our expertise and resources as professionals to the Akron and Northeastern Ohio communities. Strong exhibition programs, visiting artists and lecture series that are open to the public are one way to accomplish this. We also encourage our faculty to provide leadership and services to the community as working artists, designers, speakers, exhibition jurors and consultants.
The School of Communication features a television classroom/studio and a wide complement of supporting audio and video equipment, including graphics generators and linear and non-linear editors. Portable audio and video equipment is available for location use. There is an audio recording faciility with multitrack capability. The School also houses radio station WZIP, an on-air 7.500 watt FM radio station serving Northeast Ohio. WZIP-FM is operated by UA students under the supervision of professional broadcasters and gives students an opportunity to develop skills in broadcasting and communication through the completion of or-air assignments. A multimedia production/editing laboratory-classroom supports class instruction. News, publications, and other witing classes have access to Macintosh and PC computer laboratories with complete desktop publishing layout, graphics, and print capabilities. The School works in cooperation with local organizations, non-profit groups and professional agencies in an internship program for uppertevel students.
The School of Speech-Language Pathology and Audiology provides preprofessional and professional training to students who wish to become speech-language pathologists and/or audiologists. The School houses the Audiology and Speech Center, which functions as a practicum training arm as well as a service agency for persons in the region who have speech, language, and/or hearing problems.
The School of Dance, Theatre, and Arts Administration is located in the new Guzzetta Hall addition. The activities in the Dance Program include the undergraduate dance programs for the B.A. in Dance, and a B.A. in Dance Studies with a Business Cognate and B.F.A. degrees in Dance, Multi-age License in Dance, dance minor, the Dance institute for students ages 8-18, and continuing education for adults. There are seven technotogy enhanced studios, each with mirrors, barres, sprung marley floors, and pianos. There also is an athletic training room with a graduate assistant athletic trainer and a jacuzzi. Annual performances are held in the intimate Daum Theatre in Kolbe Hall, and E.J. Thomas Performing Arts Hall. The University of Akron is an accredited institutional member of the National Association of Schools of Dance. The Theatre Program offers a B.A., B.A. in Theatre Arts, Multi-age License in drama/theatre, and graduate programs in Theatre and Arts Administration. It utilizes three different performing spaces to present its annual season of two to four productions. Guzetta Hall houses the versatile "black box" experimental Sandefur Theatre as well as rehearsal, teaching, and shop facilities. Kolbe Hall is the site of the 244-seat Daum Theatre, complete with support facilities. This conventional proscenium theatre is the home of theatre productions, as is E.J. Thomas Performing Arts Hall. Student productions are performed in Studio 28, Sandefur Theatre, and Daum Theatre.

The School of Family and Consumer Sciencess is housed in Schrank Hall South and is accredited by The American Association of Family and Consumer Sciences. The School provides education in nine undergraduate and five graduate programs, including Child and Family Development, Child Life, Family and Conaumer Sclences Traacher Education, Dietertics, Fashion Merchandising, and Interior Design. Nine laboratories, including a Computer Center, are available for student leaming experiences. All programs provide community experiences through internships, clinicals, and student teaching. These programs have active Advisory Committees of community professionals who provide advice and networking assistance. The School's Center for Family Studies offers a certificate program in Divorce Mediation. In cooperation with the College of Education, the School maintains the Center for Child Development for the study of child development and teacher education. The school also houses the University of Akron Nutrition Center, a comprehensive regional center for the study and delivery of effective nutrition interventions. The Center serves as an educational resource for students and the community, provides nutrition services and conducts research.
The School of Music is housed in Guzzetta Hall and also utilizes the E.J. Thomas Performing Arts Hall. Guzzetta Recital Hall seats 250 and is equipped with a pipe organ, harpsichord, two concert grand pianos, and a recording booth. The Music Computer Center is equipped with Macintosh computers and MIDI/sound and video equipment. An electronic music studio features digital and analog multitrack recording and sound synthesis equipment for music composition. Classrooms, studios, and 40 practice rooms (acoustical sound modules) are used for teaching, rehearsals, and practice.
The School of Social Work offers CSWE-accredited professional training to social work students by linking them to a variety of local health and human services community agencies and organizations. The strong commitrment and interaction with a network of agencies in the community serves as a laboratory for students.

## College of Nursing

The College of Nursing, located in Mary E. Gladwin Hall, provides professional nursing education at the baccalaureate, master's and doctoral levels. The College is approved by the Ohio Board of Nursing and the baccaluureate and master's program are accredited by the Commission on Collegiate Nursing Education. The College has a Student Affairs Office which provides academic advising services to prospective and prenursing students. The College contains a state-of-theart Leaming Resource Center, including a computer laboratory exclusively for nursing students and simulation experiences. The Center for Nursing within the College is closety linked to the Akron community and is used by faculty and students for community service, practice, education and research. The College of Nursing also has a Center for Gerontological Health Nursing and Advocacy whose primary goal is to improve the health care and quality of life for eiders.
The baccalaureate curriculum is a six-semester clinical sequence after completion of University and college prerequisite courses. Students have practice experiences in a variety of settings including hospitals, clinics, rehabilitation agencies, long-tem care faciities, community health agencies, mental health agencies, pediatric agencies and home care settings.
The LPN/BSN sequence is designed for licensed practical nurses who wish to obtain a baccalaureate degree in nursing. The program itself, after completion of the prerequisites, is $2-1 / 2$ years in length, full-time. A part-time option is available. The RN Advancement option offers two career pathways to meet the needs of registered nurses. The RN/BSN sequence is designed for nurses who wish to obtain a baccalaureate degree in nursing. The RN/MSN sequence is designed for the experienced nurse who wishes to go on to graduate study to prepare for advanced nursing practice roles. Students wishing to begin work on their master's degree (RNMSN option) may do so while meating the baccalaureate requirements. Additional admission requirements and a graduate nursing research class (Inquiry I) are part of the RNMSN option. Continuation in the graduate program is predicated on meeting graduate program requirements and acceptance into the graduate nursing program. The RN Advancesment option is offered on the Aknon campus as well as the campuses of Lorain County Community College and Wayne College in Orville.
The Master's Program includes advanced practice options as a clinical nurse speciatist, nurse practitioner, or nurse anesthetist and an advanced role option in nursing service administration. Advanced Role Preparation in Nursing Educator Role and Nursing Management and Business Certificate Programs are also available. Advanced practice speciaties include adult/gerontological heath nursing, behavioral heath nursing, chidd and adolescent health nursing and nurse anesthesia. Postmasters certificate programs include adult/gerontological health nursing, behavioral heath nursing, and child and adolescent health nursing and nurse anesthesia. Core courses in the Master of Science in nursing program are offered via distance leaming from the Akron campus to the Lorain County Community College (LCCC) campus.
The Doctoral Program in nursing is a joint Ph.D. program with Kent State University. It is the first Joint Doctoral Program in Nursing in the state of Ohio. The curriculum focuses on the development and testing of theories and models of nursing science and nursing practice, the consideration of the social, political, legal and economic implications of health care policies and practices, and the dissemination of knowledge.

## College of Polymer Science and Polymer Engineering

The College of Polymer Science and Polymer. Engineering offers only graduate degrees leading to the Master of Science and Doctor of Philosophy in both Polymer Science and Polymer Engineering. In addition, there are elective courses in both polymer science and polymer engineering for undergraduate science and engineering majors. Options which emphasize polymer engineering have been developed with the College of Engineering through the Departments of Chemical Engineering and Mechanical Engineering for undergraduate students interested in the polymer industry. Options have also been developed in the college of Arts and Sciences in Chemistry and Physics which emphasize polymer science. In addition, an interdisciplinary undergraduate program leading to a degree in Mechanical Polymer Engineering, approved by the faculties of the colleges of Engineering and Polymer Science and Polymer Engineering was started in fall 1995. Students in this program are administered in the College of Engineering, and the program is described in that section of this Bulletin.
The facilities of the Department of Polymer Science and the Maurice Morton Institute of Polymer Science (MMIPS) support fundamental and applied research in polymer chemistry, polymer physics, and many aspects of polymer behavior. There are extensive laboratories for polymer synthetic chemistry and for the characterization of macromolecules and polymer morphology. A nuclear magnetic resonance laboratory, operated jointly with the Department of Chemistry, provides several high-resolution instruments supervised by a professional staff. The Applied Polymer Research Center, managed by the University of Akron Research Foundation, but working closely with MMIPS, operates a variety of analytical and compounding/processing laboratories to serve industry and government agencies for a reliable source of problem solving and data. The total value of major instrumenta tion and equipment housed in the polymer science laboratories exceeds $\$ 15$ million.
The Department of Polymer Engineering and institute of Polymer Engineering maintain a broad-based range of processing, structural, and rheological/mechanical characterization facilities. Processing facilities include unique blending/compounding facilities with five twin-screw extruders, a microscale compounder, and seven internal mixers including flow visualization capability; eight single-screw extrusion lines for plastics and rubber, with ultrasonic and sound waves and rotational mandrel dies, and with single/multiple bubble tubular film and cast film extrusion capability as well as two biaxial film stretchers. Molding faciilies include screw injection molding capability of five machines, blow molding, plug assist thermoforming and compression molding, filament winding and pultrusion processing for composites. Characterization capability includes scanning electron and atomic force microscopy, $X$-ray diffraction (including a rotating anode $X$-ray generator), Fourier transform infrared, small angle light scattering, optical microscopy and retardation, radiography, differential scanning calorimetry, thermogravimetric analysis, dielectric thermal analysis, and surface profiling, meological and mechanical testing, including rotational and capillary shear rheometry, dynamic mechanical, tensile and impact testing.
The Akron Polymer Training Center, which serves as a laboratory for the processing and testing of rubber and plastic materials, was opened in June 1994. The Center was developed at the urging of the Akron Regional Development Board and EPIC, an industrial-government-university consortium, to train machine operators and technicians for the polymer industry. The Center also provides classrooms and laboratories for graduate students in Polymer Engineering, for undergraduate students in Mechanical Polymer Engineering, and for two-year associate degree students in Polymer Technology as well as continuing education courses for scientists and engineers.
The Akron Global Polymer Academy at The University of Akron assists the College of Polymer Science and Polymer Engineering in creating and disseminating knowledge about polymer science, polymer engineering, and Science, Technology and Engineering, and Mathematics (STEM) education by supporting initiative in P-16 education and other distributive education ventures. Providing consulting and training services to the polymer industry worldwide, the Akron Polymer Training Center is the workforce development division of the Akron Global Polymer Academy.

## University Libraries

Library facilities are housed in three separate locations: in Bierce Library on Buchtel Common; the Science Library in Auburn Science and Engineering Center, Room 104; and Archival Services in the Polsky Building, lower level.
Library services include reference and research assistance, and user education. Materials can be borrowed from the University Libraries through the circulation department or obtained from other libraries through the OhioLINK network or other resource-sharing arrangements.
The University Libraries' collections contain more than 2.8 million items: books, periodicals, government documents, curricular materials, microforms, maps, audiovisual materials, and archival documents. The library receives nearly 14,000 magazines, journals, newspapers, and other serial publications.

Through the library's memberships in the Center for Research Libraries, the Ohio Library and Information Network, the Online Computer Library Center (OCLC), and the Ohio Network of American History Research Centers, access to vast resources is greatly increased for University students, faculty, and staff.
University identification cards function as library cards. Group study rooms, photocopy services and equipment for use in making paper copies from microforms are available in Bierce Library and in the Science Library. Students may use one of the 180 circulating laptop computers available in Bierce and Science libranies.
Audiovisual Services, located in Bierce Library, Room 63B, maintains an extensive centralized collection of media hardware and audio-visual resources for student and faculty use. It also has a collection of instructional materials in various media formats (filmstrips, slides, etc.) to supplement classroom instruction. Audio Visual Services also designs, installs, and maintains technologyenhanced general purpose classrooms, offering permanent in-room projection, sound reinforcement and a sophisticated media retrieval system.

## Information Technology Services Division

## Providing Information Technology ( I ) Direction, Services and Support for The University of Akron.

The Information Technology Services (ITS) Division supports all of the University's technology needs including data and communications. In today's University environment, professors, students, administrators, and staff use the same technology and products. Personal productivity tools, network connectivity, and services provide a common infrastructure for the dissemination of information and communications.

The ITS Division is preparing for the University's future technology needs with an emphasis on the continued convergence of voice, video and data networks into a single digital network environment.
Distributed Technology Services provides technology and software support services for the campus community.

Computer Labs: A combination of 360 Dell wireless laptops are available for two and four-hour loans in Bierce Library, the Science \& Technology Library, Circulation desk, the Student Union information desk, Polsky's Room 267 and the Exchange Street Residence Hall. The wireless laptops can be used anywhere within the building to access the internet, to get mail, or to do class assignments. A general purpose computer lab of 20 Windows Desktop PCs for students is located in the College of Arts \& Sciences building, Room 103A.
Both the wireless and general purpose labs have the same productivity tools such as Microsoft Office, SPSS and SAS. All computers have intemet and e-mail capabilities.
Internet Kiosks 112 strategically placed intemet kiosks provide instant access to email and Web registration on campus.
Computer Repair Services provides University of Akron students with knowedgeable assistance in the setup and operation of their personal computer equipment. CRS will install University-approved software and assist in installing hardware and peripherals, which will enable you to connect to the University computer network and the intemet. CRS will also provide hardware diagnostics, software diagnostics (within reason) and basic troubleshooting. CRS will not install or troubleshoot any software or hardware relating to games. If a hardware problem is found or suspected, our student technicians will give you an idea as to where the problem lies. CRS can also help you set up your diat-in access to the University Computer Network as well as direct network connections or wireless for residence hall students.
CRS will install (you must have the original media) and troubleshoot the following software products:

- Microsoft Windows XP, XP Home, 2000, ME, 98, VIsta
- Microsoft Office 2007, 2003, 2000, 98
- Microsoft Publisher
- Adobe Acrobat Reader
- Hummingbird Remote Job Entry
- McAfee Virus Scan software
**Please note that all Microsoft software must be purchased by the student prior to installation. An agreement between the University and Microsoft allows the university to sell Microsoft software products to University of Akron students through Computer Solutions, at significantly reduced prices.
Location: The Lincoln Building. 100 Lincoln St., Room 103; (330) 972-7626
Hours of Operation: Monday-Friday, 7:30 a.m. - 5 p.m.

Technology Learning Support Services (TLSS) provides the campus community with support services for computing hardware and software. Walk-in Support Centers combined with Laptop checkout areas are conveniently located across campus.

## Walk-in Zips Support Centers

Bierce 52C \& Exchange Residence Hall Room 146
Hours of operation during the Fall and Spring semesters:
Monday-Thursday: 8 a.m. -10 p.m.
Friday: 8 a.m. -9 p.m.
Saturday: 9 a.m. -8 p.m.
Sunday: 1 p.m. -10 p.m.
Summers hours are modified and are posted on the Web page.
Polsky 367
Monday - Friday: 8 a.m. -8 p.m.
The Zips Support Desk provides call in, (330) 972-6888), email, supportdeskQuakronedu, and online chat support for all students, faculty and staff.

Hours of operation during the Fall and Spring semesters:
Monday-Thursday: 8 a.m. - midnight
Friday: 8 a.m. -9 p.m.
Saturday: 9 a.m. -8 p.m.
Sunday: 1 p.m. - midnight
Summers hours are modified and are posted on the Web page.
Software Training Services develops Web-based tutorials and documentation for student self-service applications, the portal (ZipLine), Springboard!, and email (WebMail). For more information, visit Software Training Service's Web site at ntro:/lwww.uakron.edults/leaming/training/index,php.
Computer Based Assessment \& Evaluation provides support to students who are required to take surveys, assessments and tests online. The testing lab is locat ed in Schrank Hall North 152 and reservations for test appointments can be made at httop:/lcbt.uakron.edu. CBA \& E provides support for the following:

- Develops and delivers tests, surveys and other assessment instruments on a variety of platforms.
- Administers academic computer testing in a secured, proctored environment.
- Administers placement testing for incoming university students.
- Develops specialized test and system applications.

Design and Development designs, develops, implements, administers and supports Web-based, Web-enhanced and multimedia applications at The University of Akron. Our team is composed of instructional, curriculum, graphics and multimedia designers and producers.

- We provide a Web presence for traditional and online courses by creating and supporting courses using an e-learning system, currently, Springboard!.
- We support departments in the design and development of online programs and courses that provide access and interaction.
- We support faculty in the design and development of Web-based and Web-enhanced course materials, including multimedia and assessment.
- We support students in accessing and using these courses.
- We provide digital photography, imaging, videotaping, editing and podcasting for courses, other university initiatives, and community partners.
- We offer live and on-demand video streaming and hosting.
- We support the use of a classroom response systern (clicker technology), currently CPS, for courses and special events.
- We offer Web site design and other graphic design for a variety of applications.
- We explore emerging technologies and how they can be used to enhance teaching and learning, and we offer training on a number of these technologies.
- We support students in accessing and using these technoiogies.

For further information, contact Design \& Development Services at (330) 972-8290.

- For more information about Springboard!, navigate to: http:/Lwwwuakron edy/its/learning/training/SpringBoard php.
- For more information about clicker technology, navigate to: htto:/hearn.vakron.edulitsclickers.htm.

Distance Loaming Services: Distance Leaming Services provides synchronous videoconferencing and Web collaboration capabilities to the classroom environment. Students at the University are able to interact and share materials with students at one or more remote locations via classrooms equipped with state-of-the-art videoconferencing and Web collaboration technologies. In addition to accommodating traditional course offerings, Distance Learning Services also provides:

- A corporate videoconferencing suite ideal for group meetings and personal interviews.
- A relationship with a network of content service providers that specialize in events such as virtual field trips.
- Special event connections that support educational initiatives, i.e. work shops and professional development.

For further information, contact Distance Leaming Services at (330) 972-2720.
Audio Visual Services: Audio Visual Services is located on the ground floor of Bierce Library, Room 75.

- Call (330) 972 -7811 to order audio visual equipment. Staff will deliver equipment on campus, assist with the set up of the equipment and will help troubleshoot any technical problems.


## Hours of operation cluring the Fall and Spring semesters:

> Monday-Thursday $7: 30$ a.m. -9 p.m.
> Friday $7: 30$ a.m -5 p.m.
> Please call (330) $972-7811$ for summer hours.

Network Services provides network connectivity and remote access for faculty, staff and students. Network connections are available in the Residence Halls and the entire campus is covered with 802.11 b wireless services. Remote access is provided by the use of VPN access. High speed cable modem service from the local area cable provider is also available at a reduced rate.
UA's computer network, named UAnet, provides access to:

- ZipLINK - UA's tibrary catalog
- OhioLINK - the library catalogs of all State of Ohio universities and colleges
- Electronic Mail (email)
- The Internet
- UAnet's Web pages
- Network file storage and printing


## Student Affairs

Charged with the responsibility of helping our diverse student body to maximize the total benefits that college offers, Student Affairs provides services that promote the academic, social, cultural, personal and physical growth and development of the student. Sensitive to the changing needs of today's college student, Student Affairs is committed to helping students meet their individual academic goals.

This responsibility will be accomplished by our commitment to these objectives:

- Creating a civil, supportive learning environment,
- Providing academic support systems to increase student retention and encourage satisfactory educational progress,
- Celebrating diversity within the campus community,
- Collaborating with all constituencies within the University to increase enrollment and improve the quality of the student experience,
- Encouraging students to assume responsibility for their educational decisions and experiences,
- Identifying and addressing evolving student needs in a changing environment, and
- Addressing the needs of greater community constituencies through programs, services, and other resources.

The following section outlines Student Affairs units and the services offered to students.

## ACADEMIC ACHIEVEMENT PROGRAMS

Academic Achievement Programs is dedicated to the mission of preparing students for personal success. It provides various academic, recreational, social and cultural experiences for Akron-rrea students. Through five district programs, it expands and enhances academic instruction, provides exposure to organized athletic activities, and adds value to the development of students through intensive summer components as well as academic year activities. These experiences are intended to empower students to make good decisions at home, in school, and in personal rela tionships, which will improve their self-worth, impact high school graduation rates and facilitate the successful admission to and graduation from postsecondary educational institutions
The Upward Bound Program is designed to provide intense academic, cultural and social experiences for its students, enabling them to develop the skills, attitudes and motivation necessary to enter and succeed in college. Students participate in a summer enrichment component and during the school year receive counseling, advising and other academic support services. The program serves Akron Public School students in grades 9-12. Upward Bound is federally funded through the United States Department of Education. It is a Federal TRIO Program.

The Pre-Engineering Program is designed to encourage and stimulate the interests of targeted high school students who have expressed or demonstrated interest and skill in mathematics or science. Field trips, workshops and tutorial services enhance and tacilitate the pursuit of careers in engineering.

The Educational Talent Search Program (ETS) provides services to eligible youth and adults to assist them in enrolling or reenrolling in postsecondary education. The program serves Akron Public Schools students grades 6-12 and adults from the community, via workshops, newsletters, field trips and personal appointments. The program helps participants prepare for college, including assistance with college preparation, selection, admissions and the financial aid application process. Funded by the U.S. Department of Education, this is a Federal TRIO program.

The Strive Toward Excellence Program (STEP) is a pre-college preparatory program designed to assist students who aspire to attend college. STEP selects students in grade six. Funded by the Firestone Trust Fund, "Firestone Fellows" participate in STEP for two years and then move into the University's Upward Bound Programs, which assist them through high school. Program graduates are guaranteed admission to The University of Akron and granted scholarship assistance. The program serves students who attend Akron Public Schools.

The Upward Bound Math/Science Program is designed to provide students with the skills and motivation necessary to pursue and complete an undergraduate course of study, preferably in mathematics or the sciences. The six-week summer residential program consists of integrated instructional classes in Polymer Science/Chemistry, Mathematics, English/Technical Writing and Computer Science
plus hands-on laboratory courses in Polymer Science and Computer Science. Other components include: a Research Project, Career Exploration, field trips, cultural experiences, recreational activities, coliege visits and mentoring by polymer science professors. Emphasis is placed on visualization and "doing" science and math utilizing hands-on projects, independent research, faculty interaction and mentoring while taking advantage of the resources of the world's largest, state-of-the-art polymer instructional and research facility at The University of Akron. Funded by the U.S. Department of Education, this is a Federal TRIO Program.

## THE CENTER FOR CAREER MANAGEMENT

The Center for Career Management's mission is to provide career services to all students and alumni of The University of Akron. Students also may participate in the Career Advantage Network (CAN) program, which provides opportunities to gain major related work experiences prior to graduation for eligible students, regardless of academic major.

## Career Services

Career Services for students and alumni include opportunities to participate in oncampus interviews with representatives from business, industry, education and branches of the government, Numerous educational outreaches are provided throughout the campus community which includes a wide variety of topics such as, resume writing, job search skills, dress for success, etiquette dinning and mock interviews. In addition, CCM offers leadership opportunities for students and sponsors career expos in collaboration with academic colieges, giving students the opportunity to network with hundreds of potential employers. CCM maintains a career resource library that enables students and alumni to utilize computers, employer literature, videotapes, job search information, job openings and career related books and periodicals. Career consultations are also available and may be scheduled by contacting the Center for Career Management.

## Career Advantage Network

At The University of Akron, students may gain relevant work experience in their chosen fieids before graduation through participation in the Career Advantage Network (CAN). Participation is crucial in order for students to gain firsthand knowledge of their careers and make important contacts prior to graduation. Research also shows that students who participate, have a greater success rate in their job search. Employers prefer to hire graduates with career-related experience thus participation in this program is invaluable.
CAN guarantees opportunities for eligible students to participate in academic related experiential learning opportunities regardiess of major. Experiential learning may include cooperative education, internships, practicums, clinicalfield-based experiences, student teaching and/or service learning.
Currently the two most utilized programs within CAN are coop and internships.
Cooperative Education ( 0 -op) combines classroom leaming with relevant work experience by integrating classroom theory with on-thejob performance. The goal is to provide professional work opportunities in order to test career and professional goals. Research shows that students participating in co-op enhance their self-confidence and professional maturity. Participants can register for the coop course and outcomes are posted on transcripts as credit/non-credit. Coop is always a paid experience and can be repeated each semester.

Internships are typically a short-term supervised work experience in a student's field of interest for which the student may earn academic credit. Usually internships are one-time only experiences and pay is dependent on the students major and the employment industry. Students work in collaboration with CCM and the academic unit internship coordinator to develop these experiences.
To participate in co-opinternship, interested students must make an appointment with a representative in the Center for Career Management, meet academic requirements that are specific to their major and attend an orientation session.

Students and employers participating in cooperative education are subject to all federal, state and local labor laws. Additionally, students on work assignments must abide by all the rules and regulations of the participating employer and of the cooperative education program. Participating students are recognized as full-time students, for financial aid purposes, at The University of Akron when working in an approved cooperative education/internship field assignment and when complying with the rules and regulations of the cooperative education programs.
The Center for Career Management is located in Simmons Hall Room 301 and can be contacted at (330) 972-7747 or via the Web at http://www, uakron.edu/com.
For additional information on the College of Engineering cooperative education program, please contact the Cooperative Education Office in the College of Engineering, located in Auburn Science and Engineering Center Room 203.

## COUNSELING, TESTING, AND CAREER CENTER

The Counseling, Testing and Career Center provides psychological counseling, career planning, educational counseling, testing, outreach and consulting services to the University community. The Center is staffed by a culturally diverse group of psychologists and psychology trainees. Counseling services are free and confidential to enrolled students. There is a fee for testing services. The Center is located in Simmons Hall, 306. Phone numbers are: Counseling Services (330) 972-7082, and Testing Services (330) 972-7084. Visit our Web site at http:/lwww.uakron.edu/counseling.

## Counseeling Services

- Short-term personal counseling and psychotherapy addresses many areas including stress, loneliness, anxiety, and depression; alcohol and drug use; relationships (family, partners, friends), sexual assault; oppression, cultural identity and selfesteem. Biofeedback services are also available for stress management. ULifeline is an informative mental health and wellness link on the Web page.
- Career counseling helps students decide on a major and career direction. Students identify interests, values, abilities and goals and relate these to the world of work. Testing and occupational information is available through counseling, workshops and on the CTCC Web site.
- Educational counseling helps students develop educational goals and motivation, as well as effective study skills. A streaming study skills Web video is on the Web page.
- College Survival Kit workshops cover many topics including improving academic performance, career planning, increasing wellness, and personal issues; as well as providing support groups for students of diverse cultures. Brochures are available.


## Testing Services

- Numerous testing programs including, CLEP, college entrance examinations, career assessments, personality assessments, academic placement testing, oncampus academic testing and learning disorder assessments are available.


## Outreach and Consulting Service

- The Center regularly provides speakers for classes, residence halls, student orgenizations, and administrative offices. Consultation is available for emergency and crisis situations.


## OFFICE OF ACCESSIBILTTY

The University welcomes students with disabilities. The mission of the Office of Accessibility is to provide students with full access to and the opportunity for full participation in the academic environment. We are advocates of social justice for stur dents with disabilities and work to end oppression by examining the social, cultural and institutional barriers to inclusion of all students. We embrace the diversity of our student body and celebrate a culturally sensitive and accessible campus through outreach, partnership, and advocacy with many university departments.
Our goal is to provide reasonable accommodations and a supportive, wellresourced environment to students with disabilities in order to promote student success in the university environment. This mission goes well beyond the legal requirements, including Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990, and supports the University's commitment to create a weicoming environment for all students. For more information, call (330) 972-7928 or (330) 972-5764 (TTY), see our Web site at www.uakron.edu/access, or visit Simmons Hall Room 105.

## OFFICE OF INTERNATIONAL PROGRAMS

As a supporting unit to The University of Akron, the staff in the Office of International Programs undertakes the following:

- To provide admission services to all prospective undergraduate intemational stur dents as well as financial verification and immigration documents for undergradur ate and graduate international students.
- To aid in the transitionintegration of intemational students, scholars, and scientists through the provision of services, such as providing orientation programs, undergraduate academic advising, and evaluating international undergraduate academic credentials.
- To provide information and counseling services for The University of Akron students who wish to study, work, or travel abroad.
- To provide all immigration counseling services for intemational students, scholars, and faculty members.
- To develop and support campus and community resources and activities designed to promote international understanding and appreciation of cultural diversity both on and off campus.
- To assist faculty and/or departments who have an interest in establishing exchange agreements abroad.
- To facilitate contacts between The University of Akron faculty members and departments with their foreign university contacts to assure that meaningful, mutually beneficial, reciprocal agreements are maintained.
For further information, contact:
Office of International Programs
The University of Akron
Polsky Building, Room 483
Akron, OH 44325-3101
(330) $972-6349$ Phone
(330) $972-8604$ Fax
international(9uakron.edu E-mail
muw.uakron.edu/oip/


## RESIDENCE LIFE AND HOUSING

The Department of Residence Life and Housing is administrativaly responsible for managing the University's student housing program. The University provides reasonably priced, clean, convenient and secure residence hall facilities. In addition, the residence hall program is committed to providing a meaningful livinglearning environment which 'directly supports the educational, social, and personal development of each student.

## Freshmen Residential Policy Requirement

The University of Akron is committed to providing a learning environment supportive of its academic mission complementary to its academic programs. The University acknowledges that national studies find that first-year freshman uniquely benefit from a residence hall experience. Social integration and access to faculty, staff, and institutional resources are enhanced through an on-campus residential experience. The University considered and accepted the findings that living on-campus positively influences academic persistence and success, including degree completion. For ail these reasons, all first-year freshman students at The University of Akron are required to reside in University residence halls for the duration of their freshman academic year at the University. Students are encouraged to apply by the May 1 Freshman Guarantee Deadine.
Upon admission to the University, all first-year freshman students will be required to make application for residence in University housing and will be assigned and assessed appropriate room and board fees, so long as space is available and/or unless the student is subject to one of the exemptions below:
Exemptions to the Freshman Residential policy include:

- permanent home residence with parents or legal guardians who reside in: Summit, Portage, Stark, Wayne and Medina counties
- registered for fewer than 6 credit hours
- $21+$ years of age
- military experience $1+$ years
- married (proof of marriage required)
- student is parent with custodial care responsibilities (proof of custody care required)
- other extenuating circumstances, including but not limited to, special dietary needs or conditions, cultural or religious needs or accommodations, undue hardship, or any other circumstance(s) in support of an exemption which, if not granted, would undermine or contravene the purpose of the Freshman Residential Requirement Policy.
Students seoking exemption from the Freshman Residential Policy should contact the Department of Residence Life and Housing 330-972-7800 to request the Freshman Residential Requirement Policy and Exemption Procedures and Petition packet, or visit their Web site at muw.uakron,edureslife/exemption.pho.
The Department of Residence Lite and Housing supervises and manages 12 on-campus residence hall facilities accommodating approximately 3,000 students. Students are encouraged to apply for residence hall accommodations as soon as possible. Housing assignments and honoring student preferences are determined by the student's housing application date.

Fully accepted new students may request a Contract for Housing Accommodations and Food Service which must be returned with the prepayment $(\$ 150)$ and meningitis disclosure form to reserve a residence hall assignment. The prepayment will be refunded to new entering students, transfering and graduate students for Contract cancellations received before May 15; the prepayment is forferted for cancellations received after May 15.
Staff, supervised by the Department of Residence Life and Housing, reside in each hall: A professionally trained Residence Life Coordinator and/or Graduate Residence Director is assigned to each complex and selected upperclass students are appointed to serve as Resident Assistant (RAs), who are assigned to residence hall floor/areas. Staff are available to residents to guide and direct those having questions about University resources, services and programs. In addition, residence hall staff and student governance councils sponsor social, cultural, recreational, and educational events and activities exclusively for residents.
Most undergraduate residence halls are fully air-conditioned and offer a variety of room configurations, ranging from traditional, two-person rooms to suite-style and apartment accommodations with private baths and kitchens. Student rooms are furnished with beds, desks, desk chair, closet storage, limited lighting and window coverings. Most students augment University-provided furnishings with personal possessions to enhance bedroom/study room areas. Residence hall students are not permitted to have pets on campus.
All residence hall rooms have high-speed Ethemet connections for each student. Each residence hall is equipped with coin-operated washers and dryers. Most residence halls have study areas and lounges. Residential students may have automobiles and must purchase and display a University parking permit.

## Room and Board Rates - 2008-2009

Residence hall room and board rates for 2008-2009 are listed below. All rates quoted include room and board fees for the full academic year (vacation periods excluded). Freshmen are eligible for assignment to all residence halls except Quaker Square Exchange Street and Townhouses.

| Garson Hall | \$3,816.00 |
| :---: | :---: |
| Bulger, Gallucci, Grant, Orr, Ritchie, |  |
| Sisler-McFawn, Spanton | . \$5,203.00 |
| Townhouses, Quaker Square | . $\$ 5,464.00$ |
| Honors Complex Double | \$5,823.00 |
| Exchange Street \& |  |
| Honors Complex Singles . | \$7,212.00 |
| Exchange Street Apartments . | . \$7,535.00 |

## BOARD PLANS

Required for all residence hall students except University Apartments, Exchange Street Apartments and Townhouses (per semester):

| 19 Meal Traditional Plus | $\$ 3,108.00$ |
| :--- | :--- |
| 15 Meal Traditional Plus | $\$ 3,036.00$ |
| 10 Meal Traditional | $\$ 2,684.00$ |
| Unlimited Plus | $\$ 3,500.00$ |
| Declining Gold | $\$ 3,700.00$ |
| Commuter Plans (3) | $\$ 598.00^{*}$ |
| Commuter Plans (5) | $\$ 798.00^{*}$ |
| Block of 50 Meals | $\$ 798.00^{*}$ |
| 300 Townhouse | $\$ 600.00^{*}$ |

* Available to Exchange Street Apartments and Townhouse residents only.

For information on Residence Hail Refunds, please see the heading under Fees and Expenses in Section 3 of this Bulletin.

## Vacation Housing

Most University residence halls are closed for Winter break. However, students anticipating the need for on campus housing during the Winter break period should request assignment to Grant Hall, Bulger Hall, Townhouses or Exchange Street. Proposed vacation housing costs will be $\$ 20$ per night double occupancy and $\$ 30$ per night single occupancy.

## Surmmer Housing

Residence hall housing is available during summer 2008 sessions on a limited basis. All summer assignments will be to private bedrooms. Room rates are as follows: students requesting to stay in the Exchange Street apartments will be charged $\$ 30 /$ person per bedroom and students requesting assignment to sharedsingle units in Exchange Street will be charged \$20/person per bedroom. These rates do not include food service. Limited food service will be available at the Student Union and Exchange Street shops. 2009 summer housing rates will be determined in May 2009.

## Dining Service Meal Plans

All residence hall students are required to participate in the University Meal Plan options, except residents of Townhouses, University Apartments or Exchange Street Apertments. The University ID Card, The Zip Card," is activated as a debit card. The card may be used for Food Services at the Student Union, Robertson Cafe, Zee's, Subway, Sizzling Zone, Martin Center, Rob's Express, Gallucci Hall's Break Point, Crystal Room and the Bierce Coffee Shop.
The card may also be used for purchases at the Bookstore, PACS Express, Print Labs, Student Union Theater, gain fee admission to athletic events, Computer Solutions, library charges and Health Service charges.
Traditional Plan - Traditional Plan is used exclusively at Rob's Cafe. Rob's Café offers all-you-can-eat buffet style service Monday thru Friday, serving breakfast, lunch and dinner. Brunch and dinner are served in Saturday and Sunday. A total of 19 meals per week are served. You may choose from the following plans.
1.Enter Rob's Café as many times as you want during hours of operation;
2. 19 Meal Plan entitles you to all meals served plus $\$ 100$ Dining Dollars;
3. 15 Meal Plan entitles you to select any 15 of the 19 meals served plus $\$ 100$ Dining Dollars;
4. 10 Meal Plan entitles you to select any of the 19 meals served.

Declining Gold Plan - Declining Gold Plan will give you $\$ 1,400$ on your Dining Dollar fund. This plan will also give you $25 \%$ discount from the door rate at Rob's Café and Trackside Grille.

Commuter Plan - Perfect for the commuter students and students living in University housing with a kitchen. Choose three or five meals a week at Rob's Café (breakfast, lunch, dinner or brunch).
Block of 50 Meals - Commuter students and anyone in University housing with a kitchen can use this for 50 meals at Rob's Cafe each semester.
Townhouse 300 - Get $\$ 300$ Dining Dollars on your Zip Card to use at any dining location that accepts Zip Cards. Available to commuter students and students in University housing with a kitchen.

## Residence Hall Program Board

The Residence Hall Program Board (RHPB) is a studentadministered programming organization which provides leadership training and a variety of social activities for residence hall students. The RHPB administratively includes four subcommittees (Major Events, Music and Comedy, Publicity and Technical). RHPB sponsors an array of activities such as Welcome Weekend, Sibs Weekend, Hall Fest, the 7:17 coffeehouse series, Residence Life Cinema and road trips. In 1997 and 1998 RHPB was named best program board in the nation by the National Association for Campus Activities. In 2000, 2003 and 2006, The University of Akron was named "National School of the Year" by Campus Activities Magazine. The Association for the Promotion of Campus Activities (APCA) named The University of Akron Residence Hall Program Board the 2002 Programming Board of the Year at their national conference in Jacksonville, FL.

## Residence Hall Council (RHC)

The Residence Hall Council (RHC) serves as the student government for resi dence hall students. The purpose of RHC is to facilitate communication among students, faculty and administration; to provide programs and services for the residential student community; and to plan educational, cultural, and community service activities for residence hall students. The RHC consists of an executive committee and representatives from each residence hall. In addition, each residence hall has its own hall government responsible for supporting and enriching the residence hal environment and sponsoring programs and activities for residents. RHC is very involved in the National Association of College and University Residence Halls (NACURH). The University of Akron received NACURH's highest honor, National School of the Year, in 1992 and 2000.

## National Residence Hall Honorary (NRHH)

The National Residence Hall Honorary (NRHH) recognizes the commitment and leadership of residence hall students who have made a substantial contribution to the Residence Hall system. Membership to this prestigious student organization is limited to only one percent ( $1 \%$ ) of the residence hall population. The Richard L . Hansford Chapter at The University of Akron is one of the more active chapters in the United States. The chapter is named for the University's former Vice President and Dean of Student Services. Because of the extensive dedication to our chapter, our campus, our region and NACURH, the Richard L. Hansford Chapter was named CHAPTER OF THE YEAR for our region for the past four years and OUTSTANDING NATIONAL CHAPTER OF THE YEAR in 1990, 1994, 1995, 2001 and in 2007.

| University Residence Halls |  |
| :--- | :--- |
| Bulger Residence Hall (coed) | 265 Buchtel Mall |
| Exchange Street (coed) | 180 E. Exchange Street |
| Gallucci Hall (coed) | 200 E. Exchange Street |
| Garson Residence Hall (coed). | 282 Torrey Street |
| Grant Residence Center (coed) | 151 Wheeler Street |
| Honors Complex (coed) | 188 S. College Street |
| Orr Residence Hall (coed) | 188 S . College Street |
| Quaker Square Residence Hall (coed) | 135 S. Broadway |
| Ritchie Residence Hall (coed) | 269 Buchtel Mall |
| Sisler-McFawn Residence Hall (women) | 211 Buchtel Mall |
| Spanton Residence Hall (coed) | 190 S. College Street |
| Townhouses (coed) | Sherman and Grant Streets |

## Residence Hall Access

Access into University residence halls is restricted to student occupants, escorted guests and authorized University personnel. Unescorted persons are not permitted in the residence halls at any time. Twenty-four (24) hour guest visitation is permitted in all residence halls. However, students may vote to restrict visitation hours if desired.

Except for Gallucci, Quaker Square and Ritchie Halls, where administrative offices are housed, all residence halls are locked on a continuous basis. During weekdays, Gallucci Hall is locked between 5 p.m. and 8 a.m. In addition, most resi dence halls operate 24 hour reception areas. In all residence halls except Garson and the Townhouses, guests must present identification as a requirement for building entry. Residents may enter at their own discretion but must also present identification when registering guests, a requirement for building entry 24 hours a day. Each resident has access to his or her own building and room with keys or access cards.

The Residence Life staff receives specialized training on safety/security procedures and enforcement of residence hall regulations from University police. The Residence Life staff conduct educational programs for residents to heighten safety and security awareness. Sessions include topics from personal safety to sexual assault. The University police department patrols all residence halls during the evening and early moming hours..

## SIXTY-PLUS (60+) PROGRAM

Developed in accordance with State Law 3345.27, passed in 1976 and amended in March 1999, the Sixty-Plus program provides residents 60 and older the opportunity to audit credit classes or take courses for credit on a space-available, non-tuition basis.
To qualify for the Sixty-Plus Program, the prospective student must be 60 years of age or older and have resided in the State of Ohio for at least one year.
Sixty-Plus students are exempt from payment of tuition and general service fees but are expected to pay for any books, special fees, laboratory or instructional fees and parking, if needed. Auditing ailows students to attend classes, but college credit is not awarded.
Sixty-Plus participants may enroll for 11 or fewer credits unless request to enroll in a greater number of credits is approved by the Senior Vice President and Provost. Participants in this program may be prohibited from enrolling in certain courses or classes for which special course or training prerequisites apply or in which physical demands upon students are inappropriate for imposition upon persons 60 years of age or older, or in which the number of participating regular students is insufficient to cover the University's or college's course-related expenses as determined by the University.
Space availability is determined after the degree-seeking students have registered. Sixty-Plus registrations are held immediately before the start of each term, and participants must register in-person. Sixty-Plus participants are subject to the same disciplinary and/or govemance rules affecting all students.

A Sixty-Plus student will be issued a Student ID Card which will permit them to use specific University facilities and services and obtain student rates for purchases of goods and services.
To be eligible to enroll in a course for credit, the student's family income must be less than 200 percent of the Federal poverty guidelines as revised annually by the U.S. Secretary of Health and Human Services for a family size equal to the size of the family of the person whose income is being determined.

For further information regarding course selection, guidance, and/or registration, contact the Office of Admissions at (330) 972-7100 or (330) 972-6425.

## STUDENT FINANCIAL AID \& STUDENT EMPLOYMENT

The Office of Student Financiai.Aid \& Student Employment is located in Simmons Hall at 277 E Buchtel Ave. near the comer of College St. and Buchtel Ave. Our office can be reached at (330) 972-7032 or toll free long distance at (800) 621-3847. You can receive assistance in person via our service windows in the Student Services Lobby. For your convenience, much of the general information about the application process for financial aid, scholarships and student employment can be found at our Web site: htto:/hww.uakron.eduffinaid.
A detailed statement regarding all financial assistance programs can be found in Section 3 of this Bulletin.

## STUDENT HEALTH SERVICES

Student Health Services, located in Suite 260 of the Student Recreation and Wellness Center, assists students in achieving their educational and personal goals by addressing their health care concerns while they are enrolled at The University of Akron.
The student who becomes seriously ill or suffers a serious injury on campus should be taken to an emergency room at one of the local hospitals without delay. Those persons present in this kind of emergency should call University Police or 911 imme diately. The University assumes no legal responsibility or obligation for the expenses of such transportation or for medical services at the hospital.
Student Health and Accident Insurance, designed specifically for students, is avail able to students enrolled for six or more credit hours. The student insurance provides coverage for such items as hospitalization, surgical benefits, and inhospital medical benefits. Brochures describing details of the student health insurance plan may be obtained at Student Health Services.
Completed health forms and other health-related records are confidential and are kept in the Student Health Services offices. For more information, contact Health Services at (330) 972-7808.

## STUDENT SERVICES CENTER

The Student Services Center's primary purpose is to act as the customer service arm of the Registrar, Financial Aid and Student Accounts offices. Students needing assistance in any of these areas should first seek help from the Student Services Center staff rather than from the specific offices. Center staff are cross-trained in all of these service areas, and our goal is to assist students in onestop. Quite often, student issues involve more than one office, and cross-trained Center staff are able to help answer questions without passing students from person to person, or office to office.
The Student Services Center is located on the first floor of Simmons Hall.

## STUDENT RECREATION AND WELLNESS CENTER 8 OCASEK NATATORIUM

Live smart! BFIT ( $\times 2348$ )<br>Phone: (330) 972-2348<br>www.zipsrec. uakron.edy

At the Student Recreation and Wellness Center (SRWC) and Ocasek Natatorium (ONAT) there's so much more to explore! We aim to foster campus and community relations and are committed to providing superior facilities, solid programming, and innovative ideas that enhance academic, recreational and leisure experiences. The ONAT remains free for all currently enroiled main campus students and all staff and faculty.

Amenities include: Leisure Pool, with a wet classroom, current river, Vortex, two lap lanes and a 30 -person spa. The Ocasek Natatorium has an Olympic size pool, eight racquetball courts and cardio strength training equipment. Other features include a $1 / 10$ mile walking/jogging track, 15,000 square feet of cardiovascular and strength training equipment, five multi-function gymnasiums, table tennis tables, two group exercise studios, 53.5 ft . climbing rock, bouldering cave, Outdoor Adventure gear rentals, and the Climbing Rock Café. Two multi purpose classrooms, the group exercise studios and gymnasiums can be converted for meeting rooms, speaking engagements, presentations, after-proms/after-hour and many other activities. Tables, chairs, podiums, LCD projectors, 25 ' screen and sound systems are available in each area. A karaoke system, a staging system, inflatable jousting, adult tricycles, batting cages, golf nets and putting greens are available for rental.

The Aquatic Program invites you to take a break from the rigors of daily life and take a quick dip in the Leisure Pool and spa or a quick lap in the Ocasek Natatorium competition pool. A variety of programs are offered for you to take part in such as; group swimming lessons, private and semi-private swimming lessons, kayaking classes, scuba classes, springboard diving lessons, stroke clinics, Intramural inner tube water polo, water polo club sports, water volleyball, or just float around in the current river. For more information call (330) 972-5972.

The Climbing Rock Cafe: Located just inside the front doors of the SRWC, the Climbing Rock Café offers a variety of items. Vending machines are also available in the ONAT and SRWC. For more information call (330) 972-2486.

Fitness Services is designed to meet the fitness needs of each individual by creating a climate that motivates and promotes physical conditioning. The Fitness staff will deliver quality fitness services and programs by promoting a fun and inviting atmosphere, while treating members in a friendly, respectful manner. A variety of equipment is available for recreation and/or physical conditioning, including cardiovascular machines, adjustable weight machines, plate loaded equipment and free weights. An entertainment system is linked to all cardio equipment for your listening and viewing enjoyment while you work out. For more information call (330) 972 6599.

The Group Exercise Program is developed to provide diverse exercise opportuni ties and services to members who wish to be involved in an exercise program facilitated in a group setting. The staff provides up-to-date quality instruction and highenergy motivation to the SRWC members in a correct, and safe aerobics format. Group Exercise is provided through a variety of classes including yoga, kick-boxing, aquatic exercise, core-training, flexibility and strength and endurance. For more information call (330) 972-6599.

The Intramural Sports Program is designed to provide opportunities for students, faculty, and staff to participate in sport experiences. Among many other skills, this will help develop leadership and team building. The Intramural' Sports Program allows the University community to participate in recreational activities in an orga nized competitive atmosphere. Our activities include: basketball, tennis, inner tube water polo, dodige ball, volleyball, and a variety of other activities. We aim to provide social relationships, good sportsmanship, and health and fitness maintenance. The University of Akron promotes organized recreational activities and most of all fun! For more information call the OASIS (Outdoor Adventure Services \& Intramural Sports) office at (330) 972-6956.
The Information/Sales Office provides basic supplies you may have forgotten to bring such as a lock for your locker. Sponsored adult Membership \& Guest Pass opportunities are available for purchase at the Information/Sales Office. Cash, check, ZipCard, Discover Card, Master Card and Visa are accepted. For more infor mation call (330) 972-7610.

The Outdoor Adverture Program invites you to experience vertical excitement on the 53.5 indoor climbing wall or indulge your wild side on an Outdoor Adventure excursion. Outdoor seminars and clinics as well as programs such as backpacking, day hiking, camping, canoeing, and kayaking will provide the University community with all of their outdoor needs. The Outdoor Rental Center offers a comprehensive collection of the highest quality outdoor equipment on the market. We are able to provide all of your equipment needs for backpacking, camping, kayaking and canoeing. For more information call the OASIS (Outdoor Adventure Services \& Intramural Sports) office at 330.972 .6956 .
Wellness Services provides a variety of confidential evaluative tests that include physical fitness assessments, body composition, metabolic testing, and other health screenings. We support lifestyle changes through evaluation, education, seminars, and a knowiedgeable staff to supply a means for expanding health knowledge. Relaxation massage provided by licensed massage practioners is available. For more information call (330) 972-6599.
Location: The Student Recreation and Wellness Center (SRWC) and Ocasek Natatorium (ONAT) are located on the South East comer of campus. The neighboring street corners of both facilities are Carroll, Union, Spicer and Vine. The SRWC main entrance faces NW toward Memorial Hall, the SE/back entrance is off Spicer Street/Lot 10 and the ONAT main entrance faces North toward the James A. Rhodes Arena.
Parking: Lots 8 and 10 located on the South East corner of campus sit behind both the SRWC and ONAT facility. The cornering streets are Carroll, Union, Spicer and Vine.

> Recreation and Wellness Services
> The University of Akron
> Phone: (330) 972-BFIT (x2348) Fax: (330) 972-6715
> Web site: wuw.zipsrec.uakron.edu

## THE STUDENT UNION FACILITY

The Student Union, located in the center of campus, houses numerous functions of student life and student engagement, and serves the students, faculty, and staff. This facility offers various food venues, ballroom and meeting rooms, theater, game room, student organization offices, Computer Solutions - the computer technology store, DocuZip copy center, bank, Information Center, Ticketmaster outlet, Planet Underground - a DVD and CD store, Starbucks, Zip Card Office, and Barnes \& Noble Bookstore. Visit our Web site at http://www. lakron.edu/studentlife.

- Food Areas. On the first level is Zee's convenience store, which has a variety of items, including sundry items for the busy student. On the second level are Subway, Auntie Anne's, Sizzling Zone, the Exciting Union Market and Starbucks.
- Docuzip Copy Center, located on the second level, offers the following services: copying, including color, oversized and reduced copies; binding of materials; mailing facilities for campus, U.S. mail, and United Parcel Service (UPS); literature distribution; and class support files.
- Bames \& Noble Bookstore is located on the first level. The primary purpose of the Bookstore is to make available books and supplies required for coursework. In addition, the store also carries a wide range of classroom supplies, paperbacks, engineering and art supplies, photo supplies, greeting cards, University memorabilia and clothing.
- The Donfred H. Garcher Theatre, located on the second floor, screens secondrun movies as well as occasional first-run sneak previews. The theater also hosts special events and performances.
- Ticketmaster Center, located on the second floor, selis tickets to most events in northem Ohio, including Blossom Music Center, Public Hall Cleveland and the Quicken Loans Arena. Over-the-counter sales include tickets to campus functions, sporting events and local shows.
- The Information Center, located on the second floor, is operated seven days a week. The information Center staff can answer questions regarding department and student organizations, on-campus events, and the University Bus Loop. Laptops can be checked out for use in the Union at the Information Center. Please call (330) 972-4636 if you need a question answered.
- Room Reservations can be obtained in the Student Union. The Reservation line is located at the Information Center. Call (330) 972-8689 to reserve the ballroom and meeting rooms located in the Student Union.
- Computer Solutions, located on the third level, is The University of Akron's computer technology store. As an education reseller, personal computer hardware, peripherals, and software are available at educational pricing. The store is a service for students, faculty and staff. In addition, the store is a point of contact for other services, such as requesting a university network ID (UANet ID) or requesting a network connection in the residence halls.
- The Game Room, located on the first floor, has a pool hall, bowling lanes and video gaming. The bowling lanes feature Extreme giow-in-the-dark bowling. Bowling and Billiards physical education classes are conducted in the Game Room.
Other areas and departments located in the Student Union include:


## Student Judicial Affairs

Student Judicial Affairs is the office that receives and reviews complaints that allege violations of the University's Student Code of Conduct. The University of Akron has the responsibility to protect the rights, health and safety of our academic communi ty and to ensure that the members of our community may pursue their educational goals without undue interference. The development and enforcement of standards of conduct for students is an educational endeavor, which fosters students' personal and social development. Students are expected to abide by applicable federal, state, and local laws and may be held accountable for any violations in which they are involved. Confidentiality is maintained and records of proceedings are released only upon receipt of authorization of the student involved. All hearings are fundamentally fair and respect the rights of the individuals involved. By becoming familiar with the definition of student misconduct, students can be fully aware of their rights and responsibilities as a student at The University of Akron and have a successful, rewarding experience.
Students are ackised to become aware of the disciplinary procedures published in the University Rules and Regulations Conceming Campus Conduct and Student Discipline Procedures (Student Code of Conduct). The Student Code of Conduct, can be accessed by visiting muw, uakron.edu/studentlife/sia or visiting Student Judicial Affairs, Student Union 211. For more information regarding the Student Code of Conduct, please contact Student Judicial Affairs at (330) 972-6380.

## Associated Student Government

The Associated Student Government (ASG), the representative government for undergraduate students, provides services and forums to address student needs, participates in University governance, and decides budgetary allocations to undergraduate student groups. The ASG holds general elections in mid-March of each year to decide the student leadership for the following academic year. Associated Student Government works to assess and fulfill the special needs of students, indurding free tax preparation services, issue forums and co-sponsorship of campus lectures. Freshmen can also become involved as a freshman senator through elections that oocur in September. At the L.I.F.E. award celebration in April, ASG recognizes outstanding achievement by awarding Who's Who Among Students in American Colleges and Universities, A-Key and Exceptional Civic Engagement and the Outstanding Faculty Engagement awards. The ASG office is located in Student Union 133, (330) 972-7002, http://umw uakronedulasg.

## Zips Programming Network

The Zips Programming Network (ZPN) is the all-campus activities board responsible for providing educational, recreational, social and musical events for the campus community. A sample of ZPN's programs includes Homecoming, Parents/Family Day, comedians, Diversity Week, coffeehouse performances, Student Center Entertainment, and other special events. The council is comprised of nine executive board members as well as a general membership. Membership is open to any student interested in developing organizational, leadership and management skills. ZPN's office is located in the first floor of the Student Union just inside of the Hub. For more information, call (330) 972-7014 or visit our Web site at http://wnw.yakron.edu/studentife/zon.

## Greek Life

The Greek community at The University of Akron consists of a group of diversified men and women belonging to 22 different fraternities and sororities. Our Greek community provides its members with opportunities for growth and excellence in academic, leadership, service learning, and social arenas. Fraternity and sorority membership can offer a more well-rounded, cocurricular college experience.
At UA, we have three major governing Councils for Greek Life. The Interfraternity Council (IFC) represents 11 fraternities. The National PanHellenic Council (NPHC) represents our six historically African-American fraternities and sororities, and the Panhellenic Council (PHC) represents five sororities.
Our fratemity and sorority members are often leaders in various areas of campus involvement, including Residence Life, New Student Orientation, Ambassadors, Zips Programming Network and Associated Student Government. The Greek community has provided a significant outlet for those dedicated to making such commitments. The Greek experience is tremendous for those students who choose to join. A fra ternity or sorority will provide lifelong friendships and excellent opportunities for personal growth. National studies have shown that members of Greek organizations graduate at a higher rate and remain more active as loyal UA alumni than non-fraternity and sorority members.
For more information, please visit Greek Life in the Student Union or call (330) 972 7909 or visit wuw, uakron.edu/studentlife/greek/index.pho.

## The SOuRCe (Student Organization Resource Center)

The SOuRCe is located on the first floor of the Student Union in the Hub directly across from the game room in room 130. The Hub houses offices for Greek Leadership, the Zips Programming Network, the Associated Student Government, and 10 additional student organization offices and numerous student organization pods or work stations. The SOuRCe has additional satellite student organization offices on the first floor of the Student Union. These offices house the student publications - The Buchtelite (student newspaper) and the TelBuch (student yearbook). A SOuRCe liaison can assist students with contacting any of the student organization to help students become involved.
The SOuRCe, Co-Curricular and All Campus Programs are committed to providing each and every student with opportunities for hands-on experience outside the classroom that relates to what is being taught in the classroom. Please contact the SOuRCe administration with any questions at (330) 972-7021.

## Commuter Central

The University of Akron commuter students now have a campus advocate in Commuter Central located in the Student Union across from the game room inside the Hub. Commuter Central hosts programs, services and information specifically directed for commuter students and their needs. There is also a Commuter Student Assistant program where students can contact a fellow student and have questions answered in a prompt fashion. Commuter Central offers a cozy place to study, an opportunity to read a magazine, enjoy the plasma televisions or connect with other commuters. The Hub also contains a kitchenette with a microwave, toaster and a sink. For more information, please contact Commuter Central at (330) 972-8690.

# Campus Safety and Security Information 

## SAFETY AND SECURITY

This information is provided as part of The University of Akron's commitment to safety and security on campus and is in compliance with the Federal Crime Awareness and Campus Security Act of 1990.

## THE CAMPUS

The University employs many people to keep the campus safe and secure. The Division of Public Safety provides for student and employee safety and secunity through the departments of University Police and Environmental and Occupational Health and Safety. Student Affairs is responsible for security and safety policies governing residence halls, fraternities, and sororities and for teaching students about security and crime prevention.
It is the intent of the University to continue and enhance current safety and security education and awareness programs throughout the year. The purpose of these programs is to assure that the campus community frequently receives information and instruction on University crime and safety policies and procedures, and on drug and alcohol control and prevention.
A safe campus can be achieved only with the cooperation of the entire campus community. The University hopes students will read and become familiar with this material and be responsible for their own safety and the security of others.

## UNIVERSTTY POLICE

Campus law enforcement is primarily the responsibility of The University of Akron Department of Police. University police provide 24 -hour-aday patrol protection to the campus, parking lots, residence halls, and on-campus fratemity and sorority houses, The police station is located in the Physical Facilities Operation Center at the comer of Hill and South Forge streets and is staffed 24 hours a day.
The University's 33 police officers are commissioned by the State of Ohio with full law enforcement authority and responsibilities identical to the local police or sheriff. The UA Police Department works closely with the Akron Police Department and other law enforcement agencies. Reports are exchanged every business day 50 that both agencies receive pertinent information. Information is shared through personal contacts and by phone and radio. University and City of Akron police regulaity work together at large campus events such as athletic competitions and dances.

UA Police officers have met or exceeded the training standards of the Ohio Peace Officers Training Council. They also receive ongoing in-service and specialized training in first aid, CPR, firearms, defensive tactics, legal updates, and other skills.
UA Police officers enforce laws regulating underage drinking, the use of controlied substances, weapons, and all other incidents requiring police assistance. They also are responsible for public safety services such as crime reports, medical emergencies, fire emergencies, and traffic accidents.
Incidents which may not rise to the level of a violation of law are referred to the Office of Student Conduct. The Student Code of Conduct Manual explains the University's disciplinary process and is available through the Office of Student Conduct.
It is the goal of every member of the University Police Department to promote, preserve, and deliver feelings of safety and security through quality services to the members of the University community.

## DRUG AND ALCOHOL PREVENTION

The issue of drug and alcohol abuse concerns the entire University community as well as our surrounding neighborhoods. The federal Drug Free Schools and Communities Act Amendments of 1989 require schools, colleges, and universities receiving federal financial assistance to implement and enforce drug and alcohol prevention programs for students and employees.

The University of Akron prohibits the illegal use, possession, sale, manufacture, or distribution of drugs and alcohol by all students and employees on University premises or as part of any University activity. Any misuse of substances by University students and employees that presents physical or psychological hazard to individuals also is prohibited.
It is the responsibility of The University of Akron to adopt and implement a drug prevention program for its students and employees. The University as an institution, and each of us as individuals, must eliminate the use of illicit drugs and alcohol that contribute to the unrecoverabie loss of time, talent, and lives.

## CRIME PREVENTION

Through the Office of Crime Prevention, University police officers provide educational programs to students and employees on personal safety, sexual assaultacquairt tance rape prevention, drug and alcohol abuse prevention, and related topics. The University Police Department welcomes the chance to talk with any campus group. Candid dialogue between UA Police and the public has created greater confidence in the community to report unlawful activities. These programs are scheduled when requested.
Potential illegal actions and on-campus emergencies can be confidentially reported by any student, faculty, or staff member. Complaints received by UA police which fall outside their jurisdiction will be referred to the appropriate agency, or the complainant will be provided a phone number where the complaint can be filed. Likewise, other agencies refer complaints to University Police when appropriate The University Police encourage the prompt reporting of crimes.
Security considerations in maintenance are a high priority.
Police officers patrol parking lots 24 hours a day. UA police also offer assistance to motorists with battery jumps, inflating tires, unlocking vehicles, and obtaining fuel for a small fee.
To request nonemergency assistance, call extension 7123. To schedule an appointment for an educational program, call extension 7123.
For emergencies, dial 911 from any campus telephone.

## Student Campus Patrol

A student escort service operates 5 p.m. to 1 a.m. seven days a week for the safety of anyone walking alone on campus during the evenings. By calling extension 7263 , an escort will come to the student's location and accompany himher to any campus building or parking lot.
Employed and trained by The University of Akron Police Department, the campus patrol teams are easily identified by labeled blue jackets, or maroon t-shirts. These teams assist the University police in patrolling campus parking lots and other campus areas and report suspicious individuals or activities directly to the police dispatch center.

## Emergency Phones

Yellow or red emergency phones are directly connected to the UA Police Department. These phones are strategically located throughout campus pedestrian walkways and inside parking decks.' Police respond to the activation of any emergency phone receiver, even if no words are spoken.
Outdoor security phones are at the main entrances of all campus residence halls. UA Police and other campus numbers can be dialed on these phones.
If using an off-campus phone, dial (330) 972 -before the campus extension.

## Emergency Phone Numbers

## Call extension 911 on campus to reach UA police immediately.

| Police. | . 7123 |
| :---: | :---: |
| Campus Patrol ... | .. 7263 |
| (Police Nonemergency) | 8123 |
| Environmental and Occupational Health and Safety. $\qquad$ | 6866 |
| Fire | 911 |
| EMS/Medical | 911 |
| Electrica/Plumbing | 7415 |
| Hazardous Materials | 8123 |
| Closing Information..... | .. 7669 |

Emergency numbers are monitored 24 hours a day. If calling from an off-campus phone, dial (330) 972- and then the four-digit number you wish to reach. Use 911 for emergencies when dialing from all campus extensions.

## Campus Buildings

Most University academic facilities are open to the public from 7 a.m. until the latest evening classes let out. Administrative buildings are generally locked at $6 \mathrm{p} . \mathrm{m}$. When the University is closed, all buildings are locked and may be opened only by authorized personnel.

## Health and Safety

Members of the Department of Environmental and Occupational Health and Safety routinely inspect the campus for environmental and safety concerns. The Department of Physical Facilities maintains University buildings and grounds and regularly inspects facilities and promptly makes repairs to ensure safety and security. University Police work with both units to respond to reports of potential safety and security hazards, such as broken windows and locks. UA police also work with physical facilities personnel to heip maintain adequate exterior lighting and safe landscaping practices.

## Personal Responsibility

The cooperation and involvement of students, faculty, and staff in any campus safety program is absolutely necessary. All must assume responsibility for their own safety and security of their property by following simple, common sense precautions. For example, although the campus is wellhighted, everyone should confine their movements to well-traveled areas. There is safety in numbers, and everyone should walk with a companion or with a group at night. Valuables should be marked with a personal identification number in case of loss or theft. Bicycles should be properly secured when not in use. Automobiles should be locked at all times. Valuables and purses should never be lying in view in a car but locked in the car trunk for safekeeping. Protect your identity and personal information.

## Crime Statistics

The University of Akron Police Department complies with reporting standards set by the United States Department of Education guidelines. Our crime statistics can be found at our police department Web site at www.uakron.edu/ogc/PreventativeLaw/campussafety.php. A hard copy of crime statistics can be obtained at The University of Akron's Police Department located at 146 Hill St., Akron, OH 44325-0402.

# Cocurricular Activities and Other Services 

The variety of experiences gained through involvement in cocurricular and social activities during students' colliege years contribute to a more well-rounded University education beyond the classroom. Cocurriculars are those activities that allow students the opportunity to develop emotionally, physically, politically, academically, socially, and spiritually, and include intercollegiate and intramural sports, student publications, honor societies, departmental organizations, special interest groups, univer-sity-wide programming committees, student govemment, and liberal arts activities. Participation in cocurricular activities provides students with an opportunity to meet new acquaintances, network with professional contacts, broaden the classroom experience, and develop marketable leadership skills for a career search. Studies show that involved students have a higher rate of retention.
Eligibility in the 200-plus registered student organizations and other cocurricular activities is dependent on the student's maintenance of academic good standing at the University. Some selective organizations such as honoraries and varsity athletics require special eligibility criteria.

## PERFORMING AND VISUAL ARTS

Opportunities are abundant for students to develop the ability to face the public through such live audience performances as plays, debates, recitals, and dance, as well as media presentations through radio, television, and film.

A student who aspires to act, write, or produce in theatre is encouraged to attend auditions and to apply for technical positions. The experimental theatre in Guzzetta Hall is distinguished by its flexible design. The Paul A. Daum Theatre in Kolbe Hall, with its intimate proscenium stage, is the scene for many University productions.

Those interested in mass media communication will find that Kolbe Hall contains fully equipped television and radio studios. A student may participate in the operation and broadcast of radio station WZIP (88.1 FM).
A University student interested in music may audition for membership in the Marching Band, Concert Choirs, Jazz Ensembies, Concert Band, the Symphonic Band; Musical Theatre and Opera productions, orchestra, or any number of small or specialized musical ensembles or clubs.
An additional opportunity in the area of performing arts is offered through dance, in the form of The University of Akron Dance Company.
The University Art Galleries present challenging and exciting contemporary exhibitions. lectures and events. The largest is the Emily Davis Gallery in Folk Hall, which showcases works by regionally and nationally known artists, as well as by outstanding student artists.

## ATHLETICS

The University of Akron believes that intercollegiate athletics are an important and wholesome adjunct to the principal mission of the University, enhancing the physical wellbeing and health of its students and providing an opportunity to broaden their intellectual and social development. Accordingly, programs of both intercollegiate and intramural sports are provided. Participants in either program must be, first and foremost, full-time students whose fundamental aim is to obtain a sound education.
The University of Akron participates at the highest NCAA Division 1 level IFootball Bowl Subdivision) in 19 sports. The three championship seasons of participation include: Fall - football, men's soccer, women's soccer, men's and wornen's cross country, and women's volleyball; Winter - men's and women's basketball, men's and women's indoor track and field, women's swimming and diving, and rifle; Spring - softball, baseball, men's and women's golf, women's tennis, and men's and women's outdoor track and field. The athletics program actively seeks participants from the campus population* and annually attracts nearly 400 students for participation in intercollegiate sports. Likewise the athletics department selects each spring a cheerleading squad and dance team from the campus community and incoming high school seniors.

Intercollegiate athletics programs enhance the educational opportunities of the students who participate in those activities. The men and women who are involved in intercollegiate athletics programs at The University of Akron are expected to maintain the academic standards required of all students at the University and adhere to applicable NCAA and Mid-American Conference regulations.
Students are admitted free to all regular season home intercollegiate contests with a validated I.D.
Further educational opportunities in athletics can be pursued through the Office of Athletics Extemal Relations, James A. Rhodes Arena, Suite 81, (330) 972-7468.

## STUDENT PUBLCATIONS

The Buchtelite is a student newspaper issued twice weekly during the academic year. It serves as the campus "voice" with news stories, interest columns, and photographs revolving around campus events. Copies of each edition are distributed to students free of charge at various campus locations. Students interested in becoming members of the Buchtelite staff should visit the office located in the Student Union.

The TelBuch is the University's yearbook with comprehensive editorial and photographic coverage of student life at The University of Akron. This impressive publication is free to students in attendance during the school year that the yearbook summarizes. The Tel-Buch office is located in the lower level of the Student Union.

Akros Review is a literary joumal of creative writing and art work primarily by students of The University of Akron and secondarily by artists and writers in the Northeast Ohio area.

## DEPARTMENTAL ORGANIZATIONS

Academic departments sponsor organizations that provide social and educational programs and activities in special fields of study so that students may enhance and expand their knowledge of their academic field outside of the classroom. Guest speakers, community service projects, and career nights are often included in the calendar of programs. Joining a departmental organization allows students the opportunity to meet classmates with similar interests, to develop study groups, to network with the professional world, and to build a strong academic foundation for future career paths.

## CENTER FOR CHILD DEVELOPMENT

The University of Akron Center for Child Development provides a variety of early childhood programs which are open to students, faculty, staff, and the community. The trained teaching staff provides a stimulating learning environment and opportunities for growth in all areas of development - social, emotional, physical and intellectual.

The Center for Child Development is open year round between 7:30 a.m. and 6p.m. Monday through Friday. The program offers hourty flextime and half-day programs for children three to five years old and toilet trained. Full-day sessions are available for children 18 months to five years old.
A summer program is also offered for schoolaged children. This program is offered from 7:30 a.m. until 6 p.m.
For more information call the Center for Child Development, (330) 972-8210.

## DIRECTORY OF STUDENT ORGANIZATIONS

March 2008

Club Sports
Akron Badminton Club and Tennis Club
Akron Blades
Akron Cricket Club
Akron lce Hockey Club
Akron Lacrosse Club
Akron Racquet Ball Club
Chinese Soccer Club
Equestrian Club
Water Polo Club (Aquatics Club)
Communications/Publications
Buchtelite
Tel-Buch

## Governing Bodies

Associated Student Government
Interfratemity Council (IFC)
National Pan-Hellenic Council (NPHC)
Panhellenic Council
Residence Hall Council (RHC)

## Departmental/Professional

Accounting Association
Akron Council of Education Students (ACES)
Alpha Sigma Lamda
American Association of Family and Consumer Science (AAFSC)
American Choral Director
American Institute of Aeronautics and Astronautics
American Institute of Chemical Engineers
American Society Interior Design
American Society of Civil Engineers (ASCE) Student Chapter
American Society of Mechanical Engineers
American Society for Training and Development
Anthropology Club
Association for Computing Machinery (Computer Science Club)
Association for Women in Communication
Biology Club
Biomedical Engineering Society
Chi Eta Phi
Collegiate Nursing Club
Criminal Justice Association
Dean's Advisory Council
Economics Club
Electronic Engineering Technology Association
Engineering Student Council
Financial Management Association
Future Physicians Club
Gathering of Potential Surveyors
Geography and Planning Student Association
Geology Club
Honors Delegates
Institute of Electrical and Electronic Engineers (IEEE)
International Business Association (IBA)
Intemational Emergency Management Student Association
International Society of Pharmaceutical Engineers
Kappa Kappa Ps
Literary Guild

Multicultural Student Nurses Association
National Association of Black Accoutants
National Society of Black Engineers
Ohio Collegiate Music Education Association
Organization for Children
Paralegal Student Association
Pi Lambda Theta
Polymer Engineering Student Association
Public Relations Student Society of America (PRSSA)
Society for Information Technology and E-Business
Society of Automotive Engineers
Society of Mechanical Engineering
Technology Students
Society of Students in Construction
Society of Women Engineers
Sociology Club
Student Art League
Student Chapter of the National Association of Teachers of Singing (SNATS)
Student Council for Exceptional Children
Student Dietetic Association
Student Fashion Association
Student Social Work League
Student Toastmasters
Tau Alpha Pi
Tau Beta Sigma
Terpsichore
University Association for the Education of Young Children (UAEYC)

## Honoraries

Alpha Kappa Delta
Association of Honors Education
Beta Alpha Psi (Gamma Eta Chapter)'
Beta Beta Beta Biological Honor Society (Tri-Beta)
Beta Gamma Sigma (Kappa Chapter of Ohio)
Delta Sigma Pi
Garmma Sigma Alpha
Golden Key International Honor Society
Honors Club
Kappa Beta Delta
Kappa Omicron Nu
Moot Court Honor Society
National Society of Collegiate Scholars
Omicron Delta Kappa
Order of Omega
Phi Alpha Theta
Pi Delta Phi-Zeta Eta Chapter
Pi Mu Epsilon
Pi Sigma Alpha (Political Science
Honorary)
Pi Sigma Epsilon
Psi Chi - National Psychology Honorary
Rho Lambda
Richard L. Hansford Chapter of National
Residence Hall Honorary
Tau Beta Pi
Tau Sigma Honorary for Transfer Students

International
African Students Association
Bangladeshi Students
Chinese Student Association
Chinese Students and Scholars
Association (CSSA)
H.O.L.A

Indian Students Association

## Military

Association of Furture Army Nurses
Garfield
Rangers

## Political

College Democrats
College Republicans

## Programming

Residence Hall Program Board
Zips Programming Network (ZPN)
Religious
Akron Chinese Christian Student Feillowship
Campus Crusaders for Christ
Campus Focus
Christian Zips
HILLEL
Intervarsity Christian Fellowships
Muslim Students Association
New 8eginnings (NB)
Newman Catholic Campus Ministry
Under God
Social Fraternity
Alpha Phi Alpha
Alpha Sigma Phi
lota Phi Theta
Lambda Chi Alpha
Lone Star Fraternity (Pi Kappa Epsilon)
Phi Beta Sigma Fraternity Inc.
Phi Delta Theta
Phi Gamma Delta (FIJI)
Phi Kappa Tau
Phi Sigma Kappa
Sigma Alpha Epsilon
Sigma Nu
Tau Kappa Epsilon
Theta Chi

## Social Soronities

Alpha Delta Pi Sorority
Alpha Gamma Delta
Alpha Kappa Alpha Sorority, Inc.
Alpha Phi
Delta Gamma
Kappa Kappa Gamma
Sigma Gamma Rho
Zeta Phi Beta

Law
Akron Public Interest Law Society
American Civil Liberties Union (ACLU
Asian-Latino Law Student Association
Association of Trial Lawyers of America
Black Law Student Association
Environmental Law Society
Federalist Society
Inteliectual Property and Technology Law Association
International Law Society
Law Association for Women
National Association of Criminal Defense Lawyers (NACDL)
Phi Alpha Delta Law Fratemity
Phi Delta Phi Intemational Law Fratemity
PreLaw Club
Sports and Entertainment Law Society
Student Bar Association (SBA)

## Grachuate

Graduate CROW
Chi Sigma lota
Counseling Psychology Graduate
Student Organization
Graduate Student Government
Industria/Organizational Graduate Student Club
Master of Social Work Association
Polymer Science Student Organization (PSSO)
Public Administration and Urban Studies
Student Association (PAUSSA)
Society for the Advancement of Marnage and Family Counseling / Therapy
Student Association for Graduates in Education (SAGE)

## Special Interests

2380 Project
Adult Leamers
Ak-Rowdies
Akron Animation Association
Akron Cares
Akron Ski and Snowboard Club
Alpha Phi Omega
Amateur Radio Club
American Society of Interior Design
Ballroom Dance Club
Campus Habitat For Humanity
Circle K International
Collegiate Billiards Tour Association
Commuter Student Organization
(Commuter Central Group)
Diversity Dialogs
E-Docs
Fashion and Professionals United
Green Dragon Kung Fu Club
Guitar Club
Hospitality Club
Lesbian, Gay, Bisexual, and Transgender Union
Male Excellence Network
Marksmanship Club
National Student Speech-_anguage Hearing Association
Northeast Ohio Clarinet Association
Northeast Ohio Flute Association
Northeastem Ohio Double Reed Association
Outdoor Adventure Club
Pan African Student Organization (PASO)
Philosophy Club
Sigma Alpha Pi
Sociologists for Women in Society
Speech and Debate Toam
Students for Life
Students in Free Enterprise (SIFE)
Support in Sisterhood
Supply Chain Student Association (SCSA)
Theatre Guild
Ultimate Frisbee Club
University Ambassadors
University Chess Club
University of Akron Gospel Choir
Up Till Dawn
Zips Recruiting Club

## Admissions

Admission is necessarily limited by the University's capacity to provide for the student's educational objectives. The University reserves the right to approve admission only to, those whose ability, attitude, and character promise satisfactory achievement of University objectives.

## CLASSIFICATION OF <br> STUDENTS

The University of Akron classifies its students according to their needs, educational background, goals, and abilities. Classifications include:

- Undergraduate - A student who has not eamed the baccalaureate degree and is eligible to enroll in undergraduate-level credit courses.
- Freshman - A student who has graduated from high school, or has earned a GED, but has not previously attended a college or university after graduation.
- Transfer Student - A student who has attended another accredited institution but who wishes to complete a degree at The University of Akron.
- Postsecondary Enrollment Options - A student who is currently enrolled in high school may enroll in the postsecondary enrollment options program. Students must meet the outlined requirements for these programs.
- Guest Student - (from another institution) A student who is regularly enrolled and eligible to continue at another institution, and who desires to enroll at The University of Akron for specified courses. A student who is currently on suspension from the home institution is not eligible to be a Guest student. There is a two consecutive term limit for this classification.
- Transient Student - (from The University of Akron) A student enrolled at The University of Akron who must obtain written permission from the dean of the student's college before enrolling (guest student status) for credit work at another institution. Credit for such work may be granted at the discretion of the dean.
- Special Student - A special student is enrolled as a non-degree seeking student to participate in a special short-term program.
- Postbaccalaureate - A student who holds the baccalaureate degree from an accredited institution, who is eligible to enroll in credit courses at the undergraduate level, and who has not been admitted to the Graduate School.
- Audftor - A student who wishes to enroll in a course without obtaining a grade-point value ("A-F") or a grade of noncredit or credit. Such students must indicate that they are auditors at the time of registration. Audit status may be denied if space is not available. An auditor is expected to do all prescribed coursework except writing of examinations.
- Graduate - A student who holds the baccalaureate degree from an accredited institution, has been admitted to the Graduate School, and is eligible to enroll in graduate-level credit courses.
- Professional - A student who holds the baccalaureate degree from an accredited institution and has been admitted to the School of Law.


## ADMISSION PROCEDURE

The University of Akron operates under a policy of rolling admissions, which means applications are reviewed on a rolling basis, beginning September 1 , with a May 1 confirmation deadline and admissions as space is available thereafter. However, it is advisable for a prospective student to submit all credentials as early as possible to be assured the best selection of classes and/or a room in the residence hàlls.
Admission procedures vary for different types of students. The various admissions categories include: recent high school graduate, transfer student, postbaccalaureate student, special student. guest student and postsecondary enrollment options student.
Please contact the Office of Admissions at (800) 655-4884 or (330) 972-7100 for application deadlines and admission information, or send an e-mail to admissions@uakron edu. International students should contact the Office of International Programs at (330) 972-6349 for specific information regarding international admission. More information regarding admission to The University of Akron is also available online at muw,uakron.edu/admissions.

## Freshman Students

A freshman is considered an individual who has graduated from high school, or has eamed a GED, but has not previously attended a college or university after graduating.
A freshman student seeking admission should apply as follows:

- Apply online at www.uakron.edu/apply or obtain an application form from the Office of Admissions, either by calling (330) 972-7100, or (800) 655-4884, sending an email to admissions Guakron.edu, or by or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. The completed application should be accompanied with the nonrefundable $\$ 30$ application fee (a one-time charge). Online credit card payment is available. If you are paying by check, please make payable to The University of Akron and specify on the check what fee(s) and for which student the payment is being made.
- Send an official high school transcript to the Office of Admissions at the time of application. This record must be received before any admission action can be taken by the University. In addition, students currently enrolled as high school seniors must also submit a completed College Prep Core Curriculum form.
- Take college entrance test(s), if under age 21. Arrangements may be made through the student's high school to take the ACT or SAT. The University's Counseling, Testing and Career Center also serves as a testing site for the ACT test. Test scores must be submitted before an applicant can be formally admitted to the University.
- A written essay and letters of recommendation are also required for Honors College application and admission consideration. See additional information regarding the honors application process at www. uakron, eduhonors.
- After being admitted, students will receive an admission packet including a letter of admission and information regarding the enroliment process.
- For freshmen age 21 and older, additional advisement and services are avaiable through UA Adult Focus, located in rom 260 of Shrank Hall North. For more information, call (330) 972-5793 or emailadulffocus@uakron.edu.


## Home-Schooled Students

The University of Akron accepts student's completion of home schooling as an alternative to a high school diploma. Home-schooled students should indicate "homeschooled" in the section of the admissions application for name of high school.
An admissions committee will review each application from a homeschooled student. The academic preparation review process will place home-schooled students, based on this assessment, in the appropriate category of direct, standard, or provisional admission.

A home-schooled student should apply for admission as follows:

- Obtain an application form from the Office of Admissions, either by calling (330) 972-7100, or (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, $\mathrm{OH} 44325-2001$. Applications also are available online at www. uakron,edu/apply. Complete the application and return it as soon as possible with the $\$ 30$ nonrefundable application fee (a one-time charge). All checks should be made payable to The University of Akron and should specify what fees and for which student the payment is being made.
- Submit documentation that the student was exempt from compulsory public school attendance for the purpose of home education (signed by school district superintendent).
- Send a completed copy of the College Prep Core Curriculum form to the Office of Admissions at the time of application.
- Send a student transcript to the Office of Admissions at the time of application. This record must be received before any admission action can be taken by the University.
- Take entrance tests. Arrangements may be made through the student's school district to take ACT or SAT. (The University's Counseling, Testing and Career Center also serves as a testing site for the ACT test). Test scores must be submitted before an applicant can be formally admitted to the University.
- Provide other supporting documentation including book lists, special projects, activities, etc.
- Included with the letter of admission to the University, the student will receive direction regarding new student orientation, academic advising and registration.
- The University requires enrollment in basic mathematics and/or English if the student's academic adviser determines that deficiencies exist in one or both of these areas. This recommendation will be based on the following: work completed at a previous institution in mathematics and/or English, high school academic record (if available), Standardized test results (ACT or SAT if available), and the University mathematics and/or placement test results. If a mathematics or English placement test is deemed necessary to comply with this policy, the student must take the appropriate placement test(s) by the completion of the first term of attendance.


## Transfer Students

A. student who has previously enrolied at another regionally accredited university or college after graduating from high school will be considered as a transfer applicant at the University.
The student also must present scholastic records judged to be satisfactory by University of Akron officials. The assessment of scholastic records may include consideration of prior courses, grade-point average, credit value, and other such factors which the University or individual colleges use in evaluating, ranking, or otherwise determining admissibility to the University or to specific programs. Please contact the Office of Admissions for admission criteria.

A transfer student seeking admission should apply as follows:

- Apply online at wuw. uakron.edu/apply or obtain an application form from the Office of Admissions, either by calling (330) 972-7100, or (800) 655-4884, sending an emaił to admissions@uakron.edu, or by or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. The completed application should be accompanied with the nonrefundable $\$ 30$ application fee (a one-time charge). Online credit card payment is available. If you are paying by check, please make payable to The University of Akron and specify on the check what fee(s) and for which student the payment is being made.
- Request the firal official transcripts from the records office of all institutions previously attended to be mailed to the Office of Admissions. (Please note: If a student is currently on dismissal from a previous institution at the time of application, the student will not be permitted to enroll for a period of one semester. Example: Dismissed Fall of 2007, permitted to enroll Fall of 2008.)
- In addition, students who have eamed fewer than 12 credits of accredited transfer work must submit a final official high school transcript as well as test score results from ACT or SAT examinations (if under age 21). These documents must be received and evaluated before any admission action can be taken by the University.
- After being admitted, students will receive an admission packet including a letter of admission and information regarding the enrollment process.
- For freshmen age 21 and oider, additional advisement and services are avaiable through UA Adult Focus, located in rom 260 of Shrank Hall North. For more information, call (330) 972-5793 or email adultfocus@uakron,edu.


## Transfer Module

## Institutional Transfer

The Ohio Board of Regents in 1990, following a directive of the 119th Ohio General Assembly, developed the Ohio Articulation and Transfer Policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. A subsequent policy review and recommendations produced by the Articulation and Transfer Advisory Council in 2004, together with mandates from the 125th Ohio
General Assembly in the form of Amended Substitute House Bill 95, have prompted improvements of the original policy. While all state-assisted colleges and universities are required to follow the Ohio Articulation and Transfer Policy, independent colleges and universities in Ohio may or may not participate in the transfer policy. Therefore, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements. In support of improved articulation and transfer processes, the Ohio Board of Regents will establish a transfer clearinghouse to receive, annotate, and convey transcripts among state-assisted colleges and universities. This system is designed to provide standardized information and help colleges and universities reduce undesirable variability in the transfer credit evaluation process.

## Transfer Module

The Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university's general education curriculum in A.A., A.S. and baccalaureate degree programs. Students in applied associate degree programs may complete some individual transfer module courses within their degree program or continue beyond the degree program to complete the entire transfer module. The Transfer Module contains 54-60 quarter hours or 36-40 semester hours of course credit in English composition (minimum 5-6 quarter hours or 3 semester hours); mathematics, statistics and formal/symbolic logic (minimum of 3 quarter hours or 3 semester hours); arts/humanities (minimum 9 quarter hours or 6 semester hours); social and behavioral sciences (minimum of 9 quarter hours or 6 semester hours); and natural sciences (minimum 9 quarter hours or 6 semester hours). Oral communication and interdisciplinary areas may be included as additional options. Additional elective hours from among these areas make up the total hours for a completed Transfer Module. Courses for the Transfer Module should be 100 - and 200-level general education courses commonly completed in the first two years of a student's course of study. Each state-assisted university, technical and community college is required to establish and maintain an approved Transfer Module.

Transfer Module course(s) or the full module completed at one college or university will automatically meet the requirements of individual Transfer Module course(s) or the full Transfer Module at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the Transfer Module at Institution S (sending institution) and then transfers to Institution $R$ (receiving institution) is said to have completed the Transfer Module portion of Institution R's general education program. Institution R, however, may have general education courses that go beyond its Transfer Module. State policy initially required that all courses in the Transfer Module be completed to receive its benefit in transfer.
However, subsequent policy revisions have extended this benefit to the completion of individual Transfer Module courses on a course-by-course basis.

## Transfer Assurance Guides

Transfer Assurance Guides (TAGs) comprise Transfer Module courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio university and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent leaming experiences across the state's highereducation system. A number of area-specific TAG pathways in the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams.
TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisers at the institution to which a student wishes to transfer should also be consulted during the transfer process. Students may elect to complete the full TAG or any subset of courses from the TAG. Because of specific major requirements, early identification of a student's intended major is encouraged.

## Conditions for Transfer Admission

1. Ohio residents with associate degrees from state-assisted institutions and a completed, approved Transfer Module shall be admitted to a state institution of higher education in Ohio, provided their cumulative grade point average is at least 2.0 for all previous college-level courses. Further, these students shall have admission prionty over out-of-state associate degree graduates and transfer students.
2. When students have earned associate degrees but have not completed a Transfer Module, they will be eligible for preferential consideration for admission as transfer students if they have grade point averages of at least a 2.0 for all previous college-level courses.
3. In order to encourage completion of the baccalaureate degree, students who are not enrolled in an A.A. or A.S. degree program but have eamed 60 semester or 90 quarter hours or more of credit toward a baccalaureate degree with a grade point average of at least a 2.0 for all previous collegelevel courses will be eligible for preferential consideration for admission as transfer students.
4. Students who have not earned an A.A. or A.S. degree or who have not earned 60 semester hours or 90 quarter hours of credit with a grade point average of at least a 2.0 for all previous college-level courses are eligible for admission as transfer students on a competitive basis.
5. Incoming transfer students admitted to a college or university shall compete for admission to selective programs, majors, and units on an equal basis with students native to the receiving institution.
Admission to a given institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration at the institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as native students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits eamed. All residency requirements must be completed at the receiving institution.

## Acceptance of Transfer Credit

To recognize courses appropriately and provide equity in the treatment of incoming transfer students and students native to the receiving institution, transfer credit will be accepted for all successfully completed college-level courses completed in and after fall 2005 from Ohio state assisted institutions of higher education. Students who successfully completed A.A. or A.S. degrees prior to fall 2005 with a 2.0 or better overall grade point average would also receive credit for all college-level course they have passed. (See Ohio Articulation and Transfer Policy, Definition of Passing Grade and Appendix D). While this reflects the baseline policy requirement, individual institutions may set equitable institutional policies that are more accepting.

Pass/fail courses, credit by examination courses, experiential learning courses, and other nontraditional credit courses that meet these conditions will also be accepted and posted to the student record.

## Responsibilities of Students

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Students should use the Transfer Module, Transfer Assurance Guides, and Course Applicability System for guidance in planning the transfer process. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their adviser and the college or university to which they plan to transfer.

## Appeals Process

Following the evaluation of a student transcript from another institution, the receiving institution shall provide the student with a statement of transfer credit applicability. At the same time, the institution must inform the student of the institution's appeals process. The process should be multi-level and responses should be issued within 30 days of the receipt of the appeal.

## Transfer Module Course Requirements

The University of Akron Transfer Module requires a minimum of 38 semester credits in six areas as follows:

| I. English - 7 credits |  |  |
| :---: | :---: | :---: |
| 2020:121 | English and | 4 |
| 2020:222 | Technical Report Writing or | 3 |
| 3300:111 | English Composition I and | 4 |
| 3300:112 | English Composition II | 3 |
| 3300:113 | African-American Language \& Culture I: College Composition and | 4 |
| 3300:114 | African-American Language \& Culture I: College Composition | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| III. Mathematics-3 credits |  |  |
| 2030:152, 153 | Technical Mathematics II, IIf | 2, 2 |
| 2030:161 | Math for Modem Technology | 4 |
| 3450:113 | Combinatorics and Protability | 1 |
| 3450:114 | Matrices | 1 |
| 3450:115 | Linear Programming | 1 |
| 3450:127 | Trigonometry | 2 |
| 3450:138 | Math of Finance | 1 |
| 3450:145 | College Algebra | 4 |
| 3450:149 | Precalculus Math | 4 |
| 3450:210 | Calculus with Business Applications | 3 |
| 3450:215 | Concepts of Calculus I | 4 |
| 3450:221 | Analytic Geometry-Calculus I | 4 |
| 3470:260 | Basic Statistics | 3 |
| 3470:261 | Introductory Statistics | 2 |
| 3470:262 | Introductory Statistics II | 2 |
| III. Arts/Humanities - $\mathbf{1 0}$ credits |  |  |
| The following is required of all students: |  |  |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| Two courses from different sets are required from the following: |  |  |
| Set 1 |  |  |
| 7100:210 | Visual Arts Awareness | 3 |
| 7500:201 | Exploring Music: Bach to Rock | 3 |
| 7800:301 | Introduction to Theatre and Film | 3 |
| 7900:200 | Viewing Dance | 3 |
| Set 2 |  |  |
| 3200:220 | Introduction to the Ancient World | 3 |
| 3200:230 | Sports and Society in Ancient Greece and Rome | 3 |
| 3200:289 | Mythology of Ancient Greece | 3 |
| 3600:101 | Introduction to Philosophy | 3 |
| 3600:120 | Introduction to Ethics | 3 |
| 3600:170 | Introduction to Logic | 3 |
| Set 3 l |  |  |
| 3200:361 | Literature of Greece | 3 |
| 3300:250 | Classic and Contemporary Literature | 3 |
| 3300:252 | Shakespeare and His World | 3 |
| 3580:350 | Literature of Spanish America in Translation | 3 |
| Set 5 |  |  |
| 3400:211 | Humanities in the Westem Tradition II | 4 |

Additional information regarding the Transfer Module may be obtained from the University College Dean's Office, (330) 972-7066.

| IV. Social Science - 6 credits |  |  |
| :---: | :---: | :---: |
| Select two courses from two different sets: |  |  |
| Set 1 |  |  |
| 2040:247 | Survey of Basic Economics | 3 |
| 3250:100 | Introduction to Economics | 3 |
| 3250:200 | Principles of Microeconomics | 3 |
| 3250:244 | Introduction to Economic Analysis | 3 |
| Set 2 |  |  |
| 3350:100 | Introduction to Geography | 3 |
| Set 3 |  |  |
| 2040:242 | American Urban Society | 3 |
| 3700:100 | Govemment and Politics in the U.S. | 4 |
| 3700:150 | World Politics and Government | 3 |
| 2040:243 | Contemporary Global Issues | 3 |
| Set 4 |  |  |
| 2040:240 | Hurnan Relations | 3 |
| 2040:244 | Death and Dying | 2 |
| 3750:100 | Introduction to Psychology | 3 |
| Set 5 S |  |  |
| 3230:750 | Cultural Anthropology | 4 |
| 3850:100 | Introduction to Sociology | 4 |
| 2040:256 | Diversity in American Society | 3 |
| Set 6 |  |  |
| 3400:250 | U.S. History to 1877 | 4 |
| 3400:251 | U.S. History since 1877 | 4 |
| Set 7 |  |  |
| 2040:241 | Technology and Human Values | 2 |
| 3240:100 | Introduction to Archaeology | 3 |
| 3600:125 | Theory and Evidence | 3 |

V. Natural Science - $\mathbf{8}$ credits
Select at least two different sciences, one of which must include a taboratory component

Select at least two different sciences, one of which must include a laboratory compone
2780:106 Anatomy and Physiology for Allied Health I
2780:107 Anatomy and Physiology for Allied Heath II 3
2820:105 Basic Chemistry
2820:111 Introduction to Chemistry
Introductory and Analyical Chemistry
$2820 \cdot 162$
2820:163 Technical Physics: Electricity and Magnetism
2820:164 Heat and Light
2820:105 Basic Chemistry
2820:111 Introductory Chemistry
2820:112 Introductory and Analytical Chemistry
3100:100 Introduction to Botany
3100:101 Introduction to Zoology
3100:103 Natural Science: Biology
3100:111 Principles of Biology I
3100:112 Principles of Biology II
3100:130 Principles of Microbiology
3100:208 Human Anatomy and Physiology
3100:209 Human Anatomy and Physiology
3150:100 Chemistry and Society
,3150:101 Chemistry for Everyone
3150:110.11 Introduction to General, Organic and Biochemistry I, Lab
3150:112,13 Introduction to General, Organic and Biochemistry II, Lab
3150:151 Principles of Chemistry 1
3150:152 Prinoiples of Chemistry Laboratory
3150:153 Principies of Chemistry II
3230:151 Human Evolution/Lab
3370:100 Earth Science
3370:103 Naturai Science: Geology
3370:171 Introduction to the Oceans
3370:200 Environmental Geology
$\begin{array}{ll}3370: 201 \text { Environmental Geology } & 4\end{array}$
3370:201 Exercises in Environmental Geology !
3370:203 Exercises in Environmental Geology II
3650:130 Descriptive Astronomy
3650:133 Music, Sound and Physics
3650:137 Light

2040257 Black Expenience from 1619 to 1877
2040.258 The Black Experience 1877 to 1954

3002:201 The Black Ex to Pan-African Studies
Introduction to Pan-African Studies 3
3005:300 Canadian Studies: An Interdisciplinary Approach 3
3350:375 Geography of Cultural Diversity 2
3400:385 World Civilizations: China
3400:386 World Civilizations: Japan
$3400 \cdot 387$ World Civilizations: Southeast Asia 2
3400388 Worl Civizaions: Southeast Asia
3400:388 World Civilizations: India
3400:389 World Civilizations: Middle East
3400:390 World Civilizations: Africa
3400:391 World Civilizations: Latin America
7600:325 Intercultural Communication

## Postbaccalaureate Students

A student who holds the baccalaureate degree from an accredited college/university and wishes to continue educationally but has not been admitted to the Graduate School, should apply as a postbaccalaureate student through the Office of Admissions. This procedure should be followed:

- Obtain an application form from the Office of Admissions, either by calling (330) 972-7100, or (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, $\mathrm{OH} 44325-2001$. Applications also are available online at wuw.uakron.edu/apply. Complete the application and return it as soon as possible with the nonrefundable $\$ 30$ application fee (a one-time charge). All checks should be made payable to The University of Akron, and should specify what fees and for which student the payment is being made.
- A postbaccalaureate student must request transcripts from the institution from which he or she received a bachelor's degree and any transcripts for any subsequent coursework. These documents must be received and evaluated before any admission action can be taken by the University.
- A health record will be sent from the Office of Admissions after the student has been admitted. Please complete the form and return it. This provides the University with the information necessary for a complete health record on every student.
- Included with the letter of admission, the student will receive information on registration and instructions for academic counseling by a faculty member in the appropriate department.


## Special Student

A special student is enrolled as a non-degree seeking student to participate in a special short-term program. A special student may not take courses for more than two consecutive semesters unless official status as a regular student is gained. A special student may not take more than 15 credits unless official status as a regular student is gained.
This procedure should be followed:

- Obtain an application from the Office of Admissions, The University of Akron, Akron, OH 44325-2001.
- Obtain permission to enroll under the Special Student category from an admissions officer.
- Information regarding registration for classes and academic advising will be forthcoming in the letter of admission.


## Guest Students <br> (Non-University of Akron Students)

An undergraduate guest student must apply to the Office of Admissions. A graduate student must apply through the dean's office of the Graduate School.
A guest student may not, as a general rule, gttempt more than 15 credits in any semester or session and is subject to all rules and regulations of The University of Akron. Guest students must be in good standing at their home school.
The following procedures should be followed when applying to the University as a guest student:

- Obtain an application from the Office of Admissions, either by calling (330) 972-7100, or (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Applications also are available online at muwuakron.edu/apply. Complete the application and retum it with the nonrefundable $\$ 30$ application fee (a one-time charge).
- Receive advice and written approval by the home institution for the coursework for which the student plans to enroli.
- After admittance, information regarding registration will be sent to the student.
- Guest students are not eligible to receive financial assistance from The University of Akron, but may qualify for aid from their "home" institution.


## DIRECT/STANDARD/ PROVISIONAL ADMISSION

The University of Akron has adopted a "direct/standard/provisional" admission policy for traditionalaged entering freshmen. Traditionalaged freshmen are defined as those who have graduated from high school within the previous two years. The policy was established to communicate to students whether they are academically prepared to be successful at the University. The key elements of the policy are:
Academically talented freshmen will have the option of admission directly to the program of their choice. To be directly admitted, a student must meet certain academic standards such as high school gradepoint average, test scores, class rank, and core curriculum. The standards for direct admission are selective and are determined by each academic department. Students are admitted "standardly" to University College if their credentials are above the standards for provisional admission but below the standards for direct admission to an academic program.

Entering freshmen who are identified as being academically underprepared will be admitted into Summit College under provisional admission status as general adrnit strdents. General admit students will begin their University of Akron academic careers as part of Summit College's College Success Program. As such, general admit students will be required to complete skill building courses and other prescriptive activities. Students will be considered for general admission into the Summit College College Succoss Program if they have less than a 2.3 GPA or lower than a 16 ACT/650 SAT score, or if they are deficient in completing the core curriculum for college preparation.
Core curriculum is defined by the following: English, 4 units; Mathematics, 3 units; Natural Science, 3 units; Social Science, 3 units; Foreign Language, 2 units.

All students (both general and standard) pursuing an associate's degree will be admitted directly to Summit College.

For more information regarding specific criteria for admission, please contact the Office of Admissions at (800) 655-4884 or (330) 972-7100 or by e-mail at admis: sions@uakron.edu.

## INTERNATIONAL STUDENTS

The University of Akron welcomes international students and scholars and seeks to make their educational and work experiences pleasing and meaningful. Each year, approximately 1,000 intemational students and scholars from more than 80 countries pursue studies, research, and teaching at The University of Akron.

## Admission Procedures for International Students

International students may apply to begin their studies for the Fall (late August) or Spring (mid January) semesters, or for one of the two sessions of the Summer semester (May/June). Students should submit their applications at least three months prior to the semester for which they wish to begin their studies. (For scholarship consideration, read the information under the June Thomas Rogers section on the reverse side.) Applicants must be high school (secondary school) graduates with a minimum grade point average (GPA) of 2.3 on a 4.0 scale in core courses for standard admission. The following documents should be mailed to:

The University of Akron, Office of International Programs International Undergraduate Admissions

Polsky Building, Room 483
Akron, OH 44325-3101
USA
Telephone: 330/972-6349
Fax: 330/972-8604
E-mail: internationalQuakron.edu

## Undergraduate Admission Application for International Students

Fill in the application accurately and completely. Please type or print distinctly. The permanent address should be the home country or legai residence. A copy of the passport page information should be enclosed. If you are curriently in the United States, submit a copy of the visa page and both sides of the L-94. A $\$ 50$ one-ime non-refundable application fee must accompany this application. Application fees will not be deferred or waived. Make the check or money order payable to: The University of Akron. If you are using a credit card, be sure that it is accepted in the United States. Type or clearly print the credit card number, expiration date, name as it appears on the card and the signature of the cardholder. Do not send cash. For your convenience, you may register online at: http://umw. uakron,edu/admissions/onLinelntplAcpl.php.

## Transcripts

Submit official transcripts or certified true copies from all high schools/secondary schools, universities/colleges and/or professional schools that you have attended. Certified true copies must bear the official stamp and signature of the appropriate academic officer. If the language of instruction for the institution is not English, an exact certified English translation must be provided also. Transcripts should indicate the grading key, grade point average (GP.A) equivalent to a 4.0 scale, and institutional accreditation. Notarized copies are not true copies and are not acceptable.
Students who have attended an academic institution in the United States must have the official transcripts submitted by that institution. If you are applying as a transfer student, have your academic adviser or the designated official complete an International Student Adviser's Report.
Optional: Intemational students concerned about transfer credit may choose to have their credentials evaluated in advance by a third party. One such service is AACRAO International Education Services, One Dupont Circle NW, Suite 520, Washington, DC 20036. E-mail: oies@aacrao.org, Web site: http://uww.aacrao.org/international/foreignEdCred.cfm.

## Degree Conferral

Applicants must submit supporting documentation for all earned degrees indicated on the application. Provisional certificates may be accepted pending the award of a degree. High schoolsecondary school students must show proof of graduation before they will be permitted to register for their first semester. The seme stardards of authenticity for listed degrees/ranscripts apply.

## English Language Proficiency

The University requires students for whom English is not the native language to take either the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). TOEFL applications may be obtained from bi-national agencies, United States Information Service (USIS) offices, or from the Educational Testing Service (ETS). The IELTS is jointly administered by Cambridge (ESOL), British Council and IDP Education Australia. Undergraduate students must achieve a minimum TOEFL score of 61 internet based, 173 computer based, or a minimum IELTS score of 6.0. TOEFL and IELTS scores older than two years are invalid and unacceptable.
Conditional Admission is offered to students who are academically acceptable, but who have not yet obtained the level of English proficiency required for Full Admission. Students who meet this criteria may attend the University's English Language Institute (ELI). Students enrolled in the ELI may not enroll for undergraduate coursework at the same time. For further information regarding the ELI, you may contact:

English Language Institute
The University of Akron, Olin Hall, Room 302
Akron, OH 44325-1909
USA
Phone: (330) 972-7544; Fax: (330) 972-7353
E-mail: yaeliquakron.edu. umw, पakron, edu/eli
Applicants who have satisfactorily completed nine months of full-time academic coursework at a U.S. college/university and are in good standing at that institution or international students who have graduated from an Ohio high school and passed all parts of the Ohio Graduation Test may have the TOEFL or IELTS requirement waived upon witten request to and final approval from the Office of Intemational Programs. However, they may be required to take math, English, or foreign language placement tests upon arival.
Note: Students who do not meet the English language proficiency requirement are not eligible for the June Thomas Rogers International Student Scholarship.

## SAT/ACT

International students are not required to take the SAT nor the ACT for admission consideration, however, some scholarships do require one or both of these tests. Therefore, it is very important that you read the scholarship application information carefully. For test schedule information, logon wuw, collegeboard.com.
 information, email intlsta@uakron,edu. You must be admitted by February 1 to be considered for a scholarship.

## Medical Insurance Coverage

All intemational students are required to provide proof of major medical health insurance coverage that meets the minimum established requirements set forth by U.S. Citizenship and Immigration Services and the University before they will be permitted to register for classes. While it is not mandatory, you may purchase the student health insurance plan offered through the University for your convenience. The insurance coverage must remain in effect during a student's enrollment at The University of Akron.

## International Student Orientation

Intemational students are required to attend an International Student Orientation program that takes place one week before Spring semester and two weeks before Fall semester classes begin. Orientation information will be mailed to students along with the Certificate of Eligibility. The orientation fee is $\$ 60$.
If you have further questions, you may contact the Office of International Programs by:
E-mail: internationalQuakron.edu [mailto:international@uakron.edu](mailto:international@uakron.edu)
Web site: wnw. uakron.edwoip <htto://mmw. wakron.eduoip>
Phone: (330) 972-6349
Fax: (330) $972-8604$
Note: All fees are subject to change without notice.

## Financial and Immigration Documentation

Information on estimated expenses can be found on the form "Declaration and Certification of Finances" (DCF) included in the application packet. This form must be completed and returned to the Office of International Programs along with other application materials. A letter of support from your sponsor may be substituted for the DCF.
Undergraduate tuition and living expenses for the 2008-2009 academic year will be approximately $\$ 27,110$. Tuition is subject to change.
Applicants planning to arrive to The University of Akron on student visa ( $F-1 / \mathcal{L}$ ) must submit the DCF form and original financial documents required by this form, According to U.S. government regulations, financial documents must demonstrate that the student has enough immediately available funds to meet all expenses of the first year of program and adequate funding will be available for each subsequent year of study. Documents must be dated no earlier than one year from the start of their program.
Once the student has been admitted and his/her financial documents are sufficient, the Office of international Programs will issue the Certificate of Eligibility ( $1-20 / \mathrm{DS}-2019$ ) needed for the student to apply for an F-1/J 1 visa.
Students on F-1/J-1 visa transferring to The University of Akron from another U.S. college/university without leaving the U.S.A. will be eligible for transfer only if they maintain a valid nonimmigrant status. The 1-20/DS-2019 will be issued upon submission of the documents proving their valid status, meeting requirements mentioned above, and after release of their SEVIS record to The University of Akron. A new l-20/DS-2019 must be obtained before the first semester starts.

## June Thomas Rogers Scholarships

A limited number of June Thomas Rogers Scholarships are available to undergraduate international students. All interested applicants should contact the Office of international Programs for further details or go to wmwuakron.edu/oip.
Note: Prospective undergraduate students should apply for the "New Undergraduate Intemational Student Award. " Continuing students should apply for the "International Understanding Award."

# Procedures and Requirements 

## INTENT TO ENROLL

The University of Akron requires students to submit an Intent to Enroll form, indicating their acceptance of the University's offer of Admission, and a $\$ 75$ University Confirmation fee. The Intent to Enroll form is sent to students at the time of admission to the University. Upon receipt of the Intent to Enroll form and the University Confirmation fee, the student is issued a New Student Enrollment Packet, which includes their UA Net ID (Internet ID), directions on requesting an orientation date and information on requesting on-campus housing, if desired.

## NEW STUDENT ORIENTATION

All new freshmen, transfer students and students enrolied in the Post Secondary Enrollment Option Program (PSEOP) are required to attend an orientation program prior to registering for classes at The University of Akron. Orientation is conducted as a one-day program and is intended to ensure a smooth transition to the University. Content includes sessions on academic policies and procedures, registration and financial responsibility, computer technology, and campus safety. In addition, students will take any necessary placement tests, meet with an academic adviser and register for classes during orientation.

Students will need their UA Net ID, found in the New Student Enrollment Packet, to request an orientation date. Multiple orientation sessions are available prior to each term and are filled on a first come, first served basis. Students should request an orientation date early for the best selection of program dates.

## ACADEMIC ADVISING

New students are required to meet with academic advisers upon initial entry to the University. Thereafter, students are strongly encouraged to see advisers each term to discuss degree requirements, career goals, major choice, course selection, and other academic concerns.

## REGISTRATION

Each term it is necessary for a student to select courses, complete required forms, and pay the appropriate fees to register officially for classes. The student may elect to register by the Web or in person. Details about these options are described on the University Registrar's Web page at www.uakron,edu/registrar every academic period.

## CLASS ATTENDANCE

A student is expected to attend all meetings of a class for which he or she is registered. A student may be dropped from a course by the dean if absences are repeated and the instructor recommends this action; a student can gain re-admission only with permission of both dean and instructor. A student who does not drop the course receives an " $F$ " which counts as work attempted whenever grade-point ratio calculations are made.

## STUDENT SCHEDULES

## Adding Courses

A student must register for a course before the end of the fifth day of a fall or spring term or the second day of a summer session. Additions to the student's official schedule may be made after that date, but before the 15 th calendar day, only with the permission of the student's adviser, instructor and dean or the dean's designate. Students who have not registered by this deadline may not attend classes to receive credit for the course.
This deadline applies to all regular 15 -week courses offered in the Fall, Spring and Summer semesters. For all other courses, such as those in intersessions or those which are flexibly scheduled, courses must be added, with appropriate permission, by the date when $20 \%$ of the course has been completed.
A student in the University College should initiate all changes through an adviser in the Academic Advisement Center, Simmons Hall.

## Withdrawal Policy

A student may withdraw from a course without an adviser's or course instructor's signature through the 15 th day of a semester or comparable dates during summer session, intersession, etc. After the 15th day of a semester, and up to the midpoint of a semester, a student may withdraw from a course with the signature of the student's adviser.

After the midpoint of a semester, a student must have the signature of both the course instructor and the adviser. Such authorization must be dated and processed through the office of the Student Services Center no later than the last day of the 12th week of classes or comparable dates during summer session, intersession, etc.
Should the instructor or adviser refuse to sign the withdrawal form, the student may appeal to the dean of the student's college, who shall make the final decision after consultation with the instructor or adviser who declined to approve the withdrawal.
An approved withdrawal after the 15th day of the term will be indicated on the University official academic record by a "WD." A student who leaves a course without going through the withdrawal procedure will be given an " $F$ " in the course.

## GRADE POLICIES AND CREDIT

## Grades and the Grading System

A student will receive grades on various types of classroom performance during the progress of most courses and a final grade at the end of the term. At the end of the term, students may obtain their grades either by Web or in person. Details about these options are described on the Registrar's Web page at muw.uakron.edu/registrar. Individual tests are usually graded with percentage or letter marks, but official academic records are maintained with a grade-point system. This method of recording grades is as follows:

| Grade | Qualiry Points | Key |
| :--- | :---: | :--- |
| A | 4.0 |  |
| A- | 3.7 |  |
| B+ | 3.3 |  |
| B | 3.0 |  |
| B- | 2.7 |  |
| C+ | 2.3 |  |
| C | 2.0 |  |
| C- | 1.7 |  |
| D+ | 1.3 |  |
| D+ | 0.0 |  |
| D | 1.0 |  |
| D | 0.0 |  |
| D- | 0.7 |  |
| D- | 0.0 | Graduate courses only |
| F | 0.0 | Failure |
| I | 0.0 | Incomplete |
| IP | 0.0 | Audit |
| AUD | 0.0 | Credit |
| CR | 0.0 | Noncresit |
| NC | 0.0 | Withdrawn |
| WD | 0.0 | Nograde reported |
| NGR | 0.0 | Invalid grade reported |
| NGV | 0.0 | Permanent Incomplete |
| INV | 0.0 | Repeat |
| PI | 0.0 |  |

Notes: Prior to Fall Semester 1973 cumulative grade point averages included transfer work.

## A student cannot raise a grade through reexamination.

I - Incompleto: Indicates that the student has done passing work in the course but that some part of the work is, for good and acceptable reason, not complete at the end of the term. Failure to make up the omitted work satisfactorily by the end of exam week for the following term, not including summer sessions, converts the "I" to an "F." The new grade is to be reported by the date that grades are due. When the work is satisfactorily completed within the allotted time, the " I " is converted to whatever grade the student has earned. (If instructors wish to extend the "I" grade beyond the following term for which the student is registered, prior to the end of the term they must notify the registrar's office in writing of the extension and indicate the date of its termination. It is the responsibility of the student to make arrangements to make up the incomplete work. The faculty member should submit the new grade to the registrar's office in writing.)

IP - In Progress: Indicates that the student has not completed the scheduled coursework during the term because the nature of the course does not permit completion within a single term.
PI - Permanent Incomplete: Indicates that the student's instructor and the dean with jurisdiction over the course may for special reason authorized the change of an incomplete ("I") to a permanent incomplete ("PI").
WD - Whthdraw: Indicates that the student registered for the course but withdrew officially after the 15 th day of the term.
NGR - No Grede Reported: Indicates that, at the time grades were processed for the present issue of the record, no grade had been reported by the instructor.
INV - Invalid: Indicates the grade reported by the instructor for the course was improperly noted and thus unacceptable for proper processing.

## Importance of Grades

Grades determine whether a student is either eligible or ineligible to remain at the University. Eligibility in the 200-plus registered student organizations and other cocurricular activities is dependent on the student's maintenance of good academic standing at the University. A student who has not been placed on probation or dismissed from the University is deemed to be in good academic standing. Some selective organizations such as honoranies and varsity athletics require special eligibility criteria.

On the basis of grades, a student receives opportunities to take additional courses to accelerate academic progress.
A student should transfer from the University College to a degree-granting college when the grade and credit-hour requirements of that college have been met. Acceptance for admission to a college depends on the approval of the dean of the college which the student chooses to enter and on the student's academic performance to date.

## Dean's List

Undergraduate students who carry 12 graded credits or more without receiving an "Incomplete" or "In Progress" grade and earn a grade point average of 3.25 or better are eligible for inclusion on the Dean's List of their respective college. This is an undergraduate academic honor recognizing excellence in the classroom prior to the completion of the degree. Developmental Program course load hours do not carry academic credit toward a degree and are not considered in determining Dean's List honors.

## Part-Time Student Dean's List

Undergraduate part-time students who carry between 6 and 11.5 graded credits without receiving an "Incomplete" or "In Progress" grade and earn a grade point average of 3.25 or better are eligible for inclusion on the Part-Time Student Dean's List of their respective college. This is an undergraduate academic honor recognizing excellence in the classroom prior to the completion of the degree. Developmental Program course load hours do not carry academic credit toward a degree program but do count in computing a student's course load for financial aid or student employment, and are used in probation and dismissal decisions.

## Probation-Dismissal

An undergraduate student who fails to maintain a grade-point average of 2.00 ("C") is placed on academic probation and may be subject to a change of courses, dismissal, or some other form of discipline. Academic discipline is determined by the deart of the college in which the student is enrolled. Reinstatement of a student is determined by the dean of the college from which the student was dismissed.
Once dismissed from the University, a student is not eligible to register for credit courses until readmitted.

## Repeating Courses

Any course may be repeated twice by an undergraduate student subject to the following conditions:

- To secure a grade ("A-F") a student may repeat a course in which the previ ously received grade was a "C-," "D+," "D," "D-," or "F," "CR," "NC," or "AUD." Registrations under the "CR/NC" option are subject to the restrictions in the "CRNC" policy.
- To secure a "CR," a student may repeat a course in which the previously received grade was a "NC." Registrations under the "CR/NC" option are subject to the restrictions in the "CR/NC" policy.
- To secure a grade ("A-F"), "CR," "NC," a student may repeat a course in which the previously received grade was an "AUD." Registrations under the "CR/NC" option are subject to the restrictions in the "CR/NC" policy.
- A graded course ("A-F") may not be repeated for a grade of "AUD."
- A course taken under the "CRNC" option may not be repeated for a grade of "AUD."
- With the dean's permission, a student may substitute another course if the previous course is no longer offered. Courses must be repeated at The University of Akron.
- Grades for all attempts at a course will appear on the student's official academic record
- Only the grade for the last attempt will be used in the grade-point average.
- All grades for attempts at a course will be used in grade-point calculation for the purpose of determining graduation with honors and class standing
- For purposes of this section, credit for this course or its equivalent will apply only once toward meeting degree requirements.


## Course Substitution Policy

The University of Akron recognizes that some students may be unable to satisfy specific coursework requirements for degree completion. Therefore, the student may request a course substitution. A course substitution is not appropriate when the specific course(s) is essential to the degree being sought and a substitution would represent a fundamental alteration of the program.
The process for requesting a course substitution is as follows:
The student contacts his/her adviser and requests a course substitution.

- If the request(s) is based on a disability, the office of accessibility shall be consulted and shall assist the adviser and student in the facilitation of a solution
- If the adviser approves, an appropriate substitution is agreed upon and the recommendation with rationale is forwarded to the department chair or school director for approva
- The student shall be advised of and sign an informed consent form which is forwarded with the recommendation and which states the following:

1. You have been advised that this substitution is only applicable in this college and is not binding on any other college within the university 2. You understand that a course substitution may ultimately affect further studies at this university or other colleges and universities including graduate studies

- If the department chair or school director approves, the recommendation with rationale is forwarded to the Dean.
- If the Dean approves, the office of the Dean shall notify all parties concerned.
- If the Dean disapproves, the student may request a review by the Senior Vice President and Provost.


## Academic Reassessment

To be eligible for academic reassessment, a student shall:

- Have not attended The University of Akron for at least three calendar years. A semester or summer session in which the student received all "WD" grades cannot be counted as part of the separation period; and
- Have reenrolled and maintained a grade point average of 2.5 or higher for the first 24 letter-graded ("A" through " ${ }^{\prime}$ ") hours attempted at The University of Akron; and
- Have not used academic reassessment before at The University of Akron; and
- Submit a written request for academic reassessment to the student's college dean's office.
To apply for academic reassessment, the student shall complete the appropriate form in consultation with his/her academic adviser.

The Office of the University Registrar shall confirm eligibility and make the adjustments to the student's academic record.

- The student begins with a new cumulative grade point average and adjusted credit hour totals. Credit hours are defined as semester hours. Only grades with a "C-" or lower may be reassessed. The student, in consultation with his/her academic adviser, shall identify the courses to be reassessed. Grades
to be reassessed shall come from the time period prior to the student's reenrollment following the three-year absence.
- Grades earned for the courses that are reassessed at The University of Akron are excluded from the calculation of the cumulative "GPA," but will remain on the student's official transcript.
- Credit hours eamed for courses at The University of Akron duning the previous enrollment with a grade of "C" or better, including "CR," are retained.
- Credit hours from all reassessed courses taken during the previous enrollment at The University of Akron with a grade of " C -" or lower are removed from the calculation of the cumulative "GPA" (although the grades are retained on the academic transcript with the notation "academic reassessment policy")
The Office of the University Registrar will apply the following provisions of the academic reassessment policy.
- When counting the first 24 credits attempted, if the 24th credit is part of other credits earned during a semester, the entire number of credits earned for that semester will be calculated into the grade-point average.
- An undergraduate student may utilize this academic reassessment policy only one time in his/her career at The University of Akron.
- This policy applies to undergraduate course work taken at The University of Akron and only for undergraduate students eaming a first undergraduate degree.
- Grades from all courses ever taken at The University of Akron and the resulting "GPA" (unadjusted by the academic reassessment policy) will be used for purposes of determining eligibility for university, departmental or professional honors or other recognition based upon the student's undergraduate academic career and record of academic performance.
- Any academic probations, suspensions or dismissals from reassessed semesters shall not be forgiven. They will count when the probation-dismissal policy is applied to the student's record after readmission.
- A student may seek an exception to this policy through an appeal to the senior vice president and provost and chief operating officer whose decision will be final.


## Academic Misconduct

Students at The University of Akron are an essential part of the academic community, and enjoy substantial freedom within the framework of the educational objectives of the institution. The freedom necessary for leaming in a community so rich in diversity and achieving success toward our educational objectives requires high standards of academic integrity. Academic misconduct has no place in an institution of advanced learning. The University community is governed by the policies and regulations contained within the Student Code of Conduct available at www.uakron.edu/studentlife/sia or in the Student Union 211 or contact Student Judicial Affairs at (330) 972-6830.

The University of Akron considers academic integrity an essential part of each stur dent's personal and intellectual growth. Instances of academic misconduct are addressed consistently. All members of the community contribute actively to building a strong reputation of academic excellence and integrity at The University of Akron.

It is each student's responsibility to know what constitutes academic misconduct and to seek clarification directly from the instructor if necessary. Examples of academic dishonesty include, but are not limited to:

- Submission of an assignment as the student's original work that is entirely or partly the work of another person.
- Failure to appropriately cite references from published or unpublished works or print/non-print materials, including work found on the World Wide Web.
- Unauthorized copying of an assignment in computer programming, or the unauthorized examination or view of the computer, specifically during examinations.
- Possession and/or unauthorized use of tests, notes, books, calculators or formulas stored in calculators not authorized by the instructor during an examination.
- Providing and/or receiving unauthorized information from another student other than the instructor, by any verbal or written means.
- Observing or assisting another student's work.
- Violation of the procedures prescribed by the professor to protect the integrity of the examination.
- Cooperation with a person involved in academic misconduct.

A student who has been accused of academic misconduct will be asked to meet with the course instructor. The matter can be resolved informally at the College level and/or an academic sanction can be imposed. If the student opposes the decision, he/she may appeal to the College Dean. If the matter is referred to Student Judicial Affairs, a meeting will occur and, if the evidence indicates it is more likely than not that an academic misconduct violation has occurred, the office will take action, including, but not limited to, suspension or dismissal from the University. A more detailed discussion of these procedures can be found in the Student Code of Conduct found at www.uakron.edu/studentlife/sja.

## Credit/Noncredit Option

## (undergraduate and postbaccalaureate only)

A student who takes a course on a "credit" or "noncredit" (CR/NC) basis, and who earns a grade equivalent of " $A$ " through " $C$-." shall receive credit ("CR") for the course and have the grade, "CR," placed on the permanent record; a grade equivalent of " $D+$ " through " $F$ " will be recorded with the noncredit grade, "NC."

For the baccalaureate degree, no more than 16 credits of non-language courses and no more than 20 credits in total (including language courses) are permitted to be taken on a CR/NC basis. For the associate degree, no more than eight credits of non-language courses and no more than 10 credits in total, including language courses, is permitted.
A student is eligible for the CR/NC option if the student has:

- completed $50 \%$ of the number of credits required for a degree;
- a GPA of at least 2.30; and
- the consent of an adviser.

The CR/NC option is available only at.the time of registration for the course. After the first week of the term or first two days of a summer session, the status cannot be changed. The registrar will notify the instructor of those students utilizing the CR/NC option by means of the final class list.
Courses that can be taken on a CR/NC basis

- one free elective (not in major field) course per term;
- any first- and/or second-year foreign language course at any time, regardless of grade-point average.
Courses that can not be taken CR/NC:
- any General Education courses
- courses required by colleges and departments of all undergraduate majors

Courses for which "CR" is awarded will be counted as hours completed only: courses for which "NC" is awarded shall not be counted as hours attempted; in neither case shall "CR" or "NC" be considered in calculating grade-point average, but in both instances the course shall be entered on the student's official academic record.

A student may repeat a course for credit (CR), or a grade (A-F) after receiving a grade of "NC."

A college may designate in the printed schedule, on an annual basis, a course as not available to be taken on a "CR/NC" basis.
A student taking a course on a "CR/NC" basis is expected to meet the full requirements of the course-as required by the instructor.

## Audit Policy

A student choosing to audit a course must elect to do so at the time of registration. The student pays the enrollment fee and may be expected to do all the work prescribed for students taking the course for credit, except that of taking the examination. Any faculty member may initiate withdrawal for a student not meeting these expectations.

## Transient Work at Another University

The purpose of transient work is to provide the University of Akron student with opportunity to: 1) take a course that is not offered at The University of Akron; or, 2) if the student is away in the summer, to take a course in a distant location; or, 3) in rare cases, a student who is only a few credits shy of graduation and must leave The University of Akron due to extenuating circumstances. These courses will be listed on The University of Akron official academic record. Each course will reflect the course number, title, grade and credit value; no grade-point value will appear on the record and the grade for such course will not be included in The University of Akron grade-point calculation. The name of the institution will be listed on The University of Akron official academic record as well as the date that the coursework was taken.

Any University of Akron student who wishes to take coursework at another regionally accredited institution of higher education must receive prior approval by the academic dean of the appropriate unit if the student intends to apply this coursework toward a degree at The University of Akron.

1. A student can make an official request for transient credit by submitting a Transient Permission Form. If the coursework taken at another institution will be used to satisfy The University of Akron General Education requirements, prior written permission to take the course must be received from the University College dean unless the course has been previously approved as an equivalency by The University of Akron.
2. If the coursework taken at another institution will be used to satisfy a degreegranting college degree requirement or as elective credit, prior written permission to take the course must be received from the dean of the student's degree granting college unless the course has been previously approved as an equivalency by The University of Akron.
3. A student must earn a grade of " $D$-" or better in the course at the other institution in order for the credits to apply towards the student's degree requirements at The University of Akron unless otherwise specified by the degreegrantirg college. The student must provide the official transcript for the course in order to receive credit.
4. No more than 18 total credit hours of transierit work may be approved prior to the granting of a baccalaureate degree. No more than nine total credit hours of transient work may be approved prior to the granting of an associate degree.
5. Approvals for transient attendance at other institutions are valid for only the requested term and are subject to all restrictions of the dean of the college approving the request for transient credit.
6. Students who are on probation, dismissed or are in the last 32 hours of a baccalaureate degree or are in the last 16 hours of an associate degree are restricted or denied transient permission by either the dean of the degree granting college or the dean of the University College except in rare and compelling circumstances.
Note: coursework taken at another institution cannot be considered for The University of Akron's Repeat for Change of Grade policy or Academic Reassessment policy and will not be calculated into the UA grade point average.

## ALTERNATIVE CREDIT OPTIONS

## American Council on Education's College Credit Recommendation Service

The University of Akron accepts the American Council on Education's College Credit Recommendation Service (CREDIT).
CREDIT evaluates and makes credit recommendations for formal educational programs and courses offered by organizations including business and industry, labor unions, professional and voluntary associations, schools, training suppliers, and government agencies. The program is based on the idea that it is sound educational practice for colleges and universities to grant academic credit for high-quality educational programs conducted by a variety of organizations provided that the courses are appropnate to an individual's degree program.

## Advanced Placement Credit

Many high schools offer special Advanced Placement courses through the auspices of the Educational Testing Service for possible college credit. By enrolling in such courses during high school, and taking the Advanced Placement Tests at the end of each course, high school students may earn undergraduate credits in a number of different academic areas. The test score required to receive credit for a specific course is determined by the Academic Department in which the course is offered. Credits earned in this manner are included in the total credits completed, but are not assigned a grade and do not count in the quality-point ratio, class standing, or graduation with honors calculations. Students must take the tests while they are attending their high school. It is not possible to take the tests once a student is enrolled at The University of Akron. The following table lists disciplines available for Advanced Placement testing, scores required for accruing credit, and courses at The University of Akron for which credit may be earned.

| Discipline <br> Art:Drawing | Required Score 5 | Course <br> Art Studio Elective | $\begin{gathered} \text { Credits } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Art History | 5 | 7100: 100 Survey of History of Art I 7100: 101 Survey of History of Art II | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| Art: 2-D Design | 5 . | 7100:144 Foundation 2-D Design | 3 |
| Art: 3-D Dosign | 5 | 7100:145 Foundation 3-D Design | 3 |
| Biology | 5 | 3100:111 Principles of Biology 3100:112 Principles of Biology | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| Biology (non-sclence majors only) | ${ }_{\text {anly }}{ }^{3 \text { or } 4}$ | 3100:100 Introduction to Botany 3100:103 Natural Science Biology | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| Calculus AB | 3,4 or 5 | 3450:221 Analytic Geometry - Calculus I | 4 |
| Calculus BC | 3,4 or 5 | 3450:221 Analytic Geomerty - Calculus I 3450:222 Analytic Geometry - Calculus II | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| Chemistry | 3 or 4 | 3150:151 Principles of Chemistry 1 <br> 3150:152 Principles of Chemistry I Lab | $3$ |
|  | 5 | 3150:151 Principles of Chemistry 1 3150:152 Principles of Chemistry I Lab 3150:153 Principles of Chemisty II | $\begin{aligned} & 3 \\ & 1 \\ & 3 \end{aligned}$ |
| Computer Science | 3,4, or 5 | 3460:209 Introduction to Computer Science | 4 |
| Economics - Mecro | 3,4, or 5 | 3250:201 Principles of Macroeconomics | 3 |
| Economics - Miero | 3, 4, or 5 | 3250:200 Principles of Microeconomics | 3 |
| English | 3 or 4 | 3300:111 English Composition I | 4 |
| English | 5 | 3300:111 English Composition I 3300:112 English Composition II | $4$ |
| Environmental Scionce | e 4 or 5 | 3010:201 introduction to Environmental Science | 3 |
| Government \& Politics/U.S. | 4 or 5 | 3700:100 Govemment and Politics in the U.S. | 4 |
| Government \& Poltics/ Comparative | $34 \text { or } 5$ | 3700:300 Comparative Politics | 4 |
| History/U.S. | 4 or 5 | 3400:250 U.S. History to 1877 3400:251 U.S. History since 1877 | $4$ |
| Human Geography | 4 or 5 | 3350:100 Intuoduction to Geography | 3 |
| Latin | 3, 4, or 5 | 3510:101 Beginning Latin I 3510:102 Beginning Latin II | 4 |
| Modem Languages | 3, 4, or 5 | 3580:101 Beginning Spanish I 3580:102 Beginning Spanish II or | 4 |
| (French depends on Form | mwith consultation) | 3520:101 Beginning French I 3520:102 Beginning French II or 3530:101 Beginning German I 3530:102 Beginning German II | $\begin{aligned} & 4 \\ & 4 \\ & 4 \end{aligned}$ |


| Discipline | Required Score | Course | Credits |
| :---: | :---: | :---: | :---: |
| Music Theory | 4 or 5 | 7500:121 Theory and Musicianship I | 4 |
| Physics | 4 or 5 | 3650:261 Physics for the Life Sciences ! | 4 |
|  |  | 3650:262 Physics for the Life Sciences II | 4 |
|  |  | 3650:291 Elementary Classical Physics ! | 4 |
|  |  | 3650:292 Elementary Classical Physics II | 4 |
| Paychology | 4 or 5 | 3750:100 Introduction to Psychology | 3 |
| Statistics | 3 | 3470:260 Basic Statistics | 3 |
|  | 4 or 5 | 3470:261 introductory Statistics I | 2 |
|  |  | 3470:262 Introductory Statistics II | 2 |

Certain courses designated in this bulletin by each department enable an eligible student to earn "bypassed" credit. An eligible student who completes such a course with a grade of " C " or better may apply for and receive bypass credit for designated prerequisite courses which carry the same departmental code numbers. A student who completes such a course with a "C-" or lower will not be eligible to apply for or receive bypass credit. If the prerequisite course is required for graduation and the bypass attempt is unsuccessful, then the student must take the prerequisite course. Credit for such bypassed prerequisites shall be included in the total credits earned but shall not count in the quality point ration, class standing or hours required for graduation with honors. Bypassed credit is not awarded on the basis of completing a course either credit-by-examination or credit /noncredit, or by completing a course as repeat for change of grade.

| Discipline | Course | Prerequisito | Approved for Bypassed Crodit |
| :---: | :---: | :---: | :---: |
| Summit College |  |  |  |
| Mathematics | 2030:152 | 2030:151 | 2030:151 |
|  | 2030:153 | 2030:152 | 2030:151,2 |
|  | 2030:154 | 2030:153 | 2030:152,3 |
|  | 2030:161 | 2030:151 | 2030:151 |
|  | 2030:255 | 2030:154 | 2030:152,3,4 |
|  | 2030:356 | 2030:255 | 2030:154,255 |
| Office | 2540:151 | 2540:150 | 2540:150 |
| Administration | 2540:253 | 2540:151 | 2540:150,1 |
| Buchtel Coilege of Arts and Sciences |  |  |  |
| Classical Studies, | 3210:122 | 3210:121 | 3210:121 |
| Anthropology and | 3210:223 | 3210:121,2 | 3210:121,2 |
| Archaeology | 3210:224 | 3210:121,2,223 | 3210:121,2,223 |
|  | 3210:303 | , 3210:121,2,223,4 | 3210:121,2,223,4 |
|  | 3210:304 | 3210:121,2,223,4 | 3210:121,2,223,4 |
|  | 3510:122 | 3510:121 | 3510:121 |
|  | 3510:223 | 3510:121,2 | 3510:121,2 |
|  | 3510:224 | 3510:121,2,223 | 3510:121,2,223 |
|  | 3510:303 | 3510:121,2,223,4 | 3510:121,2,223,4 |
|  | 3510:304 | 3510:121,2,223,4 | 3510:121,2,223,4 |
| Economics | 3250:400 | 3250:201 | 3250:201 |
|  | 3250:410 | 3250:200 | 3250:200 |
| English | 3300:112* | 3300:111 | 3300:111 |
| Geography and Planning | 3350:314 | 3350:310 | 3350:310 |
|  | 3350:442 | 3350:305 | 3350:305 |
|  | 3350:444 | 3350:305 | 3350:305 |
| Theoretical and | 3450:210 | 3450:145 | 3450:145 |
| Applied Mathematics | 3450:215 | 3450:145 or 149 | 3450:145 |
|  | 3450:221 | 3450:149 | 3450:149 |
|  | 3450:222 | 3450:221 | 3450:149,221 |
|  | 3450:223 | 3450:222 | 3450:149,221,222 |
| Computer Science | 3460:210 | 3460:209,3450:208 | 3460: 209 |
| Modern Languages | 3500:102 | 3500:101 | 3500:101 |
|  | 3500:201 | 3500:102 | 3500:101,2 |
|  | 3500:202 | 3500:201 | 3500:101, 2, 201 |
|  | 3500:422 | . 3500:202 | 3500:101, 2, 201, 2 |
|  | 3500:497 | 3500:202 | 3500:101,2,201,2 |
|  | 3510:102 | 3510:101 | 3510:101 |
|  | 3510:201 | 3510:102 | 3510:101, 102 |
|  | 3510:202 | 3510:201 | 3510:101, 102, 201 |
|  | 3510:303 | 3510:202 | 3510:101,2,201,2 |
|  | 3510:304 | 3510:202 | 3510:101,2,201,2 |
|  | 3520:102 | 3520:101 | 3520:101 |
|  | 3520:201 | 3520:102 | 3520:101,2 |
|  | 3520:202 | 3520:201 | 3520:101,2,201 |
|  | 3520:301,2,5,6 | 3520:202 | 3520:101,2,201,2 |
|  | 3520:303, 10,11 | 3520:202 | 3520:101,2,201,2 |
|  | 3520:312,351 | 3520:202 | 3520:101,2,201,2 |

[^1]| Discipline | Course | Prerequisite | Approved for Bypassed Credit |
| :---: | :---: | :---: | :---: |
| Modem | 3250:352 | 3520:351 | 3520:101,2,201,2 |
| Languages, cont. | 3520:402 | 3520:302 | 3520:101,2,201,2 |
|  | 3520:403,4 | 3520:302 | 3520:101,2,201,2 |
|  | 3520:413 | 3520:301 or 302 | 3520:107,2,201,2 |
|  | 3520:422 | 3520:202 | 3520:101,2,201,2 |
|  | 3520:427,450 | $3520: 305$ or 306 | 3520:101,2,201,2 |
|  |  | and 302 |  |
|  | 3530:102 | 3530:101 | 3530:101 |
|  | 3530:201 | 3530:102 | 3520:101,2 |
|  | 3530:202 | 3530:201 | 3530:101,2,201 |
|  | 3530:301,2 | 3530:202 | 3530:101,2,201,2 |
|  | 3530:403,4 | 3530:302 | 3530:101,2,201,2 |
|  | 3530:406,7 | 3530:302 or 306 | 3530:101,2,201,2 |
|  | 3530:422 | 3530:202 | 3530:101,2,201,2 |
|  | 3550:102 | 3550:101 | 3550:101 |
|  | 3550:201 | 3550:102 | 3550:101,2 |
|  | 3550:202 | 3550:201 | 3550:101,2,201 |
|  | 3550:301,2 | 3550:202 | 3550:101,2,201,2 |
|  | 3560:102 | 3560:101 | 3560:101 |
|  | 3560:201 | 3560:102 | 3560:101, 102 |
|  | 3560:202 | 3560:201 | 3560:101, 102, 201 |
|  | 3560:422 | 3560:202 | 3560:101,2,201.2 |
|  | 3570:102 | 3570:101 | 3570:101 |
|  | 3570:201 | 3570:102 | 3570:101.2 |
|  | 3570:202 | 3570:201 | 3570:101,2,201 |
|  | 3580:102 | 3580:101 or 111 | 3580:101 |
|  | 3580:112 | $3580: 101$ or 111 | 3580:101 |
| - | 3580:201 | 3580:102 or 112 | 3580:101,2 |
|  | 3580:202 | 3580:201 or 211 | 3580:101,2,201 |
|  | 3580:211 | 3580:102 or 112 | 3580:101,2 |
|  | 3580:212. | 3580:201 or 211 | 3580:101,2,201 |
|  | 3580:301, 2, 3 | 3580:202 | 3580:101,2,207,2 |
|  | 3580:340 | two of group | 3580:101,2,201,2 |
|  |  | 3580:301,2,3 |  |
|  | 3580:351,401,2,3 | 3580:301,2,3 | 3580:101,2,201,2 |
|  | 3580:404,5,6,10 | 3580:401,2,3 | 3580:101,2,201,2 |
|  | 3580:407,8 | 3580:340 and two of group 3580:401,2,3 | 3580:101,2,201,2 |
|  | $\begin{array}{r} 3580: 409,11,12,15 \\ 16,18,19,22,23 \end{array}$ |  |  |
|  | 25,27,30 | 3580:407 or 408 | 3580:101,2,201,2 |
|  | 3580:431,2 | two of group $3580: 401,2,3$ | 3580:101,2,201,2 |
| Statistics | 3470:262 | 3470:261 | 3470:261 |

## College of Nursing RN-BSN Sequence

(Limited to Licensed Registered Nurses)
8200:336

8200:211,315,330,350 360,370, 380,410

## College Level Examination Program (CLEP)

College Level Examination Program (CLEP) is a national program that offers the opportunity to obtain college credit by examination. A variety of experiences may have prepared a person to earn college credit. Each institution determines which CLEP tests it will accept, the passing score, and the amount of credit that will be awarded. CLEP examinations for credit toward any degree are not permissible in the term before graduation. Credit by CLEP may not be used to repeat for change of grade.
CLEP tests are administered Monday through Friday and Tuesday evenings. Contact the Counseling, Testing, and Career Center at (330) 972-7084 to make a reservation and/or to obtain more information.

The following guidelines outline the terms under which The University of Akron will accept the results of specified CLEP tests for college credit.
General Education Course
English Requirement
$3300: 111$ English Composition I

A student interested in earning credits by special examination may do so with the permission of the dean of the student's college and the dean of the college in which a particular course is offered and by payment of a special examination fee. The grade obtained in such an examination is recorded on the student's permanent record. Credit by examination is not permitted in the semester before graduation. Credit by examination may not be used to repeat for change of grade.

## International Baccalaureate

The University of Akron recognizes the academic quality of the International Baccalaureate (IB) program and the efforts of students enrolled in IB coursework by awarding advanced-standing credit for the completion of the IB Diploma. Higher level examination scores are considered for departmental credit in the areas of French, Spanish, German, Geography, Latin, Greek, Economics, Chemistry, History, English, Social Anthropology, Mathematics, Music and Physics. Although minimum scores for the awarding of credit vary by subject area, generally scores of four or five are sufficient. No credit is awarded for IB Subsidiary examinations, with the exception of some foreign languages.
For additional information, contact the University College Dean's Office, located at Simmons Hall 302, (330) 972-7066.

## Military Credit

The University of Akron awards credit for military experience based upon recommendations by the Commission on Accreditation of Services of the American Council of Education (ACE). In order for credit to be awarded, the student must submit to the Office of the Registrar (Military Services) their DD214 form. Block credit will be awarded from this document for Basic Training as well as one credit for physical education. Applicability of this credit for a student's degree program will be determined by established University policies.
For additional education credit, the ACE transcript can be used for complete awarding of credit. Information regarding the ACE transcript can be obtained at www.acenet.edy.

Summit College students should submit their ACE transcript to the Transfer Specialist, Summit College Advising Office, Polsky Room 301 or call (330) 972 5325 to get additional information.

Other students should submit their ACE transcript to the Transfer Specialist University College, 205 Simmons Hall or to get additional information, call (330) 972-7009.
Students interested in the SOC (Service Members Opportunity Colleges) should contact the Transfer Specialist/Adviser in University College at (330) 972-7009.

## Postsecondary Enrollment Options

Postsecondary Enrollment Options program is a state-wide program created by the Ohio legislature to allow high school students to enroll in a college or university for the fall and spring semesters. There are two options for students interested in the program:
Option A: This option allows students to receive college credit only. The student is responsible for all costs associated with enrollment including, but not limited to, textbooks, materials, supplies, tuition and fees.
Option B: This option allows students to receive high school graduation credit and college credit simultaneously. Required textbooks, and materials, tuition and fees related to the coursework are provided at public expense.
Enroilment options are not intended to be a substitute for the academic programs, social growth or maturing experience provided by Ohio's public and private high schools or otherwise interfere with or replace advanced placement courses or the college preparatory curriculum available to students within their school system.
A student in grades 9-12 may enroll in the Postsecondary Enroilment Options program. The Postsecondary Enrollment Options programs are limited and selective. The University has the right to accept only as many qualified students as can be properly served.

## Eligibility Requirements

For 11th and 12th grade participants:

- 3.30 cumulative GPA with a 24 ACT composite or combined 1110 SAT, or 3.50 cumulative GPA with ACT or SAT (math and critical reading) test scores for placement purposes.
- All students must submit an ACT/SAT for placement purposes.
- 11th and 12th graders may enroll in up to 14 credit hours per semester. If a student wishes to enroll in more than 14 credit hours per semester, he/she may appeal to the Assistant Dean of University College.


## For 9 th and $\mathbf{1 0 t h}$ grade participants:

- 3.75 cumulative GPA.
- 26 ACT composite or 1150 SAT math and critical reading composite.
- Letter of recommendation from a school instructor within the student's field of interest at The University of Akron.
- Grade of at least a B+ in all English courses.
- Write an essay, 500 words or less, regarding why the student wants to enroll in the Postsecondary Enrollment Options Program.
Students interested in participation in the program should:
- Obtain an Undergraduate Admission application from the Office of Admissions, The University of Akron, Akron, Ohio 44325-2001.
- Complete and return the form with the guidance counselor's and parents' signatures and the nonrefundable $\$ 30$ application fee (a one time charge).
- The application deadlines are May 15 and Oct. 15 for the Fall and Spring semesters, respectively.
Information regarding acceptance into the program, registration for classes, and academic advising will be forthcoming in the letter of admission to the Postsecondary Enrollment Options program.


## Technical Experience Assessment (TEA)

The University has approved a three-year pilot for Summit and Wayne Colleges known as Technical Experience Assessment (TEA). This 'credit for prior leaming" program is designed to allow students to gain college credit based on their work and/or life experiences. To be eligible to apply for this credit, students must first attend a Technical Experience Assessment Workshop. Student will then prepare a portiolio that demonstrates their knowledge which will then be evaluated by a department faculty member.

For additional information regarding the Technical Experience Assessment program, contact the TEA coordinator at (330) 972-8599.

## Tech Prep

College Tech Prep is value-added education. This program integrates technical training and college prep academics beginning in high school and continuing through a minimum of an associate degree. Coliege Tech Prep prepares students for highly skilled occupations supported by regional business and industry in the area of business, information, health and engineering technologies. The College Tech Prep pathway is a skill-building curriculum jointly designed by business, high schools, and colleges. This pathway links the high school experience with a cot lege degree program.
Application fees are waived for College Tech Prep students entering The University of Akron. Students have the potential to earn college credit, gain advanced skilis and have a clearer sense of career direction while they are still in high school.
For additional information regarding the College Tech Prep programs, contact Nicole Mullet, Tech Prep Director, at (330) 972-7112.

## Tech Prep Postsecondary Enroliment Option

For Tech Prep students interested in the Postsecondary Enrollment Option, the entrance level grade point average (GPA) is 3.0 overall with a 21 or higher composite score on the ACT. The college may admit a student with a lower GPA and/or ACT on a case by case basis.
A Tech Prep student will be required to obtain a formal written recommendation letter from the high school (guidance counselor or principal) that indicates the support of the school and that the student shows promise in their technical field.
Tech Prep Postsecondary students will be limited to college coursework that directly relates to the associate degree program in their specific Tech Prep Pathway. Students meeting the above requirements will be eligible for PSEO Option B. (Option B allows students to receive high school graduation credit and college credit simultaneously. Textbooks, materials, tuition and fees related to the coursework are provided at public expense.)
Additionally, the application fee will be waived for Tech Prep Postsecondary students.

## Interested Tech Prep students should take the following steps:

- Obtain a Tech Prep Postsecondary Enrollment Application from the Office of Admissions, The University of Akron, Akron, OH 44325-2001 or from their high school or career center guidance counselor.
- Complete and return the application with the recommendation letter and required signatures to Kelly Herold, Tech Prep Director, The University of Akron, Akron, OH 44325-6001.
- Information regarding acceptance into the program, registration for classes and academic advising will be forthcoming in a letter of admission to the Tech Prep Postsecondary Enrollment Options Program.


## Transfer Credit

The Transfer Credit policy is subject to the appropriate approval process and as such may be subject to change.
The University of Akron awards transfer credit for non-remedial, non-developmental college-level coursework completed with earned grades of "D-" or better at an institution of higher learning in the United States which is fully accredited or has been granted candidacy status by one of following regional institutional accrediting agencies: Middle States Association of Colleges and Schools, Commission on Higher Education; New England Association of Schools and Colleges, Commission on Institutions of Higher Education; North Central Association of Colleges and Schools, Higher Learning Commission; Northwest Commission on Colleges and Universities; Southern Association of Colleges and Schools, Commission on Colleges; Western Association of Schools and Colleges, Accrediting Commission for Community and Junior Colleges; Western Association of Schools and Colleges, Accrediting Commission for Senior Colleges and Universities. A summary of the number of credits accepted will be listed on the official academic transcript along with the name of the institution and dates of attendance.

No grade point value will appear on the record; and no grade point average will be calculated for the coursework listed. Transfer students shall be accorded the same class standing and other privileges as all other students on the basis of the number of credits earned. All residency requirements must be completed successfully at the receiving institution prior to the granting of a degree.
CLEP or Advanced Placement credit posted on transcripts from previously attended regionally accredited Ohio colleges and universities is eligible for credit at The University of Akron. CLEP or Advanced Placement credit posted on transcripts from previously attended regionally accredited non-Ohio colleges and universities is not eligible for credit at The University of Akron. Students must present original documentation attesting to scores earned prior to receiving alternative credit considerations.

The University of Akron does not guarantee that a transfer student automatically will be admitted to all majors, minors, or fields of concentration at the institution. For courses that have been taken at an institution of higher education noted in the reference above, the dean of the college in which the student intends to obtain a degree will specify which courses, other than general courses, will apply toward the degree requirements at the University. University College will specify which courses listed will apply toward the General Education program requirements.
Transfer students must meet all University of Akron residency requirements.
For other types of transferable credit, please see the section on Altemative Credit Option in this Bulletin.
Note: Official transcripts and/or documentation for alternative credit can be obtained from the following Web sites:

## waw,acenet.edu

wuw.collegeboard.com
wuw.collegeboard.org/clep/
www.getcollegecredit.com

## COURSE NUMBERING SYSTEM

Each course at the University has two numbers. One designates the college and department of which it is a part; one specifies the subject matter of the particular course. For instance:

3300:220 English Literature
In the above example, the first four digits of the number (3300) indicate the college and department. In this case, 3000 represents the Buchtel College of Arts and Sciences; 300 refers to the Department of English. The second set of digits (220) following the colon, indicates exactly which course in the Department of English is being specified. The course number also indicates the level at which the course is being taught and the point at which the student is ready to take the course.
An explanation of the course numbering system follows:

| $100-199$ | First-year-level courses |
| :--- | :--- |
| $200-299$ | Second-year-level courses |
| $300-399$ | Third-year-level courses |
| $400-499$ | Fourth-year-level courses |
| $500-699$ | Master's-level courses |
| $600-799$ | J.D.-level courses |
| $700-899$ | DoctoraHevel courses |

When approved 400 -evel undergraduate courses are taken for graduate credit, they are designated as 500 -level courses. A student must apply for and be admitted to the Graduate School to receive graduate credit.
NOTE: Courses listed each term contain an additional three-digit number indicating the specific section(s) offered.

## GRADUATION REQUIREMENTS

## Requirements for Baccalaureate and Associate Degrees

A candidate for the baccalaureate or the associate degree must:

- File an application for graduation with the Office of the University Registrar. If the candidate pians to complete degree requirements at the end of fall semester, submit an application by or before May 15. If the plan is to complete degree requirements at the end of spring semester, submit an application by or before September 15 . Submit an application by or before February 15 for Summer Commencement.
- Earn a minimum of 128 credits for a baccalaureate degree, $6 \dot{4}$ credits for an associate degree (sorne programs of study may require more credits) with a minimum 2.00 grade point average as computed by the Office of the Registrar for work attempted at the University consistent with the Repeating Courses policy. Some of the colleges may have by action of their faculties, adopted a higher grade-point average for graduation with a degree from that college. The grade point average achieved at the time of completion of requirements for a degree will include repeated and reassessed courses which will be used to cat culate rank in class and graduation honors.
- Meet all degree requirements including grade-point averages that are in force at the time a transfer is made to a degree-granting college. If the student should transfer to another major, then the requirements should be those in effect at the time of the transfer. For a student enrolled in an associate degree program in Summit College, the requirements shall be those in effect upon entrance into the program.
- For purposes of meeting foreign language requirements, all foreign language and "American Sign Language" can fulfill the foreign language requirement for those programs that have a non-specific foreign language requirement. However, for those majors or programs that specify specific language requirements, the applicable specific language requirement must be met to satisfy graduation requirements for that major or program.
- Be approved for graduation by appropriate college faculty, Faculty Senate, and Board of Trustees.
- Complete the requirements for a degree in not more than five calendar years from the date of transfer, as defined below. In the event the student fails to complete the degree requirements within five calendar years from the date of transfer, the University reserves the right to make changes in the number of credits and/or courses required for a degree.
- The date of transfer for a student in a baccalaureate program will be the date that the student is accepted by the degree-granting college. For a student enrolled in an associate degree program in Summit College, the date of transfer refers to the date of entrance into the program.
- Complete a minimum of 32 eamed credits in the baccalaureate degree total or a minimum of 16 earned credits in the degree total in residence at The University of Akron.
- Earn the last 32 credits in the baccalaureate degree total or 16 credits in the associate degree total in residence at The University of Akron unless excused in writing by the dean of the college in which the student is enrolled if at least 32 credits (baccalaureate) or 16 credits (associate) have been earned at The University of Akron.
- If a student who has transferred from another institution wishes to present for the student's major fewer than 14 credits earned at The University of Akron, written permission of both the dean and head of the department concerned is required.
- Discharge all other obligations at the University.


## Level Status

The level status of each student is dependent upon the number of credit hours earned. The University identifies the following levels:

| Senior | 96 credit hours or higher |
| :--- | :--- |
| Junior | $64-95.99$ credit hours eamed |
| Sophomore | $32-63.99$ credit hours earned |
| Freshman | $0-31.99$ credit hours earned |

## Requirements for Additional Baccalaureate and Associate Degrees

- Meet requirements given in Section 3, Requirements for Baccalaureate and Associate Degrees.
- Earn a minimum of 32 credits which have not counted toward a baccalaureate degree, for an additional baccalaureate degree, or 16 credits which have not counted toward an associate degree, for an additonal associate degree. These credits shall be earned in residence at The University of Akron.


## Change of Requirements

To accomplish its objectives better, the University reserves the right to alter, amend, or revoke any rule or regulation. The policy of the University is to give advance notice of such change, whenever feasible.
Unless the change in a rule or regulation specifies otherwise, it shall become effective immediately with respect to the student who subsequently enters the University, whatever the date of matriculation.

Without limiting the generality of its power to alter, amend, or revoke rules and regulations, the University reserves the right to make changes in degree requirements of the student enrolled prior to the change by:

- Altering the number of credits and/or courses required in a major field of study.
- Deleting courses.
- Amending courses by increasing or decreasing the credits of specific courses, or by varying the content of specific courses.
- Offering substitute courses in same/or cognate fields.

The dean of the college, in consultation with the department or division head of the student's major field of study, may grant waivers in writing if a change in rules affecting degree requirements is unduly hard on a student enrolled before the change was effective. The action of the dean of the college in granting or refusing a waiver must be reviewed by the senior vice president and provost on his or her own motion, or at the request of the dean of the college of the student affected, or at the request of the student affected.
Credit and grade-point requirements for graduation as adopted by the college faculties are listed in this bulletin.
When deemed necessary and only in rare and unique circumstances that do not undermine the overall integrity of the various graduation requirements, the senior vice president and provost and chief operating officer, in consultation with the president, may waive specific requirements contained in this rule and report such waivers to the Board of Trustees for its information.

## Credit and Grade Point Requirements for Graduation Listed by College and Degrees Granted

| Buchtel College of Arts and Sciences | Min. Cr. | Min. GradePoint Avg. Req. |
| :---: | :---: | :---: |
| Bachelor of Arts | 128 | 2.00 |
| Bachelor of Science | 128 | 2.00 |
| Bachelor of Science B.S.M.D. | 130 | 3.25 |
| Bachelor of Science in Computer Science | 128 | 2.00 |
| Bachelor of Science in Geography/Geographic Information Sciences | 128 | 2.00 |
| Bachelor of Arts (English) | 128 | 2.20 |
| Bachelor of Arts in Interdisciplinary Studies | 128 | 2.00 |
| Bachelor of Science in Labor Economics | 128 | 2.00 |
| Bachelor of Science in Political Science/Criminal Justice | 137 | 2.20 |
| Bachelor of Arts (Political Science) | 128 | 2.20 |
| Bachelor of Arts (Sociology) | 128 | 2.20 |
| Bachelor of Arts (Sociology/Criminology \& Law Enforcement)) | 128 | 2.20 |
| Bachelor of Arts in interdisciplinary Anthropology | 128 | 2.00 |
| College of Engineering* |  |  |
| Bachelor of Science in Biomedical Engineering | 139 | 2.00 |
| Bachelor of Science in Chemical Engineering | 137 | 2.00 |
| Bachelor of Science in Civil Engineering | 137 | 2.00 |
| Bachelor of Science in Computer Engineering | 137 | 2.00 |
| Bachelor of Science in Electrical Engineering | 137 | 2.00 |
| Bachelor of Science in Engineering | 137 | 2.00 |
| Bachelor of Science in Mechanical Engineering | 137 | 2.00 |
| Bachelor of Science in Mechanical Polymer Engineering | 140 | 2.00 |
| College of Education** |  |  |
| Bachetor of Arts in Education | 128 | 2.50 |
| Bachelor of Science in Education | 128 | 2.50 |
| Bachelor of Science in Technical Education | 128 | 2.50 |

* An engineering grade point average of 2.00 is required in all engineering courses atternpted (4) $\times \times$ prefix. .
** grade point average of 2.50, effective July 1, 1991, for entering freshmen.

|  | Min. Cr. | Min. GradePoint Avg. Req. |
| :---: | :---: | :---: |
| College of Business Administration*** |  |  |
| Bachelor of Science in Accounting | 128 | 2.30 |
| Bechelor of Science in Business Administration | 128 | 2.30 |
| Bachelor of Science in Business Administratior/E-Marketing/Advertising | 128 | 2.30 |
| Bechelor of Science in Business Administration/Finance | 128 | 2.30 |
| Bachelor of Science in Business AdministrationAnternational Business | 128 | 2.30 |
| Bachelor of Science in Business AdministrationMarketing | 128 | 2.30 |
| Bachelor of Science in Menagement | 128 | 2.30 |
| College of Fine and Applied Arts |  |  |
| Bachelor of Arts |  |  |
| Studio Art | 128 | 2.00 |
| Art Education | 143 | 2.00 |
| Art History | 128 | 2.00 |
| Bachelor of Fine Ats |  |  |
| Ceramics | 128 | 2.00 |
| Graphic.Design | 128 | 2.00 |
| Metalsmithing | 128 | 2.00 |
| Painting and Drawing | 128 | 2.00 |
| Photography | 128 | 2.00 |
| Printmaking | 128 | 2.00 |
| Sculpture | 128 | 2.00 |
| Bachelor of Arts |  |  |
| Family Development and Child Development | 128 | 2.00 |
| Food and Consumer Sciences | 128 | 2.00 |
| Child-Life Specialist | 131 | 3.00 |
| Bachelor of Atts in Fashion Merchandising |  |  |
| Appare! Track | 131 | 2.00 |
| Home Fumishings Track | 131 | 2.00 |
| Fiber Arts Track | 131 | 2.00 |
| Bacheior of Science in Dietetics | 130 | - 2.00 |
| Bachelor of Arts in Family and Consumer Sciences Education | 129 | 2.50 |
| Bachelor of Atts in Interior Design | 136 | 2.00 |
| Bachelor of Arts in Music | 131 | 2.00 |
| Bachelor of Music |  |  |
| Periormance | 128-144 | 2.00 |
| History and Literature | 133 | 2.00 |
| Composition | 133 | 2.00 |
| Jazz Studies | 135 | 2.00 |
| Music Education | 135-144 | 2.00 |
| Bachelor of Arts in Communication ${ }^{\dagger}$ | 128 | 2.00 |
| Business and Organizational Communication ${ }^{\dagger}$ | 128 | 2.00 |
| Interpersonal and Public Communication ${ }^{\dagger}$ | 128 | 2.00 |
| Mass Media Communication ${ }^{\dagger}$ | 128 | 2.00 |
| Bachelor of Arts in Speech-Language Pathology and Audiology | 128 | 2.00 |
| Bachelor of Arts in Social Work | 128 | 2.300 |
| Bachetor of Arts in Theatre Arts | 128 | 2.00 |
| Bachelor of Arts Musical Theatre | 131 | 2.00 |
| Bachelor of Arts in Dance | 130 | 2.00 |
| Bachelor of Arts in Dance Studies with Business Cognate | 128 | 2.00 |
| Bachelor of Fine Ars in Dance . | 133 | 2.00 |
| College of Nursing |  |  |
| Bachelor of Science in Nursing | 130* | 2.30** |
| Summit College |  |  |
| Associate of Arts | 64 | 2.00 |
| Associate of Individualized Study | 64 | 2.00 |
| Associate of Labor Studies finactive) | 64 | 2.00 |
| Associate of Applied Business in: |  |  |
| Business Management Technology in |  |  |
| Accounting. | 69 | 2.00 |
| General Business Management | 69 | 2.00 |
| Smail Business Development | 69 | 2.00 |
| Computer Information Systerms in |  |  |
| Computer Maintenance and Networking | 65.67 | 2.00 |
| Microcomputer Specialist | 69 | 2.00 |
| Programming | 66 | 2.00 |
| Web Development Specialist | 66 | 2.00 |
| Hospitality Management in: |  |  |
| Restaurant Management | 70 | 2.00 |
| Cuinary Arts |  | 2.00 |
| HotelLodging Management | 68 | 2.00 |
| Hotel Marketing/Sales | 69 | 2.00 |
| Marketing and Sales Technology in |  |  |
| Advertising | 66 | 2.00 |
| Fashion | 65 | 2.00 |
| Retaiing | 66 | 2.00 |
| Sales | 69 | 2.00 |
| Office Administration in: |  |  |
| Administrative Assistant | 66 | 2.00 |
| Medical Secretarial | 68 | 2.00 |

[^2]
## Graduation with Honors

Honors announced at the commencement ceremony are determined on the Grade Point Average as of the end of the term prior to the graduation term The number of credit hours for the commencement ceremony includes the total number of credit hours completed at The University of Akron plus the number of credit hours in progress at The University of Akron. Official honors are determined after ALL final grades have been reported on the academic record. All graded courses, including repeated and reassessed courses, are included in both determinations. The official honors designation will be posted to the diploma and academic transcript.
(1) For a student who is being awarded a baccalaureate degree and who has completed 64 or more credits at The University of Akron, the degree

(2) For a student who is being awarded an associate degree and who has completed 32 or more credits at the University, the degree

| will be designated | if the overall grade |
| :---: | :---: |
| designated |  |
| with distinction | between 3.40 and 3.59 |
| with high distin | between 3.60 and 3.79 |
| with highest | .......... 3.80 or higher |

(3) Where deemed necessary, the Senior Vice President and Provost and Chief Operating Officer may waive these requirements for rare and unique circumstances and report such waivers to the Board of Trustees for its information.

# Fees and Expenses 

## Fees subject to change without notice

## Student Expenses

Despite the willingness of taxpayers and generous friends of the University to help support higher education, some portion of this total expense must be borne by the student.
Following are comprehensively outlined fees for students at the University who are studying for credit and noncredit in all areas of instruction. Included also are the additional expenses required for special academic services available to students, and other miscellaneous fees, such as application and graduation fees. It is the responsibility of the student to know the correct amount of all fees, including the non-Ohio resident surcharge.
In any question concerning fees, surcharge, or residence, it is the responsibility of the student, parents, or court-appointed guardian, to furnish such proof as may be required by The University of Akron. A student who is in doubt about residency status should consult with the University registrar.
It is the responsibility of the registrar to assess fees and surcharges at the time of registration; information given by the student at that time is used in the assessment. Each registration is later audited by the University auditor, and appropriate additional charges or refunds will be made.
All fees and surcharges are due at the time of registration or on the specified fee payment deadine. The status of the student as of the opening day of the semester or session for which registered will determine the final, correct amount of fees and surcharges.
An installment Payment Plan for tuition and fees is available to all students. For information, see page 59 of this Bulletin.

## Tuition and Fees*

- Tuition (Students enrolled prior to Summer 2002):

Undergraduate
1-11.5 credits
$\$ 283.80$ per credit
12-15 credits
$\$ 3.405 .60$ per semester
Over 15 credits
$\$ 3.405 .60+\$ 283.80$ per credit over 15

- Tuition (Students enrolled Summer 2002 and after):

Undergraduate
1-11.5 credits
$\$ 300.77$ per credit
$12-15$ credits
3,609.24 per semester
Over 15 credits
$\$ 3,609.24+\$ 300.77$ per credit over 15

- Tuition Surcharge:
(Nonresidents of Ohio pay the surcharge in addition to the instructional fee)*
Undergraduate
Reduced Surcharge for academically qualified students $\quad \$ 100.00$ per credit All others
$\$ 308.27$ per credit
- General Service Fee:

Undergraduate
$\$ 29.97$ per credit to a maximum of

- Facilities Fee:

Undergraduate
$\$ 18.55$ per credit to a maximum of $\$ 222.60$ per semester

## Summit College - Associate Rate:

- Tuition (Students enrolled prior to Summer 2002):

| Undergraduate |  |
| :--- | ---: |
| $1-11.5$ credits | $\$ 228.53$ per credit |
| $12-15$ credits | $\$ 2742.36$ per sernester |
| Over 15 credits | $\$ 2742.36+\$ 228.53$ per credit over 15 |

- Tuition (Students enrolled Summer 2002 and after):

Undergraduate

| 1-11.5 credits | \$245.50 per credit |
| :---: | :---: |
| 12-15 credits | \$2,946.00 per semester |

Over 15 credits $\quad \$ 2,946.00+\$ 245.50$ per credit over 15

- Tuition Surcharge:
(Nonresidents of Ohio pey the surcharge in addition to the instructional fee)*
Reduced Surcharge for academically qualified students $\quad \$ 100.00$ per credit All others $\$ 290.83$ per credit
- General Service Fe日: Undergraduate $\$ 24.10$ per credit to a maximum of $\$ 289.20$ per semester
- Faciltites Fee:

Undergraduate $\$ 18.55$ per credit to a maximum of $\$ 222.60$ per semester

## Admission Application Fee

Undergreduate 530
$\begin{array}{ll}\text { Undergraduate } & \$ 30 \\ \text { Entering postbaccalaureate or graduate } & \$ 30\end{array}$
(Note: fee daferred for recruited graduate minority students.)
Transient students (first enrollment only) $\$ 30$
International Students \$50
Graduate Foreign Language Reacing Proficiency Exam \$50
Orientation Program Fees
New Student Oriemtation
University Confirmation (confirms new student intent to attend orientation

Placement Testing:
User Departments (New Student Orientation, English Language Insuitute, and International Programs)

## Registration and Other Related Fees



## Alternative Credit Fees

| Bypassed credit, per credit | $\$ 5$ |
| :--- | ---: | ---: |
| CLEP, per credit awarded | $\$ 15$ (plus ETS fee peid to ETS) |
| Credit by Examination (undargraduate and postbaccalaureate) per credit | $\$ 30$ |

## Graduation Fees

Graduation Late Application Fee

## Auditors

The fees for an auditor in any course or group of courses are the same as if taken for credit.


[^3] has no insurance and if the family income and the number of dependents indicates there is a need.
© Faculty/staff/students



## Parking Fees

Student (enrolied for any number of credits): Por semester (Fall and Spring) Per Summer ( $\$ 7 /$ week or $\$ 35 / 5$-week session )
Temporary permit and oneday permits, per day, (inctuting workshops and conferences)
Commercial visitor:

## per semestar (Fail and Spring)

 Surmer sessionsReplacement parking permit service charge
Special University event parking per vehicle, each event
Speciel nor-University event parking, per vehicle, each event
Visiting Perking:
meter, per hour (varies upon location) pre-arranged permit for one day or more Lot A, per quarter hour ( 56 max)
Motorcycle permit: per semester

## Parking Fines:

(1) Feiture to displey a valid permit
(2) Perking in a area for which permit is unauthorized endfor invalid
(3) Perking in a prohibited aree marked by signs/markers
(4) Parking out of bounds
(5) Expired parking meter
(6) Exceeding posted time limit
(7) Feiure to heed directional signs
(8) Blocking a driveway, doorway, loacing zone, sidewalk or vehicle
(9) Disregarting the instruction of an officer of parking employee
(10) Parked in e frielane


$25 \%$ of current permit cost

## $\$ 5$ maximum

 $\$ 5$ maximumUp to $\$ 4$ maximum 4 maximum
$\$ 6$ per day
$\$ .50$
$\$ 20$

## up to $\$ 35$

 up to $\$ 35$ up to $\$ 35$ up to $\$ 35$ up to $\$ 35$ up to $\$ 35$ up to $\$ 35$ up to $\$ 35$up to $\$ 35$ up to $\$ 35$
up to $\$ 35$ up to $\$ 50$

| (11) Parked in a handicap access area | up to \$50 |
| :---: | :---: |
| (12) Display a false, altered forged, lost or stolen permit | up to $\$ 110$ |
| (13) Parking in a handicap area | up to \$500 |
| - All fines paid after thirty (30) calendar days from date of violation | Add 25\% late feo |
| - Vehicles will be booted for violations totaling $\boldsymbol{\$ 4 0}$ or more Boot fee: | \$40 |
| Wecinmotogy meast |  |
| Academic Level |  |
| 0-31.5 Credits | Exempt |
| 32 Credits or More | \$13.20 per credit hour |
| Graduate | \$16.25 per credit hour |

## Library Fees

Excluding Freshmen, Law School and Wayne students

| Surnmit Colloge <br> All other Undergraduate and Graduate students |  | $\$ 2$ per credit hour $\$ 3$ per credit hour |  |
| :---: | :---: | :---: | :---: |
| Conrse matermats tee selnednat |  |  |  |
| For the following undergraduate courses, the fee noted will be assessed to cover the cost of instructional materials. |  |  |  |
| Surnmit College |  |  |  |
| Course |  |  | Course |
| Number | Course Title | Credits | Fee |
| 2020:222 | Technical Report Writing | 3 | \$10 |
| 2020:224 | Writing for Advertising | 4 | \$15 |
| 2200:246 | Multicultural Issues in Child Care | 3 | \$15 |
| 2200:247 | Diversity in Early Childhood Literacy | 3 | \$15 |
| 2220:250 | Criminal Case Management | 6 | \$40 |
| 2220:296 | Current Topics: Criminai Justice | 1 | \$5 |
| 2230:100 | Introduction to Fire Protection | 4 | \$20 |
| 2230:104 | Fire investigation Methods | 4 | \$20 |
| 2230:205 | Fire Detection and Suppression Systems | 3 | \$20 |
| 2230:206 | Fire Sprinkler System Design | 3 | \$15 |
| 2235:305 | Principles of Emergency Management | 3 | \$15 |
| 2235:405 | Hazard Prevention and Mitigation . | 3 | \$15 |
| 2235:410 | Disaster Relief and Recovery | 3 | \$15 |
| 2235:490 | Disaster in Film | 1.4 | \$5 |
| 2260:100 | Introduction to Cormmunity Service | 3 | \$10 |
| 2260:150 | Introduction to Gerontological Services | 3 | \$10 |
| 2260:210 | Addiction Education and Prevention | 2 | \$15 |
| 2260:261 | Addiction Treatment | 4 | \$20 |
| 2260:267 | Addiction Assessment and Treatment Planning | 3 | \$15 |
| 2260:278 | Techniques of Community Work | 4 | \$10 |
| 2280:121 | Fundarnentals of Food Preparation I | 4 | \$270 |
| 2280:122 | Fundamentais of Food Preparation II | 4 | \$100 |
| 2280:230 | Advanced Food Preparation | 4 | \$130 |
| 2280:232 | Dining Room Service and Training | 3 | \$15 |
| 2280:233 | Restaurant Operations and Management | 4 | \$100 |
| 2280:250 | Front Offics Operations | 3 | \$25 |
| 2280:261 | Baking and Classical Desserts | 3 | \$100 |
| 2250:104 | Basic Legal Reseerch and Writing | 3 | 530 |
| 2290:204 | Advanced Legal Research | 3 | 530 |
| 2290:290 | ST: Legal Assisting Technology | 1 | \$30 |
| 2420:212 | Basic Accounting II | 3 | \$5 |
| 2420:215 | Computer Applications for Accounting Cycles | 3 | \$5 |
| 2440:105 | Intro to Computers \& Appl. Software | 3 | \$5 |
| 2440:121 ${ }^{-}$ | Introduction of Logic/Programming | 3 | \$5 |
| 2440:125 | Spreadsheet Software | 2 | \$5 |
| 2440:140 | Internet Tools | 3 | \$5 |
| 2440:141 | Web Site Administration | 3 | \$5 |
| 2440:145 | Operating Systems | 3 | \$6.25 |
| 2440:160 | Java Programming | 3 | \$5 |
| 2440:170 | Visual Basic | 3 | \$5 |
| 2440:175 | Microcomputer Applications Support | 3 | \$5 |
| 2440:180 | Database Concepts | 3 | \$5 |
| 2440:201 | Networking Baisics | 3 | \$30 |
| 2440:202 | Router \& Routing Basics | 3 | \$5 |
| 2440:203 | Switch Basics \& Intmd Routing | 3 | $\$ 30$ |
| 2440:204 | WAN Technologies | 3 | \$5 |
| 2440:210 | Clien/Server Programming | 3 | \$5 |
| 2440:211 | Interactive Web Programming | 3 | \$5 |
| 2440:212 | Multimedia/nteractive Web Elements | 3 | \$5 |
| 2440:234 | Advanced Business Programming | 3 | \$5 |
| 2440:245 | Introduction: Database for Micros | 3 | \$5 |
| - 2440:247 | Hardware Support | 3 | \$5 |
| 2440:251 | CIS Projects | 3 | \$5 |
| 2440:256 | C++ Programming | 3 | \$5 |
| 2440:257 | Microcomputer Projects | 3 | \$5 |
| 2440:267 | Micro Database Applications | 3 | \$5 |
| 2440:268 | Network Concepts | 3 | \$5 |
| 2440:290 | Special Topics | 2 | \$20 |
| 2440:290 | Special Topics | 3 | \$25 |
| 2440:301 | Advanced Routing | 4 | \$30 |


| Course <br> Number | Course Title |
| :---: | :---: |
| 2440:302 | Remote Accoss |
| 2440:310 | Wireless Networking |
| 2440:338 | System Admin. 1 |
| 2440:388 | System Admin. 1 |
| 2440:401 | Multilayer Switching |
| 2440:402 | Network Troubleshooting |
| 2440:410 | Network Authentication \& Security |
| 2440:420 | Voice, Data \& Video |
| 2440:430 | Networking Monitoring \& Menagement |
| 2440:480 | Curent Topics in CIS |
| 2530:241 | Heath Information Management |
| 2540:118 | Exploring the intemet |
| 2540:121 | Introduction to Office Procedures |
| 2540:129 | Informatior/Records Management |
| 2540:140 | Keytoarding for Non-Majors |
| 2540:143 | Microsoft Word Beginning |
| 2540:144 | Microsoft Word Advanced |
| 2540:151 | Intermediate Word Processing |
| 2540:253 | Advanced Word Processing |
| 2540:255 | Legal Office Procedure I |
| 2540:256 | Medical Office Procedures |
| 2540:270 | Business Software Applications |
| 2540:271 | Desktop Publishing |
| 2540:273 | Microsoft PowerPoint |
| 2540:281 | EditProotread/ranscription |
| 2540:290 | Special Topics: Office Admiristration |
| 2540:290 | Special Topics: Voice Recognition Technology |
| 2600:100 | Basic Eiectronics for Technicians |
| 2600:125 | Digital Elactronics for Technicians |
| 2600:160 | Personat Computer Servicing |
| 2600:240 | Microsoft Networking : |
| 2600:242 | Microsoft Networking II |
| 2600:244 | Microsot Networking liil |
| 2600:246 | Microsoft Networking IV |
| 2600:252 | Microsoft Networking V |
| 2600:254 | Microsoft Networking VI |
| 2600:270 | Introduction to Network Technology |
| 2600:272 | Network Technology 1 |
| 2600:274 | Network Technology II |
| 2600:275 | Digital Data Communication |
| 2600:276 | Network Directory Struct. |
| 2600:278 | Network Troubleshoot Technology |
| 2600:282 | Current Networking Topics |
| 2740:122 | Emergency Responder 1 |
| 2740:126 | Administrative Medical Assisting |
| 2740:127 | Modical Assisting \|| |
| 2740:135 | Clinical Medical Assisting I |
| 2740:235 | Clinical Medical Assisting 11 |
| 2760:161 | Physical Science for Radiotogic Tech I |
| 2760:161 | Physical Science for Radiologic Tech II |
| 2770:221 | Surgical Assisting Procedure I |
| 2770:231 | Clinical Application I |
| 2770:233 | Clinical Application ill |
| 2790:121 | Introduction to Respiratory Care |
| 2790:122 | Respiratory Patient Care |
| 2790:123 | Mechanical Ventilators |
| 2790:131 | Clinical Application I |
| 2790:134 | Clinical Application IV |
| 2790:210 | Resp. Therapy Procedures |
| 2790:223 | Advanced Respiratory Care |
| 2790:224 | Putmonary Rehabilitation and Respiratory Care |
| 2790:301 | Carciopulmonary Assessment Techniques |
| 2790:311 | Respiratory Therapy Procedures II |
| 2790:312 | Diagnostics I |
| 2790:313 | Diagnostics ! |
| 2790:325 | Mechanical Ventilation |
| 2790:340 | Application in Clinical Concepts |
| 2790:404 | Potysomnography 1 |
| 2790:405 | Polysomnography II |
| 2790:420 | NeoratalPediatric Respiratory Therapy II |
| 2790:443 | RT Clinical Experience III |
| 2800:210 | Occupatioral Sefety and Risks |
| 2800:230 | Water and Atmospheric Pollution |
| 2600:232 | Environmental Sampling Lab |
| 2820:105 | Basic Chemistry |
| 2820:110 | Physical Science for Technicians |
| 2820:111 | Introductory Chemistry |
| 2820:112 | Introductory and Analytical Chemistry |
| 2820:121 | Technical Computations |
| 2820:131 | Software Applications for Tech. |
| 2820:161 | Technical Ptysics: Mechanics I |
| 2820:162 | Technical Physics: Mechanics if |
| 2820:163 | Technical Physics: Electricity and Magnetism |
| 2820:164 | Technical Physics: Heat and Light |
| 2820:310 | Programming for Technologists |

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2860:110
2860:120
2860:122
860:122
2860:123
2860:136
2860:206
2860:217
2860:225
880.231

860:231
2860:237
2860:238
2860:242
2860:251
2860:255
2860:260
2860:280
2860:252
2860:370
2860:371
2860:400
2860:453
2870:311
2870:348
$2870: 448$
2880:130
2880:201
2880:241
2920:101
2920:130
2920:142
2920:243
2920:245
2920:252
2920:346
2920:405
2920:470
2940:121
2940:122
2940:170
2940:180
2940:210
2940:211
2940:245
2940:250
2980:101
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2980:122
2980:123
2980:222
2980:223
2980:225
2980:227
2980:228
2980:290
2980:310
2980:315
2980:330
2980:415
2980:420
2980:421
2980:422
2980:425
2980:430
2980:445
2980:489
2985:101
2985:201
2985:205
2985:290
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| Course <br> Number | Course Title |
| :---: | :---: |
| 2440:302 | Remote Access |
| 2440:310 | Wireless Networking |
| 2440:338 | System Admin I |
| 2440:388 | System Admin. II |
| 2440:401 | Mutilayer Switching |
| 2440:402 | Network Troubleshooting |
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| 2440:430 | Networking Monitoring \& Management |
| 2440:480 | Current Topics in CIS |
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| 2540:256 | Medical Office Procedures |
| 2540:270 | Business Software Applications |
| 2540:271 | Desktop Publishing |
| 2540:273 | Microsoft PowerPoint |
| 2540:281 | Edit/Proofread/Transcription |
| 2540:290 | Special Topics: Office Administration |
| 2540:290 | Special Topics: Voice Recognition Technology |
| 2600:100 | Basic Electronics for Technicians |
| 2600:125 | Digital Electronics for Technicians |
| 2600:160 | Personal Computer Servicing |
| 2600:240 | Microsoft Networking I |
| 2600:242 | Microsoft Networking II |
| 2600:244 | Microsoft Networking III |
| 2600:246 | Microsoft Networking IV |
| 2600:252 | Microsott Networking V |
| 2600:254 | Microsot Networking Vi |
| 2600:270 | Introduction to Network Technology |
| 2600:272 | Network Technology 1 |
| 2600:274 | Network Technology II |
| 2600:275 | Digital Data Communication |
| 2600:276 | Network Directory Struct. |
| 2600:278 | Network Troubleshoot Technology |
| 2600:282 | Curient Networking Topics |
| 2740:122 | Emergency Responder ${ }^{\text {t }}$ |
| 2740:126 | Administrative Medical Assisting |
| 2740:127 | Medical Assisting II |
| 2740:135 | Clinical Medical Assisting ! |
| 2740:235 | Clinical Medicsl Assisting \|1 |
| 2760:161 | Physical Science for Radiologic Tech I |
| 2760:161 | Physical Science for Radiologic Tech II |
| 2770:221 | Surgical Assisting Procedure I |
| 2770:231 | Clinical Application 1 |
| 2770:233 | Clinical Application ill |
| 2790:121 | Introduction to Respiratory Care |
| 2790:122 | Respiratory Patient Care |
| 2790:123 | Mechanical Ventilators |
| 2790:131 | Clinical Application I |
| 2790:134 | Clinical Application IV |
| 2790:210 | Resp. Therapy Procedures |
| 2790:223 | Advanced Respiratory Care |
| 2790:224 | Pulmonary Rehabiltation and Respiratory Care |
| 2790:301 | Cardiopulmonary Assessment Techniques |
| 2790:311 | Respiratory Therapy Procedures II |
| 2790:312 | Diagnostics |
| 2790:313 | Diagnostics II |
| 2790:325 | Mechanical Ventilation |
| 2790:340 | Application in Clinicai Concepts |
| 2790:404 | Polysomnography 1 |
| 2790:405 | Poiysomnography II |
| 2790:420 | NeonatatPediatric Respiratory Therapy II |
| 2790:443 | RT Clinical Experience III |
| 2800:210 | Occupational Sefety and Risks |
| 2800:230 | Water and Atmospheric Pollution |
| 2800:232 | Environmental Sampling Lab |
| 2820:105 | Basic Chemistry |
| 2820:110 | Ptyrsical Science for Technicians |
| 2820:111 | Introductory Chemistry |
| 2820:112 | Introductory and Analytical Chemistry |
| 2820:121 | Technical Computations |
| 2820:131 | Software Applications for Tech. |
| 2820:161 | Technical Ptysics: Mechanics I |
| 2820:162 | Technical Physics: Mechanics II |
| 2820:163 | Technical Physics: Electricity and Magnetism |
| 2820:164 | Technical Physics: Heat and Light |
| 2820:310 | Programming for Technologists |


|  | Course | Course |  |
| :---: | :---: | :---: | :---: |
| Credits | Foe | Number | Course Title |
| 4 | $\$ 5$ | 2860:110 | Basic Electricity and Electronics |
| 3 | \$5 | 2860:120 | Circuit Fundamentals |
| 3 | \$5 | 2860:122 | AC Circuits |
| 3 | \$5 | 2860:123 | Electronic Devices |
| 4 | \$30 | 2860:136 | Digital Fundamentals |
| 4 | ${ }^{5} 5$ | 2860:206 | Personal Computer Maintenance |
| 3 | \$5 | 2860:217 | Survey of Digital Electronics |
| 3 | \$5 | 2860:225 | Applications of Electronic Devicos |
| 3 | \$5 | 2880:231 | Control Principles (lnactive) |
| 3 | \$5 | 2860:237 | Digital Circuits |
| 3 | \$5 | 2860:238 | Microprocessor Applications |
| 2 | \$20 | 2860:242 | Machinery and Controls |
| 3 | \$5 | 2860:251 | Electronic Communications |
| 3 | \$5 | 2860:255 | Electronic Design and Construction (inactive) |
| 2 | \$5 | 2860:260 | Electronic Project |
| 2 | \$5 | 2860:280 | Microprocessor Maintenance Pract/Sem |
| 2 | \$5 | 2860:352 | Microcontrollers |
| 3 | \$5 | 2880:370 | Survey of Electronics 1 |
| 3 | \$5 | 2860:371 | Survey of Electronics II |
| 3 | \$20 | 2860:400 | Computer Simulations in Technology |
| 3 | \$25 | 2860:453 | Control Systems |
| 4 | \$5 | 2870:311 | Facilities Planning |
| 3 | \$5 | 2870:348 | CNC Programming I |
| 2 | \$5 | 2870:448 | CNC Programming II |
| 3 | \$5 | 2880:130 | Work Meas. and Cost Est. |
| . 53 | \$20 | 2880:201 | Robotics and Automated Manufacturing |
|  | \$30 | 2880:241 | Introduction to Quality Assurance |
| 5 | \$20 | 2920:101 | Introcuction to Mechanical Design |
| 4 | \$20 | 2920:130 | Intro to Hydro and Pnqum |
|  | \$20 | 2920:142 | Introduction to Maternels Technology |
| 3 | \$75 | 2920:243 | Kinematics |
| 3 | \$75 | 2920:245 | Mechanical Design II |
| 3 | \$75 | 2920:252 | Thermo-fluids Lab |
| 3 | \$75 | 2920:346 | Mechanical Design III |
| 3 | \$75 | 2920:405 | Introduction to Industrial Machine Control |
| 3 | \$75 | 2920:470 | Plastics Processing and Testing |
| 3 | \$20 | 2940:121 | Technical Drawing I |
| 3 | \$75 | 2940:122 | Technical Drawing II |
| 3 | \$75 | 2940:170 | Surveving Drationg |
| 2 | \$10 | 2940:180 | Intro to CAD |
| 2 | \$50 | 2940:210 | Computer-Aided Drawing I |
| 3 | \$75 | 2940:211 | Computer-Aided Drawing If |
| 2 | \$50 | 2940:245 | Structural Drationg |
| 3 | \$35 | 2940:250 | Architectural Dratting |
| 3 | \$25 | 2980:101 | Basic Surveving I |
| 3 | \$25 | 2980:102 | Basic Surveying II |
| 4 | \$52.50 | 2980:122 | Elementary Surveying |
| 4 | \$50 | 2980:123 | Surveving Field Practice |
| 2 | \$15 | 2980:222 | Construction Surveying |
| 3 | \$15 | 2980:223 | Fundamentals of Map Production |
| 3 | \$80 | 2980:225 | Advanced Surveying |
| 2 | \$15 | 2980:227 | Intro to Geographic and Land Information Systems |
| 5 | \$50 | 2980:228 | Boundary Surveying |
| 3 | \$35 | 2980:290 | Special Topics: Surveying and Construction Tech |
| 3 | \$35 | 2980:310 | Survey Computations and Adjustments |
| 3 | \$35 | 2980:315 | Boundary Control and Legal Principles |
| 3 | \$15 | 2980:330 | Applied Photogrammetry |
| 5 | \$15 | 2980:415 | Legal Aspects:Surveving |
| 3 | $\$ 35$ | 2980:420 | Route Surveying |
| 3 | \$35 | 2980:427 | Subdivision Design |
| 2 | $\$ 80$ | 2980:422 | GPS Surveying |
| 2 | \$20 | 2980:425 | Land Navigation |
| 3 | \$35 | 2980:430 | Surveying Proiect |
| 3 | \$35 | 2980:445 | Applications in GIS Using GPS |
| 3 | \$35 | 2980:489 | Special Topics: Surveying |
| 4 | \$35 | 2985:101 | Fund. of Geograp. Info Services |
| 2 | \$15 | 2985:201 | Intermediate Geo. \& Land Info Systems |
| 3 | $\$ 3$ | 2985:205 | Building Geodatabases |
| 3 | $\$ 3$ | 2985:290 | ST: Geo \& Land info Systems |
| 3 | $\$ 40$ | 2990:131 | Building Construction |
| 3 | \$15 | 2990:150 | Blueprint Reading |
| 3 | \$25 | 2990:237 | Materials Testing I |
| 3 | \$25 | 2990:238 | Materials Testing II |
| 2 | \$25 | 2990:241 | Strength of Materials |
| 3 | \$35 | 2990:245 | Construction Estimating |
| 3 | \$10 | 2990:246 | Site Engineering |
| 3 | \$30 | 2990:310 | Residantial Building Construction |
| 3 | \$30 | 2990:351 | Construction Quality Control |
| 1 | \$15 | 2990:352 | Field Management and Scheduling |
| 1 | \$20 | 2990:354 | Foundation Construction Methods |
| 2 | \$20 | 2990:355 | Computer Applications in Construction |
| 2 | \$20 | 2990:358 | Advanced Estimating |
| 2 | \$20 | 2990:361 | Construction Form Work |
| 2 | \$20 | 2990:362 | Advanced Elements of Structures |
| 2 | \$30 | 2990:462 | Mechenical Service Systems |
|  |  | 2990:463 | Electrical Service Systems |

[^4]| Course Number | Course Title | Credits | $\begin{gathered} \text { Course } \\ \text { Fee } \end{gathered}$ | Course Number | Course Titte | Credits | Course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buchtel College of Arts and Sciences |  |  |  | 3350:444 | Apps. in Cartography and Geographic info. Systems | 3 | \$10 |
| 3006:490 | Workshop: Women Middle/Later Years | 1-3 | \$15 | 3350:447 | Remote Sensing | 3 | \$10 |
| 3010:201 | Introduction to Environmental Science | 3 | \$5 | 3350:449 | Advanced Remote Sensing | 3 | \$10 |
| 3010:401 | Seminar: Environmental Studies | 2 | \$5 | 3350:481 | Spatial Analysis | 3 | \$20 |
| 3010:490 | Workshop in Environmental Studies |  | \$10 | 3350:489 | ST: Geography | 13 | \$5 |
| 3010:495 | Fieldhab Studies Environmental Studies |  | \$10 | 3350:490 | Workshop: Creat. Geog. Res., K-12 | 13 | 525 |
| 3100:100 | Introduction to Botany | 4 | \$5 | 3350:490 | Workshop: Field Trips for Educators | 13 | \$10 |
| 3100:101 | Introduction to Zoology | 4 | \$5 | 3350:495 | Soil and Water Field Studies | 3 | \$35 |
| 3100:103 | Natural Ścience: Biology | 4 | \$15 | 3350:496 | Field Research Methods | 3 | \$35 |
| 3100:111 | Principles of Biology \| | 4 | \$25 | 3350:497 | Regional Field Studies | 13 | \$15 |
| 3100:112 | Principles of Biology \|| | 4 | \$25 | 3370:100 | Earth Science | 3 | \$10 |
| 3100:130 | Principles of Microbiology ; | 3 | \$25 | 3370:101 | Introductory Physical Geology | 4 | \$15 |
| 3100:200 | Human Anatomy and Physiology 1 | 3 | \$15 | 3370:102 | Introductory Historical Geology | 4 | \$15 |
| 3100:201 | Human Anatomy and Physiology I Lab | 1 | \$15 | 3370:134 | Hazardous and Nuclear Waste Disposad | 1 | \$5 |
| 3100:202 | Human Anatomy and Physiology II | 3 | \$15 | 3370:121 | Dinosaurs | 1 | $\$ 5$ |
| 3100:203 | Human Anatomy and Physiology II Lab | 1 | \$15 | 3370:122 | Mass Extinctions-Geology | 1 | \$5 |
| 3100:2:12 | Genetics Laboratory | 1 | \$15 | 3370:123 | Interpret Earths Geological History | 1 | \$5 |
| 3100:265 | Introductory Human Physiology | 4 | \$15 | 3370:125 | Earthquakes: Why, Where, and When | 1 | \$5 |
| 3100:331 | Microbiology | 4 | \$50 | 3370:126 | Natural Disasters \& Geology | 1 | \$5 |
| 3100:342 | Flora and Taxonomy | 3 | \$10 | 3370:127 | The lca Age and Ohio | 1 | \$5 |
| 3100:363 | Animal Physiology | 4 | \$40 | 3370:128 | Geology of Ohio | 1 | \$5 |
| 3100:365 | Histology | 3 | \$15 | 3370:129 | Medical Geology | 1 | \$5 |
| 3100:366 | Histology 11 | 3 | \$20 | 3370:130 | Geologic Record - Climate Change | 1 | \$5 |
| 3100:400 | Food PLants | 2 | \$10 | 3370:131 | Geologr \& Society | 11 | \$5 |
| 3100:418 | Field Ecology | 4 | \$15 | 3370:132 | Germstones and Precious Metals | 1 | \$5 |
| 3100:421 | Tropical Field Biology | 4 | \$175 | 3370:133 | Caves | 1 | \$5 |
| 3100:426 | Wetland Ecology | 4 | \$15 | 3370:135 | Geology of Energy Resources | 1 | \$5 |
| 3100:429 | Animal Behavior Lab | 1 | \$20 | 3370:136 | Earth's Ocsans | , | \$5 |
| 3100:433 | Pathogenic Bacteriology - | 4 | \$50 | 3370:137 | Earth's Atmosphere and Weather | 1 | \$5 |
| 3100:437 | Immunology * | 4 | \$50 | 3370:138 | Planetary Geology | 1 | \$5 |
| 3100:440 | Mycology | 4 | \$15 | 3370:171 | Introduction to the Oceans | 3 | \$10 |
| 3100:443 | Phycology | 4 | \$15 | 3370:200 | Environmental Geology | 3 | 55 |
| 3100:444 | Field Marine Phycology | 3 | \$50 | 3370:201 | Exercises in Environmental Geology 1 | 1 | \$10 |
| 3100:449 | Borehole Geophysics | 3 | \$15 | 3370:202 | Geology of Nationel Parks | 3 | \$10 |
| 3100:451 | General Entomology | 4 | \$15 | 3370:203 | Exercises in Environmentar Geology II | 1 | \$10 |
| 3100:453 | Invertebrate Zoology | 4 | $\$ 25$ | 3370:230 | Mineral Science | 3 | 520 |
| 3100:454 | Parasitology | 4 | \$15 | 3370:231 | Silicate Mineralogy and Petrotogy | 3 | 520 |
| 3100:455 | Ichthyology | 4 | $\$ 90$ | 3370:301 | Engineering Geology | 3 | \$15 |
| 3100:458 | Vertebrate Zoology | 4 | \$50 | 3370:310 | Geomorphology | 3 | \$25 |
| 3100:464 | Comparative Animal Physiology | 4 | \$50 | 3370:324 | Sedimentation and Stratigraphy | 4 | \$25 |
| 3100:466 | Vertebrate Embryology | 4 | \$30 | 3370:350 | Structural Geology | 4 | \$25 |
| 3100:467 | Comp. Vertebrate Morphology | 4 | \$80 | 3370:360 | Paleobiology |  | \$25 |
| 3100:471 | Physiological Genetics | 4 | \$50 | 3370:371 | Oceanography | 4 | 525 |
| 3100:480 | Molecular Biology | 3 | \$15 | 3370:405 | Archeeological Geotogy | 3 | 525 |
| 3100:485 | Cell Physiology. | 4 | \$60 | 3370:410 | Regional Geology of North America | 3 | 525 |
| 3100:494 | Workshop: Basic Cell Tech and Res | $1 \cdot 3$ | \$10 | 3370:411 | Glacial Geology | 3 | 525 |
| 3100:494 | Workshop: Molecular Biology High School Teaching | 13 | \$15 | 3370:421 | Coastal Geology | 3 | 525 |
| 3100:494 | Workshop: Radiation Safery Instr and Comp | 13 | \$10 | 3370:425 | Principles in Sedimentary Basin Analysis | 3 | 525 |
| 3100:494 | Workshop: Tropical BiologyJamaica . | 13 | \$175 | 3370:432 | Optical Mineratogy and Introductory Petrography | 3 | \$25 |
| 3100:495 | ST: Principles of LT Microscopy | $1-3$ | \$40 | 3370:433 | Advanced Petrography | 3 | \$25 |
| 3150:101 | Chemistry for Everyone. | 4 | \$25 | 3370:435 | Petroleum Geology | 3 | 525 |
| 3150:110/111 | Introduction to General. Organic and Bicchemistry/Lab | 4 | \$30 | 3370:436 | Coal Geology | 3 | 525 |
| 3150:112/113 | Introduction to General, Organic and Bicchernistry/Lab | 4 | \$30 | 3370:437 | Economic Geology | 3 | \$25 |
| 3150:151/152 | Principles of Chemistry /Lab | 4 | \$38 | 3370:441 | Fundamentals of Geophysics | 3 | \$15 |
| 3150:153 | Principles of Chemistry II | 3 | \$23 | 3370:444 | Environmental Megnetism | 3 | 520 |
| 3150:154 | Qualitative Analysis | 2 | \$40 | 3370:446 | Exploration Geophysics |  | \$15 |
| 3150:265 | Organic Chemistry Laboratory 1 | 2 | $\$ 45$ | 3370:449 | Borehole Geophysics | 3 | \$15 |
| 3150:266 | Organic Chemistry Laboratory II | 2 | $\$ 45$ | 3370:450 | Advancead Structural Geology | 3 | \$25 |
| 3150:370 | Biochemistry Lab | 2 | \$60 | 3370:462 | Macroevolution | 3 | \$25 |
| 3150:380 | Advanced Chemistry Lab | 2 | $\$ 40$ | 3370:463 | Environmental Micropeleontology | 3 | 525 |
| 3150:381 | Advanced Chemistry Lab II | 2 | $\$ 40$ | 3370:470 | Geochemisty | 3 | \$25 |
| 3150:480 | Analytical Chemistry Laboratory III | 2 | $\$ 40$ | 3370:472 | Stable Isotope Geochemistry | 3 | \$25 |
| 3150:481 | Advanced Chemistry Lab IV | 2 | \$30 | 3370:474 | Groundwater Hydrology | 3 | \$25 |
| 3230:151 | Human Evolution | 4 | \$10 | 3370:481 | Analytical Methods in Geology | 2 | \$10 |
| 3240:250 | Introduction to Archaeology | 3 | \$5 | 3370:484 | Geoscience Information Acquisition and Management | 1 | \$5 |
| 3240:440 | Archaeological Laboratory Methods | 3 | \$10 | 3450:100 | Intermediate Algebra | 3 | \$10 |
| 3240:450 | Archaeological Field School | 3-5 | \$10 | 3450:140 | Math for Elem. Schi. Teach | 3 | \$10 |
| 3250:226 | Computer Skills for Economic Analysis | 3 | $\$ 25$ | 3450:141 | Algebra with Business Applications | 3 | \$10 |
| 3250:426 | Econometric Methods and Applications | 3 | \$20 | 3450:145 | College Algebra | 4 | \$10 |
| 3250:427 | Economic Forecasting | 3 | \$20 | 3450:210 | Calculus with Business Applications |  | \$10 |
| 3300:111 | English Composition 1 | 4 | \$20 | 3450:221 | Analytical Geometry and Calculus Honors | 4 | \$5 |
| 3300:112 | English Composition Il | 3 | \$20 | 3450:222 | Analytical Geometry and Calculus IH-Honors | 4 | \$5 |
| 3350:305 | Maps and Map Reading | 3 | \$10 | 3450:223 | Analytical Geometry Calculus ill | 4 | \$5 |
| 3350:306 | Mapping the Earth | 3 | \$10 | 3450:260 | Math for Elemontrary Teacher II |  | \$10 |
| 3350:310 | Physical and Environmental Geography | 3 | \$10 | 3450:289 | ST: Analtical Geometry and Calculus III Lab | 1.3 | \$5 |
| 3350:314 | Climatology | 3 | \$10 | 3450:312 | Linear Algobra | 3 | \$5 |
| 3350:350 | Geography of the U.S. and Canada | 3 | \$5 | 3450:420 | Mathematical Tech \& Comm | 3 | \$10 |
| 3350:351 | Ohio: Environment and Society | 3 | \$5 | 3450:427 | Applied Numerical Methods 1 | 3 | \$5 |
| 3350:353 | Latin America | 3 | \$5 | 3450:428 | Applied Numerical Methods : | 3 | \$5 |
| 3350:356 | Europe | 3 | \$5 | 3450:430 | Numerical Solutions for Partial Differential Equations | 3 | \$5 |
| 3350:360 | Asia | 3 | \$5 | 3450:435 | Systems of Ordinary Differential Equations | 3 | \$5 |
| 3350:363 | Africa South of the Sahara | 3 | \$5 | 3450:436 | Mathernatical Models | 3 | \$5 |
| 3350:405 | Geegraphic Information Systerns | 3 | \$10 | . 3450:441 | Concepts in Geormetry |  | \$10 |
| 3350:407 | Advanced Geographic Information Systems | 3 | \$10 | 3450:489 | Topics in Mathematics | 14 | \$15 |
| 3350:440 | Cartography | 3 | \$10 | 3460:125 | Descriptive Computer Science | 2 | \$10 |
| 3350:442 | Cartographic Theory and Design | 3 | \$10 | 3460:126 | Introduction to Visual Basic Programming | 3 | \$10 |
|  |  |  |  | 3460:208 | Introduction to $\mathrm{C}++$ | 3 | \$10 |
| Additional workshops and special topics courses offered on a rotation basis may inculude fees no |  |  |  | 3460:209 | Introduction Computer Science | 4 | \$15 |
|  |  |  |  | 3460:210 | Data Structures and Algorithms I | 4 | \$10 |



| Course Number | Course Tite | Credits | Course Fe日 | Course Number | Course Title | Credits | Course Fee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5200:490 | Workshop: Teaching Beyond Text | 13 | \$10 | 5550:490 | Workshop: Dev. Succossful Child i | 13 | \$6 |
| 5200:490 | Workshop: Chidd Abuse and Neglect | 13 | $\$ 30$ | 5550:490 | Workshop: Easing Stress: $\mathrm{CH} / \mathrm{TCH}^{\text {I }}$ | 13 | $\$ 6$ |
| 5200:490 | Workshop: Use Lit. Dev. Integ. Instr. | $1-3$ | \$10 | 5550:490 | Workshop: Education for Heathy Heart | 13 | \$6 |
| 5200:490 | Workshop: Language \& Literature Mutiti Settings | $1-3$ | \$15 | 5550:490 | Workshop: Education Heathy Heart | 13 | \$6 |
| 5200:495 | Student Teaching Elementary Education | 4 | \$25 | 5550:490 | Workshop: Encourege At-Risk Child | 13 | \$6 |
| 5200:496 | Student Teaching Elementary Education | 4 | \$25 | 5500:490 | Workshop: Enhance Self-Esteem Child | 13 | \$6 |
| 5250:333 | Teeching Science to Midde Level Learners | 4 | \$40 | 5550:490 | Workshop: Enhance Teacher Peri/Esteem | 13 | \$6 |
| 5250:338 | Teeching Socier Studies to Midlle Lovel Learners | 3 | \$10 | 5550:490 | Workshop: Enhencing Athletic Performance | 13 | \$6 |
| 5250:342 | Teeching Math to Middte Level Leamers | 3 | \$10 | 5550:490 | Workshop: Ethicail issues - Sports | 13 | \$10 |
| 5250:350 | Teach Langusge Arts \& Media to Middle Level Lammers | 3 | \$20 | 5550:490 | Workshop: Health Ed. Update | 13 | \$7 |
| 5250:495 | Student Teeching: Graces 46 | 6 | \$25 | 5550:490 | Workshop: HIVIAIDS Update | 13 | \$7 |
| 5250:496 | Student Teaching: Grades 7.9 | 6 | \$25 | 5550:490 | Workshop: LawNan: Vidence and the Unruly | 13 | \$6 |
| 5300:311 | Instr Tech:Secondary Education Math | 5 | \$15 | 5550:490 | Workshop: Leg. Pit. Teacher/Coach Avoi | 13 | \$6 |
| 5300:490 | Workshop: Adv. Instructional Techniques for Language | 13 | 520 | 5550:490 | Workshop: Leg. Rights of Profession | $1 \cdot 3$ | \$6 |
| 5300:490 | Workshop: Costa Rica - Educators | 13 | \$75 | 5550:490 | Workshop: Legal Update - Educators | 13 | \$5 |
| 5300:490 | Workshop: Educational Strategies Uiben Sehl. Environ. | 13 | \$5 | 5550:490 | Workshop: Maximizing Athletic Performence | 13 | \$5 |
| 5300:490 | Workshop: French Language Immersion | 13 | \$25 | 5550:490 | Workshop: Max Ind SptMot Periormance | 13 | \$6 |
| 5300:490 | Workshop: Improving 9th Grede Math Prof. Scores | 13 | \$5 | 5550:490 | Workshop: Mental Strategies for Peekk Performance | 13 | \$6 |
| 5300:490 | Workshop: Teeching Film/TV Survival Skills | 13 | \$50 | 5550:490 | Workshop: Methods of Teaching Heath Ed. Update | 13 | \$6 |
| 5300:490 | Workshop: Tech. \& Instr. In Foreign Languages | 13 | \$15 | 5550:490 | Workshop: Motivational Strategies: SportsExercise | 13 | \$7 |
| 5300:490 | Workshop: Whole Language Teaching Teachers | 13 | \$25 | 5550:490 | Workshop: Motivating the At-Risk Child | 13 | \$6 |
| 5300:490 | Workshop: Ling. Att Eng. Tch. Best Pr. | 13 | \$25 | 5550:490 | Workshop: Motivation, Lang. and Ars | 13 | \$6 |
| 5300:495 | Student Teaching | 411 | \$50 | 5550:490 | Workshop: New Games, Init, Coop Games | 13 | \$6 |
| 5400:490 | Workshop: Diversity in the Workplace | 13 | \$20 | 5550:490 | Workshop: Nurture Success Chilcren | 13 | \$5 |
| 5400:490 | Workshop:School to Work K-Adutt | 13 | \$10 | 5550:490 | Workshop: Personal Watercraft | 13 | \$5 |
| 5500:286 | Teaching Mutriple Texts through Genre | 3 | \$10 | 5550:490 | Workshop: Psych Aspects of Coaching | 13 | \$8 |
| 5500:380 | Educational Pleming | 3 | \$15 | 5550:490 | Workshop: Rehab. and Adv. Taping Techniques | 1.3 | \$6 |
| 5500:370 | Educational Implementation | 3 | \$15 | 5550:490 | Workshop: Sport Perr. Enhance I | 13 | \$12 |
| 5500:440 | Dev Reeding Content Ares - EMC | 3 | \$10 | 5550:490 | Workshop: Sport Perf. Enhance II | 13 | \$10 |
| 5500:445 | Evaluating Language Literecy | 3 | 520 | 5550:450 | Workshop: Strategies for Classroom Mgt. | 13 | \$10 |
| 5540:120 | Archery | . 5 | \$5 | 5500:490 | Workshop: Strength/Conditioning Fundamentals | 13 | \$10 |
| 5540:123 | Bowling | . 5 | \$50 | 5550:490 | Workshop: Stress in Child's Wortd | 13 | \$6 |
| 5540:124 | Canoeing | . 5 | \$15 | 5550:490 | Workshop: Tai Chi and Stress Reduction | 13 | \$3 |
| 5540:128 | Fitness and Wellness | 1 | \$5 | 5550:490 | Workshop: Teaching 3 R's Movt. | 13 | \$6 |
| 5540:127 | Golf | 1 | \$45 | 5550:490 | Workshop: Teacher's Role/Disruptive Student | 13 | \$10 |
| 5540:133 | Liteguard Training | 2 | \$40. | 5550:490 | Workshop: Teachers Should Know About Law | 13 | \$6 |
| 5540:135 | Racquatball | . 5 | \$5 | 5550:490 | Workshop: Techniques for Develop Peace School | 13 | \$6 |
| 5540:137 | Sailing | . 5 | \$10 | 5550:490 | Workshop: Tow Mor. Success Child | 13 | \$6 |
| 5540:150 | Tennis (Beginning) | . 5 | \$5 | 5550:490 | Workshop: Violence Prevention Strategies | 1.3 | $\$ 5$ |
| 5540:155 | Basic Kayaking | 1 | \$15 | 5550:490 | Workshop: Water Sefety Skills: Sailing | 13 | \$10 |
| 5540:190 | Special Topics: Gen Studies in Phys Ed | . 5 | \$50 | 5550:490 | Workshop: Water Safety Skills: Canoe | 1.3 | \$10 |
| 5540:190 | Special Topics: Water Sofety Instruction | .5-2 | \$15 | 5550:490 | Workshop: World Health Issues | 1.3 | \$5 |
| 5540:190 | Special Topics: Billiards | .5-2 | \$25 | 5550:495 | Student Teaching for Physical and Heath Education | 10 | $\$ 50$ |
| 5540:206 | Orienteering | 1 | \$20 | 5560:454 | Resident Outdoor Education | 2 | \$40 |
| 5540:207 | Introduction to Rock Climbing | 1 | \$20 | 5560:490 | Workshop: Co-op Learning Resident OE | 13 | \$12 |
| 5540:208 | Backpacking | 1 | \$20 | 5560:490 | Workshop: hist: Self/Conc Enhance | 13 | \$12 |
| 5540:209 | Flatweter Canoe Tripping |  | \$20 | 5560:490 | Workshop: OE the Sea Coast Environ. | 13 | \$7 |
| 5550:102 | Fitness, Leisure \& Healthy Lifestyo | 3 | \$25 | 5560:494 | Workshop: African Sefari |  | \$2,600 |
| 5550:150 | Concapts in Heelth and Fitress | 3 | \$10 | 5570:101 | Personal Heath | 2 | \$5 |
| 5550:193 | Orientation to Physical Educations | 3 | \$15 | 5570:202 | Stress, Life-Style, and Heath | 3 | \$10 |
| 5550:201 | Kinesiology | 2 | \$10 | 5610:380 | Math Methods: Special Education | 1.4 | \$5 |
| 5550:202 | Diagnosis of Motor Skilts | 2 | \$15 | 5610:403 | Student Teeching Colloquium | 1 | \$20 |
| 5550:211 | First Aid and CPA | 2 | \$25 | 5610:463 | Assessment in Special Education | 3 | \$25 |
| 5550:212 | First Aid/CPR for Professional Rescuer | 2 | \$30 | 5610:470 | Clinical Practicum in Śpecia! Education | 3 | \$15 |
| 5550:235 | Concepts of Motor Learning and Dovelopment | 3 | \$10 | 5610:485 | Student Teaching: Early Chilchood Intervention Specialist | + 8 | $\$ 50$ |
| 5550:240 | Care end Prevention of Athletic Injury | 3 | 520 | 5610:486 | Student Teaching:Mid/Moderate Educational Needs | 8 | \$50 |
| 5550:245 | Adapted Physical Education | 3 | \$10 | 5610:487 | Student Teaching:Moderate/ntensive Ed. Needs | 8 | \$50 |
| 5550:260 | Sports Rules and Regulations | 1 | 520 | 5610:490 | Workshop: Assess and Eval:EC SE | 13 | \$25 |
| 5550:302 | Physiology of Exercise | 3 | \$20 | College of Business Administration |  |  |  |
| 5550:334 | Games/Rhytums Elementary School Child | 3 | $\$ 5$ |  |  |  |  |
| 5550:335 | Movement Experience for the Elementary Child | 3 | \$5 | All courses at the undergraduate level in the College of Business Administration are assessed a fee of $\$ 2$ for onecredit classes, $\$ 3.50$ for two-credit classes, or $\$ 5$ for three- or four-credit classes. |  |  |  |
| 5550:336 | Motor Leaming and Development Earty Child | 2 | \$10 |  |  |  |  |
| 5550:340 | Care and Prevention: Athletic injury | 3 | $\$ 20$ | College of Fine and Applied Arts |  |  |  |
| 5550:345 | Instr. Techniques for Chidren in PE | 3 | \$25 |  |  |  |  |
| 5550:403 | Exercise Testing | 3 | \$15 | 7100:100 | Survey History of Art 1 | 4 | \$20 |
| 5550:404 | Exercise Prescription | 3 | \$15 | 7100:101 | Survey History of Art II | , | \$20 |
| 5550:432 | Therapeutic Exercise \& Rehabilitation I | 3 | \$10 | 7100:131 | Introduction to Drawing | 3 | \$10 |
| 5550:442 | Therapentic Mocalities | 3 | \$10 |  | Introduction to Dasign | 3 | $\$ 75$ $\$ 15$ |
| 5550:445 | Therropeutic Exercise \& Rehabilitation II | 3 | \$10 | 7100:132 | Foundation 3-D Design | 3 | \$15 |
| 5550:450 | O\&A Physical Education, Intramurels and Athetics | 3 | \$5 | 7100:145 | Typography 1 | 3 3 | $\$ 50$ $\$ 75$ |
| 5550:480 | Musculoskeletel Anatorry I | 1.4 | \$10 | $\begin{aligned} & 7100: 184 \\ & 7100: 185 \end{aligned}$ | Introduction to Computer Graohics | 3 | \$75 |
| 5550.480 | Musculoskeletel Anatorry II | 1.4 | \$10 | $\begin{aligned} & 7100: 185 \\ & 7100: 210 \end{aligned}$ | Visual Arts Awareness | 3 | \$20 |
| $5550: 490$ $5550: 490$ | Workshop: Aternative Healing Exercises Workshop: Bonding Musi/Physical Education | 13 | $\$ 3$ $\$ 40$ | 7100:213 | Introduction to Lithography | 3 3 3 | \$20 |
| $5550: 490$ $5550: 490$ | Workshop: Bonding Music/Physical Education Workshop: Chid st Pisk | 13 1.3 | \$40 | 7100:214 | Introduction to Screen Printing | 3 | \$65 |
| 5550:490 | Workshop: Child in Sport I | 13 | \$10 | $7100: 215$ $7100: 216$ | Introduction to Relief Printing | 3 | \$65 |
| 5550:490 | Workshop: Child in Sport II | 13 | \$10 | $\begin{aligned} & 7100: 216 \\ & 7100: 222 \end{aligned}$ | Introduction to Intaglio Printing | 3 | \$65 |
| 5550:490 | Workstop: Child in Sport: Psych CNOS | 13 | \$6 |  | Introduction to Sculpture | 3 | \$100 |
| 5550:490 | Workstop: Cl: HearthWelness | 13 | \$5 | 7100:223 | Scupture: Stone | 3 | \$100 |
| 5550:490 | Workstiop: Classroom LeemingMgt. I | 13 | \$6 | 7100:223 | Instalation Art | 3 | \$10 |
| 5550:490 | Werkshop: Classroom Problerns | $1 \cdot 3$ | 85 | $7100: 224$ $7100: 231$ 7100233 | Intermediate Drawing | 3 | \$10 |
| 5550:490 | Workshop: Coeching Effect | $1 \cdot 3$ | \$10 | 7100:233 | Foundation Lite Drawing | 3 | \$5 |
| 5550:490 | Workshop: Concepts Strength Training | 13 | \$5 | 7100:243 | Introduction to Painting | 3 3 | \$30 |
| 5550:490 | Workshop: Coop/Creative Thinking | $1 \cdot 3$ | \$10 | 7100:246 | Waterbased Media | 3 | \$25 |
| 5550:490 | Workshop: Current Concepts in Strength Training | 1.3 | \$5 | $7100: 249$$7100: 254$ | Figure Painting | 3 3 | \$30 |
|  |  |  |  |  | Introduction to Ceramics | 3 | \$57 |
|  |  |  |  | $\begin{aligned} & 7100: 266 \\ & 7100: 268 \end{aligned}$ | Introduction to Metalsmitthing | 3 3 | $\$ 80$ $\$ 75$ |
| addifio | hops end special topics courses offered on a rotation bas | sis may in | do fees | 7100:274 | Photography I for Non-Att Mejors | 3 | \$25 |


| Course Number | Course Titte |
| :---: | :---: |
| 7100:275 | Introduction to Photography |
| 7100:276 | Introduction: Professional Photography |
| 7100:280 | Digital lmaging |
| 7100:281 | Web Page Design |
| 7100:283 | Drawing Techniques |
| 7100:285 | Digital Imaging |
| 7100:288 | Typography 2 |
| 7100:289 | Production 1 |
| 7100:300 | Art Since 1945 |
| 7100:301 | Medieval Att |
| 7100:302 | Art in Europe - 17th-r8th Century |
| 7100:303 | taly Renaissance Art |
| 7100:304 | 19th Contury Art |
| 7100:306 | Renaissance Art in Northem Europe |
| 7100:307 | History of Graphic Design |
| 7100:317 | Printmaking II |
| 7100:318 | PortraitFashion Photography |
| 7100:319 | Printmaking Review |
| 7100:320 | Illustration/Advertising Photography |
| 7100:321 | Figurative Sculpture |
| 7100:322 | Sculpture II |
| 7100:323 | Lost Wax Casting |
| 7100:335 | Intermediate Lite Drawing |
| 7100:348 | Intermediate Painting \|| |
| 7100:349 | Intermediate Painting/Drawing |
| 7100:354 | Ceramics II |
| 7100:366 | Metalsmithing If |
| 7100:368 | Colors in Metals II |
| 7100:370 | History of Photography |
| 7100:374 | Photo 11 for Non-Att Majors. |
| 7100:375 | Photography II |
| 7100:381 | Digital imaging H |
| 7100:383 | Muttimedia Procuction |
| 7100:385 | Computer 3D Modeling and Animation |
| 7100:387 | Typography 3 |
| 7100:388 | Production 2 |
| 7100:401 | ST: History of Art |
| 7100:402 | Museology |
| 7100:403 | Art and Critical Theory |
| 7100:405 | History of Ar Symposium |
| 7100:407 | Methods of At History |
| 7100:409 | TimeBased Media |
| 7100:410 | Methods of Teaching Elementary Art |
| 7100:411 | Methods of Teaching Secondary At |
| 7100:418 | Advanced Printmaking |
| 7100:422 | Advanced Sculpture |
| 7100:450 | Advanced Lite Drawing |
| 7100:454 | Advanced Ceramics |
| 7100:455 | Advanced Painting |
| 7100:466 | Advanced Metalsmithing |
| 7100:474 | Advanced Photography for Non-Aft Majors |
| 7100:475 | Advanced Photography |
| 7100:477 | Advanced Photography: Cotor |
| 7100:478 | Advanced Commercial Photography |
| 7100:480 | Advanced Graphic Design |
| 7100:481 | Design X Nine |
| 7100:482 | Corporate Identity and Graphic Systems |
| 7100:483 | Graphic Design Presentation |
| 7100:484 | Hllustration |
| 7100:485 | Advanced Illustration |
| 7100:486 | Interactive Multimedia Development |
| 7100:488 | Typography 4 |
| 7100:489 | Special Topic: Studio Art |
| 7100:490 | Workshop: Cross Cultural Ceramics |
| 7100:490 | Workshop: Att - Web Page Design |
| 7100:490 | Workshop: Art - Flash Animation |
| 7100:490 | Workshop: Art - Video Installation |
| 7100:490 | Workshop: Art - Woodworking Techniques |
| 7100:490 | Workshop: Art |
| 7100:491 | Architectural Presentations I |
| 7100:492 | Architectural Presentations II |
| 7100:497 | Independent Study |
| 7100:498 | SP: History of Art |
| 7400:123 | Fundamentals of Construction |
| 7400:125 | Principles for Apparel Design |
| 7400:132 | Early Childhood Nutrition |
| 7400:133 | Nutrition Fundamentals |
| 7400:139 | Fashion and Fumishing Industry |
| 7400:141 | Food for the Family |
| 7400:147 | Orient. Prof. Studies in Family and Consumer Sciences |
| 7400:158 | Intraduction to interior Design |
| 7400:219 | Dress and Cuthure |
| 7400:225 | Textiles |
| 7400:226 | Textile Evaluation |
| 7400:250 | Food Science |


|  | Course | Course |  |
| :---: | :---: | :---: | :---: |
| Cradits | Feo | Number | Course Tite |
| 3 | $\$ 35$ | 7400:257 | Autocad for Interior Design |
| 3 | \$45 | 7400:258 | Light in Man-Made Environments |
| 3 | \$75 | 7400:259 | Family Housing |
| 3 | \$75 | 7400:265 | Child Development |
| 3 | \$75 | 7400:270 | Theory and Guidance of Play |
| 3 | \$75 | 7400:280 | Earty Childhood Curriculum Mettods |
| 3 | \$75 | 7400:295 | Direct Experiences in the Hospital |
| 3 | \$75 | 7400:301 | Consumer Education |
| 3 | \$20 | 7400:303 | Children As Consumers |
| 3 | \$20 | 7400:305 | Advanced Construction and Tailoring |
| 3 | \$20 | 7400:310 | Food Systerms Management I |
| 3 | 520 | 7400:311 | Stucies in Fiber Art |
| 3 | 520 | 7400:315 | Food Systems Management I-Clinical |
| 3 | \$20 | 7400:316 | Science of Nutrition |
| 3 | \$20 | 7400:320 | Coreer Decisions in Nutrition |
| 3 | $\$ 65$ | 7400:328 | Nutrition in Medical Science I |
| 3 | \$45 | 7400:329 | Nutrition in Medical Science 1-Clinical |
| 0 | \$55 | 7400:331 | Interior Design Theory |
| 3 | \$45 | 7400:333 | Programming and Spece Plarning |
| 3 | \$75 | 7400:334 | Specifications for Interiors ! |
| 3 | \$100 | 7400:335 | Specifications for interiors II |
| 3 | \$100 | 7400:336 | Principle and Prectice: Interior Desigan |
| 3 | 55 | 7400:337 | Interior Design Contract Documents |
| 3 | \$30 | 7400:340 | Meal Service |
| 3 | \$30 | 7400:352 | Strategic Merchandise Plan |
| 3 | \$62 | 7400:360 | Parent-Child Relations |
| 3 | \$60 | 7400:362 | Family Life Managament |
| 3 | \$75 | 7400:400 | Nutrition Comm. \& Ed. Skills |
| 3 | \$20 | 7400:401 | American Femilies in Poverty |
| 3 | \$55 | 7400:403 | Advanced Food Preperation |
| 3 | \$55 | 7400:413 | Food Systerms Management II |
| 3 | \$75 | 7400:414 | Food Systerms Management II-Clinical |
| 3 | \$75 | 7400:418 | History of Furniture and interiors I |
| 3 | 575 | 7400:419 | History of Fumiture and Interiors II |
| 3 | \$75 | 7400:422 | Textiles for Interiors |
| 3 | \$75 | 7400:423 | Professional Image Analysis |
| 1 | \$20 | 7400:424 | Nutrition in Lite Cycte |
| 3 | \$20 | 7400:425 | Textiles for Apparel |
| 3 | \$20 | 7400:426 | Human Nutrition |
| 1 | \$20 | 7400:427 | Globel lssues: Text \& Apparel |
| 3 | \$20 | 7400:426 | Nutrition in Medical Science II |
| 3 | \$75 | 7400:429 | Nutrition in Medical Science II-Clinical |
| 3 | $\$ 35$ | 7400:431 | History of Textios \& Furmishings |
| 3 | \$35 | 7400:433 | Senior Design Studio 1 |
| 3 | \$85 | 7400:434 | Senior Design Studio III |
| 3 | \$75 | 7400:435 | Decorative Elements in Interior Design |
| 3 | \$5 | 7400:436 | Textile Conservation |
| 3 | \$150 | 7400:437 | Historic Costume |
| 3 | \$30 | 7400:438 | History of Fashion |
| 3 | \$60 | 7400:439 | Fashion Analysis |
| 3 | \$35 | 7400:441 | Family Relationships Mid and Later Years |
| 3 | \$35 | 7400:446 | Culture, Ethricity and the Family |
| 3 | \$50 | 7400:447 | Senior Seminar Critical Issues in Prot. Development |
| 3 | $\$ 45$ | 7400:449 | Flat Pattem Design |
| 3 | \$75 | 7400:451 | Child in the Hospital |
| 3 | \$75 | 7400:455 | Practicum Experience in a Child-Life Program |
| 3 | \$75 | 7400:458 | Senior Design Studio II |
| 3 | \$75 | 7400:459 | Senior Dasign Studio IV |
| 3 | \$75 | 7400:470 | Food Industry. Analysis and Field Study |
| 3 | \$75 | 7400:474 | Cutural Dimensions: Food |
| 3 | \$75 | 7400:475 | Anslysis of Food |
| 3 | \$75 | 7400:476 | Developments in Food Science |
| 3 | \$40 | 7400:478 | Senior Porttolio Review |
| 3 | \$100 | 7400:479 | The NCIDO Examination |
| 1 | \$25 | 7400:480 | Community Nutrition 1 |
| 1 | \$25 | 7400:481 | Community Nutrition I-Clirical |
| 3 | \$75 | 7400:482 | Community Nutrition II |
| 3 | \$75 | 7400:483 | Community Nutrrition 11 - Clinical |
| 1 | \$75 | 7400:484 | -Hospital Settings, Chilcren and Families |
| 3 | \$5 | 7400:485 | Serminar. AutoCAD for Interior Designers |
| 3 | \$5 | 7400:485 | Seminar: Att and Science of Wine |
| 3 | \$75 | 7400:485 | Seminer: Child and Family Heath |
| 1 | \$20 | 7400:485 | Seminar: Children \& Loss |
| 3 | \$35 | 7400:485 | Seminar: Children \& Stress |
| 3 | \$15 | 7400:485 | Seminar: Comm \& Ed Skills Dietetics |
| 3 | \$5 | 7400:485 | Seminer: Computer Applications in FC |
| 3 | \$5 | 7400:485 | Seminer: Coping with Chronic lllness |
| 3 | $\$ 8$ | 7400:485 | Seminar: Dec. Elementary Interior Design |
| 3 | \$60 | 7400:485 | Seminer: Equipment and Demonstration Tech. |
| 1 | \$10 | 7400:485 | Seminar. FCS RSH Methods |
| 3 | \$25 | 7400:485 | Seminer: FD Chern. and Disease |
| 3 | $\$ 8$ | 7400:485 | Seminer: Food Safety. Microb IS |
| 3 | \$15 | 7400:485 | Seminer: Food Seffety Overview |
| 3 | \$25 | 7400:485 | Seminar: Food Theory and Application |
| 4 | \$60 | 7400:485 | Seminar: Human Fectors and Interior Spece |
|  |  | 7400:485 | Seminer: Images for Success |
|  |  | 7400:485 | Seminar: Interior Design Theorios |
| lasis may include fees not ses for those classes. |  | $\begin{aligned} & 7400: 485 \\ & 7400: 485 \end{aligned}$ | Seminer: Introduction to French Cuisine Seminar: Introduction to Italian Cuisine |


| Credits | Course Feo |
| :---: | :---: |
| 3 | \$90 |
| 3 | \$25 |
| 3 | \$10 |
| 3 | \$5 |
| 3 | \$10 |
| 4 | \$20 |
| 3 | \$10 |
| 3 | 55 |
| 3 | \$5 |
| 3 | \$35 |
| 5 | \$20 |
| 3 | \$35 |
| 2 | 520 |
| 4 | \$10 |
| 1 | \$15 |
| 4 | \$10 |
| 2 | 550 |
| 3 | 520 |
| 3 | \$25 |
| 3 | \$25 |
| 3 | \$25 |
| 3 | \$20 |
| 3 | \$25 |
| 2 | 535 |
| 3 | \$8 |
| 3 | \$10 |
| 3 | 55 |
| 4 | \$15 |
| 3 | \$5 |
| 3 | \$25 |
| 3 | \$5 |
| 3 | \$120 |
| 3 | \$10 |
| 3 | \$10 |
| 3 | 525 |
| 3 | \$12 |
| 3 | \$10 |
| 3 | \$25 |
| 5 | \$15 |
| 3 | 58 |
| 5 | \$10 |
| 3 | \$120 |
| 3 | \$10 |
| 3 | $\$ 30$ |
| 3 | \$30 |
| 1 | \$15 |
| 3 | \$15 |
| 3 | \$10 |
| 3 | \$10 |
| 3 | \$10 |
| 3 | 55 |
| 3 | \$4 |
| 1 | \$10 |
| 3 | \$12 |
| 4 | 530 |
| 3 | \$25 |
| 3 | 530 |
| 3 | 30 |
| 3 | \$10 |
| 3 | \$10 |
| 3 | 530 |
| 3 | \$10 |
| 1 | \$10 |
| 1 | \$10 |
| 3 | $\$ 35$ |
| 1 | \$40 |
| 3 | \$10 |
| 1 | $\$ 40$ |
| 3 | \$20 |
| 13 | \$40 |
| 13 | 530 |
| 13 | \$10 |
| 1 | \$7 |
| 1 | \$7 |
| 13 | \$15 |
| 13 | \$5 |
| 13 | \$7 |
| 13 | \$10 |
| 13 | \$15 |
| 13 | \$10 |
| 13 | \$5 |
| 13 | \$5 |
| 13 | \$5 |
| 13 | $\$ 60$ |
| 13 | \$15 |
| 1 | \$12 |
| 13 | \$10 |
| 13 | \$25 |
| 13 | \$25 |


| Course |  | Course |  | Course Number | Course Title | Credits $\begin{array}{r}\text { Course } \\ \text { Fee }\end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Course Titte | Credits | Fee |  |  |  |  |
| 7400:485 | Seminar: Landscape Architecture | 13 | \$20 | 7500:490 | Workshop: Art of Steel Drum Making | 13 | \$12 |
| 7400:485 | Seminar: NCIDQ Prep | 13 | \$10 | 7500:490 | Workshop: Band Literature Selection | $1 \cdot 3$ | \$33 |
| 7400:485 | Seminar: Office Design | 13 | \$15 | 7500:490 | Workshop: Beginning Band Basics | 13 | \$20 |
| 7400:485 | Seminar: Onientation to CP | 13 | \$25 | 7500:490 | Workshop: Brass Teach Techniques for Pu Se | 13 | \$10 |
| 7400:485 | Seminar: Orientation to NutritiorvDietatics | 13 | \$15 | 7500:490 | Workshop: Choral Reading Session | 13 | \$20 |
| 7400:485 | Seminar: Professional Preparation | 13 | \$10 | 7500:490 | Workshop: Class Guitar Career Fest | $1 \cdot 3$ | \$30 |
| 7400:485 | Seminar: Ouantity Meals | 13 | \$25 | 7500:490 | Workshop: Comp Dit Dsgn impr Perc | 13 | \$15 |
| 7400:485 | Seminar: Senior Design Symthesis | 13 | \$15 | 7500:490 | Workshop: Comp MIDI for Musician | 1.3 | \$40 |
| 7400:485 | Seminar: Senior Design Studio I | $1 \cdot 3$ | \$20 | 7500:490 | Workshop: Comp MIDI Synth for Ed | 13 | \$40 |
| 7400:485 | Serninar: Senior Design Studio II | 13 | \$20 | 7500:490 | Workshop: Comp Skills/Nocal Tchrs | 13 | \$15 |
| 7400:485 | Seminar: Senior Design Studio II | 13 | \$20 | 7500:490 | Workshop: Computerized Drill Design | 13 | \$15 |
| 7400:485 | Seminar: Senior Design Studio IV | 13 | \$20 | 7500:490 | Workshop: Cond Gest: Inf Chor Tone | 13 | \$25 |
| 7400:485 | Seminar: Single Parenting | 1 | \$7 | 7500:490 | Workshop: Development of MS \& HS Jazz Band | 13 | \$20 |
| 7400:485 | Seminar: Spec. for Interior Design | 13 | \$10 | 7500:490 | Workshop: Early Childhood: Philosophy | $1 \cdot 3$ | \$20 |
| 7400:485 | Seminar: Teenagers as Perents | 1 | \$7 | 7500:490 | Workshop: Elementary Choral Workshop | 13 | \$30 |
| 7400:485 | Seminar: Update - FD Additives | 13 | \$5 | 7500:490 | Workshop: Enhanced Con Amer LitMusic | 13 | \$15 |
| 7400:485 | Seminar: Update - Fat Substitute | 13 | 5 | 7500:490 | Workshop: Excellence in Perf! | 13 | \$150 |
| 7400:485 | Seminar: Visual Merchandising | 13 | \$12 | 7500:490 | Workshop: Exceillence in Peri II | 13 | \$190 |
| 7400:485 | Seminar: Vocational HE Teaching Methods | 13 | \$29 | 7500:490 | Workshop: Finaie Music Typeset | 13 | \$40 |
| 7400:485 | Seminar: Vocational Methods: Job Training | 13 | \$6 | 7500:490 | Workshop: Handbell Techniques | 13 | \$10 |
| 7400:485 | Seminar: Women and Food | 13 | \$10 | 7500:490 | Workshop: Heath Dym. Class. Speak | 13 | \$20 |
| 7400:485 | Seminar:Equipment and Demonstration Techniques |  |  | 7500:490 | Workshop: Healthful Classroom Spe | 13 | \$5 |
| 7400:486 | Staff Relief: Dietetics | 1 | \$25 | 7500:490 | Workshop: Junior High Inst. Techniques | 13 | \$10 |
| 7400:487 | Sports Nutrition | 3 | $\$ 8$. | 7500:490 | Workshop: Junior High/Middie School Choral | $1 \cdot 3$ | \$30 |
| 7400:488 | Precticum in Dietetics | 1.3 | \$10 | 7500:490 | Workshop: Kodaly JA | 13 | \$20 |
| 7400:490 | Workshop: Balancing Work and Family | 1 | \$5 | 7500:490 | Workshop: Kodaly IB | 13 | \$20 |
| 7400:490 | Workshop: Children, Families and Trauma | 1 | \$5 | 7500:490 | Workshop: March Band Techniques | 13 | \$15 |
| 7400:490 | Workshop: Children and Loss | 1 | \$7 | 7500:490 | Workshop: March Band Workshop | 13 | \$25 |
| 7400:490 | Workshop: Children and Stress | 1 | \$7 | 7500:490 | Workshop: Middle School General Music: Chal. | 13 | \$20 |
| 7400:490 | Workshop: Commuter Marriage | 1 | \$6 | 7500:490 | Workshop: Multi Story Telling | 13 | \$10 |
| 7400:490 | Workshop: Conflict Resolution | 1 | \$5 | 7500:490 | Workshop: Music for Holistic Living | 13 | \$5 |
| 7400:490 | Workshop: Consumers and Health | 1 | \$5 | 7500:490 | Workshop: Music for Special Needs | 1-3 | \$10 |
| 7400:490 | Workshop: Dynamics of Self Esteerm | 1 | \$4 | 7500:490 | Workshop: Music - Instrumental Ped, Review | 13 | \$20 |
| 7400:490 | Workshop: Ecology of Trauma | 1 | \$4- | 7500:490 | Workshop: Music - Marching Band Adj. Perspective | 13 | \$20 |
| 7400:490 | Workshop: Farnily Stress/Coping | 1 | \$30 | 7500:490 | Workshop: Music - Elementary Choral | 1-3 | \$20 |
| 7400:490 | Workshop: Functiona/Oystunctional Families | 1 | $\$ 4$ | 7500:490 | Workshop: Music - Summer String | 13 | \$20 |
| 7400:490 | Workshop: Helping Adolescent Sex Offenders | 1 | $\$ 4$ | 7500:490 | Workshop: ORFF Level IIA | 13 | \$20 |
| 7400:490 | Workshop: Images for Success | 1 | \$12 | 7500:490 | Workshop: ORFF Level IIB | 13 | \$20 |
| 7400:490 | Workshop: Marriage and Divorce | 1 | $\$ 4$ | 7500:490 | Workshop: Percussion for Band Directors | 13 | \$10 |
| 7400:490 | Workshop: Obesity - An American Epidemic | 1 | \$5 | 7500:490 | Workshop: Rehearsal Strategies for Band | 13 | \$20 |
| 7400:490 | Workshop: Parent/Adolescent Communication | 1 | \$4 | 7500:490 | Workshop: Summer Brass Performance for High School | 13 | \$6 |
| 7400:490 | Workshop: Relationship Building | 1 | \$4 | 7500:490 | Workshop: Summer Clarinet instrument | 13 | \$20 |
| 7400:490 | Workshop: Single Perenting | 1 | \$5 | 7500:490 | Workshop: Teaching Music - Early Childhood | 13 | \$20 |
| 7400:490 | Workshop: Stress Managament | 1 | \$4 | 7500:490 | Workshop: Teaching Young Singers | $1 \cdot 3$ | \$20 |
| 7400:490 | Workshop: Successful Parenting | 1 | \$6 | 7500:490 | Workshop: Techniques for Beginning Bands | 13 | \$20 |
| 7400:490 | Workshop: Team Building | 1 | \$5 | 7500:490 | Workshop: Vocal Techniques for Singing in Musical Stage | 1-3 | \$20 |
| 7400:490 | Workshop: Teen Pregnancy | 1 | \$7 | 7500:490 | Workshop: Voice Types, Opera Role | 13 | \$20 |
| 7400:490 | Workshop: Working with Elderly and Families | 1 | $\$ 6$ | 7500:490 | Workshop: Woodwvinds Fnd Tps Sch Dir. | 1-3 | \$20 |
| 7400:491 | Workshop: Economics and Family Ecology | 1 | \$70 | 7510:126 | Marching Band | 1 | \$20 |
| 7400:491 | Workshop: Economics and Family Ecology | 1 | \$20 | 7520:021069 | Applied Music for Non-Majors | 2 | \$125 |
| 7400:496 | Parent Education | 3 | \$10 | 7520:021069 | Applied Music for Non-Majors | 4 | \$250 |
| 7400:497 | Internship: Fashion Retailing | 2-6 | \$18 | 7520:121-469 | Applied Music for Music Majors | 2 | \$125 |
| 7400:497 | Intemship: Interior Design | 2-6 | \$25 | 7520:121-469 | Applied Music for Music Majors | 4 | \$250 |
| 7500:100 | Fundamentals of Music | 2 | \$25 | 7600:102 | Survey of Mass Communication | 3 | \$5 |
| 7500:107 | Introduction to Music Theory | 2 | \$25 | 7600:115 | Survey of Communication Theory | 3 | \$5 |
| 7500:102 | Introduction to Music Education | 2 | \$15 | 7800:270 | Voice Training for Media | 3 | \$15 |
| 7500:104 | Classic Piano 1 | 2 | \$20 | 7800:280 | Media Production Techniques | 3 | \$40 |
| 7500:105 | Classic Piano II | 2 | \$20 | 7600:282 | Radio Production | 3 | \$10 |
| 7500:154 | Music Literature I | 2 | \$15 | 7600:283 | Studio Production | 3 | \$15 |
| 7500:155 | Music Literature II | 2 | \$15 | 7600:300 | Newswriting | 3 | \$15 |
| 7500:201 | Exploring Music: Bach to Rock | 3 | \$15 | 7600:301 | Advanced Newswriting | 3 | \$15 |
| 7500:254 | String Methods | 2 | \$25 | 7600:302 | Broadcast Newswiting | 3 | \$15 |
| 7500:255 | String Methods ! | 2 | \$25 | 7600:303 | Public Relations Writing | 3 | \$15 |
| 7500:281 | Keyboard Harmony 1 | 2 | \$20 | 7600:304 | Editing | 3 | \$20 |
| 7500:262 | Keyboard Harmony 11 | 2 | \$20 | 7600:308 | Feature Writing | 3 | \$5 |
| 7500:275 | Flute_Double Reed Class | 1 | \$20 | 7600:309 | Public Relations Publications | 3 | \$5 |
| 7500:276 | Trumpet and Freinch Hom Merhods | 1 | $\$ 30$ | 7600:344 | Group Decision Making | 3 | \$5 |
| 7500:277 | Clarinet and Saxophone Methods | 1 | \$40 | 7600:345 | Business and Professional Speaking | 3 | \$5 |
| 7500:297 | Introduction to Music Education | 2 | \$10 | 7600:346 | Adv Public Speaking | 3 | \$5 |
| 7500:298 | Technologies of Music Education | 2 | \$60 | 7600:368 | Basic Audio and Video Editing | 3 | \$40 |
| 7500:339 | Teaching General Music 1 | 2 | \$45 | 7600:372 | Singie Camera Production | 3 | \$40 |
| 7500:340 | Teaching General Music II | 2 | \$40 | 7600:375 | Communication Technology \& Chg | 3 | \$15 |
| 7500:341 | JRMS Choral Methods | 3 | \$20 | 7600:387 | Radio \& TV Writing | 3 | \$15 |
| 7500:345 | Low Brass Methods | 1 | \$40 | 7600:405 | Media Copywiting | 3 | \$5 |
| 7500:346 | Flute and Double Reed Methods |  | $\$ 40$ | 7600:416 | New Media Writing | 3 | \$15 |
| 7500:351 | Music History 1 | 3 | \$15 | 7800:417 | New Media Production | 3 | \$40 |
| 7500:352 | Music History II | 3 | \$15 | 7600:420 | Magazine Writing | 3 | \$5 |
| 7500:353 | Electronic Music | 3 | \$30 | 7600:425 | Commercial Electronic Publishing | 3 | \$20 |
| 7500:442 | Instrumental Methods | 2 | $\$ 35$ | 7800:468 | Nonlinear Video Editing | 3 | \$40 |
| 7500:443 | Instrumental Practicum | 2 | \$35 | 7600:493 | Production Practicum | 3 | \$15 |
| 7500:453 | Music Software Survey and use | 2 | \$30 | 7700:101 | American Sign Language I | 3 | \$10 |
| 7500:458 | Percussion Methods | 1 | \$45 | 7700:102 | American Sign Language II | 3 | \$10 |
| 7500:490 | Workshop: Kodaly IB | 13 | \$10 | 7700:201 | American Sign Language III | 3 | \$10 |
| 7500:490 | Workshop: Adv. MIDI Applications | 13 | $\$ 40$ | 7700:202 | American Sign Language IV | 3 | $\$ 10$ |
| 7500:490 | Workshop: Alexander Technique | 13 | \$50 | 7700:222 | Survey Deaf Cuture in America | 2 | \$10 |
| 7500:490 | Workshop: Appalachian Clog and Dance | 13 | \$11 | 7700:266 | Anatomy \& Physioiogy Lab |  | \$30 |
|  |  |  |  | 7700:440 | Augmentative Communication | 3 | \$10 |
|  |  |  |  | 7800:172 | Acting 1 | 3 |  |


| Course Number | Course Tithe | Cradits | ourse |
| :---: | :---: | :---: | :---: |
| 7800:263 | Scene Painting | 3 | \$5 |
| 7800:265 | Basic Stagecraft | 3 | \$10 |
| 7800:301 | Introduction to Theatre/Film | 3 | \$3 |
| 7800:306 | Stage Costuming Design | 3 | \$12 |
| 7800:307 | Advanced Stage Costurning | 3 | \$20 |
| 7800:336 | Scenic Design | 3 | \$10 |
| 7800:355 | Stage Lighting Design | 3 | \$10 |
| 7800:480 | Independent Study | 13 | $\$ 5$ |
| 7810:100 | Production Pertormance Lab | 1 | \$10 |
| 7810:110 | Productior(Performance Lab | 1 | \$10 |
| 7810:200 | ProductionPeriormance Lab | 1 | \$10 |
| 7810:210 | Production/Pertormance Lab | 1 | \$10 |
| 7810:300 | Productior/Pertormance Lab | 1 | \$10 |
| 7810:310 | Production/Performance Lab | 1 | \$10 |
| 7810:400 | Production/Pertormence Lab | 1 | \$10 |
| 7810:410 | Production/Pertormance Lab | 1 | \$10 |
| 7900:115 | Dance as an Art Form | 2 | \$8 |
| 7900:119 | Modem I | 2 | \$8 |
| 7900:120 | Modem II | 2 | \$8 |
| 7900:124 | Ballet I | 2 | \$8 |
| 7900:125 | Ballet II | 2 | \$8 |
| 7900:130 | Jazz Dance I | 2 | \$8 |
| 7900:144 | Tap Dancel | 2 | \$8 |
| 7900:145 | Tap Dance II | 2 | \$8 |
| 7900:200 | Viewing Dance | 3 | \$10 |
| 7900:219 | Modern III | 2 | \$8 |
| 7900:220 | Modem IV | 2 | \$8 |
| 7900:224 | Ballet III | 3 | $\$ 8$ |
| 7900:225 | Bellet IV | 3 | \$8 |
| 7900:230 | Jazz Dance II | 2 | \$8 |
| 7900:403 | Special Topics: Dance | 1.4 | \$8 |
| 7900:490 | Dance Workshop | 13 | \% |
| 7910:101 | Classical Ballet Ensemble | 1 | \$10 |
| 7910:102 | Chargcter Bellet Ensemble | 1 | \$10 |
| 7910:103 | Contemporary Danca Ensemble | 1 | \$10 |
| 7910:104 | Jarz Dance Ensemble | 1 | \$10 |
| 7910:105 | Musical Comedy Ensemble | 1 | \$10 |
| 7910:106 | Opera Dance Ensemble | 1 | \$10 |
| 7910:107 | Experimental Dance Ensemble | 1 | \$10 |
| 7910:108 | Choreographer's Workshop | 1 | \$10 |
| 7910:109 | Ethnic Dance Ensemble | 1 | \$10 |
| 7910:110 | Period Dance Ensemble | 1 | \$10 |
| 7910:111 | Touring Ensemble | 1 | \$10 |
| 7920:122 | Bshet V | 4 | \$15 |
| 7920:141 | Pointe I | 2 | \$15 |
| 7920:222 | Ballet VI | 4 | \$15 |
| 7900:228 | Modern V | 3 | \$15 |
| 7920:229 | Modern VI | 3 | \$15 |
| 7920:241 | Pointe II | 2 | \$15 |
| 7920:246 | Tap Dance III | 2 | \$15 |
| 7920:270 | Musical Theatre Dance Techniques | 3 | \$15 |
| 7920:316 | Choreography 1 | 2 | \$8 |
| 7920:317 | Choreography II | 2 | \$8 |
| 7920:320 | Movement Fundamentals | 2 | \$8 |
| 7920:322 | Ballot VI | 4 | \$15 |
| 7920:328 | Modem VII | 3 | \$15 |
| 7920:329 | Modem VIII | 3 | \$15 |
| 7920:334 | Pas De Deux 1 | 2 | \$8 |
| 7920:341 | Pointe III | 2 | \$15 |
| 7920:347 | Tap Dance IV | 2 | \$15 |
| 7920:351 | Jaz Dance III | 2 | \$15 |
| 7920:361 | Learning Theory for Dance | 2 | \$28 |
| 7920:403 | Special Topics: Dance | 1.4 | \$15 |
| 7920:416 | Choreography III | 2 | \$8 |
| 7920:417 | Choreography IV | . 2 | \$8 |
| 7920:422 | Balet VIII | 4 | \$15 |
| 7920:451 | Jazz Dance IV | 2 | \$15 |
| 7920:490 | Workshop in Dance | 13 | \$8 |
| 7920:497 | Independent Study in Dance | 13 | \$8 |
| 7920:498 | Senior Honors Project in Dance | 13 | \$8 |
| College of Nursing |  |  |  |
| 8200:211 | Foundations of Nursing Prectica I | 5 | \$185 |
| 8200:212 | Foundations of Nursing Practice II | 5 | \$130 |
| 8200:215 | Professional Role Developmem | 3 | \$80 |
| 8200:217 | Pethophysiology for Nurses | 2 | \$105 |
| 8200:225 | Health Assessment |  | \$100 |
| 8200:230 | Nursing Pharmacology |  | \$80 |
| 8200:350 | Nursing of the Childbearing Family |  | \$100 |
| 8200:360 | Nursing Care of Adults | 5 | \$100 |
| 8200:370 | Nursing Care of Older Adults | 5 | \$100 |
| 8200:410 | Nursing Families with Children | 5 | \$80 |
| 8200:430 | Nursing in Complex/Critical Situations | 3 | \$100 |
| 8200:435 | Nursing Research | 3 | \$80 |
| 8200:440 | Nursing of Communities | 5 | \$80 |
| 8200:446 | Professional Nursing Leadership | 3 | \$10 |
| 8200:450 | Senior Nursing Practicum | 5 | \$25 |

# Enrollment Cancellation for Non-Payment 

An undergraduate student whose financial account shows an amount due after their assigned due dates risk having all or part of their registration for current and/or future terms cancelled; however, non-payment of fees does not guarantee enrollment cancellation. If a student enrolls in classes and then decides not to attend, it is still the student's responsibility to drop their classes to ensure the proper credit towards fees for the term, as defined by the current refund policy.

## Payment PIan

This plan is designed to spread tuition and University housing fees into installments. To begin the Payment Plan, down payment is required along with a signed application. The Payment Plan application and terms and conditions are printable via the Web at www. uakron,edu. Click on "Student Life." Choose "Student Accounts," "Forms," "Payment Plan Agreement Form."
Semester applications are to be received in the office by the close of business on the due date. Anticipated financial aid may be used towards the down payment, requiring you only to submit the difference, along with the signed application. Your balance will be divided into equal installments, depending on the semester and sign-up date for the payment plan. All prior obligations and prior term payment plan must be paid in full before the next term application will be approved. Payment Plan payment due dates and amounts can be viewed via the Web at www, uakron,edu. Access the Registration and Information Center; enter student UANET ID and password. Choose "For Students," "View Account." It is the student's responsibility to know when payments are due and to pay on time.
Adjustments or changes to your class schedule will automatically apply to the Payment Plan subject to the withdrawal and refund policies of The University of Akron. A withdrawal from a class does not exempt you from charges for that class if refund is less than $100 \%$.
A $\$ 25$ late charge will be assessed for each partial or full payment made after the established Payment Plan due date.

Questions concerning the Payment Plan can be directed to (330) 972-5100.

## Student Health and Accident Insurance

Student health and accident insurance designed specifically for a student of The University of Akron is required of all residence hall students and all international students except those who present proof that they already have similar coverage. All students enrolled for six or more credit hours are eligible to purchase student health insurance available through Health Services. For information about this plan, please visit the insurance administrator's Web site at htto:/hwww.leonardinsurance.com or call Health Services at (330) 972-7808.

## Veterans Expenses

A disabled veteran who is eligible for admission to the University may register for courses without payment of fees if the disabled veteran has been authorized for training by the V.A. If the disabled veteran has not been authorized, payment of all fees is required. However, the University will return to the veteran the payment made when the official authorization is received.

A non-disabled veteran must pay fees at the time of registration. The nondisabled veteran will receive direct payment from the V.A. after enrollment has been certified under the provision of USC Title 38.
Dependents of a veteran covered under other provisions of USC Title 38 must pay fees at the time of registration. The V.A. will make direct payment to the payee.

## Regulations Regarding Refunds - Credit/Noncredit

All fees, e.g., instructional, general, parking, etc., are subject to change without notice. Students shall be charged fees and/or tuition and other fees in accordance with schedules adopted by the Board of Trustees. Registration does not automatically carry with it the right of a refund or reduction of indebtedness in cases of failure or inability to attend class or in cases of withdrawal. The student assumes the risk of all changes in business or personal affairs.

## Fees Subject to Refund - Credit

Certain fees are subject to refund.

- Instructional fee (tuition) and nonresident surcharge
- General fee.
- Course materials and computing fee
- Student parking fee (only if permit is returned).
- Student teaching fee.
- Residence hall fees (note: subject to special policy).
- Technology fee.


## Amount of Refund - Credit

Amount of refund is to be determined in accordance with the following regulations and subject to course instructor/adviser signature requirements contained in The University of Akron's official withdrawal policy:

- In full
- if the University cancels the course;
- if the University does not permit the student to enroll or continue except for disciplinary reasons. No refund will be granted to a student dismissed or suspended for disciplinary reasons;
- if the student dies before or duning the term; is drafted into military service by the United States; is called to active duty; or if the student enlists in the National Guard or Reserve prior to the beginning of the term. Notice of induction or orders to active duty is required if the student is called to active duty. A student who enlists voluntarily for active duty should see "in part" below.
- In part
- if a student requests official withdrawal, the following refund percentages apply:

If $6.667 \%$ of class attended - $100 \%$ refund
If $13.333 \%$ of class attended - $70 \%$ refund
If $20 \%$ of class attended - $50 \%$ refund
If $26.667 \%$ of class attended - $30 \%$ refund
If $33.333 \%$ of class attended - $20 \%$ refund
Greater than $33.33 \%$ of class attended - $0 \%$ refund

- refunds for course sections are based on class length. The courses which have not been scheduled consistent with the standard 15 week fall/spring/summer semester will also be handled on a prorated basis according to the number of days of the section (class, institute, workshop) which has passed prior to official withdrawal compared to the number of days said section has been scheduled to meet. If a drop occurs on class day, it is counted as a day attended for the purpose of refund.
- Refunds will be determined as of the date of formal withdrawal unless proof is submitted that circumstances beyond control of the student, e.g., hospita confinement, prevented the filing of the formal withdrawal earlier, in which case the refund will be determined as of said circumstance. The 'student assumes responsibility for filing for a refund.
- Refunds will be mailed as soon as possible. Refund checks are subject to deduction for any amount owed to The University of Akron by the student.


## Refund Policy for Noncredit Courses

If a non-credit course is canceled by The University of Akron, a full refund will be issued. Withdrawal requests received up to three (3) business days prior to the first class meeting will result in a full refund less a $\$ 10$ processing charge, or an opportunity to transfer to another course. Thereafter, withdrawal requests received up to the beginning of the second class meeting will receive a $50 \%$ refund. No refunds are issued after the second day of classes. Exceptions to this policy are noted in the non-credit schedule of classes. Substitutions may also be accepted in lieu of a refund.

Refunds for non-credit courses are determined by the date the withdrawal request is received. The refund period cannot be extended if the student fails to attend the first class. Charge cards and refund checks will be processed promptly. Parking permits must be retumed to the Continuing Education office to receive a refund.

Note: See page 63 for additional refund information if Financial Aid is involved.

## Residence Hall Refunds

Refund/Release and Forfeiture Policy
A refund of paid Housing Accommodations and Food Service fees, including pre payment fees, will be paid in any of the following situations;

A full refund of paid room and board fees and the prepayment under the following circumstances:

- Graduation of the STUDENT from The University of Akron;
- Academic dismissal of the STUDENT from The University of Akron;
- Non-attendance or complete withdrawal by the STUDENT from The University of Akron prior to the start of the Contract term (except the prepayment which shall be forfeited). The prepayment will be refunded for new entering, transfer and graduate students when notification of intent to break Contract is received prior to the fifteenth of May for the following fall semester and the fifteenth of October for Contracts initiated for spring semester; or
- Mandatory or recommended participation in academic programs of The University of Akron requires the STUDENT to commute regularly beyond the Akron metropolitan area (e.g., student teaching or co-op assignments). At time of cancellation, documentation from the UNIVERSITY department affiliated with the program will be required.
A partial refund of paid room and board fees, except the prepayment fee, once occupancy has been established (e.g., acceptance of room keys and/or signing occupancy document) will be prorated beginning on the date the STUDENT officially surrenders use of UNIVERSITY housing and retums all appropriate keys (room and apartment keysi to UNIVERSITY staff and satisfies UNIVERSITY-mandated housing separation requirements and procedures under the following circumstances:
- Cancellation of the entire Contract term after the start of the fall semester and subsequent spring semester;
- Cancellation of a single semester Contract after the start of that semester.

A partial refund of paid room and board fees when the STUDENT has fulfilled fall semester obligations and breaches the Contract for spring semester, except when under any dismissal or suspension. The STUDENT shall pay, as a cancella tion fee for breach of the terms of the Contract, an amount of $\$ 200.00$.

The STUDENT shall not be liable for further forfeitures and shall be released of further financial liability beyond the date of termination as per the refund/release and forfeiture policy if the UNNERSITY, in its sole discretion, terminates the Contract:

- For reasons related to the orderly operation of the residence halls, or for rea sons relating to the health, physical, or emotional safety and wellbeing of the STUDENT, or for reasons relating to the health and well-being of the persons or property of other students, faculty, staff, or UNIVERSITY property.
- In the event that the STUDENT is dismissed or suspended from The University of Akron for disciplinary reasons in accordance with laws or rules and regulations of the Board of Trustees, or, if the STUDENT is placed on terms of disciplinary probation in accordance with laws or rules and regulations of the Board of Trustees, whereby such terms of probation prohibit the STUDENT from residing in UNIVERSITY housing accommodations.
- In the event the STUDENT has misrepresented or purposefully omitted any fact on the Contract, specifically as it relates to the report of crime committed by the STUDENT prior to the submission of the Contract. Failure to report may result in the current Contract cancellation and future Contract submission

Contract cancellations for a current semester received after the 12th week of that semester will be assessed the full semester fees.

The STUDENT is financially responsible for fees incurred through the date of such termination, dismissal, suspension, or probation or until the STUDENT has completed the check-out process with the appropriate UNIVERSITY employee, whichever date is later.

Notice requirements. All notices of intent to break this Contract must be submitted to the Department of Residence Life and Housing. If the STUDENT is under the age of 18, the written notification of termination must be co-signed by the STUDENT'S parent or legal guardian.
No Show Policy. The UNIVERSITY will hold the STUDENT'S assignment until close of business on Wednesday of the first week of each semester. At that time the room will be reassigned and the STUDENT'S Contract will be canceled and the prepayment shall be forfeited.

## THE UNIVERSITY OF AKRON RESIDENCY REQUIREMENTS

For detailed information on the Ohio Board of Regents Residency Requirements, visit the Office of the University Registrar's Web site at htto://wmw. uakron.edu/. registrar/ResRulesandRegs.pho.

## Financial Aid

Financial aid programs were developed by federal and state governments, as well as by institutions of postsecondary learning to assist students from families with limited resources in meeting their educational expenses. The primary purpose of financial aid is to ensure that no person is denied the opportunity of attending col lege because of financial need.
Generally, financial aid is provided in four forms: scholarships, grants, loans and work-study funding. Applying for all types of aid requires the completion of the Free Application for Federal Student Aid (FAFSA), as well as applications for any and all private scholarships that a student might be interested in. It is not unusual for a student to receive all four forms of aid.

## Mission Statement

The Mission of the University of Akron's Office of Student Financial Aid \& Student Employment is to help students achieve their educational potential. Our office accomplishes this by:

- Adhering to state and federal regulations as well as University policies regarding the awarding of aid funds.
- Being committed to removing financial barriers for those who wish to pursue postsecondary learning.
- Making every effort to assist students with financial need.
- Having an awareness of the issues affecting our students and advocating for our students' interests at the institutional, state and federal levels.
- Educating our students and their families by providing quality consumer information.
- Respecting the dignity and diversity of each one of our students by providing services that do not discriminate on the basis of race, gender, ethnicity, sexual orientation, religion, disability, age or economic status.
- Ensuring the confidentiality of our students' information.
- Assuring the uniform application of all needs analysis formulas consistently across The University of Akron's full population of financial aid applicants.
- Committing to the highest level of ethical behavior by avoiding conflict of interest or the appearance of such a conflict.
Maintaining the highest level of professionalism reflects our commitment to the goals and mission of the University of Akron.


## Applying for Financial Aid

To apply for most state and federal financial aid programs, a student must complete the Free Application for Federal Student Aid (FAFSA).

There are two ways to complete the Free Application for Federal Student Aid:
Electronic Filing: This is generally the quickest and easiest way for students (and their parents) to apply. Families who take full advantage of its features including electronic signature by PIN (Personal dentification Number) experience significantly faster aid processing times. For best success, follow these steps:

## A. Obtain A PIN number.

1. Obtain a PIN for the student at www.pin.ed.gov.
2. If the student is a dependent student, a parent should obtain a PIN at the same Web site.
3. If you provide an e-mail address at the PIN Web site it generally takes 72 hours or less for the federal government to respond with a link to their secure Web page where you may pick up your PIN after submitting your information and self-created password. NOTE: If your intemet service provider utilizes a spam-catcher or other system that diverts such e-mail away from your normal e-mail in-box, be sure to check the location these e-mails are directed to during the three days following your PIN Application.
4. A PIN is useful for many purposes working with the US Department of Education, including: Online signature of FAFSA forms and Master Promissory Notes. Once you receive a PIN it is good until you change it, so be sure to keep it in a secure place so you will be able to use it each year to sign your online FAFSA application.

## B. Complete the FAFSA onling.

1. Be sure to gather student and (if the student is a dependent student) parent income information from the prior year and have it ready to reference for completion of the FAFSA. For a complete list of information you will need, visit FAFSA on the Web site: www.fafsa.ed,gov. Click on the link, "Before Beginning a FAFSA" then click on the link, "Documents Needed." You can print this information if it is helpful.
2. Some families are more comfortable completing information on paper first and then, online. This is easily done at the FAFSA Web site, wwy,fafsa, ed.goy, by clicking on the link. "Before Beginning a FAFSA" then, clicking on the link, "Pre-Application Worksheet." Print and complete the worksheet and you will be able to type your responses in order-directly from the worksheet.
3. When you are ready to complete a FAFSA on line, click on the link that says, "Filling out a FAFSA." Foilow the directions provided.
4. When prompted near the beginning of the online form, the student should be sure to choose to enter his or her PIN as this will act as their signature.
5. At the end of the document, if the student is a dependent student, the parent will have an opportunity to sign the form with a PIN. Provide the PIN for signature.
6. If the student provides an e-mail address, the student aid report will be sent to the student via e-mail. If the student does not, it will be sent through the US mail. NOTE: If you provide an e-mail address, and your Internet service provider utilizes a spam-catcher or other system that diverts such e-mail away from your normal email in-box, be sure to check the location these e-mails are directed to until you receive your electronic Student Aid Report. If you must make corrections, check this location until you receive the updated electronic Student Aid Report.
If at any time you have questions about this process you may contact the Office of Student Financial Aid \& Student Employment or the US Department of Education at 1-800-4-FED-AID.

## SOURCES OF AID

To meet the needs of the financial aid applicant, there are a number of sources from which aid can be received. The following programs are some of those sources of aid for which The University of Akron selects recipients and/or distributes the funding.

## Federal Programs

## Federal Pell Grant

This is the basic federal grant program for undergraduate students. The U.S. Department of Education determines eligibility, and money is disbursed by The University of Akron. Because this is a "grant," it is not repayable. (For more information see Refund/Repayment Policy later in this section.) The amount of the grant varies based on hours of enrollment. If a student's enrollment is less than full time, a proration of the Pell Grant is required.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

This is a grant that is offered to undergraduate students who have exceptiona need as determined by the U.S. Department of Education. These grants are onty awarded to students who meet the guidelines established by the Department of Education and who have met the priority awarding deadline (March 1). Entering freshmen and continuing students must have a 2.00 grade point average and must be enrolled for a minimum of six (6) credit hours to be eligible.

## Academic Competitiveness Grant Program

An eligible student may receive an Academic Competitiveness Grant (ACG) of $\$ 750$ for the first academic year of study and $\$ 1,300$ for the second academic year of study. To be eligible for each academic year, a student must:

## - Be a U.S. citizen;

- Be a Federal Pell Grant recipient;
- Be enrolled fulltime in a degree program;
- Be enrolled in the first or second academic year of his or her program of study at a two-year or four-year degree-granting institution;
- Have completed a rigorous secondary school program of study lafter January 1, 2006, if a first-year student, and after January 1, 2005, if a sec-ond-year student);
- If a first-year student not have been previously enrolled in an undergraduate program; and
- If a second-year student, have at least a cumulative 3.0 grade point average on a 4.0 scale for the first academic year.


## National SMART Grant Program

An eligible student may receive a National SMART Grant of $\$ 4,000$ for each of the third and fourth academic years of study. To be eligible for each academic year, a student must:

- Be a U.S. citizen;
- Be a Federal Pell Grant recipient;
- Be enrolled full-time in a degree program;
- Be enrolled in a four-year degree-granting institution;
- Major in physical, life or computer science, engineering, mathematics, technology, or a critical" foreign language; and
- Have at least a cumulative 3.0 grade point average on a 4.0 scale (as set forth in regulations to be promulgated soon) in the coursework required for the STUDENT'S major.
*The U.S. Department of Education will publish a list of eligible majors, including critical foreign languages, sciences, mathematics and engineering.
A current list of majors is available online at http://ffap.ed.gov/dpcletters/attachments/GEN0615Attach1.pot.


## Federal College Work-Study Program (FCWSP)

The Federal Work-Study Program provides an eligible student with a job on-campus or, in limited cases, an off-campus job related to community service. Eligibility for FCWSP is determined on the basis of need, early application (March 1), a 2.25 grade point average, and a minimum enrollment of six (6) credit hours each semester. This award shows the amount of money that can be earned while employed as a work-study student during the academic year. This award is earned through employment and cannot be deducted from the fee invoice.

## Federal Perkins Loan

The Federal Perkins Loan Program offers low-interest, long-term loans for an eligr ble student Eligibility and loan amounts for the Perkins Loan is determined on the basis of need, early application (March 1), a 2.50 grade point average, and a minimum enrollment of six (6) credit hours each semester. This federal loan must be repaid, although there are some important cancellation options which are listed in your promissory note. Repayment on this loan begins nine months after the student ceases to be enrolled for 6 credit hours. The current interest rate is fixed at $5 \%$ and is calculated at the time repayment of the loan begins. Interest does not accrue while the student is duly enrolled or during the nine month grace period.

## Federal Subsidized Stafford Loan

This program offers low-interest, fixed-rate loans to eligible students on the basis of financial need. The interest for this loan is paid by the federal govemment while the student is in school or in a grace period. To be eligible for this loan, the student must complete the FAFSA form and related processes. After satisfactory completion of the form and processes an Award Notification estimating the potential eligibility for the loan, will be sent to the student must complete this form and submit it to the Office of Student Financial Aid \& Student Employment.

## Federal Unsubsidized Stafford Loan

The Stafford Unsubsidized Loan is not based on financial need, but completion of the FAFSA form and its processing is required to receive it. After satisfactory completion of the form and processes an Award Notification estimating the potential eligibility for the loan, will be sent to the student must complete this form and submit it to the Office of Student Financial Aid \& Student Employment. The government does not pay the interest on this loan while the student is in school. Interest begins accumulating the Unsubsidized Stafford immediately. The student may elect to pay the interest while in school, or may choose to have the interest capitalized.

## Federal PLUS Loan

The parents of undergraduate, dependent students may borrow through this program. Eligibility is not based on financial need, but rather on the student's enrollment as a student and on the parents' credit. If this is the only aid the student is seeking, a FAFSA does not have to be completed. Parents may borrow up to the cost if attendance, less any other financial aid. Applications may be obtained at The University of Akron or by contacting your local lending institution. Monthly payments for this variable-interest rate loan begin 30-60 days after loan receipt.

## Alternative Loans

Altemative/private loan programs are designed to bridge the funding gap when savings, scholarships, grants, federal loans, and other resources are not sufficient. These private loans are alternatives for students who are not able to borrow through the other federal loan programs or need additional funding beyond their federal aid eligibility. These loans require a good credit rating and/or a creditworthy co-signer. It is important to borrow responsibly and only borrow to the extent necessary in order to maintain a reasonable level of indebtedness. For more information on this type of loan, visit our Web site at muw.uakron.edu/finaid. Click on the link on the left hand side that says, "Loan Information." Scroll through the page until you find the link in the center of the page that says, "Alternative Loans." Click on this link to find information about specific Alternative Loans. Phone numbers are available so you may contact the lenders for specific information regarding their specific loan products.
Note: The terms of these loans are subject to rapid change. Contact lenders for most up-to-date information. The University of Akron is not responsible for changes in terms of loans. Students should ask questions of the lenders and do their own investigation and evaluation of which of these or other commercial loan products best suit their individual needs.

## State Programs

## Ohio College Opportunity Grant (OCOG)

This is a grant that is offered to students who are Ohio residents, by the State of Ohio. A student must meet the requirements set by the Ohio Board of Regents. This program replaces the Ohio Instructional Grant for students whose first atterdance of college as a fully admitted college student occurs during or after the 0607 academic year.

## Ohio Instructional Grant (OIG)

The OIG is available to an eligible undergraduate student who is ar Ohio resident. The grant is awarded by the Ohio Board of Regents. Eligibility is based on family income and application by the deadline (which is subject to change annually-contact the financial aid office for details) Students apply for the OIG by completing the FAFSA. If the state determines that a student is eligible to receive the OIG, both the student and The University of Akron will receive notification from the state.

## Ohio Safety Officers College Memorial Fund

This program provides tuition assistance to the children and spouses of peace officers, fire fighters and certain other safety officers who are killed in the line-ofduty, anywhere in the United States. Recipients must be Ohio residents. Recipients may enroll for full-time or part-time study at any participating Ohio post-secondary institution. The Fund provides benefits which cover full instructional and general fee charges at public colleges and universities and a portion of these costs at private post-secondary institutions. Interested students should contact the Ohio Board of Regents State Grants \& Scholarships Department.

## Nurse Education Assistance Loan Program (NEALP)

The Nurse Education Assistance Loan Program (NEALP) provides financial assistance to Ohio students enrolled for at least half-time study (or accepted for enroll ment) in an approved Ohio nurse education program. There are two deadlines, June 1 and November 1. Students may apply online between January 1 and June 1 for nursing classes beginning in the fall. Students may also apply between June 2 and November 1 for new nursing programs beginning in January (spring). If funding is not available to award loans to all eligible NEALP applicants, first-time awards will be made on the basis of "relative financiat need" as indicated by an applicant's "Expected Family Contribution" or EFC. The maximum award is $\$ 3,000$ per year for up to four years of eligible study.
Recipients may be eligible for loan cancellation at a rate of $20 \%$ per year for a maximum of five years if the recipient is employed in the clinical practice of nursing in the State of Ohio. The maximum loan forgiveness is $100 \%$. Borrowers who do not complete an approved nurse education program are not eligible for loan forgiveness and must repay the loan in full, plus interest. For interest rate and application information contact The Ohio Board of Regents: 1-888-833-1133

## The Ohio Education and Training Voucher Program

The Ohio Education and Training Voucher Program offers funds to foster youth and former foster youth to enable them to attend colleges, universities and vocational training institutions.

- Students may receive up to $\$ 5000$ a year for four years as they pursue higher education.
- The funds may be used for tuition, books or qualified living expenses.
- These funds are available on a first-come, first-served basis to students out of the Ohio foster care system.
You must fall into ONE of these three categories:
* You were in foster care on your 18th birthday and aged out at that time.
* Your foster care case will be closed between the ages of 18 and 21.
- You were adopted from foster care with adoption finalization AFTER your 16th birthday.
- You are a U.S. citizen or qualified non-citizen.
- Your personal assets (bank account, car, home, etc.) are not worth more - than $\$ 10,000$.
- You must be aged 18, 19 or 20 when you first apply to the ETV Program.
- You must have been accepted into or be enrolled in a degree, certificate or other accredited program at a college, university, technical or vocational school.t
- To remain eligible for ETV funding, you must show progress towards a degree or certificate.
To apply for this award, visit the following Web site: muw.statevoucher.org and click on the state of Ohio on the map. Follow the directions as listed.


## Ohio Academic Scholarship

The state of Ohio awards this scholarship each year to a graduating senior from each Ohio high school. The scholarship must be used at a college in Ohio. The amount is $\$ 2,100$ and is renewable annually for four years. Contact your school counselor for details.

## Ohio War Orphans' Scholarship

The Ohio War Orphans' Scholarship program awards tuition assistance to the children of deceased or severely disabled veterans who served in the armed forces during a period of declared war or conflict. These awards can be substantial Note: Disability status may, under certain circumstances, have occurred after the veteran's service period. Please, contact the Ohio Board of Regents at (888) 833 1133 or (614) 644-7420 for more information

## Ohio National Guard Scholarship

This scholarship is available to students who enlists in the Ohio National Guard. Contact a local recruiter for details.

## University Programs

## Scholarships

The University offers scholarships to students with high academic achievement. Academic scholarships are awarded to the continuing student as well as the outstanding high school student who plans to enroll. These academic scholarships are renewable each year based on continued high academic performance. A University Scholarship Application must be submitted each academic year. Priority deadline for entering freshmen applicants is February 1, for continuing students April 1.
In order to be considered for all possible scholarships, students should also complete a Free Application for Federal Student Aid (FAFSA) as soon as possible after January 1, but no later than March 1, each year. While scholarship requirements vary, all those listed here, unless noted otherwise, require students to carry a minimum of 12 credit hours per semester while enrolled at The University of Akron.
Scholarship For Excellence recipients will be selected from applicants with the highest combination of high school grade point average (min. 3.80), class rank (min. top 10\%), and standardized test scores (min. 30 ACT/1310 SAT). New freshmen must be fully admitted by February 1 to be considered, November 15 for Earty Action.

- Award Amount: \$6,000
- Recipients who are admitted to the Honors College may also receive an Honors Scholarship in addition to this award (see below).
- Renewal GPA: Scholarship for Excellence-3.25
- Minimum Enrollment: Full-time undergraduate (12 credits/semester)

Presidential Scholarship recipients are selected from applicants with a high combination of high school grade point average ( min . 3.50 ), class rank ( min. top 10\%), and standardized test scores (min. 28 ACT/1230 SAT). New freshmen must be fully admitted by February 1 to be considered, November 15 for Early Action.

- Award Amount: $\$ 3,000$
- Recipients who are admitted to the Honors College may also receive an Honors Scholarship in addition to this award (see below).
- Renewal GPA: Presidential Scholarship-3.25
- Minimum Enrollment: Full-time undergraduate (12 credits/semester)

Partners In Excellence recipients are selected from applicants with a good combination of high school grade point average ( $\min 3.30$ ), class rank min. top $25 \%$ ), and standardized test (min. 26 ACT/1160 SAT). New freshmen must be fully admitted by February 1 to be considered, November 15 for Early Action.

- Award Amount: \$1,500
- Recipients who are admitted to the Honors College may also receive an Honors Scholarship (see below) in addition to this award.
- Renewal GPA: Partners In Excellence-3.0

Student Success Scholership recipients are selected from applicants with an above average combination of high school grade point average (min. 3.0), class rank (min. top 50\%), and standardized test scores (min. 22 ACT/1010 SAT) who also have significant financial need.

- Award Amount: $\$ 1,500$
- Renewal GPA: Student Success Scholarship - 2.75
- Minimum Enrollment: Full-time undergraduate (12 credits/semester)

National Merit Finalist Awards are granted to students who are selected as National Merit Finalists. These students will receive a minimum \$6,000 Scholarship for Excellence (see above), renewable for three additional years for a total of 8 semesters. Finalists who apply, and are admitted, to the Honors College may receive an additional scholarship award from the Honors College (see below).

- Award Amount: As described aboye.
- Renewal GPA: National Merit Finalist-3.25
- Minimum Enrollment: Full-time undergraduate (12 credits/semester)

Honors Scholarship recipients are typically new freshmen with 3.50 high school grade point average and upper 10 percent nationally in test scores may be considered for an Honors Scholarship. Recipients must be admitted to the Honors College to receive these scholarships. Honors Scholarship awards are combined with University Scholarships to reach maximum Scholarship for Excellence, Presidential and Partners in Excellence Scholarship Levels.

- Early Admission Deadline: November 15 preceding the academic year
- Standard Admission Deadiine February 1.
- Essay and Interview required
- Award Amount: $\$ 3,000$ (Merit award); $\$ 1,500$ (Recognition award)
- Renewal: 3.25 End of first year; 3.30 End of second year; 3.40 End of third year
- Minimum Enroliment: Full-ime undergraduate (12 credits/semester)

Phi Theta Kappa Scholarships are awarded for students transferring from community colleges at which they are members of Phi Theta Kappa Hónorary Society.

- Award Amount: $\$ 1,000$ per year
- Renewal: 3.0-maximum of six full-time semesters

Transfer Scholarships are awarded to students transferring to The University of Akron with at least 24 semester hours of credit: Minimum cumulative grade point average of at least 3.25 required. Application deadline: April 1 (for fall semester)

- Award Amounts: $\$ 1,500$ (cumulative GPA of at least 3.50 ); $\$ 1,000$ (cumula tive GPA of at least 3.25)
- Renewal: 3.0-maximum six full-time semesters

ROTC Scholarships are available to qualified students who demonstrate acade mic and leadership potential. Special incentives are available for students majoring in nursing and engineering. Contact the ROTC office for details.

Departmental and Performance Scholarships are offered by many academic departments and are usually based on academic record or an audition/portfolio. For more information, please contact your department.
The University of Alron Tuition Incentive for Students from Out-of-State including U.S. Territories

## Akron Advantage Awards Scholarships for Non-Resident Students

Akron Advantage Blue Award - Sixty percent reduction of the non-resident surcharge (per academic year).
Fulltime, First-time Freshmen students from one of the 49 states outside of Ohio and all U.S. territories must meet one of the following eligibility criteria:

- 3.0 high school GPA (based on 6th semester transcript)
- 1000 SAT combined (critical reading and math score)
- 21 ACT
- Direct admission to a degree granting college
- Dependent of a UA alumnus/alumna

Akron Adventage Gold Award - Full reduction of the non-resident surcharge (per academic year).
Fulltime, First-time Freshmen students from one of the 49 states outside of Ohio and all U.S. territories must meet two of the following eligibility criteria:

- High school GPA of at least a 3.5 on a 4.0 scale (based on 6th semester transcript)
- Top $10 \%$ of their high school class
- ACT composite test score of at least a 27 or SAT combined test score of at least 1200 (critical reading and math scores)
In addition to the above eligibility criteria for the Blue and Gold Awards, students must meet the following to remain eligible to receive the awards:
- Out-of-state residency status (as stated above, a student from one of the 49 states outside of Ohio and all U.S. teritories)
- Full-time status (at least 12 credit hours per semester - Fali and Spring)
- Remain in good academic standing
- The scholarship is renewable for up to four academic years.

Choose Ohio First award recipients are selected from students pursuing a degree in a science, technology, engineering or mathematics related discipline. Students must be enrolled full time in one of these disciplines. This is a renewable scholarship with a maximum eligibility of four years (eight semesters), or until completion of a baccalaureate degree, whichever comes first. For renewal, students must maintain a GPA of 3.0. Recipients of this award are invited to become a learning assistant or a peer tutor, and to engage in undergraduate research activities with faculty. Co-op and intemship activities are encouraged for all recipients as well.

## - Award Amount: $\$ 1,500 \$ 4,700$

- Renewable GPA: At least a 3.0 overall and make sufficient progress toward degree completion in a timely manner.
- Minimum Enroliment: Full-time student pursuing a degree in a science. technology, engineering or mathematics related discipline.


## Student Employment

Student Employment can assist you in finding a job on or off campus. These jobs may or may not be related to your major field of study, but they are designed to work around your class schedule. Jobs are posted on the Financial Aid Web site or you can find them by following these directions:

1. Go to htto:lhanww.uakron.eduffinaid.
2. Click on the link on the left-hand side that says "Student Employment and Federal Work Study Information."
3. You will be given a choice of the types of jobs to view.
4. Click on the link of your choice.
5. Use the vertical and horizontal functions to find information not visible on the screen.
6. If you are interested in a posting, please contact the employer directly, using the phone number listed in the description.
If you have further questions, or wish to register for the job applicant pool, you can call (330) 972-7405.

## Job Location \& Development

The Job Location \& Development Program exists to assist students in locating off campus part-time employment. By working part-time, students are able to gain some valuable work experience and to earn money to assist with college expenses. Call (330) 972-7405 for details.

## Student Volunteer Programs

Student Volunteer Programs seek to recruit and refer students for volunteer positions with social service and nonprofit agencies in Northeast Ohio. Volunteering offers students a wealth of experience which will enable discovery of the reality of American life in ways that cannot be as graphically communicated in the classroom. In addition, the rendering of public service by student volunteers will help them develop an understanding of professional requirements and their role as truly educated citizens; enhance their educational experiences; give concrete form to the abstract learning of the college curriculum by applying it to immediate human needs; and know that a truly successful life must include helping others.
Students who are in good academic standing may participate in the program's volunteer activities. Students are also expected to respect the rules and regula tions of their volunteer agency. For more details call (330) 972-7405.

## Computation of Financial Aid

Govemment formulas determine what the family may be able to contribute toward the student's education. This amount is called the family contribution. Some of the key factors involved in computing the famity contribution are as follows:

| - Family income | - Number of family members in college |
| :--- | :--- |
| - Famity assets | - Family size |

The difference between the cost of education and the family contribution is called the unmet need. The unmet need is the amount the Office of Student Financial Aid attempts to cover through various financial aid programs to assist a student in meeting educational costs.

## Notification of Award

- A student will be notified of the initial aid package by a Financial Aid Award Notification sent to the mailing address. Students who have received their UAnet ID are able to check their financial aid awards through Zipline financials. Amendments or changes to the initial award package will not result in a new paper award notification; however, these can be viewed via Zipline using the UAnet ID. If students have questions regarding their financial aid awards they can always contact the Office of Student Financial Aid \& Student Employment by phone or in person.


## Distribution of Aid

Most financial aid will be applied directly to the tuition fee invoice. Awards are based on full-time enrollment (12 semester credits). If the student is not taking at least 12 credits, contact the Office of Student Financial Aid so that financial aid may be adjusted. The student is awarded aid for the entire academic year; however, the aid is disbursed proportionately each semester. If a student's aid exceeds the direct costs, the difference is given to the student prior to the beginning of each semester to assist with other educational expenses such as transportation, housing, books, etc. The student must maintain satisfactory enrollment status to be eligible for all aid.

## Revision of Awards

After receipt of the financial aid award, situations may arise which may necessi tate a revision in the aid package. A revision may result from receipt of an outside scholarship; a dramatic change in the family income such as unemployment of a parent or a divorce, etc. If family financial circumstances change, contact the Office of Financial Aid \& Student Employment so the aid package may be reviewed.

## Rules for Refund of Title IV Aid

## Refund/Repayment Policy - Students Receiving

## Financial Aid

If your invoice is paid using financial aid, and you officially withdraw from all courses or unofficially withdraw (receive all F's) please refer to the "Refund/Repayment Policy."

If you withdraw from some but not all of your courses, your aid could be affected as follows:
Scholarships Concerns: Scholarships have credit hour requirements. If you drop below the required hours, the refund is repaid to the scholarship.
Federal Pell Grant The Pell Grant will be adjusted for any change in enrollment that occurs on or prior to the 15th day of the semester. Pell will also adjust for any class withdrawn from that has not yet bogun.
Ohio Instructional Grant (OIG): OIG is based on full-time enrollment. If enroll ment drops below full-time during the university's $100 \%$ refund period, then $100 \%$ of the grant will be cancelled. If enrollment drops below fulltime during any other refund period, the grant will be pro-rated.
Loan Concerns: Dropping below half-time could place your loan into its grace period or repayment. In addition it could affect student loans currently being disbursed. For example, if your loan is for two semesters, the second semester portion may be canceiled, reduced or returned.
2. If you officially withdraw from all courses or unofficially withdraw (receive all $F$ 's), you are subject to the:

## Refund/Repayment Policy (Return of Titte IV Refund Policy)

This policy is used to determine the amount of federal student aid that must be retumed to the appropriate aid programs and should not be confused with the published university refund policy. When a student withdraws from all classes on or after the first day of classes and the student has received financial aid the fol lowing refund policy will apply:
The refund/repayment policy is a pro-ration of earned versus unearned financial aid. The eamed financial aid percentage is determined by taking the days attended in the period by total days in the period. (Example: Student withdraws 5th day of the semester which has 110 days in its period, $5 / 110=5$ percent earned.) Subtracting eamed aid from aid that was awarded and disbursed gives you the amount of unearned aid that must be returned. The responsibility to repay uneamed aid is shared by the institution and the student and is in proportion to the aid each is assumed to possess. The student may be billed from The University of Akron for any account balance created when the college is required to return funds. The balance due would be the result of tuition charges that are no longer being covered by the uneamed aid or unearned aid that the student received in an excess aid check. Under the refund/repayment policy, the programs are reimbursed in the following order: Unsubsidized Stafford Loan, Subsidized Stafford Loan, Federal Perkins Loan, PLUS Loans, Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, and LEAP funded programs.
Depending on the situation, withdrawal dates are determined in one of the fol lowing ways:

- The date the withdrawal is processed by the Office of the University

Registrar

- The date the student is officially dismissed from the college.
- The last date of documented academic attendance or coursework.
- In the case of unofficial withdrawals (students receiving all " $F$ " grades), it is the midpoint of the period of acadernic enroilment or last date of documented academic attendance or coursework.
- Students who never attended classes will be required to repay all student aid funds received.
Once students have attended past the $60 \%$ point of the payment period, all federal financial assistance is considered eamed.

Please inquire in the Office of Student Financial Aid if you need additional information on the refund policies.

## Eligibility for Aid as it Applies to Certain Classifications of Students

## Transfer Students

The University of Akron Office of Student Financial Aid will use the National Student Loan Database (NSLDS), eliminating the need to request individual financial aid transcripts (FATs) for most Title IV student aid applicants. If a student is transferting to the University during the academic year and has received a Federal Pell Grant and/or OIG from the prior school, the student must:

- The student must have their financial aid information submitted to The University of Akron. This can be done using the federal government's Web site, www.fafsa.ed.gov to make a correction to the original FAFSA to include The University of Akron's Title IV Aid code \#003123, and re-signing the FAFSA with hisher PIN. If the student is a dependent student, the parent will have to re-sign the corrected electronic form as well.
- Have the former Financial Aid Office provide a transfer request to have the OIG transferred to The University of Akron. Federal Perkins Loans, Federal College Work-Study Programs, Federal Supplemental Educational Opportunity Grants, and scholarships do not automatically transter. The student must reapply for these programs at The University of Akron.


## Graduate, Law, and Postbaccalaureate Students

A graduate or professional student who has already received a bachelor's degree can apply for the Federal Subsidized and Unsubsidized Stafford Loans. The Federal Pell Grant, Ohio Instructional Grant and Federal Supplemental Educational Opportunity Grant cannot be received. Post-baccalaureate students can only apply for Subsidized and Unsubsidized Stafford Loans. Graduate assistantships are available through various graduate departments. A graduate fellowship and other graduate awards are distributed by the Graduate School; therefore, a separate application is required.

## Guest Students

A guest student is one who is taking classes at The University of Akron but will receive the degree at another institution. Contact the Office of Student Financial Aid for written instructions on how to receive financial aid.

## International Students

A student in the United States on a student or other temporary visa is not eligible for any state or federal financial aid. Application for scholarships, short-term loans, and some types of employment may be made.

## Veterans

A veteran may be eligible to receive educational benefits through the Veterans Administration and should contact the Veterans Office at (330) 972-7838.

## Student Rights and Responsibilities

It is your right as a student to know and understand all aspects of your financial aid award. It is also your responsibility to follow all rules of each program. We anticipate that the information contained in this Bulletin will assist you with your questions regarding financial aid.

## Installment Payment Plan

The University offers an Installment Payment Plan (IPP) to the student who needs temporary heip in paying tuition and housing. Information and applications are available through the Office of Student Financials, (330) 972-5100.

## Inquiries

Since the process of applying for financial aid may at first seem complicated, it is suggested that families contact a high school counselor or a University financial aid officer for additional information. Direct inquiries to: Office of Student Financial Aid, The University of Akron, Akron, OH 44325-6211; Phone: (330) $\mathbf{9 7 2 - 7 0 3 2}$ or (800) 621-3847. The Office of Student Financial Aid is located in the Student Services Building at the comer of Buchtel Avenue \& College Street. We look forward to working with you.

## Standards of Satisfactory Academic Progress

Financial Aid recipients are required to be making Satisfactory Academic Progress toward completion of their educational programs as determined by the Office of Student Financial Aid. This is true whether or not student financial aid has been received previously. A copy of the Standards of Satisfactory Academic Progress Policy may be obtained from the Office of Student Financial Aid.

# Summit College 

Stanley B. Silverman, M.A., Dean
Michael J. Jalbert, J.D., Associate Dean
Deborah S. Weber, M.A., Interim Assistant Dean

## OBJECTIVES

Summit College helps to further the goals and purposes of the University by emphasizing the following objectives:

- The college serves the student by providing the means to examine academic and career opportunities considering interests, abilities and achievements.
- The college provides for industry, business, govemment agencies, health-care establishments and human service occupations; pre-service and in-service training for entry-level positions and/or advancement in employment.
- Consistent with the philosophy of learning as a life-long experience, the cot lege provides educational opportunities for the student no matter the age, background and need; fult or part-time, day or evening.
- The college provides quality instruction with qualified and experienced teachers who are encouraged to use the community as a "laboratory" for achieving educational goals.
The college also offers bachelor's degrees, certificates and minors.


## Cooperative Education

Minimum requirements for cooperative education students include the following:

- Enrollment in a program of study offered by Summit College wherein coopera tive education has been established.
- Minimum grade-point average of 2.00 for all University of Akron coursework and a minimum of 2.00 for all coursework applicable to program of study.
- Completion of specific courses and/or credits for a particular program as approved by the college faculty.


## Minor Areas of Study

For an explanation of minor areas of study in Summit College, see Section 5 of this Bulletin.

## DEVELOPMENTAL PROGRAMS

The Department of Developmental Programs, in collaboration with the Office of Student Academic Success, provides academic support:

- for all University students through individual tutoring, work in the Study Skills centers, Mathematics and Writing laboratories, and study strategies courses. Through these activities students develop and strengthen the skills necessary for successful performance at the college level.
- for students, including those who have been out of school for a number of years, who wish to strengthen their educational preparation through coursework in specific areas.
Students must complete with a grade "C" or better any developmental courses they may be required to take within the first 32 credit hours attempted. Both credit hours and development hours are included in these first 32 hours.


## Developmental Courses

Developmental courses are offered in writing, reading, college reading and study skills, and mathematics. (See 2010:042 through 071) Applied Study Strategies courses are offered in conjunction with specific General Education courses such as Introduction to Psychology, Introduction to Sociology, U.S. History, Basic Math II, Government and Politics in the U.S., Natural Science:Biology, and others. (See 2010:064) Classes are small to provide maximum opportunity for individual help.

BACCALAUREATE DEGREE PROGRAMS OF INSTRUCTION

## Computer Information Systems, Networking Option

Baccalaureate level graduates have learned business computer and network applications and practices consistent with the requirements of the modem information technology professional. This program emphasizes the knowledge and applied skills necessary to succeed in today's environment.
The networking option allows students to attain an in-depth study of network management including building, securing, managing, and troubleshooting multimedia wired and wireless LAN and WAN networks.

Students entering the Computer Information Systems program must demonstrate a fundamental knowledge of computers by examination or take the following bridge courses prior to enrolling in the program.

| Required Bridge Courses: |  | Credits |
| :---: | :---: | :---: |
| 2440:103 | Software Fundamentals | 2 |
| 2440:105 | Introduction to Computers and Application Software | 3 |
| 2540:140 | Keyboarding for Non-majors | 2 |
| 2020:121 | English | 4 |
| 2030:151 | Technical Mathematics I and | 2 |
| 2030:152 | Technical Mathernatics II or | 2 |
| 2030:161 | Math for Modem Technology | 4 |
| 2020:222 | Technical Raport Writing | 3 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:104 | Intro to Business in the Globel Environment | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:212 | Basic Accounting II | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2820:161 | Tectrical Physics: Mechanics I | 2 |
| 2820:163 | Technical Physics: Electricity \& Magnetism | 2 |
| 2440:140 | internet Tools | 3 |
| 2440:141 | Web Site Administration | 3 |
| 2440:145 | Operating Systems | 3 |
| 2440:201 | Networking Basics or | 4 |
| 2600:240 | Microsoft Networking I | 3 |
| 2440:202 | Router and Routing Basics or | 4 |
| 2600:242 | Microsoft Networking II | 3 |
| 2440:203 | Switching Basics and Intemediate Routing or | 4 |
| 2600:244 | Microsoft Natworking Ili | 3 |
| 2440:204 | WAN Technologies | 4 |
| 2440:240 | Computer Information Systems Intemship | 3 |
| 2440:247 | Hardware Support | 3 |
| 2440:248 | Server Hardware Support | 3 |
| 2440:268 | Network Concepts | 3 |
| 2440:301 | Advanced Routing | 4 |
| 2440:302 | Rernote Access | 4 |
| 2440:310 | Wireless Networking | 3 |
| 2440:338 | System Administration : | 3 |
| 2440:388 | System Administration II | 3 |
| 2440:401 | Multilayer Switching | 4 |
| 2440:402 | Network Troubleshooting | 4 |
| 2440:410 | Network Authentication and Security | 3 |
| 2440:420 | Voice, Data, Video | 3 |
| 2440:430 | Network Monitoring and Management | 3 |
| 2440:480 | Curent Topics in Computer Information Systems | 3 |
| 3300:112 | English Composition If | 3 |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| 3600:120 | Introduction to Ethics | 3 |
|  | Area Studies (200 level see list 3) | 2 |
|  | Natural Science Elective (list 1) | 4 |
|  | Area Studies 300 level (sea list 3) | 2 |
|  | Physical Education Elective | 1 |
|  | Hurnanites Elective (list 2) |  |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |

## Emergency Management (Step-Up) Degree Program

## Bachelor of Science in Emergency Management

For the first and second years, see Associate Degree Program in Fire Protection Technology ( 65 credits), Criminal Justice Technology ( 64 credits), Environmental Health and Safety Technology ( 69 credits), Emergency Medical Service ( 66 credits), Community Services ( 68 credits) and other related programs.

| Third Year |  |  |
| :---: | :---: | :---: |
| Fall Semester |  | Credits |
| 2235:305 | Principlas in Emergency Management | , |
| 2235:380 | Disaster Victims: Casuatties and Recovery | 3 |
| 2235:490 | Current Topics in Emergency Management | 3 |
| 3300:112 | English Composition | 3 |
| 3350:310 | Physicsia and Environmental Geography |  |
| 3370:200 | Environmental Geology | 3 |
| 3370:201 | Exercises in Environmental Geology Lab | 1 |
|  |  | 16 |
| Spring Semestor |  |  |
| 2235:350 | Emergency Response Preparedness and Planning | 3 |
| 3350:305 | Maps and Map Reading | 3 |
| 3400:210 | Humanities in Westem Traditions : | 4 |
| 3370:000 | Natural Science | 1 |
| 5540:xxx | Physical Education | 1 |
|  | Area Studies \& Cultural Diversity | 2 |
|  |  | 17 |
| Fourth Year |  |  |
| Fall Semestor |  |  |
| 2235:405 | Hazard Prevention and Mitigation | 3 |
| 2235:450 | Emergency Management Research Methods and Applications | 4 |
| 2980:425 | Land Navigation | 3 |
| 2985:101 | Introduction to Geographic and Land Information | 3 |
| 3350:314 | Climatology | 3 |
| 3350:433 | Practical Approaches to Plaming | 3 |
| 3600:120 | Introduction to Ethics | 3 |
|  |  | 22 |
| Spring Semester |  |  |
| 2235:410 | Disaster Relief and Recovery | 3 |
| 2235:495 | Intemship: Emergency Management | 1-4 |
|  | Technical Electives | 25 |
|  | Area Studias \& Cultural Diversity | 2 |
|  | Humanities Requirement | 3 |
|  |  | 18 |

- Required Electives - A minimum of 21 credit hours must be completed from the courses listed below. Those specifically identified in the curriculum guide are suggested. Students may select other courses which better support his/her career interests.

| 2235:490 | Current Topics in Emergency Management |
| :---: | :---: |
| 2235:497 | Independent Study: Emergency Management |
| 2980:425 | Land Navigation |
| 2985:101 | Introduction to Geographic and Land Information |
| 3100:105 | Introduction to Ecology |
| 3100:104 | Introduction to Ecology Lab |
| 3250:385 | Economics of Natural Resources and the Environment |
| 3350:305 | Maps and Map Reading |
| 3350:314 | Climatology |
| 3350:320 | Economic Geography |
| 3350:440 | Cartography |
| 3350:444 | GIS Applications in Geography and Planning |
| 3350:447 | Introduction to Remote Sensing |
| 3370:350 | Structural Geology |
| 3370:421 | Coastal Geology |
| 3400:471 | American Environmental History |
| 3700:370 | Public Administration Contepts and Practicas |
| 3850:428 | The Victim in Society |
| 7600:303 | Public Relations Writing |
| 7600:344 | Group Decision Making |

2235:497 Independent Study: Emergency Management
2985:101 Introduction to Geographic and Land Information
3100:105 Introduction to Ecology 2
3250:385 Economics of Natural Resources and the Environment
3350:305 Maps and Map Reading 3
350:320 Econolic Geography
3350:440 Cartography
IS Applications in Geography and Planning
Introduction to Remote Sensing
3370:350 Structural Geology
Coastal Geology
3700:370 Public Administration Coneepts and Practices
Pu,
7600:344 Group Decision Making

## Bachelor of Arts in Interdisciplinary Studies

This degree meets the needs of students who have an interdisciplinary academic goal. It expands opportunities for non-traditional students to complete their degrees at The University of Akron by allowing them to combine courses from various coileges to design a program. For more information on the program, see page 101.

## Engineering and Science Technology

The baccalaureate-level programs in Engineering Technology are intended to fill the widening gap in modern industry between the professional engineer and the engineering technician. The graduate of a program works in close support of engineers, translating conceptual ideas into functioning systems and provid ing supervisory direction for the implementation of these ideas by technicians and craftspeople.

These programs are designed as transfer programs to permit the qualified engineering technology student to continue education to the baccalaureate degree. Duning the first and second years of full-time study, a student follows an associate degree program in the corresponding engineering technology. The third and fourth years of full-time study provide the additional study required for the baccalaureate degree. Emphasis is placed on advanced training in the student's field of specialization, broadened knowledge of related technical fields, extended general education and basic management training.
The programs are available in automated manufacturing engineering technology, electronic engineering technology, mechanical engineering technology, surveying and mapping and construction engineering technology. It is intended that a graduate will find employment in manufacturing, technical sales and service, application engineering, inspection and testing and the more standardized aspects of engineering design.
The requirements for the Bachelor of Science in Automated Engineering Manufacturing Technology, the Bachelor of Science in Electronic Engineering Technology, the Bachelor of Science in Mechanical Engineering Technology. the Bachelor of Science in Surveying and Mapping, or the Bachelor of Science in Construction Engineering Technology are as follows:

- Compliance with the general University requirements for a baccalaureate degree as listed in this Bulletin.
- Compliance with the requirements of the General Education program as outlined in this Bullietin.
- Completion of the requirements for the associate degree in a related engineering technology at The University of Akron or other accredited institution.


## Bachelor of Science in Automated Manufacturing Engineering Technology

The Bachelor of Science in Automated Manufacturing Engineering Technology is an upper-level degree program designed to provide the student with additional education beyond an AAS degree. A Manufacturing Engineering Technology associate degree program serves as the first two years. Although an associate manufacturing program is cited, graduates from other related associate programs can frequently enter the program with little or no bridgework.

| Third- and fourth-year requirements: | Credits |  |
| :--- | :--- | :--- |
| xox:xxx | Humanities Requirement (see adviser) |  |
| xcox:xxx | Area Studies/Cultural Diversity Requirement (see adviser) | 4 |
| $2030: 154$ | Technical Math IV | 3 |
| $2030: 255$ | Technical Calculus I | 3 |
| $2040: 247$ | Survey of Basic Economics | 3 |
| $2820: 111$ | Introductory Chemistry | 3 |
| $2870: 301$ | Computer Control of Automated Systems | 3 |
| $2870: 311$ | Facilities Planning | 3 |
| $2870: 332$ | Management of Technology Based Operations | 3 |
| $2870: 441$ | Advanced Ouality Practices | 3 |
| $2870: 448$ | CNC Programming II | 3 |
| $2870: 470$ | Simulation of Manufacturing Systems | 3 |
| $2870: 480$ | Automated Production | 3 |
| $2870: 490$ | Manufacturing Project | 2 |
| $2920: 310$ | Economics of Technology | 3 |
| $2940: 211$ | Computer Aided Drawing II | 3 |
| $3300: 112$ | English Composition | 3 |
| $3400: 210$ | Humanities in the Westem Tradition I | 4 |
| $6500: 221$ | Quantitative Business Analysis | 3 |
| $6500: 301$ | Management: Principhes and Concepts | 3 |
| $6500: 330$ | Principles of Operations Management | 3 |
| $7600: 106$ | Effective Oral Communication | 3 |
|  | Technical Electives | 6 |

## Bachelor of Science in <br> Electronic Engineering Technology <br> \section*{Accredited by the Technology Accreditation Commission of the}

 Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012: Telephone: 410-347-7700.For the first- and second-year requirements, see associate degree program in 2860: Electronic Engineering Technology.

| Third- and fourth-year requirements; |  | Credits |
| :---: | :---: | :---: |
| 3300:112 | English Composition | 3 |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| xxxx:x0x | Humanities Requirement (see adviser) | 6 |
| $x \times x x: x 0 x$ | Area Studies/Cultural Diversity Requirement (see adviser) | 4 |
| p000:x0x | Computer Programming Elective | 2 |
| 2030:345 | Technical Data Analysis | 2 |
| 2030:356 | Technical Calculus II | 3 |
| 2820:111 | Introductory Chemistry | 3 |
| 2860:350 | Advanced Circuit Theory | 3 |
| 2860:352 | Microcontrollers | 4 |
| 2860:354 | Advanced Circuit Applications | 4 |
| 2860:400 | Computer Simulations in Technology | 3 |
| 2860:406 | Communication Systems | 3 |
| 2860:453 | Control Systems | 4 |
| 2920:310 | Economics of Technology | 3 |
| 5400:x0x | Physical Education | 1 |
| 6500:301 | Management Principles and Concepts | 3 |
| 6500:330 | Principles of Operations Management | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Electronic Technology Electives* | 3 |
|  | Computer Programming Elective** | 2 |
|  | Technical Electives*** | 5 |
| Choose one of the five following courses: |  |  |
| 2860:290 | Special Topics in Electronic Engineering Technology 1-4 |  |
| 2860:451 | Industrial Electrical Systems | 3 |
| 2860:420 | Biomedical Electronic Instrumentation | 3 |
| 2860:430 | Senior Topics in Electronic Technology | 3 |
| 2860:490 | Special Topics in Electronic Engineering Technology | 1-4 |
| *(8) Computer Programming Eloctivess: |  |  |
| 2820:310 | Programming for Technologists | 2 |
| 2440:170 | Visual Basic Programming | 3 |
| 3460:126 | Introduction to Visual Basic Programming | 3 |
| 2440:256 | C++ Programming | 3 |
| 3460:208 | Introduction to C++ Programming | 3 |
| 2440:160 | Java Programming | 3. |
| 4450:208 | Programming for Engineers | 3 |
| 3460:209 | Introduction to Computer Science | 4 |
| Choose a minimum of five credit hours from the courses listed below: |  |  |
| 2820:112 | Introductory \& Anahtical Chem. | 3 |
| 2860:110 | Manufacturing Processes | 3 |
| 2880:201 | Robotics \& Automated Manufacturing | 3 |
| 2880:211 | Computerized Manufacturing Control | 3 |
| 2870:348 | CNC Programming ! | 3 |
| 2870:448 | CNC Programming II | 3 |
| 2870:470 | Simulation of Manufacturing Systems | 2 |
| 2870:480 | Automated Production | 2 |
| 2920:249 | Applied Thermal Energy | 2 |
| 2920:251 | Fluid Power | 2 |
| 2920:252 | Therma Fluids Lab | 1 |
| 2920:365 | Applied Thermal Energy II | 3 |
| 2940:240 | Electrical and Electronic Drafting | 3 |
| 2980:125 | Statics | 3 |
| 2980:245 | Cost Analysis and Estimating | 3 |
| 2780:106 | Anatomy and Physiology for Allied Health I, II | 3 |
| 3460:306 | Assembly Language Programming | 3 |
| 2990:357 | Construction Administration | 2 |
| 2990:453 | Legal Aspects of Construction | 2 |
| 2990:463 | Electrical Service Systems | 3 |

Prior to enrolling in the program and to taking 2860:350 Advanced Circuits, a student must have completed at least 45 credits of a two-year electronic technology associate degree program; maintained a grade-point ratio of 2.00 or higher in major courses (Mathematical Analysis or equivalent, Basic Physics or equivalent, and technical courses in the 2860 series or equivalent); and maintained a minimum overall grade-point ratio of 2.00 .

## Bachelor of Science in Mechanical Engineering Technology

Accredited by the Technology Acereditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Beltimore, MD 21202-4012: Telephone: 410-347-7700.

For first- and second-year requirements, see associate degree program in mechanical engineering technology.

| Third- and fourth-year requirements: |  | Credits |
| :---: | :---: | :---: |
| 2030:356 | Technical Calculus II | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2820:310 | Programming for Technologists | 2 |
| 2820:111 | Introductory Chemistry | 3 |
| 2820:112 | Introductory and Analytical Chemistry | 3 |
| 2860:370 | Survey of Electronics 1 | 3 |
| 2860:371 | Survey of Electronics II | 3 |
| 2880:241 | Intro to Quality Assurance | 3 |
| 2920:310 | Economics of Technology | 3 |
| 2920:344 | Dynamics | 3 |
| 2920:346 | Mechanical Design III | 4 |
| 2920:347 | Production Machinery and Processes | 3 |
| 2920:365 | Applied Thermal Energy II | 3 |
| 2920:370 | Plastics Design and Processing | 3 |
| 2920:402 | Mechanical Projects | 1 |
| 2920:405 | Industrial Machine Control | 3 |
| 2920:470 | Plastics Processing and Testing | 2 |
| 3300:112 | English Composition | 3 |
| 3400:210 | Humanities in the Western Tradition 1 | 4 |
| xxox:xox | Humanities Requirement (see adviser) | 6 |
| xaxer:xx | Area Studies/Cultural Diversity Requirement (see adviser) | 4 |
| yoxexx | Technical Elective | 3 |

Prior to enrolling in the program, a student must have completed at least 45 cred its of the two-year program with a grade-point ratio of 2.00 or higher in Math for Engineering Technology, Technical Physics and technical courses (2920 series) in the two-year program; and a minimum overall grade-point ratio of 2.00 .

## Bachelor of Science in Surveying and Mapping Technology (BSSMT)

Accredited by the Technology Accreditation Commission of the
Accreditation Board for Engineering and Technology, 111 Market Place,
Suite 1050, Beltimore, MD 21202-4012: Telephone: (410) 347-7700.

## Program Description

The B.S. in Surveying and Mapping Technology degree program is an upper-level degree program designed to provide the student with additional education beyond the AAS degree in Surveying Engineering Technology. This degree is also designed to meet the formal education requirements for registration as a Professional Surveyor in the State of Ohio.
This upper-level degree program is defined as follows:

- The first two years are completed as an AAS degree in Surveying Engineering Technology or similarly based program.
- Two of the remaining three years are for the completion of prescribed coursework.
- The remaining year of the three years is devoted to a cooperative work experience in the Surveying and Mapping field. The student normally enters the coop segment between the junior and senior years.
The B.S. in Surveying and Mapping Technology degree program includes classroom, laboratory and industry experiences which stress the application of established surveying and mapping knowledge.


## Requirements for Admission

Applicants for the Surveying and Mapping Technology program must hold an associate degree in Surveying Engineering Technology from an accredited program or provide an equivalent academic background. The applicant must have a minimum cumulative grade-point average of 2.0 out of a possible 4.0. Applicants with an associate degree in a discipline other than Surveying Engineering Technology will be required to complete a specific formal set of courses as specified at the time of admission. Final approval for admission is based upon recommendations from the Director of the Surveying and Mapping Program.

[^5]
## Cooperative Work Study Requirement

The required Cooperative Work Study experience of the Surveying and Mapping Technology program consists of 52 weeks of surveying work experience which may begin after the student has completed 64 hours of coursework in the Surveying and Mapping program. This program may be satisfied by any one of the following options:

## A. One calendar year

B. Three semesters (Summer I and II counts as one semester for the co-op).
C. Department review of prior or concurrent work experience.

Students having prior or concurrent work experience should submit to the Surveying and Mapping Technology Co-op Review Committee appropriate documentation before signing their program contract. The Surveying and Mapping Technology Co-op Review Committee will determine whether this work experience satisfies the coop requirement.

## Requirements for Gractuation

- Compliance with the requirements of the general studies program as outlined in this Bulletin.
- Completion of the requirements for the associate degree in Surveying Engineering Technology, at The University Akron or an approved associate degree program. Students transferring from another institution must have their transcripts evaluated to ensure that they have the required number of credits in surveying courses. Those found deficient must complete lower level surveying coursework before upper level Surveying and Mapping Technology courses can be taken.
- Successful completion of a minimum of 136 credits in the B.S. in Surveying and Mapping Technology program including the associate degree program, the general studies courses, a one-year co-op, and the following course requirement:
Third and Fifth Year Requirements Credits
xxoc:rax Humanities Requirement (see adviser)
Area Studies/Cultural Diversity Requirements (see adviser)
Technical Data Analysis
Technical Calculus II
Essentials of Management Technology
Basic Accounting I
Programming for Technologists
Survey Computations \& Adjustments
Boundary Control \& Legal Principles
Legal Aspects of Surveying
Subdivision Design
GPS Surveying
Ohio Lands
Surveying Project
English Composition II
Remote Sensing
Earth Science
Humanities in the Westerr Tradition
Introduction to Ethics
First Aid and Cardiopulmonary Resuscitation
Techricen Electives
Surveying Electives


## Bachelor of Science in Construction Engineering Technology

## Accredited by the Technolagy Accreditation Commission of the Accreditation Board for Englneering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012: Telephone: (410) 347-7700. <br> Program Description

The B.S. in Construction Engineering Technology degree program is an upperlevel degree program designed to provide the student with additional education beyond the AAS degree in Construction Engineering Technology. This degree is also designed to meet the formal education requirements for registration as a Professional Engineer in the State of Ohio.
This upper-level degree program is defined as follows:

- The first two years are completed as an AAS degree in Construction Engineering Technology or similarly based program.
- Two of the remaining three years are for the completion of prescribed course work.
- The remaining year of the three years is devoted to a cooperative work experience in the construction field. The student normally enters the co-op segment between the junior and senior years.

The B.S. in Construction Engineering Technology degree program includes classroom, laboratory and industry experiences which prepares students for careers in the construction industry and other allied industries.

## Requirements for Admission

Applicants for the Construction Engineering Technology program must hold an associate degree in Construction Engineering Technology from an accredited program or provide evidence of an equivalent academic background. The applicant must have a minimum cumulative grade-point average of 2.0 out of a possible 4.0. Applicants with an associate degree in a discipline other than Construction Engineering Technology will be required to complete a specific formal set of courses as specified at the time of admission. Final approval for admission is based upon recommendations from the Director of the Construction Engineering Technology Program.

## Cooperative Work Study Requirement

The required Cooperative Work Study experience of the Construction Engineering Technology Program consists of 52 weeks of construction work experience which may begin after the student has completed 34 hours of coursework in the Construction Engineering Technology Program. This program may be satisfied by any one of the following options.
A. One calendar year.
B. Three semesters ( Summer I and II count as one semester for the coop).
C. Department review of prior or concurrent work experience.

Students having prior or concurrent work experience should submit to the Construction Engineering Technology Co op Review Committee appropriate documentation before signing their program contract. The Construction Engineering Technology Co-op Review Committee will determine whether the work experience satisfies the co-op requirement.

## Requirements for Graduation

Compliance with the requirements of the general education program as outlined in this Bulletin.

Completion of the requirements for the associate degree in Construction Engineering Technology at The University of Akron or an approved associate degree program. Students transferring from another institution must have their transcripts evaluated to ensure that they have the required number of credits in Construction Engineering Technology courses. Those found deficient must complete lower level construction engineering technology coursework before upper level construction engineering technology courses can be taken.
Successful completion of a minimum of 133 credits in the B.S. in Construction Engineering Technology program including the associate degree program, the general education courses, a one-year co-op, and the following course require ments.

| Third and Fitith Yeer Requirements: |  | Cradis |
| :---: | :---: | :---: |
| 2030:356 | Tectrical Calculus II | 3 |
| 2420:243 | Survey of Finance | 3 |
| 2870:332 | Management of Technology Based Operations | 3 |
| 2990:352 | Field Management \& Scheduling | 2 |
| 2990:354 | Foundation Construction Methods | 3 |
| 2990:355 | Computer Applications in Construction | 3 |
| 2990:356 | Safety in Construction | 2 |
| 2990:358 | Advanced Estimating | 3 |
| 2990:453 | Legal Aspects of Construction | 2 |
| 2990:462 | Mechanical Service Systems | 3 |
| 2990:463 | Electricai Service Systems | 3 |
| 2990:466 | Hydraulics | 3 |
| 2990:468 | Construction Management | 3 |
| 3300:112 | English Composition II | 3 |
| 3400:210 | Humanities in the Western Tradition | 4 |
| 5550:211 | First Aid and Cardiopulmonary Resuscitating | 2 |
| 6200:201 | Accounting Principles 1 | 3 |
|  | Area Studies and Cutural Diversity | 4 |
|  | Humanities Requirement | 6 |
|  | Technical Electives | 6 |
|  | Natural Science Elective | 3. |

## Bachelor of Science in Respiratory Therapy

This Bachelor of Science program is accredited by the Commission on Accreditation of Allied Health Education Programs, 35 East Wacker Drive, Suite 1970, Chicago, IL 60601312 553-9355. The program prepares graduates to perform respiratory therapy procedures, under the direction of a physician. This program emphasizes critical thinking and assessment of patients with cardiopulmonary disorders. Admission is selective due to space availability in the clinical component of the program.

| 2020:121 | English | 4 |
| :---: | :---: | :---: |
| 2020:222 | Technical Report Writing or | 3 |
| 3300:112 | English Composition II | 3 |
| 2030:161 | Math for Modarn Tectinology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:242 | American Urban Society | 3 |
| 2040:256 | Diversity in American Society | 2 |
| 2235:450 | Emergency Management Research Methods \& Application | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2740:120 | Mediral Terminology | 3 |
| 2780:106 | Anatorny \& Physiology for Alied Heath I or | 3 |
| 3100:200 | Hurnan Anatomy \& Physiology I and | 3 |
| 3100:201 | Human Anatormy \& Physiology Laboratory I | 1 |
| 2780:107 | Anatomy \& Physiology for Allied Heath II or | 3 |
| 3100:202 | Human Anatomy \& Ptysiology II and | 3 |
| 3100:203 | Humen Anatorry \& Physiology Laboratory | 1 |
| 2790:100 | Concepts in Respiratory Therapy | 3 |
| 2790:210 | Respiratory Therapy Procedures I lab | 3 |
| 2790:215 | Respiratory Therapy Pharmacology | 3 |
| 2790:301 | Cardiopulmonary Assessment Techniquas lab | 2 |
| 2790:302 | Cardiopulmonary Anatomy \& Physiology | 3 |
| 2790:303 | Cardiopulmonary Pathology | 4 |
| 2790:311 | Respiratory Therapy Procedures il lab | 3 |
| 2790:312 | Diagnostics I | 3 |
| 2790:313 | Diagnostics II | 3 |
| 2790:315 | Advanced Pharmacology for Respirstory Therapy | 2 |


|  |  | Cradits |
| :---: | :---: | :---: |
| 2790:320 | Neonatalpediattics for Respiratory Therapy 1 | 3 |
| 2790:325 | Mechanical Ventilation lab | 4 |
| 2790:340 | Application of Clinical Concepts | 2 |
| 2790:341 | RT Clinical Experience I | 3 |
| 2790:342 | RT Clinical Experience II | 2 |
| 2790:413 | Respiratory Therapy in Altemate Settings lab | 3 |
| 2790:420 | Neonatalpediatrics for Respiratory Therapy II | 3 |
| 2790:421 | ACLS \& PALS | 3 |
| 2790:430 | Problems in Respiratory Therapy | 3 |
| 2790:443 | RT Clinical Exparience III | 3 |
| 2790:444 | RT Clinical Experience IV | 3 |
| 3100:130 | Principles of Microbiotogy | 3 |
| 3150:110 | Intro to General, Organic \& Biochemistry | 3 |
| 3150:111 | Intro to General, Organic \& Biochemistry lab | 1 |
| 3400:210 | Humanities in the Westem Tradition I | 4 |
| 3600:120 | Introduction to Ethics | 3 |
| 3600:361 | Biomedical Ethics | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Humanities Requirement (see Bulletin, page 94) |  |
|  | Area Studies Requirement (see Bulletin, page 94) | 2 |
|  | Physical Education Requirement (see Bulletin, page 94) | 1 |

In order to complete the BS program in Respiratory Therapy, the student must complete one of the options listed below. To satisfy this requirement, all six credits must come from the same option.


## ASSOCIATE DEGREE PROGRAMS OF INSTRUCTION

Specialized technical programs are offered in the following departments of the college:

| Allied Health Technology | Engineering and Science Technology |
| :--- | :--- |
| Associate Studies | Public Service Technology | Business Technology

These programs lead to the Associate in Applied Science, Associate in Applied Business (carrying a designation of the specific program), and Associate of Technical Study. In addition, a program in liberal arts leading to the Associate of Arts and a program leading to the Associate of Individualized Studies are offered in the Associate Studies Department.

## Requirements for Graduation

Candidates for the associate degree must have the following:

- Complete the required courses listed in the program. Complete as a minimum, the number of credits listed for each program.
- Earn a minimum grade-point average of 2.00 in ali work taken at The University of Akron.
- Be recommended by the faculty.

Spend the last semester in residence (earning a minimum of 16 credits) at the University unless excused by the dean of the college.

- Complete other University requirements as in "Requirements for Graduation," Section 3 in this Bulletin.
A student who expects to receive a second associate degree must eam a minimum of 16 credits in residence which have not counted toward the student's first degree.


## Allied Health

## 2740: Medical Assisting Technology

This program provides students with the background to perform a wide range of tasks in the physician's office and other ambulatory health care settings. Administrative tasks include ICD-9-CM \& CPT coding and medical software usage. Clinical tasks include injections, phlebotomy, assisting with minor surgery, minor office procedures, and CLIA waived laboratory tests.

The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). CAAHEP, 1361 Park St., Clearwater, Fla., (727) 210-2350, muw.caahep.org.

| 2020:121 | English | 4 |
| :---: | :---: | :---: |
| 2030:130 | Mathematics for Allied health | 3 |
| 2040:240 | Human Relations | 3 |
| 2040:256 | Diversity in American Sociery | 2 |
| 2040:254 | The Black Experience from 1619 to 1877 or | 2 |
| 2040:257 | The Black Experience 1877-1954 or | 2 |
| 2040:258 | The Black Experience 1954present | 2 |
| 2440:105 | Introduction to Computers and Application Software | 2 |
| 2540:140 | Keytoarding for Non-Majors | 2 |
| 2740:120 | Medical Terminology | 3 |
| 2740:121 | Study of Disease Processes | 3 |
| 2740:122 | Emergency Responder 1 | 1 |
| 2740:126 | Administrative Medical Assisting I | 4 |
| 2740:127 | Administrative Medical Assisting II | 4 |
| 2740:128 | Besic Procedural Coding | 3 |
| 2740:129 | Basic Diagnostic Coding | 3 |
| 2740:135 | Clinical Medical Assisting I | 4 |
| 2740:228 | Medical Insurance | 3 |
| 2740:230 | Basic Pharmacology | 3 |
| 2740:235 | Clinical Medical Assisting \|| | 4 |
| 2740:245 | Medical Externship | 4 |
| 2780:106,7 | Anatomy and Physiology for Allied Health I, II |  |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication or | 3 |
| 2540:263 | Protessional Communication and Presentations | 3 |

## 2750: Health Information Technology

Health Information Technology is a profession that focuses on healthcare data and the management of healthcare information resources. It represents a continuum of practice concerned with healthrelated information and management of systerns to collect, store, process, retrieve, analyze, disseminate and communicate information related to the research, planning, provision, financing and evaluz tion of health services. This career combines a knowledge of skills from medicine, information management, business applications and computer technology within the healthcare industry.

Credits

| 2020:121 | English |
| :---: | :---: |
| 2020:222 | Technical Report Writing |
| 2030:161 | Math for Moden Technology |
| 2040:240 | Human Relations |
| 2040:254 | Btack Experience 1619-1877 or |
| 2040:257 | Black Experience 1877-1954 or |
| 2040:258 | Black Experience 1954-Present or |
| 2040:256 | Diversity in America |
| 2440:105 | Intro to Computer and Application Software |
| 2530:241 | Health Information Managernent |
| 2740:120 | Medical Terminology |
| 2740:121 | Study of Disease Processes |
| 2740:127 | Administrative Medical Assisting II |
| 2740:128 | Basic Procedure Coding |
| 2740:129 | Basic Diagnostic Coding |
| 2740:228 | Medical Insurance |
| 2740:230 | Basic Pharmacology |
| 2740:245 | Medical Externship |
| 2750:220 | Database Applications for Healthcare |
| 2750:225 | Heathcare Statistics and Registries |
| 2750:230 | Advanced Medical Coding |
| 2750:235 | Legal Concepts of Healthcare |
| 2780:106 | Anatomy and Physiology for Allied Health I |
| 2780:107 | Anatormy and Physiology for Allied Health II |
| Total 64 C |  |

4 4
3
4 4 3 2

2

2
Black Experience 1954 - Present

intro to Computer and Application Software 3
Health Information Management
Medical Terminology
of Disease Processes
Basic Procedure Coding
Basic Diegnostic Coding
adical nsuranco
Medical Extemship
ase Applications for Heatncare

Legal Concepts of Heatthcar
Anatormy and Physiology for Allied Heath II
Totel 64 Credits

## 2760: Radiologic Technology

This program prepares graduates to perform radiologic examinations under a physician's direction for diagnosis and treatment of physical diseases and injuries. Although the University is authorized to offer the associate degree in radiologic technology, this degree program is not fully operational on campus at this time but, is offered in conjunction with an area hospital school of radiology.
A student who satisfactorily completes an accredited program in radiologic technology at a hospital school having an affiliation with the University may eam the associate degree by completing additional courses at the University. The student will then receive a block of credit for the hospital program that is applicable only to the associate degree in radiologic technology. (Selective Admission)

The degree requirements for the student are as follows:

| 2020:121 | English | 4 |
| :---: | :---: | :---: |
| 2030:130 | Mathematics for Allied Health | 3 |
| 2040:240 | Human Relations | 3 |
| 2740:120 | Medical Terminology | 3 |
| 2780:106 | Anatorny and Physiology for Alliad Heakh I or | 3 |
| 3100:200, 201 | Human Anatormy and Physiology I, Lab | 4 |
| 2780:107 | Anatomy and Ptyysiology for Allied Health It or | 3 |
| 3100:202, 203 | Human Anatorny and Physiology It, Lab | 4 |
| 2760:161 | Physical Science for Radiologic Technology 1 | 2 |
| 2760:165 | Radiographic Principles | 3 |
| 2760:261 | Physical Science for Radiologic Technology II | 3 |
| 5540:x0x | Physical Education | 1 |
| 7600:106 | Effective Oral Communication | 3 |
|  | General Electives | 2 |
|  | Credits for Hospital Program | 41 |

Applications for admission to these programs should be made directly to the hospital school.

## 2770: Surgical Technology *

This program trains people to prepare equipment and assist the physician and other members of the surgical team with patient care and related services in the hospital operating room. (Selective admission.)

Credits

| 2020:121 | English |
| :---: | :---: |
| 2030:130 | Mathematics for Allied Heath |
| 2040:240 | Human Relations |
| 2040:242 | American Uiban Sociaty |
| 2740:120 | Medical Terminology |
| 2740:121 | Study of Disease Processes for Medical Assisting |
| 2740:230 | Basic Pharmacology |
| 2770:100 | Introduction to Surgical Assisting Technology. |
| 2770:221 | Surgical Assisting Procedures I |
| 2770:222 | Surgical Assisting Procedures il |
| 2770:231 | Clinical Application I |
| 2770:232 | Clinical Application II |
| 2770:233 | Clinical Application III |
| 2770:248 | Surgical Anatomy 1 |
| 2770:249 | Surgical Anatormy II |
| 2780:106,107 | Anatorny and Physiology for Allied Health I, II |
| 2820:105 | Basic Chemistry |
| 3100:130 | Principles of Microbiotogy |
| 7600:106 | Effective Oral Communication |

## Associate Studies

## 2020: Associate in Arts

Through basic coursework and general education, this program is intended to produce a socially intelligent individual, one who understands effective social values as well as scientific facts.

| 2020:121 | English. | 4 |
| :---: | :---: | :---: |
| 2020:222 | Technical Report Writing | 3 |
|  | or . |  |
| 3300:112 | English Composition II | 3 |
| 2040:240 | Human Reletions | 3 |
| 2040:242 | American Utban Society $\ddagger$ | 3 |
|  | or . |  |
| 2040:243 | Contemporary Global Issues | 3 |
|  | or |  |
| 2040:247 | Survey of Basic Economicst¥ | 3 |
| 2040:254 | The Black Experience from 1619-1877 | 2 |
|  | or |  |
| 2040:256 | Diversity in American Society | 2 |
|  | or |  |
| 2040:257 | The Black Experience 1877-1954 | 2 |
|  | or |  |
| 2040:258 | The Black Experience 1954-Present | 2 |
| 2540:263 | Professional Communications \& Presentations | 3 |
|  | or |  |
| 7600:106 | Effective Oral Communication | 3 |
|  | or |  |
| 7600:105 | Introduction to Public Speaking | 3 |
| 3400:210 | Humanities in Western Tradition I | 4 |
| 5540:00x | Physical Education. | 1 |
| y000:xox | Mathematics Requirement | 3 or 4 |
| x000:: $: 100 x$ | Natural Science Requirement $\dagger$ | 8 |
| 1000x:00x | Electives | 21 or 22 |
| y000:00x | Humanities Requirernent** | 6 |
| x $x$ co: $x \times$ | Area Studies/Cultural Diversity $\ddagger \ddagger$ | 2 |

Students must complete a minimum of 8 credit hours of 2000: courses.

## 2100: Individualized Study

The Associate of Individualized Study (AIS) is designed for students whose educational goals cannot be met through one of the structured associate degree programs. It makes available a program of study which combines coursework from various disciplines and focuses on education for individual development.
A student at The University of Akron may apply for the AIS program by meeting with the AIS coordinator and submitting the AIS application. The purpose of this procedure is to determine the appropriateness of the program for the student; and, with the assistance of the AIS chair, to select the areas of study.
Although students assume the responsibility for the selection of their areas of study, they must receive assistance and approval from the Chair of the AIS program. Requirements for graduation from the AIS program are:

## - Completion of:

- course 2100:190 Individualized Study Evaluation;
- minimum of 40 credits in the AIS program after acceptance to the program;
- minimum of 20 credits of Summit College courses;
- minimum of 16 credits in the General Course Category;
- at least one-half of the courses in the approved areas of concentration at the 200 or above level number equally divided among the selected areas;
- all other University of Akron requirements for graduation.
- Areas of concentration will be formed by courses drawn from a minimum of two and a maximum of four instructional areas.
- AIS degree will not be awarded in any combination of areas of concentration for which The University of Akron offers either an associate or baccalaureate degree.
- Areas of concentration must serve a coherent educational or occupational goal.
- Only previous coursework completed with a grade of "C" or higher may be applied toward the AIS degree.


## Business Technology

## 2280: Hospitality Management

Provides the general knowledge and skills necessary for success within the multifaceted hospitality industry.

- Students entering the Hospitality Management program must pass department placement exams or complete the following bridge courses prior to enrolling in the program.


| Restaurant Management |  |
| :---: | :---: |
| 2020:121 | English |
| 2030:161 | Mathematics for Modern Technology |
| 2040:240 | Human Relations |
| 2040:247 | Survey of Basic Economics |
| 2040:254 | The Black Experience from 1619 to 1877 or |
| 2040:256 | Diversity in American Society or |
| 2040:257 | The Black Experience, 1877 to 1954 or |
| 2040:258 | The Black Experience, 1954-present or |
| 3350:375 | Geography of Cultural Diversity |
| 2280:101 | Introduction to Hospitality |
| 2280:120 | Safety and Sanitation |
| 2280:121 | Fundamentals of Food Preparation 1 |
| 2280:122 | Fundamentals of Food Preparation II |
| 2280:160 | Wine and Beverage Service |
| 2280:232 | Dining Room Service and Training |
| 2280:233 | Restaurant Operations and Management |
| 2280:237 | Intemship |
| 2280:240 | Supervision in the Hospitality Industry |
| 2280:243 | Food Equipment and Plant Operations |
| 2280:245 | Menu, Purchasing and Cost Control |
| 2280:256 | Hospitality Law |
| 2280:278 | Hospitality Industry Marketing |
| 2420:104 | Introduction to Business in the Global Environment |
| 2420:211 | Basic Accounting I |
| 2540:270 | Business Software Applications |
| 2540:263 | Professional Communications and Presentations or |
| 7600:105 | Introduction to Public Speaking or <br> Effective Oral Communication |


| Hotel/Lodging | Management |
| :---: | :--- |
| 2020:121 | English |
| 2030:161 | Mathematics for Modem Tectinology |
| $2040: 240$ | Human Relations |
| $2040: 247$ | Survey of Basic Economics |
| $2040: 254$ | The Black Expenience from 1619 to 1877 |
|  | or |
| $2040: 256$ | Diversity in American Society |
|  | or |
| $2040: 257$ | The Black Experience, 1877 to 1954 |
|  | or |
| $2040: 258$ | The Black Experience, 1954-present |
|  | or |
| $3350: 375$ | Geography of Cultural Diversity |
| $2280: 101$ | Introduction to Hospitality |
| $2280: 120$ | Safety and Sanitation |
| $2280: 127$ | Fundamentals of Food Preparation I |
| $2280: 160$ | Wine and Beverage Service |
| $2280: 232$ | Dining Room Service and Training |
| $2280: 237$ | Intemship |
| $2280: 240$ | Supervision in the Hospitality Industry |
| $2280: 245$ | Menu, Purchasing and Cost Control |
| $2280: 250$ | Front Office Operations |
| $2280: 256$ | Hospitality Law |
| $2280: 268$ | Revenue Centers |
| $2280: 278$ | Hospitality Industry Marketing |
| $2280: 280$ | Speciai Events Management |
| $2420: 104$ | Introduction to Business in the Global Environment |
| $2420: 211$ | Basic Accounting I |
| $2540: 263$ | Profassional Communications and Presentations |
| $7600: 105$ | Introduction to Public Speaking |
| $7600: 106$ | orf |
| $2540: 270$ | Business Software Applications |
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[^6]
## 2440: Computer Information Systems

This program prepares graduates to enter the job market as Information Technology (IT) professionals. Emphasis of the curriculum is on providing gradur ates with the skills and knowledge to solve computer-related business problems.

- Students entering the Computer Information Systems program must pass department placement exam or complete the following bridge course prior to enrolling in the program.
2440:105 Introduction to Computers and Applications Softwere 3

| Programming Specialist |  |  |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2030:151 | Technical Mathematics \| | 2 |
| 2030:161 | Math for Modem Tectinology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2040:254 | The Black Experience from 1619 to 1877 or | 2 |
| 2040:256 | Diversity in American Society or | 2 |
| 2040:257 | The Black Experience 1877 to 1954 or | 2 |
| 2040:258 | The Black Experience 1954 to Present | 2 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:211,12 | Basic Accounting i, II | 6 |
| 2440:121 | Introduction to Logic/Programming | 3 |
| 2440:140 | Intemet Tools | 3 |
| 2440:145 | Operating Systems | 3 |
| 2440:160 | Java Progremming | 3 |
| 2440:170 | Visual BASIC | 3 |
| 2440;180 | Database Concepts | 3 |
| 2440:210 | Client/Server Programming | 3 |
| 2440:234 | Business Programming | 3 |
| 2440:241 | Systems Analysis and Design | 3 |
| 2440:251 | CIS Project | 3 |
| 2440:256 | $\mathrm{C}^{++}$Programiming | 3 |
| 2540:119 | Business English | 3 |
| 2540:263 | Protessional Communications \& Presentations or | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |

Microcomputer Specialist
2020:121
English

| $2030: 151$ | Technical Mathematics | 4 |
| :--- | :--- | :--- |
| 2 |  |  |

2030:161 Math for Modern Technology 4

| 2040:240 | Human Relations | 3 |
| :--- | :--- | :--- |
| 2040:247 | Survey of Basic Economics | 3 |

2040:254 The Black Experience from 1619 to 1877 - 2
2040:256 Diversity in American Society 2
2040:257 The Black Experience 1877 to 19542
2040:258 The Black Experience 1954 to Present 2
2420:104 Introduction to Business in the Global Environment 3
2420:217.12 Basic Accounting ! II
2440:121 introduction to Logic:Programming
2440:140 Internet Tools
2440:145 Operating Systems
2440:170 Visual BASIC
2440:175 Microcomputer Application Support
2440:180 Database Concepts
2440:210 Client/Server Programming
2440:241 Systems Analysis and Design
2440:247 Hardware Support**
2440:251 CIS Projects
$\begin{array}{ll}2440.267 & \text { CIS Projects }\end{array}$
Microcomputer Database Applicati
2440:268 Network Concepts**
2540:119 Business English
2540:263 Professional Communications \& Presentations or
7600:105 Introduction to Public Speaking
$\square$

[^7]
## Computer Maintenance and Networking

- Students must pass department placement exam, complete Bridge Course las needed as a result of the department placement exam) or gain permission from program director before enrolling in Computer Information Systems courses.

Credits
Berdge Courre:
2440:105
Introduction to Computers and Application Software
3

- All students must achieve a ' C ' or better in each course in his major area (2440/2600).

| 2020:121 | English |
| :---: | :---: |
| 2030:151 | Technical Mathematics and |
| 2030:152 | Technical Mathematics II or |
| 2030:161 | Math for Modem Technology |
| 2020:222 | Tectrical Report Writing |
| 2040:240 | Human Relations |
| 2040:247 | Survey of Basic Economics |
| 2420:103 | Essentials of Management Technotogy |
| 2420:104 | Intro to Business in the Global Environ |
| 2420:202 | Elements of Human Resource Management |
| 2420:211 | Basic Accounting I |
| 2420:212 | Basic Accounting II |
| 2440:140 | Internet Tools |
| 2440:141 | Website Administration |
| 2440:145 | Operating Systems |
| 2440:201 | Networking Basics or |
| 2600:240 | Microsoft Networking I |
| 2440:202 | Router and Routing Basics or |
| 2600:242 | Microsoft Networking II |
| 2440:203 | Switching Basics and Intermediate Routing or |
| 2600:244 | Microsoft Networking ill |
| 2440:204 | WAN Technologies |
| 2440:240 | Computer Information Systems Internship |
| 2440:247 | Hardware Support |
| 2440:248 | Server Hardware Support |
| 2440:268 | Network Concepts (Microsoft option) |
| 2540:263 | Professional Communications \& Presentations or |
| 7600:105 | Introduction to Public Speaking or |
| 7600:106 | Effective Oral Communication |


| Web Development |  |
| :--- | :--- |
| $2420: 104$ | Introduction to Business in the Global Environment |
| $2420: 211$ | Basic Accounting I |
| $2030: 151$ | Technical Mathematics I |
| $2440: 121$ | Introduction to Logic/Programming |
| $2440: 140$ | Internet Tools |
| $2440: 145$ | Operating Systems |
| $2020: 121$ | English |
| $2420: 212$ | Basic Accounting II |
| $2440: 170$ | Visual BASIC |
| $2440: 180$ | Database Concepts |
| $2440: 160$ | Java Programming |
| $2030: 161$ | Math for Modern Technology |
| $2540: 119$ | Business English |
|  | $\quad$ or |
| $2020: 222$ | Technical Report Writing |
| $2440: 241$ | Systems Analysis and Design |
| $2440: 211$ | Interactive Web Programming |
| $2440: 212$ | Muttimedia and Interactive Web Elements |
| $2040: 240$ | Human Relations |
| $7600: 105$ | Introduction to Public Speaking |
|  | or |
| $7600: 106$ | Effective Oral Communications |

Effective Oral Communications
2540:263 Professional Communications \& Presentations 3

## 2040:247 Survey of Basic Economics $\quad 3$

2440:141 Web Site Administration 3
2440:251 CIS Projects 3

2040:254 The Black Experience from 1619 to 1877
or
2040:256 Diversity in American Society 2

2040:257 The Black Experience 1877 to 1954

## 2520: Marketing and Sales Technology

This program equips graduates to fill entry-level positions in distributed business areas including retailing, industrial distribution and fashion.

- Students entering the Marketing \& Sales Technology program must pass department placement exams or complete the following bridge courses prior to enrolling in the program.

Credits

| Bridge Courses |  |  |
| :--- | :--- | :--- |
| 2440:105 Introduction to Computers and Application Sottware |  |  |
| 2540:140 | Keytoarding for Nor-Majors | $\mathbf{3}$ |

Options

| Advertising |  |  |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2020:224 | Writing for Advertising | 4 |
| 2030:161 | Math for Modem Technology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics or | 3 |
| 3250:200 | Principles of Microeconomics | 3 |
| 2040:256 | Diversity in American Society | 2 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:230 | Essentials of Business Law | 3 |
| 2520:101 | Essentials of Marketing Technology | 3 |
| 2520:202 | Retailing Fundamentals | 3 |
| 2520:203 | Principles of Advertising | 3 |
| 2520:204 | Services Marketing | 3 |
| 2520:206 | Retail Promotion and Advertising | 3 |
| 2520:212 | Principtes of Sales | 3 |
| 2520:221 | Advertising Campaign | 3 |
| 2520:240 | Marketing Intemship | 3 |
| 2540:263 | Professional Communications and Presentations or | 3 |
| 2020:222 | Tectnical Report Wiriting | 3 |
| 2540:270 | Business Softwere Applications | 4 |
| 2540:271 | Desktop Publishing or | 3 |
| 2540:273 | Microsoft PowerPoint | 2 |
| 7600:105 | Introduction to Public Speaking | 3 |
| Fashion |  |  |
| 2020:121 | English | 4 |
| 2030:161 | Math for Modern Technology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 3250:200 | Principtes of Microeconomics | 3 |
| 2040:256 | Diversity in American Society | 2 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2520:101 | Essentias of Marketing Technology | 3 |
| 2520:202 | Retailing Fundamentals | 3 |
| 2520:203 | Principles of Advertising | 3 |
| 2520:204 | Services Marketing | 3 |
| 2520:206 | Retail Promotion and Advertising | 3 |
| 2520:212 | Principles of Sales | 3 |
| 2540:263 | Professional Communications and Presentations or | 3 |
| 2020:222 | Technical Report Writing | 3 |
| 2540:270 | Business Softwere Applications | 4 |
| 7400:139 | The Fashion and Fumishings Industry | 3 |
| 7400:219 | Dress and Culture | 3 |
| 7400:225 | Textiles | 3 |
| 7400:226 | Textile Evaluation | 3 |
| 7600:105 | Introduction to Public Speaking | 3 |


| Retailing |  | Credits |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2020:224 | Writing for Advertising | 4 |
| 2030:161 | Math for Modem Technology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics or | 3 |
| 3250:200 | Principles of Microeconomics | 3 |
| 2040:256 | Diversity in American Gociety | 2 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2520:101 | Essentials of Marketing Technology | 3 |
| 2520:202 | Retailing Fundamentals | 3 |
| 2520:203 | Principles of Advertising | 3 |
| 2520:204 | Services Marketing | 3 |
| 2520:206 | Retail Promotion and Advertising | 3 |
| 2520:212 | Principles of Sales | 3 |
| 2520:221 | Advertising Campaign | 3 |
| 2520:240 | Marketing internship | 3 |
| 2520:254 | Sales Management Technology | 3 |
| 2540:263 | Professional Communications and Presentations or | 3 |
| 2020:222 | Technical Report Writing | 3 |
| 2540:270 | Business Software Applications | 4 |
| 7600:105 | Introduction to Public Speaking | 3 |
| Sales |  |  |
| 2020:121 | English | 4 |
| 2020:224 | Writing for Advertising | 4 |
| 2030:161 | Math for Modern Technology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics or | 3 |
| 3250:200 | Principles of Microeconomics | 3 |
| 2040:256 | Diversity in American Society | 2 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:243 | Survey in Finance | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2520:101 | Essentials of Marketing Technology | 3 |
| 2520:202 | Retailing Fundamentals | 3 |
| 2520:203 | Principles of Advertising | 3 |
| 2520:204 | Services Marketing | 3 |
| 2520:206 | Retail Promotion and Advertising | 3 |
| 2520:212 | Principles of Sales | 3 |
| 2520:221 | Advertising Campaign | 3 |
| 2520:240 | Marketing Intemstip |  |
| 2520:254 | Sales Management Technology | 3 |
| 2540:263 | Professional Communications and Presentations or | 3 |
| 2020:222 | Technical Report Writing | 3 |
| 2540:270 | Business Software Applications | 4 |
| 7600:105 | Introduction to Public Speaking | 3 |

## 2540: Office Administration

Preparing students for the different but often overlapping fields of administrative assisting, secretarial, word processing, information management, or clerical work, this program is based on personal career objectives. Students choose from program options that prepare them for positions in administrative assistant work; medical, legal, or international secretarial; or office/information management.**

- Students entering the Office Administration program must pass department placement exams or complete the following bridge courses prior to enrolling in the program.

| Bridge Courses |  | Credits |
| :---: | :--- | :---: |
| $2440: 105$ | Introduction to Computers and Application Software | 3 |
| $2540: 140$ | Keytoarding for Nor-Majors | 2 |

## Options

| Medical Secretarial* |  |  |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2420:104 | Introduction to Business in a Global Environment | 3 |
| 2420:170 | Applied Mathematics for Business | 3 |
| 2540:119 | Business English | 3 |
| 2540:743 | Microsoft Word Beginning | 2 |
| 2540:151 | Intermediate Word Processing | 3 |
| 2540:253 | Advanced Word Processing | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
| 2540:265 | Wormen in Management | 3 |
| 2540:270 | Business Software Applications | 4 |
| 2740:120 | Medical Terminology | 3 |
| 2740:121 | Study of Disease Processes | 3 |
| 2740:122 | Emergency Responder I | i |
| 2740:126 | Administrative Medical Assisting I | 4 |
| 2740:127 | Administrative Medical Assisting II | 4 |
| 2740:226 | Medical Billing | 4 |
| 2740:240 | Medical Transcription ! | 3 |
| 2740:245 | Medical Externship and Seminar | 4 |
|  | Natural Science elective | 3 |

## Administrative Assistant*

Preparing students for an office position as an administrative assistant. Associate degree courses may be applied toward a four-year business education or technical education degree.

| 2020:121 | English | 4 |
| :---: | :---: | :---: |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2040:254 | The Black Experience from 1619 to 1877 or | 2 |
| 2040:256 | Diversity in American Society or | 2 |
| 2040:257 | The Black Experience 1877 to 1954 or | 2 |
| 2040:258 | The Black Experience, 1954 to present | 2 |
| 2420:103 | Essentias of Management Technology | 3 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:170 | Applied Mathematics for Business | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2540:119 | Business English | 3 |
| 2540:121 | Introduction to Office Procedures | 3 |
| 2540:129 | Information/Records Management | 3 |
| 2540:143 | Microsoft Word Beginning | 2 |
| 2540:151 | Intermediate Word Processing | 3 |
| 2540:243 | Internship | 3 |
| 2540:253 | Advanced Word Processing | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
| 2540:265 | Wornen in Management | 3 |
| 2540:270 | Business Software Applications | 4 |
| 2540:271 | Desktop Publishing | 3 |
| 2540:273 | Microsoft PowerPoint | 2 |
| 2540:281 | EditingProofreading/Transcription | 3 |

[^8]
## Engineering and Science Technology

2860: Electronic Engineering Technology
Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012: Telephone: 410-347-7700. This program prepares individuals for work as technicians in developing, manufacturing, installing, testing and maintaining electronic equipment and systems. Credits

| 2020:121 | English |
| :--- | :--- |
| 2020:222 | Technical Report Writing |
| 2030:152 | Technical Mathematics II |
| 2030:153 | Technical Mathematics III |
| 2030:154 | Technical Mathematics IV |
| 2030:255 | Technical Calculus I |
| 2040:240 | Hurnen Relations |
| 2040:242 | American Uttan Society |
|  | or |
| 2040:247 | Survey of Basic Economics |
| 2820:161 | Technical Physics: Mechanics I |
| 2820:162 | Technnical Physics: Mechanics II |
| 2820:164 | Teccrical Physics: Heat \& Light |
| 2860:120 | Circuit Fundamentas |
| 280:121 | Introduction to Electronics and Computers |
| 2860:123 | Electronic Devices |
| 2860:136 | Digital Fundamentals |
| 2860:225 | Applications of Electronic Devices |
| 2860:237 | Digita Circuits |
| 2860:238 | Microprocessor Applications |
| 2860:242 | Machinery end Controls |
| 2860:251 | Electronic Communications |
| 2860:260 | Electronic Project |
| 2870:301 | Computer Control of Automated Systems |
| 2940:210 | Computer Aided Drawing I |

2020:222 Technical Report Writing
2030:152

Technical Mathematics IV
2030:255 Technical Calculus
2040:240 Humen Relations

2040:247 Survey of Basic Economics
Technical Physics: Mechanics II
2820:164 Technical Physics: Heat \& Light
2860:120 Circuit Fundamentals
Introduction to Electronics and Computers

2860:225 Applications of Electronic Devices
Digita Circuits
2860:238 Microprocess or Applications
Machinery and Controls
munications
2870:301 Computer Control of Automated Systems

## 2880: Manufacturing Engineering Technology

Through the study of basic technical subjects and through concentration on work measurement, manufacturing computer applications, quality control, robotics, manufacturing work cells, and MRPII, this program educates the student in the areas of analysis, design and management of the resources, facilities and people involved in modern manufacturing.

## Options

| Computer-Ajded Manufacturing Option |  |  |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2030:151 | Technical Mathernatics ${ }^{\text {P }}$ | 2 |
| 2030:152 | Technical Mathematics \||* | 2 |
| 2030:153 | Technical Mathematics it. | 2 |
| 2040:240 | Human Relations or | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 2820:131 | Software Applications for Technology | 1 |
| 2820:161 | Technical Physics: Mechanics I | 2 |
| 2820:162 | Technical Physics: Mechanics II | 2 |
| 2820:163 | Technical Physics: Electricity and Magnetism* | 2 |
| 2860:370 | Survey of Electronics I | 3 |
| 2870:348 | CNC Programming ${ }^{*}$ | 3 |
| 2880:100 | Basic Principles of Manufacturing Management* | 4 |
| 2880:110 | Manufacturing Processes* | 3 |
| 2880:130 | Work Measurement and Cost Estimating | 3 |
| 2880:151 | Industrial Safety and Environmental Protection* | 2 |
| 2880:201 | Robotics and Automated Manuflacturing | 3 |
| 2880:211 | Computerized Manufacturing Control | 3 |
| 2880:232 | Labor-Management Relations | 3 |
| 2880:241 | Introduction to Quality Assurance | 3 |
| 2920:130. | Introduction to Hydraulics and Pneumatics* | 3 |
| 2940:210 | Computer Aided Drawing I | 3 |
| 5540:x0x | Physical Education | 1 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Technical Electives | 3 |
|  | General Elective | 3 |

[^9]| Industrial Supervision Option |  | Creorits |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2020:222 | Technical Report Writing | 3 |
| 2030:151 | Technical Methematics ${ }^{*}$ * | 2 |
| 2030:152 | Technical Mathematics II | 2 |
| 2040:247 | Suvey of Basic Economics | 3 |
| 2040:251 | Human Behavior at Work | 3 |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:202 | Elements of Hurman Resource Management | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:212 | Basic Accounting II | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2820:131 | Software Applications for Technotogy | 1 |
| 2880:100 | Basic Principles of Manufacturing Management* | 4 |
| 2880:110 | Manufacturing Processes | 3 |
| 2880:130 | Work Measurement and Cost Estimating | 3 |
| 2880:151 | Industrial Safety and Environmental Protection* | 2 |
| 2880:201 | Robotics and Automated Manufacturing | 3 |
| 2880:211 | Computerized Manufacturing Control | 3 |
| 2880:232 | Labor Management Relations | 3 |
| 2880:241 | Introduction to Quality Assurance | 3 |
| 5540:00x | Physical Education | 1 |
| 7600:106 | Effective Oral Communication | 3 |
|  | General Electives | 4 |
|  | Technical Electives | 3 |
| General Electives four credits required from following: |  |  |
| 2040:240 | Human Relations | 3 |
| 2040:241 | Technology and Human Values | 2 |
| 2040:242 | American Untan Societr. | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2040:254 | The Black Experience from 1619 to 1877 | 2 |
| Technical Electives (three credits required from following): |  |  |
| 2420:170 | Business Mathematics | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2820:164 | Technical Physics: Heat \& Light | 2 |

## 2920: Mechanical Engineering Technology

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012: Telephone: 410-347-7700.

This program prepares individuals to work as technicians in developing, designing, manufacturing, testing and servicing mechanical equipment and systems.

| FIRST YEAR |  |  |
| :---: | :---: | :---: |
| Fall Semester |  |  |
| 2020:121 | English or | 4 |
| 3300:111 | English Composition 1 | 4 |
| 2920:100 | Survey of Mechanical Engineering Tectrotogy | 2 |
| 2030:153 | Technical Mathematics ill | 2 |
| 2820:161 | Technical Physics: Mechanics I | 2 |
| 2820:162 | Technical Physics: Mechanics II | 2 |
| 2940:121 | Technical Drawing I | 3 |
| 7600:106 | Effective Oral Communication or | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
|  |  | 18 |
| Spring Semester |  |  |
| 2020:222 | Technical Report Writing or | 3 |
| 3300:112 | English Composition II | 3 |
| 2030:154 | Technical Mathematics $N$ | 3 |
| 2820:131 | Software Applications for Technology | 1 |
| 2820:163 | Technical Physics: Electricity \& Magnetism | 2 |
| 2820:164 | Technical Physics: Heat and Light | 2 |
| 2940:210 | Computer Aided Drawing 1 | 3 |
| 2990:125 | Statics | 3 |
| 5540:x0x | Physical Education | 1 |
|  |  | 18 |

[^10]| SECOND YEAR |  |  | Credits |
| :---: | :---: | :---: | :---: |
| Fall Semestor |  |  |  |
| 2030:255 | Technical Calculus ! |  | 3 |
| 2870:348 | CNC Programming I |  | 3 |
| 2920:101 | Introduction to Mechanical Design |  | 3 |
| 2920:243 | Kinematics |  | 3 |
| 2920:251 | Fluid Power |  | 2 |
| 2990:241 | Strength of Materials | , | 3 |
|  |  |  | 17 |
| Spring Semester |  |  |  |
| 2040:240 | Human Relations 3 |  |  |
| 2040:242 | American Urban Society or |  | 3 |
| 2040:247 | Survey of Basic Economics |  | 3 |
| 2920:142 | Introcuction to Material Technology |  | 3 |
| 2920:245 | Mechanical Design II |  | 5 |
| 2920:249 | Applied Thermal Energy |  | 2 |
| 2920:252 | Thermofluids Lab |  | 1 |
|  |  |  | 17 |
| TOTAL |  |  | 70 |

## 2940: Drafting and Computer Drafting Technology

This program prepares an individual to work as a drafter by providing in-depth knowledge of drafting principles as well as computer-aided drafting. The program is designed to prepare the student to work in the major fields of technology including electrical, architectural, mechanical, manufacturing, surveying, and structural technology. It will educate the individual to compile detailed drawings based on rough sketches, specifications and calculations made by engineers, architects and designers. This daytime program is especially suitable for those who have a special interest or talent for spatial visualization, but do not want an extensive coverage of advanced mathematics or physics.


## 2980: Surveying Engineering Technology

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - Telephone: (410) 347-7700.

This program prepares graduates to work as surveying technicians under the direction of a professional registered surveyor. It is designed to provide a foundation in mathematics, natural science and communication skills as well as the surveying skills necessary to become a Certified Surveying Technician (CST) under the National Society of Professional Surveyors' (NSPS) testing program.

- Students must take the NSPS CST Level I examination (see department for details).

| FREST YEAR |  |  |
| :---: | :---: | :---: |
| Fall Semest |  | Credits |
| 2020:121 | English | 4 |
| 2030:152 | Technical Mathematics II | 2 |
| 2030:153 | Technical Mathematics !! | 2 |
| 2820:131 | Software Applications for Technology | 1 |
| 2940:170 | Surveving Drafting | 3 |
| 2980:100 | Introduction to Geomatics | 2 |
| 2980:101 | Basic Surveying I | 2 |
|  |  | 16 |
| Spring Semester |  |  |
| 2030:154 | Technical Mathematics IV | 3 |
| 2820:161 | Technical Physics: Mech. 1 | 2 |
| 2820:162 | Technical Physics: Mechanics II | 2 |
| 2980:102 | Basic Surveying II | 2 |
| 2980:123 | Surveying Field Practice | 2 |
| 2980:355 | Cornputer Applications in Surveying | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communications or | 3 |
| 2540:263 | Professional Communications \& Presentations | 3 |
|  |  | 17 |
| SECOND YEAR |  |  |
| Fenl Sernester |  |  |
| 2020:222 | Technical Report Writing | 3 |
| 2980:00x | Surveying Elective(s) | 5 |
| 2980:222 | Construction Surveying | 3 |
| 2980:223 | Fundamentals of Map Production | 3 |
| 2980:228 | Boundary Surveying | 3 |
|  |  | 17 |
| Spring Semester |  |  |
| 2040:247 | Survey of Basic Economics | 3 |
| 2980:225 | Advanced Surveying * | 3 |
| 2985:101 | Introduction to Geographic \& Land Information Systems | 3 |
| 3350:100 | Introduction to Geography | 3 |
| 3370:101 | Introductory Physical Geology* | 4 |
|  |  | 16 |
| TOTAL |  | 83 |
| Survering Electives |  |  |
| 2980:325 | OSHA Safety Requirements for Surveyors | 1 |
| 2980:420 | Route Surveying | 3 |
| 2980:425 | Land Navigation | 3 |
| 2980:426 | History of Surveying | 2 |
| 2980:445 | Applications in GIS Using GPS | 3 |
| 2980:450 | Topics in Professional Practice | 2 |
| 2980:489 | Special Topics in Surveying | $1-3$ |
| 2980:490 | Workshop in Surveying | 13 |
| 2980:495 | Intemship: Surveving and Mapping | 3 |
| 2980:498 | Independent Study | 13 |
| 2985:x×x | Any 2985:Course |  |
| 2940:00x | Select 2940 course(s) upon approval of Program Director. |  |

## 2985: Geographic and Land Information Systems (GIS/LS)

This program prepares graduates to enter the job market as GIS/LIS technicians for business and industry. Emphasis of the curriculum is on understanding digital geographic data, software applications in solving geographic problems, and graphic communication techniques.

| 2020:121 | English |
| :---: | :---: |
| 2020:222 | Technical Report Writing |
| 2030:152 | Technical Mathematics II |
| 2030:153 | Technical Mathematics il |
| 2030:154 | Technical Mathematics iv |
| 2040:256 | Diversity in American Society |
| 2820:131 | Software Applications for Technology |
| 2980:100 | Introduction to Geomatics |
| 2980:101 | Basic Surveying I |
| 2980:102 | Basic Surveying !! |
| 2980:228 | Boundary Surveving |
| 2980:330 | Applied Photogrammetry |
| 2980:355 | Computer Applications in Surveping |
| 2985:101 | introduction to Geographic Info. Systems (GISNIS) |
| 2985:201 | Intermediate Geog. \& Land Info. Systerns (GISLIS) |
| 2985:205 | Euilding Geodatabases |
| 2985:210 | Geographic and Land Info. Systems Project (GIS/LIS) |
| 2985:280 | Topiss in Professional Practice |
| 2985:291 | Geographic and Land Info. Sys. Intemship |
| 3350:100 | introduction to Geography |
| 7600:105 | introduction to Public Speaking or |
| 7600:106 | Effective Oral Communications or |
| 2540:263 | Professional Communication \& Presentation |
| x 0 cos:00x | Area Studies \& Cultural Diversity |
| xoxaciox | Natural Science (see adviser) |
| x000:xxx | Electives |
| Electivas: |  |
| 2940:x0x | Any Drafting/Computer Drafting courses |
| 2980:x0x | Any Suneying courses |
| 2985:x0x | Any GIS/LiS courses |

## 2990: Construction Engineering Technology

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - Telephone: (410) 347-7700.

Designed to provide a foundation in mathematics, physics, surveying, and communication skills, this program allows increased application of these areas in order to build an in-depth background in construction


| Spring Semester |  | Credits |
| :---: | :---: | :---: |
| 2040:242 American Untan Society |  | 3 |
| 2040:247 Survey of Basic Economics |  | 3 |
| 2990:234 Elements of Stuctures |  | 3 |
| 2990:238 Materials Testing II |  | 2 |
| 2990:245 Construction Estimating |  | 3 |
| Tectinical Elective |  | 3 |
|  |  | 17 |
| TOTAL |  | 66 |
| Technicel Electives |  |  |
| 2880:232 | Lebor Management Relations | 3 |
| 2990:382 | Advanced Elements of Structures | 3 |
| 2940:250 | Architectural Drafting | 3 |
| 2990:420 | Hydrology and Groundwater | 3 |
| 2990:310 | Residential Building Construction | 3 |
| 2990:455 | Computarized Precision Estimating | 3 |
| 2990:320 | Advanced Materials Testing | 3 |
| 2990:465 | Heary Construction Methods | 3 |
| 2990:351 | Construction Quality Controd | 2 |
| 2990:489 | Speciel Topics in Construction | 13 |
| 2990:359 | Construction Cost Controt | 3 |
| 2990:490 | Workshop in Construction | 1.3 |
| 2990:361 | Construction Fortwork | 3 |
| 2990:498 | Independent Study in Construction | 13 |

## Associate of Technical Studies

The Associate of Technical Studies (ATS) program is available for adult students whose educational objectives and interests cannot be met through one of the formal associate degree programs.

## Requirements

- Completion of the ATS application, including the selection of a minimum of one and a maximum of three major areas of study with a reasonable selection of courses from each area.
- Approval of the ATS application by the ATS coordinator, the faculty in the appropriate division(s), the ATS Committee, and the dean of Summit Coliege.
- Application toward the degree of only that transfer course category and 14 semester credits in the basic course category.
- Completion of at least one half of the technical courses taken at The University of Akron in the approved area(s) of study at the 200 level or higher, to be equally divided among the selection areas, where applicable.
- Completion of a total of 64 semester credits with a grade-point average of 2.0.
- Completion of all other graduation requirements of The University of Akron.


## Public Service Technology

## 2200: Early Childhood Development

This program prepares students for employment in a variety of staff positions in child care centers, nursery schools, and Head Start programs that service infants, toddlers, and pre-Kindergarten children. Graduates can be classroom assistants or head teachers, run their own center or be a center administrator. Credits
2020:121 English 4

2030:161 Math for Modern Technology 4
3450:140 Math for Elementary Teachers : 3
2040:240 Human Relations
2040:242 American Uiban Society
2200:110 Foundations in Earty Childhood Education
2200:245 Infanttoddler Day-Care Prograrns
2200:250 Observing and Recording Children's Behavior
2200:246 Multicultural Issues in Child Care
2200:247 Diversity in Early Childhood Literacy
2200:295 Earty Chilethood Practicurn
5200:360 Teaching in the Early Childhood Center
5200:370 Early Childhood Center Laboratory
5550:211 First Aid, CPR
5610:450 Special Education Programming: Early Childhood
7400:132 Earty Childhood Nutrition
7400:265 Child Development
7400:270 Theory and Guidance of Play
7400:280 Early Childhood Curricuhum Methods
7400:448 Before and After School Care
7400:460 Organization and Supervision of Child Care Centers
7600:106 Effective Oral Communication
General Elective
0-2
Pre-Kindergarten Associate Certification is available. See program adviser tor other requirements for certification.

## 2220: Criminal Justice Technology

The Criminal Justice program develops critical thinking, problem solving techniques, effective communications and the ability to use technology while examining crime and the methods used to prevent, investigate and punish those who vioiate the law. It provides a professional perspective of the Criminal Justice field, including policing, corrections and security administration.

| Ceneral Dption |  |
| :--- | :--- |
| $2020: 121$ | English |
| $2020: 222$ | Technical Report Writing |
| $2030: 161$ | Math for Modern Technology |
| $2040: 240$ | Human Relations |
| $2040: 242$ | American Urtan Society |
| $2220: 100$ | Introduction to Criminal Justice |
| $2220: 102$ | Criminal Law for Police |
| $2220: 104$ | Evidence and Criminal Legal Process |
| $2220: 106$ | Juvenile Justice Process |
| $2220: 250$ | Criminal Case Management |
| $2220: 260$ | Critical Incident interventions for Criminal Justice |
| $2220: 296$ | Current Topies in Criminal Justice |
| $2220: 298$ | Applied Ethics in Criminal Justice |
| $2820: 105$ | Basic Chemistry |
| $3850: 100$ | Introduction to Sociology |
| $5540: 00 x$ | Physical Education |
| $7600: 106$ | Effective Oral Communication |
| $2220: 00 x$ | Technical Electives |

## Corrections Option

The corrections option in the criminal justice program prepares students for a career in corrections. This option provides students with valuable leaming experi ences in dealing with multiple issues in corrections and criminal justice.

|  |  |  | Credits |
| :---: | :---: | :---: | :---: |
| 2020:121 | English | , | 4 |
| 2020:222 | Technical Report Writing |  | 3 |
| 2030:161 | Math for Modem Technology |  | 4 |
| 2040:240 | Human Relations |  | 3 |
| 2040:242 | American Utiben Society |  | 3 |
| 2220:00x | Technical Elective |  | 3 |
| 2220:100 | Introduction to Criminal Justice |  | 3 |
| 2220:103 | Introduction to Corrections |  | 3 |
| 2220:106 | Juwenile Justice Process |  | 3 |
| 2220:260 | Critical incident Interventions for Criminal Justice |  | 3 |
| 2220:270 | Community Corrections |  | 3 |
| 2220:275 | Legal Aspects of Corrections |  | 3 |
| $2220: 298$ | Applied Ethics in Criminal Justice |  | 3 |
| 2260:265 | Effective Workplace Relationships |  | 3 |
| 2260:260 | Introduction to Addiction |  | 3 |
| 2260:262 | Basic Helping Skills | - | 4 |
| 2260:269 | Criminal Justice and Addiction |  | 3 |
| 2540:263 | Professional Communications \& Presentations or |  | 3 |
| 7600:105 | Introduction to Public Speaking or |  | 3 |
| 7600:106 | Effective Oral Communications |  | 3 |
| 2820:105 | Basic Chemistry (Lab) (Note A) |  | 3 |
| 3850:100 | Introduction to Sociology |  | 4 |
| 5540:00x | Physical Education |  | 1 |

## Public Safety and Security Administration

Social events and technological innovations have increased the demand for well educated security professionals to meet emerging threats. This program provides a strong foundation in safety and security administration concepts, practice, and disciplines while allowing the student to explore specific topics such as computer and information security, homeland security, medical facility security, loss prevention, airport security, and security investigations. The program is intended for those seeking careers, or career advancement in both private and public safety and security functions.

| 2020:121 | English | 4 |
| :---: | :---: | :---: |
| 2020:222 | Tecturical Report Wirting | 3 |
| 2030:161 | Math for Modem Technology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:256 | Diversity in American Sociery | 2 |
| 2220:100 | Introduction to Criminal Justice | 3 |
| 2220:101 | Introduction to Security Administration Technology | 3 |
| 2220:231 | Pinysical Security Systems, Design, and Control | 3 |
| 2220:232 | Legal Issues in Security Administration | 3 |
| 2220:233 | Security Investigations: Principles and Practice | 3 |
| 2220:234 | Computer and information Security | 3 |
| 2220:245 | Homeland Security: Principles and Prectice | 3 |
| 2230:100 | Introduction to Fire Protection | 4 |
| 2230:250 | Hazardous Materials | 4 |
| 2230:257 | Fire and Safety lssues for Business | 3 |
| 2235:305 | Principles of Emergency Management | 3 |
| 2235:490 | Business Preparedness and Continuity | 3 |
| 2420:104 | Introduction to Businass in a Globel Environment | 3 |
| 2540:263 | Protessional Communications | 3 |
| 5550:211 | First Aid and CPR | 2 |
| 2220:00x | Technical electives\# | 6 |

[^11][^12] Technical electives, 6 credits

## 2230: Fire Protection Technology

This program prepares persons to serve govemmental, industrial and other fire protection agencies in fire fighting and prevention, property protection and in handling emergency situations.

| 2020:121 | English |
| :---: | :---: |
| 2020:222 | Technical Report Writing |
| 2030:161 | Math for Modern Technology |
| 2040:240 | Human Relations |
| 2040:242 | American Untan Society |
| 2230:100 | Introduction to Fire Protection |
| 2230:102 | Fire Safety in Building Design and Construction |
| 2230:104 | Fire Investigation Methods |
| 2230:204 | Fire and Life Safety Education |
| 2230:202 | Incident Management for Emergency Responders |
| 2230:205 | Fire Detection and Suppression Systems |
| 2230:206 | Fire Sprinkier Systern Design |
| 2230:250 | Hazardous Materials |
| 2230:254 | Fire Prevention |
| 2230:257 | Fire and Safety Issues for Business and industry |
| 2230:280 | Fire Service Administration |
| 2230:295 | Technical Fire Training/Field Expenience |
| 2820:105 | Basic Chemistry |
| 7600:105 | Introduction to Public Speaking or |
| 7600:106 | Effective Oral Communication or |
| 2540:263 | Professionat Communication and Presentations |

## 2240: Emergency Medical Services Technology

Program is for Certified National Registry Emergency Medical TechnicianParamedics seeking to become socially intelligent individuals understanding socia values and possessing technical knowiedge and skills.

| 2020:121 | English |
| :---: | :---: |
| 2030:161 | Math for Modern Technotogy |
| 2040:240 | Human Relations |
| 2230:202 | Incident Management for First Responders |
| 2230:257 | Fire and Safety Issues for Business and Industry |
| 2235:305 | Principles of Emergency Management |
| 2740:120 | Medical Terminotogy |
| 2740:130 | Basic Pharmacology |
| 2780:107 | Anatomy and Physiology for Allied Health I |
| 2780:108 | Anatomy and Ptysiology for Allied Health II |
| 7600:106 | Effective Oral Communications |

- 36 hours from The University of Akron
- 30 hours of block credit from. Hospital Certification Program with approval of program director


## Fire/Medic option

The Fire/Medic option provides fire service professionals or those seeking employment in the fire service opportunities to enhance career deveiopment as a Fire/Medic.

| 2020:121 | English |
| :--- | :--- |
| $2030: 161$ | Math for Modern Technology |
| $2040: 240$ | Human Relations |
| 2230:254 | Fire Prevantion |
| $2230: 295$ | Technical TrainingField Experience |
| $2235: 305$ | Principles of Emergency Management |
| $2740: 120$ | Medical Terminotogy |
| $2740: 230$ | Basic Pharmacology |
| $2780: 106$ | Anatomy and Physiology for Allied Health I |
| $2780: 107$ | Anatomy and Physiology for Alied Health II |
| $7600: 106$ | Effective Oral Communication |

- 36 hours from The University of Akron
- 30 hours of block credit for National Registry Paramedic


## 2260: Community Services Technology

The general option in Community Services Technology prepares individuals for employment supportive of social work and of other community service professionals providing social services for individuals, families, groups and communities.

| General Pr | m: | Creatis |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 7600:106 | Effective Orel Communication | 3 |
| 2040:240 | Human Relations | 3 |
| 2040:254 | The Black Experience 1619-1877 or | 2 |
| 2040:257 | The Black Experience 1877-1954 or | 2 |
| 2040:258 | The Black Experience 1954-Present | 2 |
| 2260:150 | introduction to Gerontotogical Services | 3 |
| 2260:260 | Inroduction to Addiction | 3 |
| 2040:242 | American Urben Society | 3 |
| 2020:222 | Technical Report Writing or | 3 |
| 3300:112 | English Composition II <br> or | 3 |
| 2540:119 | Business English | 3 |
| 2030:161 | Math for Moder Technology | 4 |
| 2260:278 | Techniques of Community Work | 4 |
| 2260:277 | Case Management in Community Services | 3 |
| 2260:262 | Basic Helping Skills | 4 |
| 7750:276 | Introduction to Socirl Welfare | 4 |
| 2260:279 | Technical Experience in Community \& Social Services | 5 |
| Computer | es -4 credits from courses below: |  |
| 2440:105 | Introduction to Computers \& Application Software | 3 |
| 2540:118 | Exploring the Internet | 2 |
| 2540:140 | Keytoerding for Non-Majors | 2 |
| 2540:143 | Microsoft Word, Beginning | 2 |
| Technical | - $\mathbf{1 2}$ credits from courses below: |  |
| 2260:00x | Any Community Services course not required lup to 12 |  |
| 7750:x0x | Any Social Work course not required (up to 12 credits) |  |
| 2220:100 | Introduction to Criminal Justice | 3 |
| 2220:106 | Juvenile Justice Procass | 3 |
| 2220:270 | Community Corrections | 3 |
| 2220:290 | Special Topics: Criminal Justice | 14 |
| 2220:296 | Current Topics in Criminal Justica | 13 |
| 2200:110 | Foundations in Earty Childhood Education | 3 |
| 2200:245 | infant/Toddler Day Care Programs | 3 |
| 2200:246 | Mutticutural Issues in Child Care | 3 |
| 2200:247 | Diversity in Early Childhood Literacy | 3 |
| 2540:263 | Professional Communications \& Presentations | 3. |
| 7400:132 | Early Childhood Nutrition | 3 |
| 7400:133 | Nutstition Fundamentals | 3 |
| 7400:201 | Courtship, Marriage \& the Family | 3 |
| 7400:255 | Fathertiood: The Parent Role | 3 |
| 7400:265 | Chisd Development | 3 |
| 7600:115 | Survey of Communication Theory | 3 |
| 7600:225 | Listening | 1 |
| 7600:226 | Interviewing | 3 |
| 7600:227 | Nonverbel Communication | 3 |
| 7600:235 | interpersonal Communication | 3 |
| 7600:245 | Argumentation | 3 |
| 7600:252 | Persuasion | 3 |
| 7700:101 | American Sign Languaga I | 3 |
| 7700:102 | American Sign Language II | 3 |
| 7700:201 | American Sign Language III | 3 |
| 7700:202 | American Sign Language iN | 3 |

## Options

The Addiction Services Option in Community Services Technology preperes students for employment in the addiction services field. Graduates have met the educational requirements for licensing as a Licensed Chemical Dependency Counselor II (LCDCII) in the State of Ohio.

| Addiction Services Option |  |
| :---: | :---: |
| nequinedC |  |
| 2020:121 | English |
| 2030:169 | Math for Modern Tectnology |
| 2040:240 | Human fielations |
| 2040:242 | Arnerican Uitan Society |
| 2040:254 | The Bleck Experience 1819-1877 or |
| 2040:256 | Diversity in Armericen Society or |
| 2040:257 | The Black Experiance 1877-1954 |
| 2040:258 | The Black Experience 1954 to Present |
| 2280:150 | Introduction to Gerontological Services |
| 2280:210 | Adcriction Education and Prevention* |
| 2260.240 | Drug Use and Abuse** |
| 2260:280 | Introduction to Addiction** |
| 2260:281 | Adciction Treatment |
| 2260:263 | Growp Principles in Addiction |
| 2260:284 | Addiction and the Farmily* |
| 2280:287 | Addiction Assessment and Treatment Planning |
| 2260:278 | Technicues of Community Work |
| 2260:286 | Addiction Services Intemship |
| 3300:112 | English Composition II or |
| 2020:222 | Technical Report Writing |
| 7600:108 | Effective Orel Communication |
| Required electives (11 credits) may be chosen from the courses below: |  |
| 2280:265 | Worren and Addiction* |
| 2200:288 | Co-cccurring Disorders * |
| 2280:269 | Criminal Justice and Addiction |
| 2280:270 | Retepse Prevention* |
| 2260:271 | Behavioral Addictiors* |
| 2440:105 | Introduction to Computers \& Application Software |
| 2540:140 | Keyboerding for Non-Majors |
| 2540:143 | Microsoft Word, Beginning |
| 2280:00x | Any Community Services course not required (up to 11 credits) |
| 7750:x00 | Any Social Work course not required (up to 11 credits) |
| Cerontology |  |
| 1850:450 | Intercisciplinay Serninar in Gerontology |
| 1850:486 | Retirernent Specialist |
| 2040:244 | Doath and Dying |
| 7400:441 | Famil Relationships in Midde and Lster Years |
|  | Gerontology Electives |

## Social Work Option

The social work option in Community Services Technology prepares students for employment supportive of social work and of other professional community service personnel providing social services for individuals, families, groups, and communities. In addition, graduates are eligible to become "Registered Assistant Social Workers" in the State of Ohio. In addition, this curriculum provides students with all foundation coursework necessary for consideration for admission to the School of Social Work at The University of Akron.

Credits

| 2020:121 | English | 4 |
| :---: | :---: | :---: |
| 2030:161 | Math for Modern Technology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2260:150 | Introduction to Gerontological Services | 3 |
| 2260:260 | Introduction to Addiction | 3 |
| 2260:262 | Basic Helping Skills | 4 |
| 2260:277 | Case Management in Cormmunity Services | 3 |
| 2260:278 | Techniques of Community Work | 4 |
| 2260:279 | Technical Experience: Community and Social Service | 5 |
| 3100:103 | Natural Science: Bioiogy | 4 |
| 3300:112 | English Composition II or | 3 |
| 2020:222 | Technical Report Writing | 3 |
| 3700:100 | Government \& Politics in the United States | 4 |
| 3850:100 | Introduction to Sociology | 4 |
| 7600:106 | Effective Oral Communication or | 3 |
| 2540:263 | Professional Communications \& Presentations | 3 |
| 7150:270 | Poverty in the United States | 3 |
| 7750:276 | Introduction to Social Welfare | 4 |
| 7750:427 | Humen Behavior and Social Environment 1 | 3 |

## 2290: Paralegal Studies

The Paralegal Studies program prepares individuals to perform substantive nonclerical legal work under the direct supervision of an attomey.

| 2020:121 | English | 4 |
| :---: | :---: | :---: |
| 2020:222 | Technical Report Winting | 3 |
| 2030:161 | Math for Modern Technology | 4 |
| 2040:240 | Hurnan Relations | 3 |
| 2220:104 | Evidence and Criminal Legal Process | 3 |
| 2290:101 | Introduction to Legal Assisting | 3 |
| 2290:104 | Besic Legal Research and Writing | 3 |
| 2290:106 | Business Associations | 3 |
| 2290:108 | Real Estate Transactions | 3 |
| 2290:110 | Tort Law | 3 |
| 2290:112 | Family Law | 3 |
| 2290:118 | Probate Administration | 4 |
| 2290:204 | Advanced Legal Reseench | 3 |
| 2290:214 | Civil Procedure | 3 |
| 2290:216 | Debtor-Creditor Relations | 3 |
| 2290:218 | Advanced Probate Administration | 3 |
| 2290:220 | Legal Assisting Internship | 4 |
| 2420:211 | Basic Accounting I | - 3 |
| 2440:105 | Introduction to Computers and Applications Software | 3 |
| 5540:00 | Physical Education | 1 |
| 7800:106 | Effective Oral Commurication | 3 |
|  | General Elective | 3 |
|  | Technical Elective |  |
| Recommended Electives |  |  |
| 2040:243 | Contemporary Global Issues | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2040:251 | Human Behavior At Work | 3 |
| 2040:254 | The Black Experience 1619 to 1877 | 2 |
| 2040:256 | Diversity in America | 2 |
| 2040:257 | The Black Experience 1877 to 1954 | 2 |
| 2290:290 | Special Topics: Legal Assisting | 35 |

[^13]
# Wayne College 

John P. Kristofco, Ph.D., Dean
Paulette M. Popovich, Ph.D., Associate Dean of Instruction

## HISTORY AND MISSION

To meet the needs of the citizens of Wayne, Holmes and Medina counties, The University of Akron Wayne College opened its doors in 1972. Wayne College offers eight technical programs and seven certificate programs, as well as the first 64 credits of many baccalaureate programs. The following degrees are avaiable from The University of Akron Wayne College: Associate of Arts; Associate of Science; Associate of Technical Studies; Associate of Applied Business in Business Management Technology, Health Care Office Management and Office Technology; Associate of Applied Science in Paraprofessional Education, and Social Services Technology.

## ADMISSIONS

Admission materials can be obtained by writing the Admissions Office at Wayne College or the Office of Admissions of The University of Akron, or by calling (330) 683-2010 in the Orville/Nooster area, or 1-800-221-8308 in Ohio.
The student enrolled at Wayne College may also take courses at the main campus of The University of Akron while attending Wayne College. Likewise, a student enrolled on the main campus may take courses at Wayne College. The University of Akron Wayne College is accredited at the associate degree level by the North Central Association of Colleges and Schools.

## WAYNE COLLEGE PROGRAMS

The following associate degree programs are available at Wayne College. The structure of these programs may differ from similar programs within the Summit College of The University of Akron. All required courses for these programs are available at the college for students attending day or evening classes. A diploma issued as a result of the completion of one of these programs carries The University of Akron Wayne College designation. In some instances, specific course sequencing is necessary, especially to the student attending full time, to accommodate completion of the program in two years. Please consult an adviser at Wayne College for further details.

## Associate of Technical Studies

The Associate of Technical Studies (ATS) provides an integrated program of study for those students whose educational objectives and interests cannot be met through the college's formal associate degree programs. The Associate of Technical Studies permits students to combine various courses from two or more of the college's existing programs with other University credits, with credits earned at other postsecondary institutions, andor with training received through other educational enterprises.
The Associate of Technical Studies is administered through the Office of the Dean and coordinated by the Associate Dean of Instruction. Interested students must complete a formal Associate of Technical Studies application. Upon application, the Associate Dean of Instruction makes an initial assessment of any transfer work and assists the applicant in selecting relevant areas of study. The application is then forwarded for review by the faculty most closely associated with the proposed area of study. Upon faculty acceptance, the application is submitted to the Associate of Technical Studies Committee who, upon approval, forwards the application to the dean of Wayne College for final approval.
The following are the graduation requirements for the Associate of Technical Studies:

- Completion of an Associate of Technical Studies application specifying a coherent combination of technical courses selectively drawn from two but no more than three major areas of study and reflecting a reasonable array of courses within each area of study.
- Approval of the Associate of Technical Studies application by the Associate Dean of Instruction, relevant faculty, the Associate of Technical Studies committee, and the dean of Wayne College.
- Degree application of only that transfer coursework completed with a " $C$ " (2.0) grade or better.
- Completion of at least 14 credits of "general education" courses and 14 credits of "basic" courses, as required by the Ohio Board of Regents.
- Completion of at least one-half of the technical credits at The University of Akron and/or Wayne Coliege, equally divided among the selected areas of study.
- Completion of a minimum of 64 credits with a grade point average of 2.0
- Completion of all other University graduation requirements.


## 2020: Associate of Arts/Associate of Science

The Associate of Arts and Associate of Science degree (sometimes referred to as the university parallel, transfer, or general education) programs are intended to produce an intelligent individual who understands effective social behavior and appreciates scientific fact and human values. The programs are designed to impart specific skills essential to effective adult functioning. These include the abilities to write and speak effectively, to calculate, and to think constructively and critically. The programs also provide a broad foundation of general knowedge about the physical and social universe as preparation for advanced baccalaureate study.
Most recipients of the Associate of Arts and the Associate of Science degrees transfer to bachelor's degree-granting institutions to complete their intellectual, professional, and cultural goals. The Associate of Arts and the Associate of Science degrees meet the general education requirements for most baccalaureate degree programs at The University of Akron and other colleges and universities throughout the country.
Completing the Associate of Arts or the Associate of Science degree also fulfills the Transfer Module as outlined by the Ohio Board of Regents.

## Arts Option

|  |  | Credits |
| :---: | :---: | :---: |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3400:210 | Humanities in the Western Tradition $1^{1}$ | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Area Studies/Cultural Diversity Requirement ${ }^{2}$ | 4 |
|  | Humanities Requirement ${ }^{1}$ | 6 |
|  | Mathematics Requirement ${ }^{3}$ | 3 |
|  | Natural Sciences Requirement ${ }^{4}$ | 8 |
|  | Physical EducationWellness | 1 |
|  | Social Sciences Requirement ${ }^{5}$ | 6 |
|  | Electives ${ }^{8}$ | 22 |
|  |  | 64 |

## Science Option

3300:111 English Composition 1 . 4
3300:112 English Composition II . 3
3400:210 Mumantities in the Westem Tradition I ${ }^{1}$
7600:106 Effective Oral Communication
Effective Oral Communication
Area Studies/Culuural Diversity Requirement ${ }^{2}$
Humanities Requirement ${ }^{1}$
Mathematics Requirement ${ }^{3}$
Natural Sciences Requirement ${ }^{4}$
Physical EducationWVellness
Social Sciences Requirement ${ }^{5} \longrightarrow 6$
Electives ${ }^{\prime}$
64

[^14]
## 2260: Social Services Technology

This program prepares graduates for preprofessional employment in social work as social work assistants. The curriculum combines learning experiences in the classroom with fieldwork in human service organizations. While the associate to bachelor's degree option can lead to immediate employment upon completion, it also provides the first two years of full-time coursework toward a bachelor's degree in social work at The University of Akron School of Social Work.

## Associate to Bachelor's Degree Option with Bachelor of Arts/Social Work degree <br> Credits

| 2260:121 | Social Service Techniques ! |
| :---: | :---: |
| 2260:122 | Social Service Techniques II |
| 2260:150 | Introduction to Gerontological Services |
| 2260:171 | Career Issues in Social Services ! |
| 2260:172 | Career Issues in Social Services II |
| 2260:223 | Social Service Techniques III |
| 2260:260 | Introduction to Addiction |
| 2260:273 | Career Issues in Social Services itI |
| 2260:285 | Social Services Practicum* |
| 2260:293 | Fieldwork Orientation |
| 2260:294 | Fieldwork Evaluation |
| 3100:103 | Natural Science-Biology |
| 3300:111 | English Composition I |
| 3300:112 | English Composition II |
| 3700:100 | Government and Politics in the U.S. |
| 3750:100 | Introduction to Psychology |
| 3850:100 | Introduction to Sociology |
| 7600:106 | Effective Oral Communication |
| 7750:270 | Poverty and Minority Issues |
| 7750:276 | Introduction to Social Welfare |
|  | Economics requirement |
|  | Human Development requirement |
|  | Natural Science requirement |
|  | Physical Education/Weilness |
|  | Social Services Elective(s) |

2260:150 Introduction to Gerontological Services 3

2260:171 Career Issues in Social Services
1

Social Service Techniques III 1
2260:260 Introduction to Addiction
2260273 Cocial Services Praial Service in
Services Practicum*
ieldwork Orientation
Natural Science-Biology
ngish Composition
Government and Politics in the U.S.
introduction to Psychology
Effective Oral Communication
Poverty and Minority lssues
Economics requirement
Human Development requirement
ilness
Social Services Elective(s)

## 2420: Business Management Technology <br> Accounting Option

The Accounting Option provides training for a variety of accounting positions. Graduates will be prepared for immediate employment in the areas of financial and managerial accounting, sales, procurement, credit and collections, business research, data compilation and reporting.
Students entering the program must demonstrate a fundamental knowledge of computer software and keyboarding by examination (CISBR) or take the following bridge courses prior to enroling in the program:

| 2440:105 | Introduction to Computers and Application Software | 3 |
| :---: | :---: | :---: |
| 2540:290 | ST: Keyboerding for Skill Development | 1 |
| 2040:240 | Human Relations or | 3 |
| 3750:100 | introduction to Psychology | 3 |
| 2040:247 | Survey of Basic Economics or | 3 |
| 3250:200 | Principles of Microeconomics | 3 |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:104 | Introduction to Business in the Global Environment or | 3 |
| 6100:101 | Giobal Business Concepts and Practices | 3 |
| 2420:170 | Applied Mathematics for Business | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:212 | Basic Accounting II | 3 |
| 2420:213 | Essentials of Management Accounting | 3 |
| 2420:214 | Essentials of Intermediate Accounting | 3 |
| 2420:216 | Survey of Cost Accounting | 3 |
| 2420:217 | Survey of Texation | 4 |
| 2420:218 | Automated Bookkeeping | 2 |
| 2420:219 | Business Accounting Projects or | 3 |
| 2420:245 | Business Management Accounting Internship | 3 |
| 2420:243 | Survey in Finance | 3 |
| 2420:280 | Essentials of Business Law or | 3 |
| 6400:220 | The Legal and Social Environment of Business | 3 |
| 2440:125 | Spreadsheet Software | 2 |
| 2520:101 | Essentials of Marketing Technology | 3 |

[^15] as one of their required practicum experiences.

|  |  | Credits |
| :---: | :---: | :---: |
| 2540:263 | Professional Communications and Presentations | .$^{3}$ |
| 7600:106 | Effective Oral Communication | 3 |
| 2540:289 | Career Development for Business Professionals | 3 |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Compasition II | 3 |
| 3600:120 | Introduction to Ethics | 3 |
| 6200:250 | Microcomputer Applications for Business | 3 |
|  |  | 69 |

## General Business Option

The General Option provides training in varied business activities in preparation for an entry-evel management position in business, industry, govemment and nonprofit organizations or as a seff-employed manager.
Students entering the program must demonstrate a fundamental knowledge of computer software and keyboarding by examination (CISBA) or take the following bridge courses prior to enrolling in the program:


## 2530: Health Care Office Management

The Health Care Office Management program is designed to meet the needs of current health care office employees and others to develop skills to prepare for technical, supervisory, or management positions in the health care field. Graduates will be trained for the daily operation and management of the health care practice. The responsibilities include all administrative, financial, human resources, clerical and supply functions, with a special emphasis on medical coding, insurance billing, and financial analysis.
Students entering the program must demonstrate a fundamental knowledge of computer software and keyboarding by examination (CISBR) or take the follow bridge courses prior to enrolling in the program:

Credits

| 2440:105 | Introduction to Computers and Application Software |
| :--- | :--- |
| 2540:290 | ST: Keyboarding for Skill Development |

- A grade of "C" or higher is required in all 2530: department courses.



## 2540: Office Technology

Through the study of office and technology skills, this program will prepare graduates for careers as office professionals. Students choose from program options that prepare them for administrative support, computer and network support, and/or office management positions. Students may choose to transfer credits from this associate degree program into a bachelor's degree program.
Students entering the program must demonstrate a fundamental knowledge of computer software and keyboarding by examination (CISBR) or take the following bridge courses prior to enrolling in the program:

| 2440:105 | Introduction to Computers and Application Software | 3 |
| :--- | :--- | :--- |
| 2540:290 | ST: Kevboarding for Skill Development | 1 |

## Application Software Option

| 2020:222 | Technical Report Writing | 3 |
| :---: | :---: | :---: |
| 2030:151 | Technical Mathematics ! and | 2 |
| 2030:152 | Technical Mathematics II or | 2 |
| 3470:250 | Statistics for Everyday Life | 4 |
| 2040:240 | Human Relations or | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 2040:256 | Diversity in American Society | 2 |
| 2420:211 | Basic Accounting I or | 3 |
| 6200:201 | Accounting Principles I | 3 |
| 2440:125 | Spreadsheet Software | 2 |
| 2440:145 | Operating Systems | 3 |
| 2440:245 | Introduction to Databases for Micros | 3 |


|  |  | Credits |
| :---: | :---: | :---: |
| 2540:119 | Business English | 3 |
| 2540:121 | Introduction to Office Procedures | 3 |
| 2540:123 | Microsoft Outhook | 2 |
| 2540:136 | Speech Recognition Technology | 2 |
| 2540:138 | Project Manegement | 2 |
| 2540:143 | Microsoft Word, Beginning | 2 |
| 2540:144 | Microsoft Word, Advanced | 2 |
| 2540:243 | Internship | 3 |
| 2540:263 | Professional Communication and Presentations or | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| 2540:273 | Microsoft PowerPoint | 2 |
| 2540:289 | Career Development for Business Professionals | 3 |
| 2600:270 | Introduction to Network Technologies | 3 |
| 3300:111 | English Composition I | 4 |
| 3600:120 | Introduction to Ethics | 3 |
|  | Physical EducationWellness | 1 |
|  | Technical Electives | 6 |
|  |  | 67 |

- Technical electives:

| $2420: 280$ | Essentials of Business Law | 3 |
| :--- | :--- | :--- |
| $2540: 253$ | Advanced Word Processing | 3 |
| $2540: 279$ | Legal Office Procedures | 4 |
| $2540: 281$ | Editing/Proofreading/Transcription | 3 |
| 2440:140 | Internet Tools | 3 |
| $2440: 141$ | Web site Administration | 3 |

Business Offies Manager Option
$2040: 240 \quad$ Human Relations
3750:100 Introduction to Psychology 3

2040:256 | Introduction to Psychology | 3 |
| :--- | :--- | :--- |

2420:103 Essentials of Management Technology 3
2420:104 Introduction to Business in the Global Environment
2420:202 Elements of Human Resource Management
2420:211 Basic Accounting I
or
6200:201 Accounting Principles I 3

6200:202 Accounting Principles II 3
2440:125 Spreadsheet Software 2
$\begin{array}{lll}2540: 123 & \text { Microsoft Outlook } & 2\end{array}$

2540:273 Microsoft PowerPoint
3300:111 English Composition 1
3600:120 introduction to Ethics
7600:106 Effective Oral Communication
Physical EducationWellness
F
$\qquad$

$$
2
$$

2420:212 Basic Accounting li $\quad 3$

2440:245 Introduction to Databases for Micros . 3
2540:119 Business English 3

2540:136 Speech Recognition Technology 2
2540:138 Project Management 2

2540:243 Internship 3

$$
3
$$

$$
\begin{aligned}
& 3 \\
& 1 \\
& 0
\end{aligned}
$$

$$
\frac{6}{37}
$$

2540:121 Introduction to Office Procedures

2540:143 Microsoft Word, Beginning 2
2540:144 Microsoft Word, Advanced 2
2540:253 Advanced Word Processing
2540:263 Professional Communications and Presentations
2540:289 Career Development for Business Professionals
$\begin{array}{lll}\text { 2540:281 } & \text { Editing/Proofreading/Transcription } & 3 \\ \text { 2440:140 } & \text { Internet Tools } & 3\end{array}$
2440:141 Web site Administration 3
-

| Computer Support Spaciallst Option |  | Credits |
| :---: | :---: | :---: |
| 2020:222 | Tectrical Report Writing | 3 |
| 2040:240 | Human Reletions or | 3 |
| 3750:100 | Introcurction to Psychology | 3 |
| 2040:256 | Diversity in American Society | 2 |
| 2440:121 | Introduction to Logic/Programming | 3 |
| 2440:125 | Spreedsheet Software | 2 |
| 2440:140 | Internat Tools | 3 |
| 2440:145 | Operating Systems | 3 |
| 2440:245 | Introduction to Databases for Micros | 3 |
| 2540:123 | Microsoft Outiook | 2 |
| 2540:138 | Project Management | 2 |
| 2540:143 | Microsoft Word, Beginning | 2 |
| 2540:144 | Microsoft Word, Advanced | 2 |
| 2540:243 | Internship | 3 |
| 2540:283 | Professional Communication and Presentations | 3 |
| 2540:273 | Microsoft PowerPoint | 2 |
| 2540:289 | Career Development for Business Prolessionals | 3 |
| 2600:240 | Microsoft Networking I | 3 |
| 2600:242 | Microsoft Networking II | 3 |
| 2600:270 | Introduction to Network Technologies | 3 |
| 3300:111 | Endish Composition 1 | 4 |
| 3600:120 | Introduction to Etrics | 3 |
|  | Technical electives | 9 |
|  |  | 66 |
| - Technical electives: |  |  |
| 2440:141 | Web Site Adminisistration | 3 |
| 2440:212 | Mutimedia and Interactive Web Elements | 3 |
| 2440:247 | Herdwere Support | 3 |
| 2540:136 | Speech Recognition Technology | 2 |
| 2800:244 | Microsoft Networking III | 3 |
| 2600:248 | Microsoft Networking /V | 3 |
| 2600:261 | Network Security | 3 |
| 2600:262 | Linux Networking | 3 |
| Heath Cere Administrative Assistant Option |  |  |
| - A grade of 'C" or higher is required in all 2530: department courses. |  |  |
| 2040:240 | Human Relations or | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 2420:170 | Applied Mathematics for Business or | 3 |
| 2420:211 | Besic Accounting I | 3 |
| 2440:125 | Spreadsheet Software | 2 |
| 2530:240 | Medical Coding I - Diegnostic | 3 |
| 2530:241 | Heath information Management | 3 |
| 2530:242 | Medical Office Administration | 3 |
| 2530:243 | Medical Coding II - Procedural | 3 |
| 2530:244 | Medical insurance Biling | 3 |
| 2530:284 | Medical Office Techniques | 2 |
| 2540:119 | Business Endish | 3 |
| 2540:121 | Introduction to Office Procedures | 3 |
| 2540:136 | Speech Recogrition Tectrnology | 2 |
| 2540:143 | Microsoft Word Beginning | 2 |
| 2540:144 | Microsoft Word, Advanced | 2 |
| 2540:243 | Internship | 3 |
| 2540:263 | Professional Communication and Presentations or | 3 |
| 7800:108 | Effective Oral Communications | 3 |
| 2540:282 | Medical Machine Transcription | 3 |
| 2540:289 | Career Development for Business Prolessionals | 3 |
| 2740:120 | Medical Terminology | 3 |
| 2740:121 | Study of Diseese Processes | 3 |
| 2740:230 | Basic Pharmacology | 3 |
| 3300:111 | Englist Composition 1 | 4 |
| 3600:101 | Introduction to Philosophy or | 3 |
| 3600:120 | Introduction to Ethics | 3 |
| 5550:211 | First Aid \& CPR | 2 |
|  |  | 67 |
| Networking Support Option |  |  |
| 2020:222 | Tectrical Report Writing | 3 |
| 2030:151 | Tectrical Mathernatics I and | 2 |
| 2030:152 | Tecinical Mathematics II or | 2 |
| 3470:250 | Straistics for Everyday Lie | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:258 | Diversity in American Socisty | 2 |

## CERTIFICATE PROGRAMS

Certificate programs are designed to provide students with specialized job trairing utilizing courses from the college's associate degree programs. These courses may subsequently be applied toward the Associate of Applied Business in Health Care Office Management, Office Technology or Business Management Technology degrees, or the Associate of Applied Science in Social Services Technology degree.

## Gerontological Social Services Certificate

Jobs in gerontological social services are expected to increase significantly in coming years because of rapidly growing numbers of older persons in our society. However, there is a shortage of personnel with specialized training in the field of aging. This certificate program in Gerontological Social Services is designed to respond to the need for individuals with specialized knowledge and skills for social service employment in nursing homes, retirement communities, senior centers, nutrition sites and similar programs.
Students who combine the Gerontological Social Services certificate with the associate degree in Social Services Technology strengthen their employment opportunities.

Credits

| 2260:121 | Social Service Techniques I |
| :--- | :--- |
| 2260:122 | Sociel Service Techniques II |
| 2260:150 | Introduction to Gerontological Senvices |
| 2260:171 | Career Issues in Social Services I |
| 2260:172 | Career Issues in Social Services II |
| $2260: 251$ | Community Services for Senior Citizens |
| $2260: 275$ | Therapertic Activities |
| $2260: 287$ | Practicum in Therapeutic Activities and Long-temm Care |
|  | or |
| $2260: 289$ | Practicum in Gerontological Social Services |
| $2260: 293$ | Fieldwork Orientation |
| $2260: 294$ | Fieldwork Evaluation |
| $3100: 103$ | Natural Science: Biology |
| $3100: 108$ | Introduction to Biological Aging |
| $3300: 111$ | English Composition I |
| $7750: 276$ | Introduction to Social Welfare |

## Information Processing Specialist Certificate

The purpose of the information Processing Specialist Certificate is to assure employers that individuals involved in information processing possess skills in the use of the most current technology. This certificate program will provide college credit for those in supervisory, managerial, and support positions related to the area of information storage, retrieval, and processing.

| 2040:240 | Human Relations | 3 |
| :---: | :---: | :---: |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:104 | Introdyction to Business in the Global Environment | 3 |
| 2440:121 | introduction to Logic/Programming | 3 |
| 2440:125 | Spreadsheet Software | 2 |
| 2440:140 | internet Tools | 3 |
| 2440:145 | Operating Systems | 3 |
| 2440:170 | Visual BASIC | 3 |
| 2440:245 | Introduction to Databases for Micros | 3 |
| 2540:119 | Business English | 3 |
| 2540:263 | Professional Communication and Presentations | 3 |

## Medical Billing Certificate

The medical billing specialist is an integral part of the heath care team. Medical billing personnei are responsible for patient billing and basic accounting systems used in the health care facility. The individual responsible for the medical billing needs to know medical terminology, principtes of anatomy and physiology, disease processes, medical procedures, medical records, patient billing, accounting, and computer skills. Medical references will be used extensively to code patient diagnoses and medical procedures performed. Competence in completion of the standard heath insurance claim, knowledge of third-perty reimbursement, and an understanding of collection policies and procedures are also important to this position.
Wayne College's Medical Billing Certificate prepares you to work in hospitals, nursing homes, outpatient clinics, medical group practices, health maintenance organizations, medical billing services, and insurance companies.
Students entering the program must demonstrate a fundamental knowledge of computer software and keyboarding by examination (CISBR) or take the following bridge courses prior to enrolling in the program:

|  |  | Crodits |
| :---: | :---: | :---: |
| 2440:105 | Introduction to Computers and Application Software | 3 |
| $2540: 290$ | ST: Keyboarding for Skill Development | 3 |

- A grade of "C' or higher is required in all 2530: department courses.

| 2420:211 | Basic Accounting I | 3 |
| :---: | :---: | :---: |
| 2440:125 | Spresistheet Sotwere | 2 |
| 2530:240 | Medical Coding 1 - Diagnostic | 3 |
| 2530:241 | Health Information Management | 3 |
| 2530:242 | Medical Office Administration | 3 |
| 2530:243 | Medical Coding II-Procedursl | 3 |
| 2530:244 | Mecical insurance Billing | 3 |
| 2540:119 | Business English | 3 |
| 2540:143 | Microsoft Word, Beginning | 2 |
| 2540:263 | Professional Communication and Presentations | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| 2740:120 | Medical Temminology | 3 |
| 2740:121 | Study of Disease Processes | 3 |

## Medical Transcription Certlficate

There is substantial demand for high-quality, professional medical transcriptionists. This certificate will prepare individuals for entry-tevel positions in physicians' offices, hospitals, clinics, medical centers, govemment facilities, transcription services, and home offices.
Students entering the program must demenstrate a fundamental knowiedge of computer software and keyboerding by examination (CISBR), or take the following bridge courses priar to enrolling in the program.

| 2440:105 | Introduction to Computers and Application Softwere | 3 |
| :---: | :---: | :---: |
| 2540:290 | ST: Keyboarding for Skill Development | 1 |
| 2530:241 | Health information Management | 3 |
| 2530:242 | Medical Office Administration | 3 |
| 2540:119 | Business English | 3 |
| 2540:121 | Introduction to Office Procedures | 3 |
| 2540:136 | Speech Recognition Technology | 2 |
| 2540:143 | Microsoft Word, Beginning | 2 |
| 2540:144 | Mierosot Word, Advanced | 2 |
| 2540:263 | Professional Commurication and Presentations | 3 |
| 2540:282 | Medical Machine Transcription | 3 |
| 2740:120 | Medical Terminology | 3 |
| 2740:121 | Study of Disease Processes | 3 |
| 2740:230 | Basic Pharmecology | 3 |

## Network Support Specialist Certificate

Wayne College's Network Support Specialist Certificate will prepare you to meet the challenge of an exciting career in the computer networking and information technology industry. This program incorporates Microsoft Corp. standard courses and prepares students to qualify for Microsoft's Certified Systems Engineer (MCSE) certification. Students completing this certificate will be prepared to fill first-evel positions requiring skills in local area network administration and support.
Coursework can also be applied towards the Associate of Applied Business in Office Technology, of to the Associate of Technical Studies degree.
Students entering the program must demonstrate a fundamental knowledge of computer software and keyboarding by examination (CISBR) or take the following bridge courses prior to enrolling in the program:

|  |  | Credits |
| :---: | :---: | :---: |
| 2440:105 | Introduction to Computers and Application Software | 3 |
| 2540:290 | ST: Keyboarcing for Skill Development | 1 |
| 2020:222 | Technical Report Writing or | 3 |
| 2540:263 | Professional Communication and Presentations | 3 |
| 2040:240 | Human Relations | 3 |
| 2440:145 | Operating Systems | 3 |
| 2600:270 | Introduction to Network Tectrologies | 3 |
| 2600:240 | Microsoft Networking I | 3 |
| 2600:242 | Microsoft Networking II | 3 |
| 2600:244 | Microsoft Networking ill | 3 |
| 2600:246 | Microsoft Networking IV | 3 |
| 2600:261 | Network Security or | 3 |
| 2600:262 | Linux Networking | 3 |
| 3300:111 | English Composition I | 4. |
|  |  | 31 |

## Therapeutic Activities Certificate

This certificate prepares recipients for entry-level positions in activities in longterm care, an area with frequent job openings, and to meet the psychosocial needs of older adults through individual and group therapeutic activities in diverse settings. Combined with the Certificate in Gerontological Social Services, it also provides knowledge and skills to support social service roles with the elderly. While enhancing employability and effectiveness in the field of aging, much of the content can also be applied to diverse fields of practice and is helpful for work with numerous populations.

| $2260: 150$ | Introduction to Gerontological Services | 3 |
| :--- | :--- | ---: |
| $2260: 251$ | Community Servicos for Senior Citizens | 3 |
| $2260: 275$ | Therapeutic Activities | 3 |
| $2260: 276$ | Practicum in Therapeutic Activities | 1 |
|  | or |  |
| $2260: 287$ | Practicum in Therapeutic Activities and Long-Term Care | 1 |
| $2260: 293$ | Fieldwork Orientation | 1 |
| $2260: 294$ | Fieldwork Evaluation | $-\frac{1}{12}$ |

## Workplace Communication Certificate

This certificate prepares individuals for the workplace communication skills demanded by today's employers. Courses focus on functional skills (writing, editing, oral presentations), as well as theoretical and technological foundations (ethics, computer-assisted design) applicable in the workplace. For employees already on the job, the certificate offers the opportunity to update skills and satisfy corporate demands; for current students, the certificate provides competence in workplace communication skills that prospective employers will seek.

| 2020:222 | Technical Report Writing | 3 |
| :--- | :--- | :--- |
| 2020:290 | Special Topics: Informetion Design | 3 |
| 2020:290 | Special Topics: Ethical Issues in Workplace Communication | 3 |
| $7600: 105$ | Introduction to Public Speaking | 3 |
|  | or |  |
| $7600: 106$ | Effective Orel Communication | 3 |

## GENERAL EDUCATION/ TRANSFER PROGRAM

Wayne College offers the first two years of general baccalaureate education for transfer to the Akron campus of The University of Akron or to any other college or university. General courses in communications, the humanities, cultural diversity, social sciences, mathematics and natural sciences are required, along with basic courses in the student's chosen field. For undecided students, this is the time to take courses from several areas in order to select a field most to their liking.

The following outlines represent the first two years of study for various bachelor's degree programs of The University of Akron. Some courses not currently avail able at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements. These programs are marked with an asterisk (*). Finally, completion of the courses listed may also qualify a student to receive either the Associate of Arts or the Associate of Science degree. Please consult a Wayne College adviser for further details.

| 3100: Biology |  | Cradits |
| :---: | :---: | :---: |
| Frat Year |  |  |
| 3100:111 | Principlas of Biology | 4 |
| 3100:112 | Principles of Eiology II | 4 |
| 3150:151 | Principies of Chemistry 1 |  |
| 3150:152 | Principles of Chemistry L Lab | 1 |
| 3150:153 | Principles of Chemistry If | 3 |
| 3150:154 | Qualitative Analysis | 2 |
| 3300:111 | English Composition : |  |
| 3300:112 | English Composition II | 3 |
| 3450:145 | College Algebra | 4 |
| 3450:149 | Precalculus Mathematics | 4 |
|  |  | 32 |
| Second Year |  |  |
| 3100:211 | General Genetics | 3 |
| 3150:263 | Organic Chemistry Lecture I | 3 |
| 3150:264 | Organic Chemistry Lecture II | 3 |
| 3150:265 | Organic Chemistry Laboratory 1 | 2 |
| 3150:266 | Organic Chemistry Laboratory il | 2 |
| 3400:210 | Humanities in the Westem Tradition I | 4 |
|  | Physical EducationWellness | 1 |
|  | Humanities Requirement | 6 |
|  | Area Studies/Cultural Diversity Requirement | 4 |
|  | Social Science Requirement | 6 |

3150: Chemistry
Frat Yoer
$\begin{array}{lll}3100: 111 & \text { Principles of Biology } 1 & 4 \\ 3100: 112 & \text { Principles of Biology II } & 4\end{array}$
$3100: 112 \quad$ Principles of Biology II
$3150 \cdot 152 \quad$ Principles of Chemistry I 1 ab
3150:153 . Principles of Chemistry If
$3150: 154 \quad$ Qualitative Analysis $\quad 2$
English Composition :

Second Year
3100:211 General Genetics
Organic Chemistry Lecture I
Organic Chemistry Lecture II
3150:264 Organic Chemistry lecture II
3150:265 Organic Chemistry Laboratory
$\begin{array}{ll}3150: 266 & \text { Organic Chemistry Laboratory II } \\ 3400: 210 & \text { Humanities in the Westem Tradition I }\end{array}$
Physical EducationWeliness
Humanities Requirement
Area Studies/Cultural Diversity Requirement
34

3150:151 Principles of Chemistry 1 3
3150:152 Principles of Chemistry / Lab 1
3150:153 Principles of Chemistry II 3
3150:154 Qualitative Analysis
3300:111 English Composition I
3300:112 English Composition II
3450:149 Precalculus Mathematics
3450:221 Analytic Geometry-Calculus I
7600:106 Effective Oral Communication
Physical EducationWoeliness
Social Science Requirement

## Second Yeer

$3150: 263$
3150:264
3150:265
3150:266
$3400: 210$
$3450: 222$
3450:222
3450:223
3650:291
3650:292

Organic Chemistry Lecture I
Organic Chemistry Lecture II
Organic Chemistry Laboratory 1
Organic Chemistry Laboratory II
Humanities in the Westem Tradition I
Analytic Geometry-Calculus II
Analytic Geometry-Calculus III
Elementary Classical Physics I
Elementary Clessical Physics II
Humanities Requirement


| 3250: Economics |  | Credits |
| :---: | :---: | :---: |
| Frat Year |  |  |
| 3300:111 | English Composition 1 | 4 |
| 3300:112 | English Composition II | 3 |
| 3450:145 | Colloge Algebra | 4 |
| 3450:215 | Concepts of Calculus | 4 |
| 7600:106 | Effective Oral Commurication | 3 |
|  | Beginning foreign Language | 8 |
|  | Natural Science Requirement | 8 |
|  | Physical EducationWellness | 1 |
|  |  | 35 |
| Second Yewr |  |  |
| 3400:210 | Hurnanities in the Westem Tradition 1 | 4 |
| 3250:200 | Principles of Microeconomics | 3 |
| 3250:201 | Principles of Macroeconomics | 3 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Hurnenities Requirement | 6 |
|  | Intermediate Foreign Language | 6 |
|  | Social Science Requirement | 3 |
|  | Electives | 3 |
| 3300: En | sh* | 32 |

## 3300: English*

| Fret Year |  |
| :--- | :--- |
| $3300: 111$ | English Composition I |
| $3300: 112$ | English Composition II |
| $7600: 106$ | Effective Oral Comrmunication |
|  | Beginning Foreign Language |
|  | Mathematics Requirement |
|  | Physical EducationWellness |
|  | Social Science Requirememt |
|  | Electives |

## Second Year <br> 3400:210

Hurnenities in the Westem Tradition I 4
Arees Studies/Cultural Diversity Requirement
Humanities Requirement 6
Intermediate Foreign Language
Natural Science Requirement
Electives

| $3350:$ CeOgraphy and Planning* |  |
| :--- | :--- |
| Frat Year |  |
| $3300: 111$ | English Composition I |
| $3300: 112$ | English Composition II |
| $3350: 100$ | Introduction to Geography |
|  | Mathematics Requirement |
| $7600: 106$ | Effective Oral Communication |
|  | Beginning Foreign Language |
|  | Physical EducationWellness |
|  | Social Science Requirement |
|  | Electives |

Second Y
Hurrenities in the Westem Tradition I
Areas Studies/Cuitural Diversity Requirement
Humanities Requirement
Intermediate Foreign Language
Natural Science Requirement
Electives
3370: Geology (and Geophysics)***
Frat Year
3300:111
$3300: 112$
3150:151
3150:152
Principles of Chemistry I Laboratory
3150:154
Qualitative Analysis (optional for B.A. and B.S.)
Precalculus Mathematics
3450:221 Analytic Geometry-Calculus I (for B.S.)
Physiced EducationWellness
Sociel Science Requirement
Electives (for BA.)


## 3450: Mathematics (and Applied Mathematics)*

(see 3470: Statistics)
3460: Computer Science*

## ${ }^{\text {Frase Yeorr }}$

3300:111 English Composition 1 . 4
3300:112 English Composition II 3
3450:221 Anatutic Geometry Catoulus
3460:209 Introduction to Computer Science
Beginning Foreign Language
Physical Education/Wellness
Natural Science Requirement
Second Year
3400:210
3450:222
7600:106
Humanities in the Western Tradition 1

Analytic Geometry-Calculus II
Effective Oral Communication
Area Studies/Cultural Diversity Requirement
Humanities Requirement
Intermediate Foreign Language
Social Science Requirement

## 3470: Statistics*

Frst Year
$3300: 111$ English Composition I 4
$3300: 112 \quad$ English Composition II
3450:221 - Analytic Geometry-Calculus 1 4
$\begin{array}{lll}\text { 3450:222 } & \text { Analytic Geometry-Calculus II } & 4 \\ 7600: 106 & \text { Effective Oral Communication }\end{array}$
7600:106 Effective Oral Communication 3
Natural Science Requirements
Physical Education/Wellness

Second Year
Students attending part time, or who are ineligible to take 3450:221 during the first vear can take additional requirements at Wayne College during the second year. Students attending full time should go to the Akron campus in the second year to take required mathematics prerequisite courses. Please consult a Wayne College adviser.

[^16][^17]

[^18][^19]| 4600: Mechanical Engineering* |  | Credits |
| :---: | :---: | :---: |
| Frist Yoar |  |  |
| 3150:151 | Principles of Chemistry 1 | 3 |
| 3150:152 | Principles of Chemistry I Laboratory | 1 |
| 3150:153 | Principles of Chemistry II | 3 |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3450:221 | Analytic Geometry-Calculus I | 4 |
| 3450:222 | Anathic Geometry-Calculus II | 4 |
| 4100:101 | Tools for Engineering | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Physical EducationWotness | 1 |
|  | Social Science Requirement | 3 |
| Second year . 32 |  |  |
| 3250:244 | Introduction to Economic Analysis | 3 |
| 3400:210 | Humenities in the Westem Tradition 1 | 4 |
| 3450:223 | Analytic Geometry-Calculius III | 4 |
| 3450:335 | Introduction to Ordinary Differential Equations | 3 |
| 3650:291 | Elementary Classical Physics I | 4 |
| 3650:292 | Elementary Classical Physics II | 4 |
| 4300:201 | Statics | 3 |
| 4300:202 | Introduction to Mechanics of Solids | 3 |
| 4600:203 | Dymamics | 3 |
|  | Humanities Requirement | 8 |
|  |  | 37 |

5200: Early Childhood Education*
Earty Childhood Licensure Option (age three through grade three inclusive)
Frret Year .

| $3100: 103$ | Natural Science-Biology | 4 |
| :--- | :--- | :--- |
| $3300: 111$ | English Composition I | 4 |
| $3300: 112$ | English Composition II | 3 |
| $3350: 100$ | Introduction to Gecgraphy | 3 |

$\begin{array}{ll}3350: 100 & \text { Introduction to Geography } \\ 3400: 250 / 251 & \text { U.S. History to } 1877 / \text { Since } 1877\end{array}$

| 3700:100 | or |
| :--- | :--- |
| 3450:140 | Mavernment and Politics in U.S. |
| 3450:260 | Mathematics for Elementary School Teachers I |
| $7400: 265$ | Child Development |
| $7600: 106$ | Effective Oral Communication School Teachers II |
|  | Natural Science Requirement |
|  | Physical EducationWellmess |
| Second Year |  |

3400:210
310:200
5100:220
5200:215 The Child, Family and the School
5500:230 Educational Technology
5500:245 Undarstanding Literacy Development and Phonics
5500:286 Teaching Multiple Texts through Genre
5610:225 Introduction to Exceptionalitios
7400:270 Theory and Guidance of Play
7400:280 Early Childhood Curriculum Methods
Humenities Requirement

## 5250: Middle Level Education

Middle Level Licensure Option (grades 4-9 inclusive)
Frrat Year
3300:111, 112 English Composition 1,11
3350:100 Introduction to Geography
3400:250/251 U.S. History to 1877/Since 1877
3700:100
3450:140
3450:260
7600:106 or
Govermment and Politics in U.S.
4
Mathematics for Elementary School Teachers ! 3
Mathematics for Elementary School Teachers II 3
Effective Oral Communication
Natural Science Requirement
Ptysical EducationWoliness
Area of Concentration Course or Electives

| Second Year |  | Creatis |
| :---: | :---: | :---: |
| 3400-210 | Humanities in the Western Tradition I | 4 |
| 5100:200 | Introduction to Education | 3 |
| 5100:220 | Educational Psychology | 3 |
| 5500:230 | Educational Technology | 3 |
| 5500:245 | Understanding Literecy Development and Phonics | 3 |
| 5500:288 | Teeching Multiple Texts through Genre | 3 |
| 5610:225 | Introduction to Excaptionalities | 3 |
|  | Areas StudiesiCutural Diversity Requirement | 4 |
|  | Humanities Requirement | 6 |

5300: Secondary Education*
Adolescent to Young Adtilt Licensure Option (Middle, Junior and Senior High School)

| Fine Your |  |  |
| :---: | :---: | :---: |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Mathematics Requirament | 3 |
|  | Netural Science Requirement | 8 |
|  | Physical EducationWelnness | 1 |
|  | Social Science Requirement | 6 |
|  | Teaching Fiolds) Course or Electives | 4 |
| Second mar 32 |  |  |
| 3400:210 | Humanities in the Westem Tredition 1 | 4 |
| 5100:200 | Introcuction to Education | 3 |
| 5100:220 | Educational Psychology | 3 |
| 5500:230 | Educational Technology | 3 |
| 5610:225 | Intraduction to Exceptionalities | 3 |
|  | Aveas Studies/Cutural Diversity Requirement | 4 |
|  | Humenities Requirement | 6 |
|  | Teeching Fieldis) Courses or Electives | $\underline{6}$ |
|  |  | 32 |

6000: Business Administration Options
Accounting, Finance, Managoment, Marketing, Advertising, International Buainess

## Frat Yeer

3300:111 English Composition I 4

3300:112 English Composition II 3
3450:145 College Algebra : 4
3450:210 Calculus with Business Applications . 3
3450:215
3750:100
3850:100
3230:150
7600:106
or
Concepts of Calcuulus 4
Introduction to Psychology 3
Introduction to Sociology 4
Cultural Anthropology 4
Effective Oral Communication 3
$\begin{array}{ll}\text { Natural Science Requirement } & 8 \\ \text { Physical EducationWellness } & 1\end{array}$
Physical EducationWellness 1
Electives $\quad \frac{14}{32}$
Second Year
320.201

3400:210 A
3
3
I T M
6200:201 Accounting Principles I
Accounting Principles I
Accounting Principles II
Microcomputer Applications for Business
6200:202
6200:250
6400:220
6500:221
Ouentitative Business Anelysis I
Quantitative Business Analysis II
Quantrative Businass Analysis II 3
Areas Studies/Cuttural Diversity Requirement -
Humanities Requirement

[^20]- Certin courses not currenty avaitable at Weme College may aso need to be completed in the frist two yeers of selected University programs to assure proper course sequencing and timely completion of degree requirements.


## 7400: Family and Consumer Sciences*

Options

| Dietetics* |  |  |
| :---: | :---: | :---: |
| Frat Year |  | Credits |
| 3150:110 | Introduction to General. Organic and Biochemistry I | 3 |
| 3150:111 | Introduction to Ganeral, Organic and Biochemistry I, Laboratory | 1 |
| 3150:112 | Introduction to General, Organic and Biochemistry II | 3 |
| 3150:113 | Introctuction to Generei, Organic and Biochemistry II, Laboratory | 1 |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Comoosition II | 3 |
| 3470:260 | Basic Statistics | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 3850:100 | Introduction to Sociology | 4 |
| 7400:265 | Child Development | 3 |
| 7800:106 | Effective Oral Communication | 3 |
|  | Physical EducatiorWeilness | 1 |
|  |  | 32 |
| Second Yem |  |  |
| 3100:130 | Principles of Microbiology | 3 |
| 3100:200, 201 | Human Anstomy and Physiology I, Lab | 4 |
| 3100:202, 203 | Human Anatormy and Physiology II, Lab | 4 |
| 3400:210 | Humanities in the Westem Tradition I | 4 |
| 6200:201 | Accounting Principles ! | 3 |
| 2420:211 | Basic Accounting I | 3 |
|  | Areas Stucies/Cultural Diversity Requirament | 4 |
|  | Humanities Requirement | 6 |
|  | Electives | 3 |
|  |  | 31 |

Family and Child Development

| First Yoer |  |
| :--- | :--- |
| $3300: 111$ | English Composition I |
| $3300: 112$ | English Composition II |
| $3750: 100$ | Introduction to Psychology |
| $3750: 230$ | Developmental Psychology (Family Development Option only) |
| $3850: 100$ | Introcuction to Sociology |
| $7400: 265$ | Child Development |
| $7600: 106$ | Effective Oral Communication |
|  | Mathematics Requirement |
|  | Physical EducationWellness |
|  | Electives |

second $Y$ err
3400:210
7400:270
7400:280
7750:276
$\begin{array}{lr}\text { Humanities in the Westem Tradirion I } & 4 \\ \text { Theory and Guidance of Pley (Child Deveipopment Option only) } & 3 \\ \text { Earty Childhood Curriculum Methods (Child Development Option only) } & 3 \\ \text { Introduction to Social Welfare (Family Development Option only) } & 4 \\ \text { Areas Studies/Cultural Diversity Requirement } & 4 \\ \text { Humanities Requirement } & 6 \\ \text { Natural Science Requirement } & 8 \\ & 32\end{array}$
Food and Consumer Science
Frat Year
3150:110
introduction to Genera, Organic and Biochemistry!
3150:112 Introduction to General, Organic and Biochemistry I, Laboratory
3150:113 Introduction to General, Organic and Biochemistry II, Laboratory
3300:111 English Composition I
3500:112 English Composition II
3470:260 Basic Statistics
7600:106 Effective Oral Communicstion
Beginning Foreign Language
$\stackrel{\text { or }}{\text { or }}$
Language Alternative Courses
Economics Requirement
Physica: Education/Weilness
Second Your

2440:103
3100:130
3400:210
3750:100
3850:100
7400:265
$\begin{array}{ll}\text { Software Fundamentals } & 2 \\ \text { Principles of Microbiotogy } & 3 \\ \text { Humanities in the Westem Tradition I } & 4 \\ \text { Introduction to Psychology } & 3 \\ \text { Introduction to Sociology } & 4 \\ \text { Child Development } & 3 \\ \text { Arees Studies Cultural Diversity Requirement } & 4 \\ \text { Humenities Requirement } & 6 \\ \text { Intermediate Foreign Language } & 6 \\ \text { or } & \\ \text { Language Alernative Courses } & \underline{6} \\ & \end{array}$

* Certain courses not currently available at Weyne College may also need to be completed in the completion of degree requiremens.

7600: Communication

| Frust Yoar |  | Credits |
| :---: | :---: | :---: |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| 7600:102 | Survey of Mass Communication | 3 |
| 7600:115 | Survey of Communication Theory | 3 |
| 7600:200 | Careers in Communication | 1 |
|  | Mathematics Requirement | 3 |
|  | Physical EducationWeillness | 1 |
|  | Social Science Requirement | 6 |
|  | Elective (typing/word processing recommended) | 5 |
|  |  | 32 |
| Second Yeer |  |  |
| 3400:210 | Humanities in the Western Tradition! | 4 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Communication Major Emphasis Coursos | 6 |
|  | Foreign Language Courses or |  |
|  | Language Alternative Courses | 8 |
|  | Humanities Requirement | 6 |
|  | Natural Science Requirement | 8 |

7750: Social Work

## Frost Your

3300:111 English Composition : 4
3300:112 English Composition II 3
3470:260 Basic Statistics
3700:100 Government and Politics in the U.S.
3750:100 introduction to Psychology
3850:100 Introduction to Sociology
7750:270 Poverty and Minority issues
7750:276 introduction to Social Welfare
Economics Requirement
Physical EducationWeelliness
Second Year
3100:103 Natural Science-Biology
3400:210 Humanities in the Western Tradition !
7600:106 Effective Oral Communication
7750:xxx Social Work Requirements
Areas Studies/Cultural Diversity Requirement
Humanities Requirement
Natural Science Requirement
Social Science elective
8200: Nursing (Basic Program)
Fhast Year
Fat
3100:202, 203
Human Anatorny and Ptysiology II, Lab
3150:111 Introduction to General, Organic and Biochemistry I, Laboratory
3150:112 Introduction to General, Organic and Biochemistry II
3150:113 Introduction to General, Organic and Biochemistry II, Laboratory
3300:111 English Composition I
3300:112 English Composition II
3470:250 Statistics for Everyday Life
3470:260 Basic Statistics
3750:100 . Introduction to Psychology
7600:106 Effective Oral Communication
8200:100 Introduction to Nursing

Students are eligibie to apply to the College of Nursing during spring semester of the first year if they have completed all of the courses listed above with a minimum grade of " C " or higher and have attained a grade point average of 2.75 or higher. If the student is accepted into the college, attendance at the Akron campus is necessary during the second year in required clinical nursing courses. The following list of courses may be taken at Wayne Coliege during the second year by students who do not satisfy the admission requirements.

| Second Yeer |  |  |
| :--- | :--- | ---: |
| 3100:130 | Principles of Microbiology | 3 |
| $3400: 210$ | Humanities in the Westem Tredition I. | 4 |
| 360:120 | Introduction to Ethics | 3 |
| $3750: 230$ | Developmental Psychology | 4 |
| $3850: 100$ | Introduction to Sociology | 4 |
|  | or |  |
| $3230: 150$ | Cultural Anthropology | 4 |
| $7400: 316$ | Science of Nutrition | 4 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Hurnanities Requirement | 3 |
|  | Physical EdicatiorW Weillness | 1 |
|  |  | 33 |

# University College 

Karla T. Mugler, Ph.D., Associate Provost and Dean<br>Bonnie L. Williams, Ph.D., Associate Dean<br>Greg Dieringer, M.A., Assistant Dean<br>Jennifer P. Hodges, Ph.D., Assistant Dean<br>Monique Beauvais, MPA, Assistant to the Associate Provost, Systems Laura Conley, M.S., Interim Director, UA Adult Focus<br>Anne Jorgensen, M.M.,<br>Director, Academic Advisement for Student Athletes<br>Nancy Roadruck, M.S.Ed., Director, Academic Advisement Center<br>Christopher Tankersley, Director, New Student Orientation

## OBJECTIVES

The purpose of the University College is to further the objectives of The University of Akron by providing a quality program of collegiate education and to pursue the following aims:

- To offer students a basic program of General Education and the prerequisite courses for advancement to the degreegranting colleges.
- To provide Learning Communities, Leaming Assistants and academic support services for students to strengthen their skills and facilitate their success in colloge courses.
- To assist new students in their transition to college through a comprehensive New Student Orientation program prior to enrollment, as well as a semesterlength Student Success Seminar, and a mentor program.
- To direct students to the proper curricula to ensure that students will enter their degreegranting colleges prepared to undertake advanced coursework.
- To ensure for transfer students a smooth transition to The University of Akron.
The college recommends the student for advancement to the degreegranting colleges upon satisfactory completion of the appropriate requirements.

A student who completes 30 semester credits and achieves a gradepoint average of 2.00 ("C") or better may be eligible for transfer to a degree granting cot lege. A student should always check with an adviser to determine specific requirements for transfer to the program of the student's choice.

Acceptance of a student in a degree granting college is the responsibility of the respective collegiate dean, the dean of the University College, and heads of departments concerned.

## GENERAL EDUCATION

The General Education Program of The University of Akron is the core of courses that provide the skills and knowledge considered essential for all graduates of the University. The General Education Program is designed to ensure, insofar as possible, that our graduates will possess:

- the capacity for critical, independent thought.
- a personal sense of values, tempered by tolerance and a regard for the rights of others.
- the ability to use language effectively as a medium of both thought and expression.
- the analytical skills necessary to make sound qualitative and quantitative judgements.
- the ability to describe and explain differences in civilizations and cultures.
- an understanding of the conditions that affect them as individuals and as members of society.
- the capacity to evaluate intellectual and artistic achievements.
- a knowiedge of science, technology, and mathematics and their effects on human activities.
- a knowledge of positive mental and physical health practices.


## Recommended Core Curriculum

Students pursuing a baccalaureate degree must complete the General Education Program, which consists of 42 credits distributed among eight categories. Students are advised to select General Education courses in conjunction with courses needed for their major during their first few years of study. Students must complete their English, Mathematics, and Speech requirements during the first $\mathbf{4 8}$ credit hours. All students are responsible for meeting prerequisites for the necessary courses listed in the General Education Program. NOTE: Specific departmental requirements may vary, so students are encouraged to consult an adviser for specific information about selecting appropriate General Education courses from the recommended core curriculum.

## English Composition: 7 credits - $\mathbf{2}$ courses

| $2020: 121$ | English <br> or <br> English Composition I <br> or | Credits |
| :--- | :--- | :--- |
| $3300: 111$ | African-American Language and Culture l: College Composition <br> and | 4 |
| $3300: 113$ | Technical Report Writing <br> or | 4 |
| $2020: 222$ | English Composition II <br> or | 3 |
| $3300: 112$ | African-American Language and Culture II: College Composition | 3 |

## Mathematics: $\mathbf{3}$ credits

(Students enrolling in a higher-evel math course may use this course to meet their General Education requirement)

| 2030:152,153 | Technical Mathematics II, III | 4 |
| :---: | :---: | :---: |
| (Must complete requirement | BOTH courses. Only 3 credits apply toward fuffiling General Education |  |
| 2030:161 | Math for Modern Technology | 4 |
| 3450:135 | Excursions in Mathematics | 3 |
| 3450:145 | College Algebra | 4 |
| 3450:210 | Calculus with Businoss Applications | 3 |
| 3450:260 | Mathematics for Elementary School Teachers II | 3 |
| 3470:250 | Statistics for Everyday Life | 4 |
| 3470:260 | Basic Statistics | 3 |
| 3470:261 | Introduction to Statistics \| | 2 |
| 3470:262 | Introduction to Statistics II | 2 |

## Natural Science: 8 credits minimum At least two courses, one of which must be a lab

(Students in higher-level science courses with a lab may use those courses to meet their General Education requirements.) Select one course each from a minimum of two different sets:

| Anthropology |  |  |
| :---: | :---: | :---: |
| 3230:151 | Human Evolutior/Lab | 4 |
| Biology |  |  |
| 2780:106 | Anatomy and Physiology for Allied Health : | 3 |
| 2780:107 | Anatomy and Physiology for Allied Health II | 3 |
| 3100:100 | Introduction to Botany/Lab | 4 |
| 3100:101 | Introduction to Zoology/Lab | 4 |
| 3100:103 | Natural Science Biology/Lab | 4 |
| 3100:104 | Introduction to Ecology Lab | 1 |
| 3100:105 | Introduction to Ecology | 2 |
| 3100:108 | Introduction to Biclogical Aging (Wayne College only) | 3 |
| Chemistry |  |  |
| 2820:105 | Basic Chemistry/Lab | 3 |
| 2820:111 | Introductory Chemistry | 3 |
| 2820:112 | Introductory and Analytical Chemistry | 3 |
| 3150:100 | Chemistry and Society | 3 |
| 3150:101 | Chemistry for Everyone/Lab | 4 |
| Environmental Studies |  |  |
| 3010:201 | Introduction to Environmental Science | 3 |
| Geology |  |  |
| 3370:100 | Earth Science | 3 |
| 3370:101 | Introductory Physical Geology | 4 |
| 3370:103 | Natural Science Geology | 3 |
| 3370:121-141 | Concepts in Geology | , |
| 3370:171 | Introduction to Oceans | 3 |
| 3370:200 | Environmental Geology | 3 |
| 3370:201 | Exercises in Environmental Geology 1/2ab | 1 |
| 3370:203 | Exercises in Environmental Geology I/Lab | , |


| Physics |  | Cradis |
| :---: | :---: | :---: |
| 2820:161 | Tectrical Physics: Mechanics I | 2 |
| 2820:162 | Technical Physics: Mechanics II | 2 |
| 2820:163 | Technical Physics: Electricity and Magnetism | 2 |
| 2820:164 | Technical Physics: Heat and Light | 2 |
| 3650:130 | Descriptive Astronory/neb | 4 |
| 3650:133 | Music, Sound and Physics/Lab | 4 |
| 3650:137 | Lightab | 4 |
| Oral Communication: 3 credits |  |  |
| 2540:265 | Professional Communications and Presentations | 3 |
| 7600:105 | Introduction to Public Speaking | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| Social Sciences: 6 credits |  |  |
| (One course from two different sets for a minimum of 6 credits) |  |  |
| Set 1 - Economics |  |  |
| 2040:247 | Survey of Basic Economics | 3 |
| 3250:100 | Introduction to Economics | 3 |
| 3250:200 | Principlas of Microeconomics | 3 |
| 3250:244 | Introduction to Economic Analysis | 3 |
| Set 2 - Geography |  |  |
| 3350:100 | Introduction to Gaography | 3 |
| Set 3 - Government/Politics |  |  |
| 2040:242 | American Uthan Sociery | 3 |
| 3700:100 | Government and Poifics in the United States | 4 |
| 3700:150 | World Politics and Governments | 3 |
| Set 4 - Psychology |  |  |
| 2040:240 | Humen Relations | 3 |
| 3750:100 | Introduction to Psychotagy | 3 |
| Set 5 - Sociology/Anthropology |  |  |
| 3230:150 | Cultural Anthropology | 4 |
| 3850:100 | Introduction to Sociology | 4 |
| 5100:150 | Democracy in Education | 3 |
| Set 6 - United States History |  |  |
| 3400:250 | U.S. History to 1877 | 4 |
| 3400:251 | U.S. History since 1877 | 4 |
| Set 7 - Science/Technology/Society |  |  |
| 2040:241 | Technology of Human Values | 2 |
| 2040:243 | Contemporary Global issues | 3 |
| 3240:100 | Introduction to Archaeclogy | 3 |
| 3600:125 | Theory and Evidence | 3 |
| Humanities: 10 credits - 3 courses |  |  |
| All students are required to complete: |  |  |
| 3400:210 | Humanities in the Westem Tradition I | 4 |
| Students may select one course from two different sets below for a minimum of six additional credits: |  |  |
| Set 1 - Fine Arts |  |  |
| 7100:210 | Visual Arts Awareness | 3 |
| 7500:201 | Exploring Music: Bach to Rock | 3 |
| 7800:301 | Introduction to Theatre through Film | 3 |
| 7900:200 | Viewing Dance\# | 3 |
| Set 2 - Philosophy/Classics |  |  |
| 3200:220 | Introduction to the Ancient World | 3 |
| 3200:230 | Sports and Society in Ancient Greece and Rome | 3 |
| 3200:289 | Mythology of Ancient Greece | 3 |
| 3600:101 | Introduction to Philosophy | 3 |
| 3600:120 | Introduction to Ethics | 3 |
| 3600:170 | Introduction to Logic | 3 |
| Set 3 - LIterature |  |  |
| 3300:250 | Classic and Contemporary Literature | 3 |
| 3300:252 | Shakespeare and His World | 3 |
| 3300:281 | Fiction Appreciation | 3 |
| Other literature in English translation: |  |  |
| 3200:361 | Literature of Greece | 3 |
| 3580:350 | Literature of Spanish-America in Transiation | 3 |
| Set 4 |  |  |
| 3400:211 | Humenities in the Western Tradition II | 3 |

## Area Studies \& Cultural Diversity: 4 credits $\mathbf{- 2}$ courses

|  |  | Cradits |
| :---: | :---: | :---: |
| 1840:300 | Introduction to Wornen's Studies | 3 |
| 2040:254 | The Black Experience from 1619 to 1877 | 2 |
| 2040:256 | Diversity in American Society | 2 |
| 2040:257 | The Black Experience 1877 to 1954 | 2 |
| 2040:258 | The Black Experience 1954 to Present | 2 |
| 3002:201 | Introduction to Pan Aftican Studies | 3 |
| 3230:251 | Human Diversity | 3 |
| 3350:375 | Geography of Cultural Diversity | 2 |
| 3400:385 | World Civilization: China | 2 |
| 3400:386 | World Civilization: Japan | 2 |
| 3400:387 | World Civilization: SE Asia | 2 |
| 3400:388 | World Civilization: India | 2 |
| 3400:389 | Wortd Civilization: Middlie East | 2 |
| 3400:390 | Word Cinilization: Africa | 2 |
| 3400:391 | Word Civilization: Latin America | 2 |
| 3560:304 | Japanese Culture through Film | 2 |
| 7600:325 | Intercultural Communication | 3 |

NOTE: A student majoring in the Colliege of Engineering is only required to take two credits from the Area Studies \& Cultural Diversity area of General Education requirements.

## Physical Education/Wellness: 1 credit

| 5540:120-183. 190 Ptysical Education |  | .5-1 |
| :---: | :---: | :---: |
| 5550:150 | Concepts of Health and Fitness | 3 |
| 5550:194 | Sports Officiating | 2 |
| 5550:211 | Frrst Aid and Cardiopulmonary Resuscitation | 2 |
| 5570:101 | Personal Heath | 2 |
| 7400:133 | Nutrition Fundamentals | 3 |
| 7510:126 | Marching Band | 1 |
| 7900:119/120 | Modem Dance MII | 2 |
| 7900:124/125 | Ballet 1/it | 2 |
| 7900:130/230 | Jazz Dance Iht | 2 |
| 7900:144 | Tap Dance I | 2 |

Note: Dance technique courses do not meet this requirement for dance majors.

## ACADEMIC ADVISEMENT CENTER

## Values Underlying Acadomic Advising Services

The fundamental values of the advising services provided by The Academic Advising Center are to educate, advocate, and empower students to make effective acadernic and career decisions. It is our goal as academic advisers to facilitate the student's decision making process, while clearly informing the student that this process still remains his/her responsibility as a student. The adviser/student learning relationship is established to be an engaging and challenging association, which supports the mutual trust and respect of both parties. This learning rela tionship is maintained through regular contact with the students using all means available to us (i.e., face-to-face, e-mail, phone). This on-going relationship is used to gain insight into the student's academic and personal needs. Through the growth of this relationship the learning outcomes for the students will be achieved and our students will move on to the completion of their degree and become a contributing member of society.

## The Mission of the Academic Advisement Center

Our mission is to educate, advise and empower University College students regardless of age, color, race, gender, handicap/disability, national origin, religion, sexual orientation, and veteran status to make effective academic decisions as they work to fulfill their educational, career, and life goals.

## Learning Outcomes

Our students:

- understand the university's General Education and pertinent degreerelated requirements.
- understand the expectations of being a student at The University of Akron and the mechanics of class performance, grading, and the scholarly responsibilities of the academic experience.
- are proficient with using the student Web for all activities related to enrollment.
- appreciate the value of out-of-class experience and are aware of opportunities for learning outside the classroom.
- are proficient at the goal-setting and decision-making processes that support the completion of their acadernic and career goals.
- develop an educational plan consistent with life goals.
- understand the critical balance between campus activities and life outside the University.


## LEARNING LABORATORIES

The Mathematics and Writing Laboratories are open to all students without charge.

- The Mathematics Labs, Bierce Library 69 and Polsky 333, provide professional instruction for students who are having difficulty in first- and second-year math courses.
- The Writing Labs, Bierce Library 69 and Polsky 303, offer professional instruction to students taking any course requiring writing.


## TUTORIAL SERVICES

Tutoring is available at no additional cost to help students develop academically.

- Peer tutoring is available for all General Education courses and for most freshmen and sophomore courses, including Chemistry, Physics, Mathematics, Sociology, Psychology, Science, Business, and Modern Languages. Tutoring is conducted either on an individual basis or in small groups. Interested students should inquire in Bierce Library 68 .
- Full-time undergraduate students are eligible to be peer tutors; a nationally certified training program for tutors is provided every semester.
To inquire about any of these services, come to Bierce Library 68, or call (330) 972-6552.


## LEARNING ASSISTANTS

Learning Assistants are specially trained peer tutors who have been recruited to assist students in the learning process. Learning Assistants are partnered with Faculty Mentors, and they work as a team to advance students' confidence in their ability to think critically and to problem-solve independently. Because Learning Assistants have already mastered key study strategies themselves, they can model these learning techniques for the students who seek their assistance both inside and outside the classroom.

## LEARNING COMMUNITIES

Students who seek to increase their interactions with faculty and other students should consider registering for courses that are a part of a Learning Community. A.Learning Community is a group of about 25 students who take two to four courses together; the faculty members integrate topics and assignments across the courses so that what is being learned in one course reinforces and complements what is being learned in the other courses. Learning Communities benefit students by providing them with a peer group that has courses in common. Students can form study groups easily and are more willing to participate in classes because they know one another. Many courses in Learning Communities apply toward baccalaureate and associate degree requirements; some courses fulfill General Education requirements. Students in any major, including students who are undecided about a major, are welcome to participate in a Learning Community.

To register for a learning community talk to your academic adviser, or for more information call the University College Dean's Office at (330) 972-7066.

## STUDENT SUCCESS SEMINAR

The first semester at a university can be a challenging, and at times an overwhelming experience. University College offers a course which can help turn the challenges into successes. The Student Success Seminar is a two-credit course which provides students with the opportunity to discover more about The University of Akron and themselves, and to learn strategies for a successful college experience. Taught by faculty and administrators from across the campus, course topics include: stress management, notetaking and planning, test-taking and critical thinking skills; information about University services available to students; exposure to University cultural events; and an orientation to library and computing resources. Students may register for the Student Success Seminar during their New Student Orientation program. For additional information, contact the University College Dean's Office at (330) 972-7066.

# Reserve Officer Training Corps (ROTC) 

## 1600: MILITARY SCIENCE AND LEADERSHIP

## Army Reserve Officers' Training Corps (ROTC)

The University's Army Reserve Officers' Training Corps (ROTC) was established in 1919, making it one of the oldest in the country. The main goal of the program is to develop the future military leaders of our country. It provides the active Army, Army Reserve and Army National Guard with commissioned male and female officers. Army ROTC is your chance to develop leadership skills for success in your career, be it in the Army or as a civilian professional. Upon graduation with a four-year degree and ROTC, you will be leaving your alma mater as a second lieutenant in the United States Army.
A student enrolled in Army ROTC has an opportunity to study and participate in leadership and management experiences which are unique to the college curriculum. Leadership, self-discipline, responsibility and physical stamina are stressed as the student leams to plan, organize, motivate and lead others. Program goals are to develop decision-making abilities through detailed examination of leadership factors; expand oral and written communication arts; provide some technical training in basic military skills; and develop an understanding of the relationship between the student's basic degree field and its application in the United States Army.

## Programs

## Four-Year Program

A full-time student enrolled in The University of Akron or Wayne College may enroll in the Army four-year program. Freshmen and sophomores enroll in the basic military courses (Military Science I and III) of the four-year program for two credits per semester. MS I and II classes are held two hours each week, in addition to a one and one-half-hour leadership laboratory, and cover studies in military history, leadership fundameritals, basic military skills, first aid, Leadership Assessment Program, and Army organization. Enrollment in MS I or MS II constitutes no obligation to military service or continuance into the advanced course and the credits received can be applied toward elective requirements.
A student who completes the basic course (MS I and MS II) is eligible for and may apply for enrollment into the advanced course, which may lead to a commission. Advanced course studies are held three hours per week, in addition to a mandatory one and one-half-hour leadership laboratory and physical training for three semester credits. The course of study includes: advanced leadership, application of tactics, ethics and professionalism, methods of instruction, resource management, and the responsibilities of an officer. The advanced course includes a five-week paid summer camp attended usually between the junior and senior year. A student in the advanced course is paid $\$ 450-\$ 500$ per month, or approximately $\$ 4,500$ per school year. Upon commissioning, the student will serve as an officer in the Army Reserve, the National Guard, or on active duty.

## Cadet Activities

The Department of Military Science offers numerous activities to enrich classroom instruction; provide a better understanding of the military and military life; and improve technical skills. These include the following:

- Adventure training: marksmanship, rappelling, backpacking and water survival training
- Social organizations
- Student organizations
- Battlefield tours
- Intercollegiate military skills competition (Ranger Challenge, marksmanship)


## Advanced Military Training

Students enrolled in Military Science classes may volunteer for the following U.S. Army specialty schools as quotas become available. Special requirements and prerequisites must be met.

- Airbome Training
- Air Assault Training
- Mountain Warfare School
- Northem Warfare School


## Requirements for Admission

Basic Course: None.
Advanced Course: Completion of basic course, Leadership Training Camp, or prior service.

- Pass the Army physical fitness test, and meet the Army's height and weight standards.
- Permission of the Professor of Military Science.
- Be in good academic standing with the University.
- Meet Army medical standards


## Requmpernemte Tori Gomatimetoritg

- Completion of a baccalaureate or advanced degree.
- Completion of an approved three credit Military History course.
- Meet Army medical standards.
- Completion of the advanced ROTC course.
- Completion of Leadership Development course normally between Junior and Senior year.
- Pass Army physical fitness test.
- Agree to fulfill a service obligation to serve as a commissioned officer on active duty, in the Army Reserve, or in the Army National Guard.
- Pass Army swim test.


## Military Science Scholarships

The Army ROTC has four-year scholarships available to high school seniors. Additionally, there are three and two-year scholarships available on a competitive basis to students attending the University, whether or not they are enrolled in ROTC when applying for the scholarship. These scholarships provide tuition, fees, $\$ 1,200$ per year for texts, and $\$ 300-\$ 500$ per month allowance to the student for up to 10 months of the school year. Scholarship students may spend three to four years on active duty. University free room and board scholarships are available on a competitive basis. A 2.5 GPA must be maintained.

## Two-Year Program

A student can also enter the advanced course by attending a basic four-week military skills summer camp at Fort Knox, Kentucky, just prior to the MS III year or Junior year, or by having prior military service or training. This equals the basic course of the four-year program, and makes the student eligible to enter the advanced course as described under the four-year program.

## Uniforms and Textbooks

Military textbooks for all ROTC courses and equipment for military training are provided free by the Department of Military Science. Uniforms are issued free to all students while enrolled in the program, but must be returned.

## Financial Allowances

An advanced course cadet and scholarship students are paid a non-taxable allowance of $\$ 450-\$ 500$ per month for up to 10 months of the school year. A student attending basic summer camp or advanced camp is paid for travel expenses, meals, housing, and a salary.
The Professor of Military Science may also award cash stipends to students who excel in their academic studies. Stipends are based on academic merit, participation, and scholarship winners
The starting salary for a newly commissioned active duty officer is approximately $\$ 38,000$ per year which increases 15 percent per year on average for the next four years. Officers receive 30 days paid vacation per year.

## SPECIAL RESERVE AND NATIONAL GUARD PROGRAMS

## Simultaneous Membership Program (SMP)

Members of the Reserves or National Guard who are enrolled full-time in the University may enroll in advanced ROTC if they apply for SMP membership through their unit, are accepted by the Professor of Military Science, and meet all other admission requirements for the advanced course (MS III and MS IV). Commissioning may occur upon completion of the advanced ROTC course, and the member can elect to serve as an officer in the Reserves or National Guard.
An SMP member receives $\$ 350$ tax-free per month while in ROTC, is promoted to an E-5 officer trainee in the reserve/guard unit and receives E-5 pay, and may receive an additional $\$ 350$ from the Guard, if qualified.

## Army Nurse Program

The University of Akron has been selected as a primary participant in the U.S. Army Cadet Command Partnership in Nursing Education program (PNE).

- Freshmen and sophomores may enter the Army Nurse Program upon permission of the Professor of Military Science.
- University free room and board nurse scholarships are available to all Army ROTC nurse scholarship winners.


# Honors College 

Dale H. Mugler, Ph.D., Dean
Karyn B. Katz, Ph.D., Associate Dean

## INTRODUCTION

The Honors College supports high achieving and highly motivated students with challenging curriculum options, honors classes, academic scholarships, priority in registration, priority assignment to rooms in the honors residence, and enhanced computer and study facilities. Honors College students who complete the requirements of their academic majors and of the Honors College with cumulative grade-point averages of at least 3.40 are recognized at graduation as University Honors Scholars.

## ADMISSION

Every applicant for admission to the Honors College is required to:

- Provide academic transcripts, test scores, or other documentation as needed.
- Submit an Honors College application essay to the University Honors Council.
- Interview with an approved representative of the University Honors Council.

To be admitted to the Honors College, a student must normally be enrolled as a fult-time student in a bachelor's degree program.
A student may be admitted to the Honors College upon graduation from high school, upon transfer from another college or university, or following an assessment of his or her academic and career record.

First consideration for admission is given to applicants entering from $\mathrm{H}=$ high school who provide evidence of the following:

- High school grade-point average of 3.5 or above.
- Class rank within the highest 10 percent.
- Admissions test scores (ACT 27 or SAT ranking in the highest 10 percent nationally).
Other applicants, whether transfer students, continuing undergraduates, or students who have been away from school for several years, are evaluated in terms of previous grades and other appropriate documented accomplishments.


## HONORS CURRICULUM

## Academic Majors

An Honors College student completes the requirements for a major in one of the colleges awarding bachelor's degrees. The student enrolls in honors classes, as available, within the major. The Senior Honors Project counts as advanced coursework.

## Honors Distribution

In place of The University of Akron General Education requirements (except for physical education), an Honors College student completes an individually selected set of courses to meet the Honors Distribution. With the approval of the Honors Council, the student completes a balance of coursework in the humanities, social sciences, and natural sciences, enrolling in honors sections of those classes when available. The Honors Distribution consists of the following four Group requirements totalling at least 38 credits:

## Group I (The Humanties)

Six or more credits in courses offered by these departments:

| 1840: Women's Studies | 3240:Archaedogy | 3400: World Civilizations |
| :--- | :--- | :--- |
| 3002: Par-African Studies | 3400: History | 3510: Latin |
| 3200: Classics | 3400: Humanities in the | 3600: Philosophy |
| 3210: Greek | Westem Tradition |  |

## Group II (Languages and the Arts)

Six credits of English Composition (Honors) and/or other English; and three or more credits from the other departments listed below:

| 2020:222 Tech Rep Writing | 3530: German | 7520: Applied Music Lesson |
| :--- | :--- | :--- |
| 3300: English | 3550: Italian | 77600: Communication |
| 3500: Arabic | 3570: Russian | 7700: Sign Language |
| 3500: Chinese | 3580: Spanish | 7800: Theatre |
| 3500: Japanese | 7100: Art | 7900: Dance |

## Group ill (The Social Sciences)

Six or more credits in courses offered by the departments below:

| 3006: Institute for Life-Span/Gerontology | 3700: Political Science |  |
| :--- | :--- | :--- |
| 3230: Anthropology | 3250: Economics | 3750: Psychology |
| 3240: Archeeology | 3350: Geograply and Planning | 3860: Sociology |

Group IV (The Natural Sciences and Mathematics)
Three or more credits in mathematics, computer science, or statistics; and six or more credits of science courses, including a lab.

| 3010: Environmental Studies | 3230: Human Evolution | 3460: Computer Science |
| :--- | :--- | :--- |
| 3100: Biology | 3370: Geology | 3470: Statistics |
| 3150: Chemistry | $3450:$ Mathematics | 3650: Physics |

Group credits cannot be completely fulfilled by advance placement credits alone.
If a course the student selects is offered as an honors section, that is the section the student should take. In case of scheduling conflict, postpone until the student can schedule honors sections.

Suggested courses and special cases are noted on the Honors Web page.

## Honors Colloquia

All Honors College students participate in the Honors Colloquium series: Humanities in the sophomore year, social sciences in the junior year, natural sciences in the senior year. These one-semester, two-credit courses are interdisciplinary seminars open only to Honors Collage students.

| $1870: 250$ | Honors Colloquium: Humanities | (during second year; during first year if <br> majoring in Nursing or Dietetics) |
| :---: | :---: | :---: |
| 1870:360 | Honors Colloquium: Social Sciences | (during third year; during second year if <br> majoring in Nursing or Dietetics) |
| 1870:470 | Honors Colloquium: Natural Sciences | (during fourth year; duning third vear if <br> majoring in Nursing or Dietetics) |

## Honors Research Project

The Honors College student is required to complete a Honors Research Project. This capstone of the honors student's academic and pre-professional studies begins with a choice of faculty adviser and submission of a proposal in the junior year. It is a chance to work intensively, with the guidance of a faculty sponsor, on a thesis, investigation, production, or problem of the student's choice. In designing, completing, and reporting on their Honors Research Projects, these students have unique opportunities to apply their learning and test their abilities. Students should register for senior honors project course credit, totaling at least two credits.

## Other Features

## Scholarships

Students admitted to the Honors College are eligible for academic scholarships awarded by the University Honors Council, ranging from partial awards, covering part of each year's tuition and fees, to the Lisle M. Buckingham Scholarships, which provide tuition and general fees, room and board, for up to eight semesters.

## Advising

In each academic department, an Honors Faculty Adviser advises Honors College students, from orientation until graduation. With this Honors Faculty Adviser's guidance, the student plans the Honors Distribution and schedules what is needed to meet departmental, college, and Honors College degree requirements.

## Priority in Registration and Residence Assignment

Honors College students are in the first group permitted to register for classes every semester. New Honors College students also have priority in residence hall assignments within the Honors residence, which also contains the Honors College offices, computer facilities, seminar rooms, individual and group studies, and study and meeting rooms for the use of commuting Honors students.

## Open Classrooms

An Honors College student, with the instructor's permission, may attend undergraduate classes or lectures for which the student is not formally enrolled. Free access is available.

## Access to Graduate Courses

With the permission of the Honors Faculty Adviser and the graduate program instructor, an Honors College student may enroll in graduate courses for either undergraduate or up to 12 credits of graduate credit.

## The University Honors Council

Consisting of faculty representing the seven colleges granting the bachelor's degree, two Honors College students, the Director of Admissions, the Director of Student Financial Aid, and the Dean and Associate Dean of the Honors College, the Honors Council is responsible for all decisions on admissions to the Horors College, the awarding of Honors College scholarships, the approval of each student's Honors Distribution and Honors Research Project, and the definition of policies and procedures appropriate to the mission of the Honors College.

## Bachelor of Arts in Interdisciplinary Studies

Students pursuing this degree must select a college of residence, devise a proposed program of study with an adviser in the college selected. The proposal must be approved by the University Interdisciplinary Studies Committee.
This degree may be pursued in Summit College, Bucitel College of Arts and Sciences and the College of Fine and Applied Arts.

## Required:

- A minimum of 128 semester credits with a minimum grade point everage of 2.0 at The University of Akron and a 2.0 average in all college level work.
- Completion of 42 credits in the General Education program as required of all baccalaureate students.
- A minimum of 47 credits in 300 - and/or 400 -level courses.
- Core requirements - A minimum of 63 credits, divided among three areas of study selected by the student with the advice and approval of the appropriate academic advisers. The emphasis may be selected among the participating degree-granting colleges.
- Emphasis - The student must select an area of emphasis in a four-year program which will be designated as the college "host." He/she must take 21-28 credits in an emphasis program.
- Cognates - The student must take at least 21 hours in two other areas in an individually structured, interdisciplinary or disciplinary program of study outside the student's emphasis field. The student proposes courses that focus in a common theme, which is a reasonable program of study to meet his/her unique educational goals. The 63 credits will include 12 credits of 300 - and/or400 level courses in each of two of the student's emphasis or cognate areas.
- A minimum of 14 credits of coursework in a foreign culture.

There are two options for courses that would be applicable to this area:
Option A - Completion of a second year of a foreign language on the University level or by demonstrating equivalent competency. The competency test is to be approved by the Department of Modern Languages.
Option B - Some courses currently listed in the Undergraduate Bulletin may be used to fulfill the 14 -credit minimum:

|  |  | Credits |
| :---: | :---: | :---: |
| 3230:358 | Indians of North Americe | 3 |
| 3250:461 | Principles of International Economics | 3 |
| 3350:353 | Latin America | 3 |
| 3350:356 | Europe | 3 |
| 3350:360 | Asia | 3 |
| 3350:363 | Africa South of Sahara | 3 |
| 3400:301 | Modem China | 3 |
| 3400:303 | Modom East Asia | 3 |
| 3400:325 | Women in Modem Europe | 3 |
| 3400:336 | Russia since 1801 | 3 |
| 3400:337 | France from Napoteon to DeGaulle | 3 |
| 3400:381 | History of Canada | 3 |
| 3400:416 | Modern India | 3 |
| 3400:473 | Latin America: The 20th Century | 3 |
| 3400:476 | Central America and the Cariboean | 3 |
| 3700:321 | Westem European Politics | 3 |
| 3700:405 | Politics in the Middie East | 3 |
| 6800:305 | International Business | 3 |
| 7100:301 | Medisval Art | 3 |
| 7100:302 | Art in Europe during the 17th and 18th Centuries | 3 |
| 7100:303 | tralian Renaissence Art | 3 |
| 7100:304 | 19th Century Art | 3 |
| 7100:306 | Renaissance Art in Northem Europe | 3 |
| 7600:325 | Intercultural Communication | 3 |

This list is not exhaustive. Students may propose other courses.

# Buchtel College of Arts and Sciences 

Ronald F. Levant, Ed.D., Dean
William A. Francis, Ph.D., Associate Dean
Charles B. Monroe, Ph.D., Associate Dean
Annabelle M. Foos, Ph.D., Associate Dean

## MISSION STATEMENT

Buchtel College of Arts and Sciences serves the mission of the University, which is to develop enlightened members of society. To this end, the College seeks to foster the commitment of humanity, the nurture of civility, and the advancement of knowledge.
The Buchtel College of Arts and Sciences has three administrative divisions: Humanities, Natural Sciences, and Social Sciences. The Humanities Division includes the departments of Classical Studies, Anthropology and Archaeology, English, Modern Languages, and Philosophy. In these disciplines, students learn about the evolution of diverse civilizations, their languages, literatures, cultures and their lasting contributions to our accumulated wisdom.
The Natural Sciences Division includes the departments of Biology, Chemistry, Computer Science, Geology and Environmental Science, Physics, Theoretical and Applied Mathematics, and Statistics. Students will explore physical and biological aspects of their world and learn to understand mathematics, the language of science. Their investigations will range from the characterization of molecules to mapping the expanse of the universe. They will learn about 3.5 billion years of Earth's history and the science that will create the technology of the future.
The Social Sciences Division includes the departments of Economics, Geography and Planning, History, Political Science, Psychology, Public Administration and Urban Studies (graduate only), and Sociology. In these disciplines, students observe individuals, closely knit organizations, whole cultures developing over the centuries (sometimes at peace and sometimes at war), the economic and geographical realities affecting these populations, and the ways societies organize themselves for harmony, protection and prosperity.
The Buchtel College of Arts and Sciences is beginning the process of re-visioning its place in Northeast Ohio, the nation, and the world in the early part of the 21st century. We will facilitate the development of new programs that are responsive to the needs of our students.

Qualified students seeking hands-on career exploration experiences can enroll in intemships and coop opportunities. Students wishing to enrich their majors by completing a certificate, a minor or a double major are encouraged to do so. Interdisciplinary studies are readily available to Arts and Sciences students through the Humanities Division major, the Natural Sciences Division major, the Social Sciences Division major, and the Bachelor of Arts Interdisciplinary Studies program.
To guide students through the rich landscape of the Buchtel College of Arts and Sciences, there are knowledgeable department program advisers waiting to discuss ways to achieve academic goals by which students can realize their personal and career ambitions.

## Aas Careers Program

Dr. James Egan, Program Director, Olin Hall 353, (330) 972-6207
Jo Anne Stewart, Assistant Director, Olin Hall 325B, (330) 972-6498
The A\&S Careers Program administration offers career-related services to Arts and Sciences undergraduate majors, minors and graduate students. The Program is based on the belief that the vocational skills and the general marketability of liberal arts degrees are, in part, the responsibilities of academic departments. It is the Program's mission, therefore, to create links between students, alumni and local organizations so students may gain knowledge of and practical experience in given careers. To accomplish this, the Program provides a lending library of career-related publications, a computer workroom for resume writing and employment research, volunteer, paid and for-credit intemship placement both on and off campus, and department- and skills-specific workshops for exploration of career possibilities.
For more information, contact the A\&S Careers Program, Olin Hall 325 A-D, (330) 972-5714 or fax (330) 972-2177 or e-mail careersprogram@uakron.edu.

## COLLEGE REQUIREMENTS

## Admission

The Buchtel College of Arts and Sciences admits students who have satisfied the following criteria:

- completed a minimum of 30 semester hours of credit .
- completed 7 credits of English Composition for the general education requirement
- completed 3 credits of mathematics or statistics (excluding 3450:100 Intermediate Algebra) earned in the Department of Theoretical and Applied Mathematics or the Department of Statistics
- have a minimum grade-point average of 2.00 in all work attempted in the major field, including transfer work (excluding Political Science which requires 2.2)
- have a minimum grade-point average of 2.00 in all university work, including transfer credits (excluding Political Science, English, and Sociology, all of which require 2.2)
- received approval of the Dean of the College


## Transfor Students

Students transferring into the Buchtel College of Arts and Sciences from universities other than The University of Akron must satisfy the same Buchtel College of Arts and Sciences admission requirements as University of Akron students.

## Other Admission

Students accepted into the Honors College as ants and sciences majors are automatically admitted to the Buchtel College of Arts and Sciences (see Honors College Admission in Section 4 of this Bulletin). Incoming freshmen with appropriate credentials may receive direct admission to the Buchtel College of Arts and Sciences upon application (see University Admissions in Section 3 of this Bulletin).

## Baccalaureate Degrees

## Requirements for the bachelor's degree include:

- Completion of the General Education requirement.
- Three credits of mathematics or statistics (excluding 3450:100 Intermediate Algebra) earned in the Department of Theoretical and Applied Mathematics or the Department of Statistics.
- A minimum of 47 credits (exclusive of workshops and General Education courses) consisting of either:
- 300/400-level courses both in and outside the student's major;
- any courses outside major department as specified in and approved by the student's major adviser and the department or division head (permission should be obtained prior to enrollment), except workshops and General Education courses.
- Demonstration of ability to use English and another language:
- for English, this ability will be shown by the completion of the General Education sequence for English Composition;
- for the other language, this ability will be shown by completion of the second year ( 202 at UA) of a foreign language on the University level. Demonstration of equivalent competence gained through non-academic "life experience" may be allowed through a test approved by the Department of Modern Languages contingent upon the availability of an appropriate test. The Department of Modern Languages does not offer credit by examination. Native speakers of a language other than English may be exempted from the foreign language requirement upon providing evidence of competence in the four basic language skills (speaking, reading, writing and listening comprehension) at a level equivalent to or higher than successful completion of the second year of instruction in the language at the university level. No credit is granted for exemption from the foreign language requirement. Sign Language is acceptable toward the foreign language requirement. You must complete the five courses listed below (total ing 14 credits) in the sign language sequence to satisfy the requirement.

| $7700: 101,2$ | American Sign Language I, it | 6 |
| :--- | :--- | :--- |
| $7700: 201,2$ | American Sign Language III, IV | 6 |
| $7700: 222$ | Survey of the Deaf Culture in America | 2 |

- Completion of requirements in a major field of study (see Programs of Instruction) and the recommendation of the student's major department.
- Attaining a minimum grade-point average of 2.00 in all work attempted in the major field at The University of Akron. (Political Science 2.2, Sociology 2.2. English 2.2)
- Attaining a minimum gradepoint average of 2.00 in all work in the major field, including transfer credits. (Political Science 2.2, Sociology 2.2, English 2.2)
- Fulfilling the University requirements for a baccalaureate degree set forth in Section 3 of this Bulletin.

Any student who wishes to receive a second baccalaureate degree must complete 32 credits of coursework in addition to the credits necessary for the first degree; 16 of the 32 credits must be in 300/400-level courses or other approved courses.

## Degrees Awarded

Humanities Division: Bachelor of Arts.
Natural Sciences Division: Bachelor of Arts, Bachelor of Science, Bachelor of Science in Computer Science.
Social Sciences Division: Bachelor of Arts, Bachelor of Science in Geography/Geographic Information Sciences, Bachelor of Science in Labor Economics, Bachelor of Science in Political Science/Criminal Justice.
Interdisciplinary Studies: Bachelor of Arts in Interdisciplinary Anthropology, Bachelor of Arts in Interdisciplinary Studies

## Preparation for High School Teaching

A student interested in a teaching career on the high school level may qualify for secondary school licensure by the Ohio State Department of Education while enrolled in Buchtel College of Arts and Sciences. Generally the arts and sciences major subject will also constitute a teaching major, although a second teaching field usually is required. The education and psychology courses required for the secondary school teaching license may be taken as electives toward the arts and sciences degrees. Additional elective credits will generally enable the student to meet the requirement of a second teaching field, without exceeding the credits necessary for graduation.
The number of credits in a teaching field required for licensure can be determined by referring to Section 4, College of Education, "Teaching Fields," located in this Bulletin.

## Minor Areas of Study

For an explanation of minor areas of study in Buchtel College of Arts and Sciences, see Section 5 of this Bulletin.

## Interdisciplinary and Certificate Programs of Study

For an explanation of interdisciplinary and certificate programs of study, see Section 6 of this Bulletin.

## PROGRAMS OF INSTRUCTION

## Bachelor of Arts in Interdisciplinary Studies

This degree meets the needs of students who have an interdisciplinary academic goal. It expands opportunities for non-traditional students to complete their degrees at The University of Akron by allowing them to combine courses from various colleges to design a program. Students pursuing this degree must select a College of residence, devise a proposed program of study with an adviser in the college selected. The proposal must be approved by University Interdisciplinary Studies Committee. For more information on the program, see page 101.

## 3100: Biology

## Bachelor of Science

- The General Education requirement and the second year of a foreign language.
- Core requirements: All majors for a Bachelor of Science in Biology take the sequence of courses listed below, which will provide an understanding of the fundamentals of modern biology.

|  |  | sits |
| :---: | :---: | :---: |
| 3100:111,2 | Principles of Biology I, II | 8 |
| 3100:211,2 | General Genetics, Lab | 4 |
| 3100:217 | General Ecology | 3 |
| 3100:316 | Evolutionary Biology | 3 |
| 3100:311 | Cell and Molecular Biology | 4 |
| 3150:151,3,2 | Principles of Chemistry I, Il, and Laboratory | 7 |
| 3150:154 | Qualitative Analysis | 2 |
| 3150:263,4,5.6 | Organic Chemistry i, IVLab i, II | 10 |
| 3450:149 | Precalculus Mathematics | 4 |

- A minimum of 40 credits in biology is necessary to qualify for a Bachelor of Science degree. The minimum of 18 credits past the biology core curriculum (above) to satisfy this requirement must be at the 300/400 level. Additional courses in biology or other sciences are usually necessary to satisfy the admission requirements of graduate and professional schools for advanced work and professional studies.
- Recommended:

3460:125 Descriptive Computer Science 2
3470:261,2 Introductory Statistics I,ll 4

- A student majoring in biology should consult a member of the biology faculty during the first year.


## Areas of Specialization (Optional)

If a student wishes to obtain a B.S. degree with a designated Area of Specialization within Biology, the student must take the required courses listed below for that specific area. Additional courses are listed as electives that may be taken to further strengthen a student's knowledge in a particular area. The area of specialization will appear on the student's transcript.
Most of these courses will be taken during the third or fourth years:
Botany Specialization ( $10-13$ of the required $300 / 400$ Biology credits)

| A. Choose one of the foliowing two options with Group A (Plant Diversity with Lab or Biology of |  |  |
| :---: | :---: | :---: |
| 3100:343 | Diversity of Plants | 3 |
| 3100:344 | Diversity of Plants Laboratory or | 2 |
| 3100:345 | Biology of Vascular Plants | 4 |
| B. Choose two of the following within Group B |  |  |
| 3100:342 | Flora and Taxonomy | 3 |
| 3100:427 | Freshwater Ecology | 4 |
| 3100:440 | Mycology | 4 |
| 3100:443 | Phycology | 4 |
| 3100:444 | Field Marine Phycology | 3 |

Ecology/Evolution Specialization Credits
Required Required

| A. At leest two of the following: |  |  |
| :---: | :---: | :---: |
| 3100:406 | Principles of Systematics | 3 |
| 3100:422 | Conservation Biology | 3 |
| 3100:423 | Population Biology | 3 |
| 3100:428 | Biology of Behavior | 3 |
| 3100:430 | Community/Ecosystem Ecology | 3 |
| B. At least two of the following: |  |  |
| 3100:342 | Flora and Taxonomy | 3 |
| 3100:343 | Diversity of Plants | 3 |
| 3100:345 | Biology of Vascular Plants | 4 |
| 3100:418 | Field Ecology | 4 |
| 3100:421 | Tropical Field Biology | 4 |
| 3100:427 | Freshwater Ecology | 4 |
| 3100:440 | Mycology | 4 |
| 3100:443 | Phycology | 4 |
| 3100:444 | Field Marine Phycology | 3 |
| 3100:451 | General Entomology | 4 |
| 3100:453 | Invertebrate Zoology | 4 |
| 3100:455 | ichthyology | 4 |
| 3100:456 | Omithology | 4 |
| 3100:457 | Herpetology | 4 |
| 3100:458 | Vertebrate Zoology | 4 |
| 3100:467 | Comparative Vertebrate Morphology | 4 |
| 3100:473 | Comparative Animal Physiology | 3 |

A course in statistics and/or in calculus is strongly recommended. 3100:497/498 Biological
Problems (supervised research) in year 2 or 3 is highly recommended.

| Microbiology Specialization <br> Required: | Microbiology |  |
| :---: | :--- | :--- |
| $3100: 331$ | Pathogenic Bacteriology |  |
| $3100: 433$ | or | 4 |
|  | Virology | 4 |
| $3100: 435$ | Immunology | 4 |
| $3100: 437$ |  | 4 |
| Electives: | Mycology | 4 |
| $3100: 440$ | or | 4 |
| $3100: 443$ | Phycology | 4 |
| $3100: 454$ | Parasitotogy | 4 |
| $3100: 481$ | Advanced Genetics | 4 |
| $3150: 401,2$ | Bicchemistry I, II | 3 |


| Animal Physiology Specialization |  |  |
| :--- | :--- | :--- |
| Required: |  |  |
| $3100: 363$ | Animal Physiology |  |
| $3100: 473$ | Comparative Animal Physiology | 4 |
| At least two of the following: | 3 |  |
| $3100: 465$ | Advanced Cardiovascular Physiology |  |
| $3100: 468$ | The Physiology of Reproduction | 3 |
| $3100: 469$ | Respiratory Physiology | 3 |
| $3100: 471$ | Physiological Genetics | 3 |
| $3100: 472$ | Biological Mechanisms of Stress | 4 |
| $3100: 485$ | Cell Physiology | 3 |
| Electives: |  | 4 |
| $3100: 365$ | Histology | 4 |
| $3100: 466$ | Vertebrate Embryology | 4 |
| $3100: 467$ | Comparative Vertebrate Morphology | 4 |
| $3100: 474$ | Comparative Animal Physiology Laboratory | 4 |
| $3100: 482$ | Neurobiology | 1 |
| $3150: 401$ | Biochemistry |  |
| $3150: 402$ | Biochemistry II | 3 |


| Zoology Specialization |  |  |
| :---: | :---: | :---: |
| Required: |  | , |
| 3100:473 | Comparative Animal Physiology | 3 |
| One of the following: |  |  |
| 3100:453 | Invertebrate Zoology | 4 |
| 3100:458 | Vertebrate Zoology | 4 |
| One of the following: |  |  |
| 3100:466 | Vertebrate Embryology | 4 |
| 3100:467 | Comparative Vertebrate Morphology | 4 |
| At least one of the following: |  |  |
| 3100:365 | Histołogy | 4 |
| 3100:421 | Tropical Field Biology | 4 |
| 3100:428 | Biology of Behavior | 3 |
| 3100:451 | General Entomology | 4 |
| 3100:454 | Parasitology | 4 |
| 3100:456 | Omithology | 4 |
| 3100:457 | Herpetology | 4 |
| 3100:455 | Ichthyology | 4 |
| 3100:482 | Neurobiology | 3 |

## Preparation for High School Biology Teaching

For licensure, additional courses in the College of Education are required. See the College of Education "Preparation for High School Teaching," Section 4 of this Bulletin.

| The following courses should be taken: |  | Credits |
| :---: | :---: | :---: |
| 3100:130 | Principles of Microbiotogy or | 3 |
| 3100:331 | Microbiology | 4 |
| 3100:265 | Introductory Human Physiology | 4 |
| 3100:342 | Flore and Taxonomy or | 3 |
| 3100:445 | Plant Morphology | 4 |
| 3100:453 | Invertebrate Zoology or | 4 |
| 3100:458 | Vertebrate Zoology | 4 |
| Additional courses that may be taken: |  |  |
| 3100:426 | Wetland Ecology | 4 |
| 3100:428 | Biology of Behavior | 3 |
| 3100:440 | Mycology <br> or | 4 |
| 3100:443 | Phycology | 4 |
| 3100:473 | Comparative Animal Physiology | 3 |

## Preparation for Professional School

(Pre-medical, pre-dental, pre-veterinary and pre-pharmacy students)

- The following courses should be taken:

| $3100: 363$ | Animal Physiology | 4 |
| :--- | :--- | ---: |
| $3100: 00 x$ | A 400-Hevel Physiology course | $3-4$ |
| $3650: 261,2$ | Physics for Life Sciences I, II | 8 |
| $3450: 221$ | Analytical Geometry/Calculus I | 4 |
|  | or |  |
| $3450: 215$ | Concepts of Calculus | 4 |
| $3470: 261$ | Introductory Statistics I | 2 |
|  |  |  |
| Additional courses that may be taken: | 4 |  |
| $3100: 331$ | Microbiology | 4 |
| $3100: 365$ | Histology | 4 |
| $3100: 466$ | Vertebrate Embryology | 4 |
| $3100: 467$ | Comparative Vertebrate Morphology | 6 |

## 3150: Chemistry

## Admission, Retention and Graduation

- The student must maintain a minimum 2.00 grade point average.
- The student must obtain a grade of C - or better in all required chemistry courses.
- If a grade of less than C - is obtained in a required chemistry course, the student must successfully repeat the course within a year.


## Bachelor of Science

- The General Education requirement and the second year of a foreign language.
- Core Requirement: Credits

| 3150:151 | Principles of Chemistry I |
| :--- | :--- |
| 3150:152 | Principles of Chemisty Laboratory |
| 3150:153 | Principles of Chemistry II |
| 3150:154 | Oualitative Analysis |
| 3150:263 | Organic Chemisty Lecture I |
| 3150:264 | Organic Chemistry Lecture II |
| 3150:265 | Organic Chemistry Laboratory I |
| 3150:266 | Organic Chemistry Laboratory II |
| 3150:313 | Physical Chemistry Lecture I |
| 3150:314 | Physical Chemistry Lecture II |
| 3150:380 | Advanced Chemistry Laboratory I |
| 3150:381 | Advanced Chemistry Laboratory II |
| 3150:423 | Analttical Chemisty I |
| 3150:424 | Analytical Chemisty II |
| 3150:472 | Advanced Inorganic Chemistry |
| 3150:480 | Advanced Chemistry Laboratory III |

3150:152 Principles of Chemistry Laboratory

3150:153 Principles of Chemistry II 3
3150:154 Qualitative Analysis 2
3150:263 Organic Chemistry Lecture I
3150:265 Organic Chemistry Laboratory 1
Organic Chemistry Laboratory II

- Polymer Courses:

Crodits
$9871: 407 \quad$ Polymer Science 4
9871:401 Introduction to Elastomers 3
9871:402 Introduction to Plastics 3
9871:499 Research Problems in Polymer Science 3

- Mathematics:

| 3450:221 | Analytical Geometry-Calculus I | 4 |
| :--- | :--- | :--- |
| 3450:222 | Analytical Geometry-Calculus II | 4 |
| 3450:223 | Analytical Geometry-Calculus III | 4 |
| 3450:335 | Introduction to Ordinary Differential Equations | 3 |

- Physics:

3650:291.2 Elementary Classical Physics I and II 8

- Graduates of the Bachelor of Science in Chemistry - Polymer Option receive a degree certified by the American Chemical Society


## Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- Chemistry:

| 3150:151 | Principles of Chemistry 1 | 3 |
| :---: | :---: | :---: |
| 3150:152 | Principles of Chemistry Laboratory | 1 |
| 3150:153 | Principles of Chemistry 11 | 3 |
| 3150:154 | Qualitative Analysis | 2 |
| 3150:263 | Organic Chemisty Lecture I | 3 |
| 3150:264 | Organic Chemistry Lecture II | 3 |
| 3150:265 | Organic Chemistry Laboratory 1 | 2 |
| 3150:266 | Organic Chemistry Laboratory II | 2 |
| 3150:313, 4 | Physical Chemistry Lecture I \& II or | 6 |
| 3150:305 | Physical Chemistry for the Biological Sciences | 4 |
| 3150:380 | Advanced Chemistry Laboretory ! | 2 |
| 3150:423 | Analytical Chemistry I | 3 |
| 3150:424 | Analytical Chemistry II | 3 |

- At least five credits from the following:
3150:199 Introductory Seminar in Chemistry 1
3150:381 Advanced Chemistry Laboratory II 2

3150:399 Internship in Chemistry (may be repeeted for a total of 6 credits) $\quad 16$
3150:401 Biochemistry Lecture I 3
$\begin{array}{ll}\text { 3150:402 } & \text { Biochemistry Lecture I } \\ & \text { Biochistry Lecture II }\end{array}$
3150:463 Advanced Organic Chemistry , 3
3150:472 Advanced Inorganic Chemistry 3
$\begin{array}{lll}\text { 3150:480 } & \text { Advanced Chemistry Laboratory III } & 2 \\ \text { 3150:497 } & \text { Honors Project in Chemistry (may be repeated for a total of } 8 \text { credits) } 1-2\end{array}$
Honors Project in Chemistry (may
3150:498 Special Topics: Chemisty (may be repeated for a wial of 8 credits) $\quad 1-2$
3150:499 $\quad$ Research Problems (may be repeated for a total of 8 credits) $\quad 1-2$
9871:401501 Introduction to Elastomers 3
9871:402/502 Introduction to Plastics : . 3
9871:407/507 Pơkmer Science 4

- Physics:

3650:291,2 Elementary Classical Physics I and II 8
or
3650:261,2 Physics for the Life Sciences | and |l 8

- Mathernatics:

| $3450: 149$ | Precalculus Mathematics | 4 |
| :--- | :--- | :--- |
| $3450: 2212$ | And |  |

3450:221,2 Analytic Geometry-Calculus I and II 8

- The General Education requirement and the second year of a foreign language.
- Core Requirement:

| 3150:151 | Principles of Chemistry I | 3 |
| :--- | :--- | ---: |
| 3150:152 | Principies of Chemistry Laboratory | 1 |
| 3150:153 | Principles of Chemistry il | 3 |
| 3150:154 | Oualitative Analysis | 2 |
| 3150:263 | Organic Chemistry Lecture I | 3 |
| 3150:264 | Organic Chemistry Lecture II | 3 |
| 3150:265 | Organic Chemistry Laboratory I | 2 |
| 3150:266 | Organic Chemistry Laboratory II | 2 |
| 3150:313 | Physical Chemistry Lecture I | 3 |
| 3150:314 | Physical Chemistry Lecture II | 3 |
| 3150:380 | Advanced Chemistry Laboratory I | 2 |
| 3150:381 | Advanced Chemistry Laboratory II | 2 |
| 3150:423 | Analytical Chemistry I | 3 |
| 3150:424 | Analytical Chemistry I | 3 |
| 3150:472 | Advanced Inorganic Chemistry | 3 |


| Bachelor of Science in Biochemistry |  | Credits |
| :---: | :---: | :---: |
| 3150:151 | Principles of Chemistry ${ }^{\text {P }}$ | 3 |
| 3150:152 | Principles of Chemistry Laboretory | 1 |
| 3150:153 | Principles of Chemistry II | 3 |
| 3150:154 | Qualitativa Analysis | 2 |
| 3450:149 | Pre-Calculus Mathernatics | 4 |
| 3450:221 | Analytical Geometry-Calculus I | 4 |
| 3100:111 | Principles of Biology 1 | 4 |
| 3100:112 | Principles of Biology II | 4 |
| 3150:263 | Organic Chemistry Lecture I | 3 |
| 3150:264, | Organic Chemistry Lecture II | 3 |
| 3150:265 | Organic Chemistry Laboratory I | 2 |
| 3150:266 | Orgenic Chemistry Laboratory II | 2 |
| 3650:261,262 | Physics for Life Science I, II or | 8 |
| 3650:291, 292 | Elementary Classical Physics I,ll | 8 |
| 3100:211 | General Genetics | 3 |
| 3100:212 | General Genetics Laboratory | 1 |
| 3450:222 | Analytical Geometry - Calculus II | 4 |
| 3150:313,314 | Physical Chemistry Lecture I, II | 6 |
| 3150:401 | Biochemisty Lecture I | 3 |
| 3150:402 | Biochemistry Lecture II | 3 |
| 3100:311 | Cell and Molecular Biology | 4 |
| 3150:480 | Advanced Chemistry Laboratory III | 2 |
| 3100:480 | Molecular Biology | 3 |
| 3100:485 | Cell Physiology | 4 |
| 3150:305 | Physical Chemistry for the Biological Sciences | 4 |
| 3150:370 | Biochemistry Laboratory | 2 |

- 8 of elective courses from the list below:

| 3100:481 | Advanced Genetics |
| :---: | :---: |
| 3100:437 | Immunology |
| 3100:331 | Microbiology |
| 3150:199 | Introductory Seminar in Chemistry |
| 3150:380 | Advanced Chemistry Laboratory |
| 3150:381 | Advanced Chemistry Laboratory II |
| 3150:499 | Research Problems(repeatable for up to 8 credits) |
| 3150:497 | Honors Projectirepeatable for up to 8 credits) |
| 3150:423 | Analytical Chemistry 1 |
| 3150:424 | Analytical Chemistry II |
| 3150:472 | Advanced trorganic |
| 3150:463 | Advanced Orgenic |
| 9871:407 | Potymer Science |
| 9871:499 | Research Problems in Polymer Science |
| Choose only one of the next two statistics courses as an elective |  |
| 3470:401 | Probability and Statistics for Engineers |
| 3470:460/560 | Statistical Methods |

- Physical chemistry:

Students will be allowed to take either
3150:305 Physical Chemistry for the Biological Sciences 4
3150:313, 314 Physical Chemistry Lecture I, il

- Electives:

Students may petition the department for approvel to substitute appropriate courses for the listed electives.

## Cooperative Education Program in Chemistry

## Qualifications

Arrangements for entry into the program are on an individual basis and are initiated by the student during the second year of undergraduate study. Full-time B.S. chemistry majors at The University of Akron must meet the following requirements:

- Satisfactory completion of 60 credits with a quality point average of at least 2.3 in chemistry courses and on schedule in their curriculum.
- Acceptance by a cooperative education coordinator or director following a series of interviews.
Part-time students must have completed 60 credits with a 2.3 average and be on schedule in their curriculum. They are expected to become full-time students while not on their co-op job.
Transfer students must have preparation equivalent to the minimum requirements for The University of Akron students and must have completed at least one semester of full-time study at The University of Akron.
Placement in an industrial or other position is not guaranteed, and foreign students should recognize that many companies require U.S. citizenship or possession of a permanent visa. In any case, final acceptance of a student for any posi tion is the decision of the employer.


## Schedule

The work-study schedule for students in the co-op program is as follows:

| Yeer | Fail | Sprina | Summer |
| :---: | :--- | :--- | :--- |
| 1 | School | School | Vacation/School |
| 2 | School | School | Vacation/SchoolWork |
| 3 | School | Work | School |
| 4 | Work | School | Work |
| 5 | School | School | - |

## Admission to Program

Interested students should attend a Cooperative Education orientation session. Studerts will be expected to remain with their employer for all co-op work periods in order to provide a progression of experience and responsibility. Employment must have approval of the department and the Cooperative Education director, but the University does not guarantee employment.

## Registration

Students register for Cooperative Work Periods in the same manner that a student registers for any other University courses. The course is:
3000:301 Cooperative Education
A registration fee for each work period is charged to offset the expenses of administering the Co-op Program. Upon completion of a work period, a statement will appear on the student's official transcript listing the course number and title. In place of a grade, "credit" or "no credit" will be given, depending upon the student's satisfactory or unsatisfactory completion of the following:

- Work performance as evaluated by the employer.
- Submission of a written Work Report and its approval by the Cooperative Education staff.
- Submission of a Cooperative Work Period Summary Form.


## 3200: Classical Studies, Anthropology and Archaeology <br> 3200: Classics; 3210: Greek; 3230: Anthropology; 3240: Archaeology

## Bachelor of Arts

The program will be effective Fall 2003; however, its implementation will be suspended until sufficient resources become available.

## Classical Studies

This interdisciplinary major focuses on ancient Greek and Roman culture and literature. It draws upon courses in Anthropology, Art, History, and Philosophy to give the student a fully rounded view of the achievements upon which modem Western culture is built. The major should appeal to students with broad intellectual interests since fields represented include history, archaeology, literature and mythology. Majors in Classical Studies leam critical thinking skills and cross cut tural analysis and regularly enter the profession of law, politics, education, or undertake graduate work in the humanities.

- Students electing this major must satisfy their language requirement in Latin (or take a minimum of two years of Latin).
- The 36 credit hour requirement includes 21 hours of core coursework and 15 hours of electives. Twenty-one or more credit hours must be completed at the 300 level or above.
- Requirements: 21 credit hours from the following: Credits
3200:220 introduction to the Ancient Word

|  |  |  |
| :---: | :---: | :---: |
| 3200:230 | Sports and Societry in Ancient Greece and Rome | 3 |
| 3200:289 | Mythology of Ancient Greece | 3 |
| 3240:313 | Archaeology of Greece | 3 |
| 3240:314 | Archaeology of Rome | 3 |
| 3200:361 | Literature of Greece | 3 |
| 3200:362 | Literature of Rome | 3 |
| 3230:150 | Cutural Antrropology | 3 |
| 3400:317 | Roman Republic | 3 |
| 3400:318 | Roman Empire | 3 |

- Electives: 15 credit hours from the following:

3200:401
3240:472
3400:308
3400:404
3600:211
3000:411
3000:41
3600.432

7100:100

$$
\begin{aligned}
& \text { Egyptology } \\
& \text { Spocial Topics in Archaeology } \\
& \text { Greece } \\
& \text { Studies in Roman History } \\
& \text { History of Ancient Philosophy } \\
& \text { Plato } \\
& \text { Aristotle } \\
& \text { Art History } 1
\end{aligned}
$$

## Bachelor of Arts in Interdisciplinary Anthropology

This interdisciplinary program allows students the flexibility to construct a program of study tailored to their interests in cultural anthropology, biological anthropology or archaeology.

- The General Education requirement and the second year of a foreign language.
- Core requirements - 24 credits Credits

| $3230: 150$ | Cultural Anthropology | 4 |
| :--- | :--- | :--- |
| $3230: 151$ | Human Evolution | 4 |
| $3230: 359$ | Anthropological Theory | 3 |
| $3230: 398$ | Introduction to Anthropological Data | 3 |
| $3240: 100$ | Introduction of Archeeology |  |

- Concentration Electives - a minimum of one course each from three of the for lowing four fields for a total of 17 credits

- With prior departmental approval, students are permitted up to 3 credit hours at 300/400 level from another UA department.


## 3250: Economics

Economics is the study of choice in a world with scarce resources. Students majoring in economics develop their analytical and problem-solving skills while exploring theories of economic systems and their application to a large number of fields. These fields range from finance and international trade to poverty reduction and environmental problems.
Graduates are employed in both the private and public sectors in a wide range of careers. For example they can be found as financial analysts, management trainees, human resource managers, city and state economists, bank examiners, health care administrators. An economics degree is an excellent background for professional schools like law or the MBA. A joint major is a very useful option for students studying in other fields.
The Department of Economics has two degree programs: a BA in Economics and a BS in Labor Economics.

## Bachelor of Arts

The BA program has core courses in theory and in quantitative and computer methods as well as a number of economics electives. If they wish, students can choose field electives relating to career tracks: business, banking and. international economics, public policy or graduate school (see below). In one of their final field courses, students develop and carry out a senior project that shows their ability to apply what they have learned, both analytically and quantitatively. For potential employers, it provides an important demonstration of what an economics graduate can do.

- The General Education requirement* and the second year of a foreign language.
- At least 32 departmental credits including: Credits

3250:200 Principles of Microeconomics
3
3250:201 Principles of Macroeconomics
3250:226 Computer Skills for Economic Analysis
Intermediate Macroeconomics
$\begin{array}{ll}\text { 3250:410 } & \text { Intermediate Microeconomics } \\ \text { 3250:426 } & \text { Applied Econometrics } \\ \text { 3250:496 } & \text { Senior Project in Economics (attached to field course) }\end{array}$
$\begin{array}{ll}\text { 3250:410 } & \text { Intermediate Microeconomics } \\ \text { 3250:426 } & \text { Applied Econometrics } \\ \text { 3250:496 } & \text { Senior Project in Economics (attached to field course) }\end{array}$
$\begin{array}{ll}\text { 3250:410 } & \text { Intermediate Microeconomics } \\ \text { 3250:426 } & \text { Applied Econometrics } \\ \text { 3250:496 } & \text { Senior Project in Economics (attached to field course) }\end{array}$

- Departmental Electives - 12
- Statistics:

3470:261,2 Introductory Statistics 1, II
.4

- Mathematics*:

3450:210 Calculus for Business Applications 3

3450:215 Concepts of Calculus

- Electives in 300/400 courses - 24

Note: Students may not receive credit for 3250:244 Introduction to Economic Analysis and $3250: 200,201$. However, those students who have completed 3250:244 are not required to take 3250:200,201 before beginning upper division work. 3250:100 Introduction to Economics cannot be used to satisfy the requirements for a major or minor in economics.
Students who wish to follow a particular career-oriented track in their economic electives can do so from the following lists. Note that choosing a track is not required

## Business

| 3250:310 | Managerial Economics |
| :--- | :--- |
| 3250:461 | International Economics |
| 3250:360 | Industrial Organization and Public Policy |
| 3250:333 | Labor Economics |
| $3250: 427$ | Economic Forecasting |

3
3250:461
3250:360
3250:427
Economic Forecasting
$\square$

Banking \& International Economics

| $3250: 461$ | International Economics | 3 |
| :--- | :--- | :--- |
| $3250: 380$ | Money \& Banking | 3 |
| $3250: 460$ | Economics of Developing Countries | 3 |
| $3250: 427$ | Economic Forecasting | 3 |
| $3250: 481$ | Monetary \& Banking Policy | 3 |

## Public Policy

| $3250: 405$ | Public Sector Economics | 3 |
| :--- | :--- | :--- |

3250:360 Industrial Organization \& Public Policy 3
3250:385 Environmental Economics 3
3250:487 Uiban Economics
3250:430 Labor Market and Social Policy
3250:460 Economics of Developing Countries

[^21]- Students are required to have at leest a C grade in 3450:145 College Algebra.


## 3300: English

## Statement of Policies-Admission and Graduation

For students enrolled at The University of Akron and for students wishing to transfer directly into Buchtel College of Arts and Sciences from other institutions, the following criteria must be satisfied for admission to the Department of English:

- The student must be admissible to Buchtel College of Arts and Sciences.
- The student must have a minimúm grade point average of 2.20 in all university coursework.
In order to graduate students must achieve a grade of C - or higher in all these required courses: 3300:300; 3300:301; 3300: 315 or 316; 3300:341; 3300:371 and 3300:492.
A student must eam a cumulative grade point average of 2.20 in English courses in order to graduate with an English major.


## Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- At least 36 credits in the department including the following course and distribution requirements:

| Required |  | Credits |
| :---: | :---: | :---: |
| 3300:300 | Critical Reading and Writing | 3 |
| 3300:301 | English Literature I | 3 |
| 3300:315 | Shakespeare: The Early Plays or | 3 |
| 3300:316 | Shakespeare: The Mature Plays | 3 |
| 3300:341 | American Literature | 3 |
| 3300:371 | Introduction to Linguistics | 3 |
| 3300:492 | Senior Seminar | 3 |

Distribution of requirements:

- One course in world or multicultural literature outside the canon of British and American writers.
- A minimum of four 400 tevel courses fincluding 492 above).
- Electives - 36 credits.


## 3350: Geography and Planning

## Bachelor of Arts in Geography - Geography Track

- The General Education requirement and the second year of a foreign language.
- At least 47 credits as follows:

| Core Requirements - 14 credits |  |
| :--- | :--- |
| $3350: 100$ | Introduction to Geography |
| $3350: 250$ | Word Regional Geography |
| $3350: 310$ | Physical and Environmental Geography |
| $3350: 320$ | Economic Geography |
| $3350: 499$ | Career Assessment Seminar |
|  |  |
| Geotechniques Requirements - 15 credits |  |
| $3350: 305$ | Maps and Map Reading |
| $3350: 405$ | Geographic Information Systems |
| $3350: 440$ | Cartography |
| $3350: 483$ | Spatial Analysis |
| $3350: 496$ | Field Research Methods |
|  |  |
| Regional |  |
| $3350: 350$ | Geography Electives - at least 6 credits |
| $3350: 351$ | Ohio: Environment and Society and Canada |
| $3350: 353$ | Latin America |
| $3350: 356$ | Europe |
| $3350: 360$ | Asia |
| $3350: 363$ | Africa South of the Sahara |
| $3350: 497$ | Regional Field Studies |

[^22]
## Bachelor of Arts in Geography - Planning Track

- The General Education requirement and the second year of a foreign language.

| - At least 47 credits as follows: |  | Credits |
| :---: | :---: | :---: |
| Core Requirements -14 credits |  |  |
| 3350:100 | Introduction to Geography | 3 |
| 3350:250 | World Regional Geography | 3 |
| 3350:310 | Physical and Environmental Geography | 3 |
| 3350:320 | Economic Geography | 3 |
| 3350:499 | Career Assessment Seminar | 2 |
| Geotechniques Requirements - 12 credits |  |  |
| 3350:305 | Maps and Map Reading | 3 |
| 3350:405 | Geographic Information Systems | 3 |
| 3350:483 | Spatial Analysis | 3 |
| 3350:496 | Field Research Methods | 3 |
| Planning Requirements -9 credits |  |  |
| 3350:433 | Practical Approaches to Planning | 3 |
| 3350:437 | Planning Analysis and Projection Methods | 3 |
| 3350:439 | History of Urban Design and Planning | 3 |
| Planning Electives-at least 6 credits |  |  |
| 3350:415 | Environmental Planning | 3 |
| 3350:422 | Transportation Systems Planning | 3 |
| 3350:432 | Land Use Planning Law | 3 |
| 3350:438 | Land Use Planning Methods | 3 |
| 3350:450 | Development Planning | 3 |
| Geography and Planning Electives - at least 6 additional credits from 3350 courses |  |  |

## Bachelor of Science in Geography/Geographic Information Sciences

- The General Education requirement and the second year of a foreign language.
- At least 47 credits as follows:



## 3370: Geology and Environmental Science

## Bachelor of Science <br> Engineering Geology

- The General Education requirement and the second year of a foreign language.
- At least 39 departmental credits including the following:

| $3370: 101$ | Introductory Physical Geology |
| :--- | :--- |
| $3370: 102$ | Introductory Historical Geology |
| $3370: 230$ | Mineral Science |
| $3370: 231$ | Silicate Mineralogy and Petrology |
| $3370: 301$ | Engineering Geology |
| $3370: 324$ | Sedimentation and Stratigraphy |
| $3370: 350$ | Structural Geology |
| $3370: 446$ | Exploration Geophysics † |
| $3370: 493$ | Geology Field Camp I |
| $3370: 494$ | Geology Field Camp II |
|  | Geology Electives from List |4

Other required courses:

| $3150: 151,2,3$ | Principles of Chemistry I, II |
| :--- | :--- |
| $3450: 221,2,3$ | Analytical Geometry and Caiculus I, II, and III |
| $3450: 335$ | Introduction to Ordinary Differential Equations |
| $3650: 291,2$ | Elementary Classical Physics I and II |
| $4300: 201$ | Statics |
| $4300: 202$ | Introduction to Mechanics of Solids |
| $4300: 313$ | Soil Mechanics |
| $4300: 314$ | Geotechnical Engineering |
| $4600: 203$ | Dynamics |
| $4600: 310$ | Fluid Mechanics |
|  | Non-Geology Electives |7

12
3450:221, 2, 3 Analytical Geometry and Catculus I, II, and III 12

3450:335 Introduction to Ordinary Differential Equations
ry Classical Physics ! and II

4300:202 Introduction to Mechanics of Solids
4300:313 Soil Mechanics

4600:203 Dynamics
4800:310 Fluid Mechanics
Non-Geology Electives

- Departmental electives

3370:310 Geomorphology
3370:421 Coastal Geology
3370:432 Optical Mineratogy-Introductory Petrography
3370:435 Petroleurn Geology
3370:436 Coal Geology
3370:437 Economic Geology
3370:449 Borehole Geophysics
3370:470 Geochemistry
3370:474 Groundwater Hydrołogy

- Other elective list

| 3460:201-7 | Introduction to Programming Languages (or equivalent) |
| :--- | :--- |
| 4300:341 | Hydraulic Engineering |
| $4300: 414$ | Design of Earth Structure |
| $4300: 445$ | Hydrotogy |
| $4600: 305$ | Thermal Science |

## Goology

- The General Education requirement and the second year of a foreign language.
- At least 47 departmental credits including:

| $3370: 101$ | Introductory Physical Geology | 4 |
| :--- | :--- | ---: |
| $3370: 102$ | Introductory Historical Geology | 4 |
| $3370: 230$ | Mineral Science | 4 |
| $3370: 231$ | Silicate Mineralogy and Petrology | 4 |
| $3370: 324$ | Sedimentation and Stratigraphy | 4 |
| $3370: 350$ | Structural Geology | 4 |
| $3370: 360$ | Paleobiotogy | 4 |
| $3370: 493$ | Geology Field Camp I | 3 |
| $3370: 494$ | Geology Field Camp II | 3 |
|  | Elective Geology courses (300/400-Hevell | 13 |
| Other required courses: |  |  |
| $3150: 151,2,3$ | Principles of Chemistry I, II |  |
| $3450: 221,2$ | Analytic Geometry-Calculus I and II | 7 |
| $3650: 291,2$ | Elementary Classical Physics I and II t† | 8 |

- Electives:

Elective credits in Field Studies (3370:495) and Research Problems (3370:499) are strongly recommended, however only 4 credits of each may be used to satisfy the geology elective requirement. Workshop (3370:490) , may not be used to satisty the geology elective requirement. Additional work in a supporting sciences, math, or engineering is encouraged. A student majoring in geotogy should consult regularty with the Director of Undergraduate Studtes in the Geology Department.

## Geophysics

- The General Education requirement and the second year of a foreign language.
- At least 30 departmental credits including the following:

Crodits

| $3370: 101$ | Introductory Physical Geology | 4 |
| :--- | :--- | :--- |
| $3370: 102$ | Introductory Historical Geology | 4 |
| $3370: 350$ | Structural Geology | 4 |
| $3370: 441$ | Fundamentals of Geophysics | 3 |
| $3370: 446$ | Exploration Geophysics | 3 |
| $3370: 493$ | Geotogy Field Camp I | 3 |
| $3370: 494$ | Geology Field Camp II | 3 |
|  | Geology Electives (as approved by geophysics adviser) | 6 |

- Science Electives 9 credits. At least three science courses approved by the geophysics adviser. Recommended courses are:
3460:201 $\begin{gathered}\text { Introduction to FORTRAN Programming } \\ \text { or equivalent }\end{gathered}$
3650:322 Intermediate Laboratory I 2
3650:323 Intermediate Laboratory |I
3650:350 Modeling and Sirnulation
3650:431 Mechanics I
3650:436 Electromagnetism |
4
- Other required courses:

| $3150: 151,2,3$ | Principles of Chemistry I, II . | 7 |
| :--- | :--- | ---: |
| $3450: 221,2,3$ | Analytic Geometry-Calculus I, II and III | 12 |
| $3450: 335$ | Introduction to Ordinary Differential Equations | 3 |
| $3650: 291,2$ | Elementary Classical Physics I and II | 8 |

## Bachelor of Arts

- The General Education requirement and the second year of a foreign language.


## Earth Science Track

- At least 44 department credits including the following:

| 3370:101 | Introductory Physical Geology | 4 |
| :--- | :--- | :--- |
| 3370:102 | Introductory Historical Geology | 4 |
| 3370:231 | Silicate Mineralogy and Petrology | 4 |
| 3370:350 | Structural Geology | 4 |
| 3370:360 | Paleobiokgy | 4 |
| 3370:493,4 | Geology Field Camp I and II | 6 |

- Departmental Electives (Minimum eight credits at the $300 / 400$ level) -18
- Other required courses:

| $3150: 151,2$ | Principles of Chemistry I | 4 |
| :--- | :--- | ---: |
| $3450: 149$ | Precalculus | 4 |
| - At least seven credits from the following: |  |  |
| $3100: 111,2$ | Principles of Biology I and II (or equivalent) | 4 |
| $3150: 153$ | Principles of Chemistry II (or equivaient) | 3 |
| $3450: 221,2$ | Analytical Geometry-Calculus I and \#\# | 4 |
| $3650: 291,2$ | Elementary Classical Physics I and II | 4 |

## Environmental Science Track

- At least 35 department credits including the following:

| 3370:101 | . Introductory Physical Geology or | 4 |
| :---: | :---: | :---: |
| 3370:100 | Earth Science and | 3 |
| 3370:104 | Exercises in Physical Geology or | 1 |
| 3370:200 | Environmental Geology and | 3 |
| 3370:104 | Exercises in Physical Geology or | 1 |
| 3010:201 | Introduction to Environnental Science and | 3 |
| 3370:104 | Exercises in Physical Geology | 1 |
| 3370:231 | Silicate Mineralogy and Petroiogy | 4 |
| 3370:310 | Geomorphology | 3 |
| 3370:493 | Field Camp I or | 3 |
| 3370:496 | Service Leaming | 3 |

- At least 21 credits of 300 - and 400 -level geoiogy courses exclusive of required geology. At least three credits from the following field courses:

| $3370: 494$ | Field Carnp II | 3 |
| :--- | :--- | ---: |
| $3370: 945$ | Field Studies | $1-3$ |
| $3100: 418$ | Field Ecology | 4 |
| $3350: 495$ | Soil and Water Field Studies | 3 |

- Up to 8 credits of the 21 credits of 300 - and 400 -evel classes may be selected from the Environmental Studies Certificate electives list. Choose from:

3010:401
3010:490
3010:495
3100:342
3100:421
3100:426
3100:427
3100:430
3250:385
3350:310
3350:351
3350:405
3350:407
3350:415
3350:447
3350:449
3400:471
3850:321
4200:463
4300:323
4300:423
4300:424
4300:426
4300:427
4300:428
Seminar in Environmental Studies

- Other required courses:

| $3100: 111,2$ | Principles of Biology I and II | 8 |
| :--- | :--- | :--- |
| $3100: 217$ | General Ecology | 3 |
| $3150: 151,2,3$ | Principtes of Chemistry I and II | 7 |
| $3150: 154$ | Quelitative Analysis | 2 |
| $3450: 149$. | Precalculus | 4 |

## 3400: History

## Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- A minimum of 32 credits of history courses. A minimum of 6 credits in each of the three areas of course offerings, (1)North America; (2) Europe; and (3)Ancient/Non-Western/Cross-Cultural; and 3400:310, Historical Methods. With the approval of the History Department Undergraduate adviser or Honors adviser, a History major may apply up to 6 credits of course work in related disciplines (cognate courses) toward the 32 credits required for the History major. Cognate credit, however, shall not be substituted for either Historical Methods or for the area distribution requirement specified above.
- Courses in World Civilizations and Humanities in the Western Tradition may not be used to meet major requirements in History


## 3450: Mathematics

## Bachelor of Science

Mathematics

- The General Education requirement and the second year of a foreign language.
- At least 34 credits including: Credits

| $3450: 221,2,3$ | Analytic Geometry-Calculus I, II, III | 12 |
| :--- | :--- | ---: |
| $3450: 307$ | Fundamentals of Advanced Mathematics | 3 |
| $3450: 312$ | Linear Algebra | 3 |
| $3450: 411$ | Abstract Algebra I | 3 |
| $3450: 421$ | Advanced Calculus I | 3 |
| $3460: 209$ | Introduction to Computer Science* | 4 |

Choose at least one of the following two courses:
$\begin{array}{lll}3450: 412 & \text { Abstract Algebra II } & 3 \\ 3450: 422 & \text { Advancead Calculus II } & 3\end{array}$
Choose at least one of the following three courses:
$\begin{array}{lll}3470: 450 & \text { Probability } & 3 \\ 3470: 451 & \text { Theoretical Statistics } & 3\end{array}$

| $3470: 451$ | Theoretical Statistics | 3 |
| :--- | :--- | :--- |
| 3470:461 | Applied Statistics | 4 |

Electives - Approved 300/400-1evel courses in mathematics, applied mathematics, statistics or computer science

All students should consult with their advisers for selection of appropriate electives.

- Students interested in graduate study should include the following courses in their program:

| $3450: 412$ | Abstract Algebra II | 3 |
| :--- | :--- | :--- |
| $3450: 422$ | Advanced Calculus II | 3 |
| $3450: 425$ | Complex Variables | 3 |
| $3450: 445$ | Introduction to Topology | 3 |

- Students seeking licensure in secondary education to teach mathematics must complete the following electives:

| $3450: 401$ | History of Mathematics | 3 |
| :--- | :--- | :--- |
| $3450: 441$ | Concepts in Geometry | 3 |
| $3470: 450$ | Probability | 3 |
| $3470: 461$ | Applied Statistics | 4 |

- Students interested in computer science should include the following electives:
3450:415 Combinatorics and Graph Theory 3
3450:427 Applied Numerical Methods I 3

3460:210,316 Data Structures and Algonithms i. II 7
Chorce of one:
3450:413 Theory of Numbers 3
3450:410 Advanced Linear Algebra 3

## Applied Mathematics

- The General Education requirement and the second year of a foreign language.
- At least 38 departmental credits including**:

*This course will count towards the requirement of 47 credits of 300/400tevel credits
* *The courses 3450:100, 135, 140, 145, 149, 401; 3470:250-257, 260-262, 280; and most 3460 courses do not meet these degree requirements.
\# This course will count towards the requirement of 47 credits of $300 / 400$ tevel credits


## Cooperative Education Program

## Mathematics or Applied Mathematics <br> Schedule

The work-study schedule for a student participating in the Cooperative Education Program is as follows:

| Yeer | Fall | Sping | Surmmer |
| :---: | :--- | :--- | :--- |
| 1 | School | School | Vacatior/School |
| 2 | School | School | Vacatior/SchoolWork |
| 3 | School | Work | School |
| 4 | Work | School | Work |
| 5 | School | School | - |

## Admission

Arrangements for student entry into the program are on an individual basis, and must be initiated by the student during the second year of undergraduate study. The Cooperative Education Program is an optional program available only to all full-time mathematics or applied mathematics students at The University of Akron who have satisfactorily met the following requirements:

- Sixty credits with a grade-point average of at least 2.00 out of a possible 4.00 in the program curriculum and be on schedule in the curriculum.
- Acceptance by a cooperative education coordinator or director following interviews.
- A transfer student must complete 16 credits of academic work at The University of Akron with a grade-point average of at least 2.00 out of a possible 4.00 and be on schedule in the program curriculum.

A student who desires to participate in the program will fill out a Personal Data form and submit it to the department chair. The student will then meet with a member of the cooperative education staff to discuss the availability of prospective employers. During this interview, the student will be asked to sign a Cooperative Educational Agreement and a grade release form which will become effective upon employment. Employment must be coordinated or have approval of the department and the cooperative education director. The University does not guarantee employment for the student. The student will be expected to remain with the employer for all cooperative work periods in order to provide a progression of experience and responsibility.

## Registration

While no academic credits are assigned, each student must register for 3000:301 Cooperative Education in the same manner that a student registers for any other University course. See department adviser before enrolling for this course.
A cooperative program fee for each work period is charged. Upon completion of a work period, a statement will appear on each student's official transcript listing the course number, title and name of the employer. In the place of a grade,"credit" or "no credit" will be given, depending upon the student's satisfactory or unsatisfactory completion of the following:

- Work performance as evaluated by the employer.
- Written work report as approved by department chair and cooperative educa tion staff.
- Cooperative Work Period Summary form.

Usually, work progresses satisfactorily on the job and a grade of "credit" is assigned at the end of the semester. If all the above conditions are not met, a change of grade to "no credit" will be submitted.

## 3460: Computer Science

## Admission to Computer Science Major

The student must have completed 30 credits of work and have the approval of the Dean of the College. In addition, the student must have completed 3450:208, 3460:209, 3460:210 and 3450:221, each with $C$ or better.

## Bachelor of Science in Computer Science

- The General Education requirement and the second year of a foreign language.
- Core curriculum:

Credits
3460:209 !ntroduction to Computer Science 4
3460:210 Data Structures and Algorithms I
3460:306 Assembly and System Programming
3460:307 Intemet Systems Programming
3460:316 Data Structures and Algorithms II
3460:421 Object-Oriented Programming
3460:426 Operating Systems
3460:430 Theory of Programming Languages
3460:465 Computer Organization
3460:480 Introduction to Software Engineering and Formal Methods
Senior Seminar in Computer Science

- Other required courses:

| $3450: 208$ | Introduction to Discrete Mathematics | 4 |
| :--- | :--- | :--- |
| $3450: 221$ | Analytic Geometry and Calculus I | 4 |
| $3450: 222$ | Analytic Geometry and Caiculus il | 4 |
| $3470: 461$ | Applied Statistics | 4 |

- A minimum of 12 credit hours of approved 300 and/or 400 -level Computer Science electives
- Note: No more than one 300-level Computer Science course may be used to satisfy the Computer Science Elective requirement.


## Cooperative Education Program

## Computer Science

## Schedule

The work-study schedule for a student participating in the Cooperative Education Program is as follows:

| Year | Fah | Spring | Summer |
| :---: | :--- | :--- | :--- |
| 1 | School | School | Vacation/School |
| 2 |  | School | School |

## Admission

Arrangements for student entry into the program are on an individual basis, and must be initiated by the student during the second year of undergraduate study. The Cooperative Education Program is an optional program available only to all -full-time computer science students at The University of Akron who have satisfactorily met the following requirements:

- Sixty credits with a grade-point average of at least 2.00 out of a possible 4.00 in the program curriculum and be on schedule in the curriculum.
- Acceptance by a cooperative education coordinator or director following interviews.
- A transfer student must complete 16 credits of academic work at The University of Akron with a grade-point average of at least 2.00 out of a possible 4.00 and be on schedule in the curriculum.
- The student is expected to have successfully completed 3460:306 and 3460:316 before the first work period.
A student who desires to participate in the program will fill out a Personal Data form and submit it to the department chair. The student will then meet with a member of the cooperative education staff to discuss the availability of prospective employers. During this interview, the student will be asked to sign a Cooperative Educational Agreement and a grade release form which will become effective upon employment. Employment must be coordinated or have approval of the department and the cooperative education director. The University does not guarantee employment for the stur dent. The student will be expected to remain with the employer for all cooperative work periods in order to provide a progression of experience and responsibility.


## Registration

While no academic credits are assigned, each student must register for 3000:301 Cooperative Education in the same manner that a student registers for any other University course. See department adviser before enrolling for this course.

A cooperative program tee for each work period is charged. Upon completion of a work period, a statement will appear on each student's official transcript listing the course number, title and name of the employer. In the place of a grade, "credit" or "no credit" will be given, depending upon the student's satisfactory or unsatisfactory completion of the following:

- Work performance as evaluated by the employer.
- Written work report as approved by department chair and cooperative educa tion staff.
- Cooperative Work Period Summary form.

Usually, work progresses satisfactorily on the job and a grade of "credit" is assigned at the end of the semester. If all the above conditions are not met, a change of grade to "no credit" will be submitted.

## 3470: Statistics

## Bachelor of Arts, Statistics

## Bachelor of Science, Statistics

## Bachelor of Science, Statistics/Statistical Computer Science

## Bachelor of Science, Statistics/Actuarial Science

- The General Education requirement and the second year of a foreign language.
- All options require completion of the Core curriculum:

3450:312
Linear Algebra
3470:451,2 Theoretical Statistics I, II
3
3470:461 Applied Statistics
3470:462 Applied Regression and ANOVA
Statistical Data Management
Statistical Consulting

$$
3
$$

3470:495

- For the Bachelor of Science degree: Complete nine credits of coursework outside the major and beyond the General Education in a suitable area of concentration as approved by the department.
- Electives - 29 credits-
- For the Bachelor of Arts degree: Complete nine credits of coursework outside the major and beyond the General Education in a suitable area of concentration as approved by the department
- Complete 18 credits of humanities or social sciences beyond the General Education. The 18 credits are to be from more than one department.
- Electives - 11 credits
- For students intending to go on to graduate school, the following electives are recommended: 3450:421,422 Advanced Calculus 1, 11 .


## Statistical Computer Science option (BS only)

There are two tracks to major in Statistics with this option:
Track 1

- Other required courses


## 3450:208 Intro to Discrete Mathematics

3460:209 Introduction to Computer Science
3460:210 Data Structures \& Algorithms
3460:316 Date Structures \& Algorithms II
3460:475 Database Management

- Electives-11 credits
- Computer Science minor can be obtained by completing 3460:306 Assembly and System Programming and another 3-credit computer science elective course in addition to the above required courses.

Track 2

- Other required courses:


## 3460:40 <br> 3460:406

3460:475
Fundamentals of Data Structures

- Electives - 20 credits


## Actuarial Science option (BS only)

- The recommended area of concentration for the Actuarial Science degree:

| $6200: 202$ | Accounting Principles il | 3 |
| :--- | :--- | ---: |
| $6400: 301$ | Corporate Finance | 3 |
| $6400: 415$ | Risk Management: Life and Health Insurance | 3 |

- Other required courses:

| 3250:244 | Introduction to Economic Analysis | 3 |
| :--- | :--- | ---: |
| $3470: 471,2$ | Actuarial Science 1, H | 6 |
| $6200: 201$ | Accounting Principles I | $-\frac{3}{12}$ |

- Select two of the following:

3250:427 Economic Forecasting 3
3450:335 Introduction to Ordinary Differential Equations 3
3450:436 Mathematical Models
3470:469 Reliability Models

- Electives: 11 credits


## 3500: Modern Languages

3510: Latin; 3520: French; 3530: German; 3550: Italian; 3560: Japanese; 3570: Russian; 3580: Spanish.

## Bachelor of Arts

All in-major courses in French or Spanish must be passed with a grade of $C$ or better in order to count toward fulfillment on the major requirements.

## French

- The General Education requirement.


## French Language, Literature and Culture Track

- Completion of 27 credits above the second year ( 200 level): three credits in conversation, three credits in composition and three credits in advanced French language course; six credits in literature; six credits in culture; six credits of electives in the major language,
- Oral Proficiency Interview (OPI) exit requirement during final semester before graduation.


## French and Francophone Studies Track

The French and Francophone Studies Track is designed for those students who are interested in deveioping their skills in the French language and in gaining a broader perspective on and a deeper understanding of French-speaking countries in Europe, Africa, North America, the Caribbean and Asia. The new track prepares students to function in a multicultural, global context, and enhances students' career choices and employment potential.

- Students are required to earn 30 credits:
- 18 credits in French at the 300-level and above.

Minimum 3 credits must be in language, 3 in literature, 3 in culture ( 9 credits total)

| $3520: 301$ | French Conversation <br> or <br> French Composition <br> or | 3 |
| :---: | :---: | :---: |
| $3520: 302$ | Advanced French: Writen and Oral Communication <br> and | 3 |
| $3520: 403$ | French Literature <br> or | 3 |
| $3520: 305$ | French Literature <br> or | 3 |
| $3520: 306$ | Special Topic-Literature <br> ond |  |
| $3520: 303$ | French Culture and Civilization 1 <br> or | 3 |
| $3520: 304$ | French Culture and Civilization II <br> or | 3 |
| $3520: 422$ | Special Topic-Culture | 3 |

Plus another 9 elective credits in French courses at the 300-400 level.

- 12 credits in other disciplines. Students will be able to expand on the French/Francophone unit of the class in another discipline by conducting extensive research and writing a paper. The French/Francophone component of a class in another discipline must be discussed with and approved by the course instructor and the student's adviser in the French Section.

Courses in other disciplines (at least two must be represented) can be chosen from the following list:

## English:

3300:467 Modern European Fiction 3
.
3300:366 European Background of English Lit 3
$\begin{array}{ll}\text { Philosophy: } \\ 3600: 313 & \text { History of Modem Philosophy }\end{array}$
$\begin{array}{lll}\text { 3600:313 } & \text { History or Modam Philosophy } & 3 \\ 3600: 424 & \text { Existentialism } & 3\end{array}$
3600:426 Phenomenology 3
3600:481 Philosophy of Language 3
$\begin{array}{ll}\text { HlHatory: } \\ 3400: 337 & \text { France from Napoleon to de Gaulle }\end{array}$
3400:337 France from Napoleon to de Gaulle 3
3400:381 History of Canada 3
3400:429 Europe in the French Revolution Era 3
$\begin{array}{ll}\text { Anthropology: } \\ 3230: 251 & \text { Human Diversity }\end{array}$
3230:370 Cultures in the Worid 3
Polltical Sciences:
3700:392 Contemporary African Politics 3
Art:
7100:301 Medieval Ar 3
7100:302 Art in Europe 3
7100.304 Art in Europe 3

7100:306 Northern Renaissance 3

## International Business:

6800:421 International Business Practices 3
6800:494 International Business Practicum 3
Merketing:
6600:385
International Marketing
3

- Special Topics in the above disciplines may be used with permission of the French section.
- Oral Proficiency Interview (OPI) exit requirement during final semester before graduation.
Note: For French and Francophone Studies Certificate see under Interdisciplinany and Certificate Programs.


## Cerman

As of the start of the Fall Semester 2000 the German major will be suspended. No student will be permitted to declare a major in German after the start of the Fall Semester 2000.

## Spanish

- The General Education requirement.
- Completion of $\mathbf{2 8}$ credits above the second year ( 200 level); including at least one language course, one literature course, and one culture course, all at the 400 level.
- Oral Proficiency Interview (OPI) exit requirement during final semester before graduation.


## 3600: Philosophy

## Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- A minimum of 30 departmental credits including:

| $3600: 101$ | Introduction to Philosophy |
| :--- | :--- |
| $3600: 120$ | Introduction to Ethics |
| $3600: 170$ | Introduction to Logic |
| $3600: 211$ | History of Ancient Philosophy |
| $3600: 312$ | History of Medieval Philosophy |
| $3600: 313$ | History of Modern Philosophy |
|  | (Of the additional twelve credits, six must be earned in |
|  | $300 / 400$-evel courses.) |

- Electives - 42 credits.


## 3650: Physics

## Bachelor of Science

This degree is intended for the student seeking the most detailed and quantitative preparation in physics available in an undergraduate curriculum.

- The General Education requirement and the second year of a foreign language.
- Physics requirements $\dagger$

A minimum of 40 credits at 200 level or higher, including: $\ddagger$
3650:291.2 Elementary Classical Physics I and II 8
3650:301 Elementary Modem Physics 3

3650:322,3 Intermediate Laboratory Li 1
$360 \cdot 340$ Ther Phsis
3650:350 Modeling and Simulation
3650:431 Mechanics
3650:436 . Electromagnetism I
3650:441 Quantum Physics I
Physics Electives
7
ighly recommended courses for all students.
3650:432 Mechanics II 3
3650:437 Electromagnetism il
3650:451,2 Advanced Laboratory I, II
$\begin{array}{lll}3650: 481,2 & \text { Methods of Mathematical Physics I, II } & 6\end{array}$
3450:312 Linear Algebra
3650:399 Undergraduate Research

- Mathematics requirements:

3450:221,2,3 Analytic Geometry-Cakulus I II III
3450:335 Introduction to Ordinary Differential Equations $\quad 3$

- Chemistry requirements:

3150:151, 2, 3 Principles of Chemistry 1, II, Lab

- Computer Science requirement:

3460:209 Introduction to Computer Science
The following courses are recommended for students wishing to entrance their program of study in areas of research in the Department:

- Chemical Physics

| A suggested program of 20 credits to include the following: |  |  |
| :--- | :--- | :--- |
| $3150: 263,4$ | Organic Chemistry Lecture I, II |  |
| $3150: 313,4$ | Physical Chemistry Lecture I, II | 6 |
| $3150: 423,4$ | Analytical Chemistry I, II | 6 |
| $3150: 380,381$ | Advanced Chemistry Lab I, II | 6 |

- Polymer Physics

| A suggested program of 24 credits to include the following: |  |  |  |
| :--- | :--- | :--- | :--- |
| $3150: 263,4$ | Organic Chemistry Lecture I, II | . | 6 |
| $3150: 313,4$ | Physical Chemistry Lecture I, II |  | 6 |
| $9871: 401 / 501$ | Introduction to Elastomers |  | 4 |
| $9871: 402 / 502$ | Introduction to Plastics |  | 4 |
| $9871: 411,12,13$ | Molecular Structure and Physical Properties of Polymers I, II, III | 7 |  |

- Physics (Pre-Graduate School)

| A suggested program of 31 credits to includa the following: |  |  |
| :--- | :--- | :--- |
| $3650: 406$ | Optics | 3 |
| $3650: 432$ | Mechanics II | 3 |
| $3650: 437$ | Electromagnetism II | 3 |
| $3650: 481,82$ | Methods of Mathematical Physics I, II | 6 |
| $3650: 451,52$ | Advanced Laboratory ! II | 6 |

The preceding requirements specify the minimum curriculum for the B.S. in physics. The student expecting to specialize in a particular professional area should consider utilizing part or all elective courses toward this goal. The areas of specialization listed above are intended to be illustrative only; considerable flexibiity is possible, depending upon the needs and interests of the individual student.

[^23]
## 3700: Political Science

Successful graduates of our program go on to graduate or law school, manage campaigns, run for office, work in state and local government or for various federal government agencies, including the U.S. Marshall's Office, U.S. State Department, Federal Bureau of Investigation, Environmental Protection Agency. and Amnesty Internationai.

## Statement of Policies - Admission

For students enrolled at The University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from other institutions, the following criteria must be satisfied for admission to the Department of Political Science:

- The student must be admissible to Buchtel College of Arts and Sciences.
- A minimum grade point average of 2.20 must be met in all university work. including transfer credits.
- A minimum grade point average of 2.20 must be met in all work in Political Science, including transfer credits.
Only credits earned at an accredited institution of postsecondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in the grade point average.


## Retention

Students in the Political Science programs must maintain a minimum grade point average of 2.20 overall and a minimum of 2.20 grade point average in Political Science courses in order to remain in the program. A student who fails to maintain the 2.20 cumulative average will be placed on academic probation. Failure to raise the average after one semester or one 10 week summer session will result in dismissal from the program. The student may not apply for readmission for at least one semester.

## Graduation

A Political Science major must earn a cumulative 2.20 grade point average in Political Science and overall to graduate with such a declared major.
Grades of $D$ - or above obtained in any course at other institutions will apply toward a Political Science degree at The University of Akron.

## Bachelor of Arts

- The General Education requirement and the second year of a fotreign language.
- Students must select one of the following three tracks:

| American Track | Credits |  |
| :--- | :--- | :---: |
| $3700: 700$ | Government and Politics in the United States | 4 |
| $3700: 201$ | Introduction to Political Research | 3 |
| $3700: 300$ | Comparative Politics | 4 |
| $3700: 303$ | Introduction to Political Thought | 3 |
| $3700: 310$ | International Politics and Institutions | 3 |

And two 400-level courses (may include 400-level course used to meet the American politics sequirement)

- Choose one American politics course from among the following:
3700:341 American Congress 3

3700:350 American Presidency 3
3700:360 Judicial Process
3700:402 Politics and the Media
3700:474 - Political Opinion, Behavior and Electoral Politics
3700:475 American Interest Groups
3700:476 American Political Parties

- Additional Political Science electives to equal 30 credits total in Political Science

International/Comparative Track

| $3700: 150$ | World Politics and Govemments | 3 |
| :--- | :--- | :--- |
| $3700: 201$ | Introduction to Political Research | 3 |
| $3700: 300$ | Comparativa Politics | 4 |
| $3700: 310$ | or | 3 |
| $3700: 303$ | International Politics and Institutions | 3 |

And two 400 -evel courses (may include 400 -level courses used to meet the American politics requirement)

- Choose two American politics courses from among the following: Credits
3700:341 American Congress 3

3700:350 American Presidency 3
3700:360 • Judicial Process 3
3700:402 Politics and the Media
3700:474 Political Opinion, Behavior and Electoral Politics
3700:475 American Interest Groups
3700:476 American Political Parties

- Additional Political Science electives to equal 30 credits total in Political Science.

Law, Courts and Politics Track
$3700: 100 \quad$ Government and Politics in the U.S.
3700:201 Introduction to Political Research 3
3700:303 Introduction to Political Thought 3
3700:310 Intemational Politics and Institutions 3

- Choose one from:

3700:341 The American Congress 3
3700:350 The American Presidency . 3
3700:402 Politics and the Media 3
3700:475 American Interest Groups 3
3700:476 American Potitical Parties 3
Law, Courts and Politics
$3700: 360 \quad$ Ludicial Process
3700:335 Law and Society $\quad 3$
3700:334 Law, Mediation and Violence 3
3700:355 Lawyers, Lawsuits and the Practice of Justice 3

- Choose two:

3700:361 Politics of Criminal Justice System 3
3700:461 Supreme Court and Constitutional Law 3
3700:462 Supreme Court and Civil Liberties 3

## Internship Requirement

3700:395 Internship in Govemment and Politics 2-9

## Inter-Disciplinary

Four courses from a list of approved 200-, 300- or 400-1evel 3-credit courses from the departments of Accounting, Communications, Finance, English, History, Philosophy, and Sociology; but two courses from same group cannot be selected (total: 12 credits).

## Bachelor of Science in Political Science/ Criminal Justice

- Minimum of 131 credits required.
- Students pursuing the Political Science/Criminal Justice program must complete coursework in criminal justice technology from Summit College or another accredited institution. This may be done in one of three ways: Track 1 complete all requirements for an associate degree in criminal justice; Track 2 - complete a minor in criminal justice outside the Department of Political Science; or Track 3 -complete 12 credits of approved criminal justice coursework outside the Department of Political Science with a minimum 3.0 GPA .
- Completion of General Education requirements. Students pursuing an associates degree in Criminal Justice may be required to take specific mathematics courses and should see their adviser for guidance.
- Completion of 47 credits of $300 / 400$-level courses - excluding General Education courses (including Humanities and Area Studies and Cultural Diversity) or any workshop.
- At least six credits of coursework which will introduce the student to a foreign culture. Such courses shall be selected by the student with the approval of the adviser in the Department of Political Science. Selected courses may be chosen from any of the following departments: modem languages, history, political science, anthropology and geography.
- At least 30 departmental credits including:

| Foundeations in Political Science: |  |  |
| :--- | :--- | :--- |
| 3700:100 | Government and Politics in the United States | 4 |
| 3700:201 | Introduction to Political Research | 3 |
| $3700: 361$ | Politics of the Criminal Justice System | 3 |
| Criminal Justice | Core (choose four) |  |
| 3700:335 | Law and Society |  |
| 3700:363 | Crime, Punishment, Politics: A Comparative Perspective | 3 |
| 3700:450 | Administering Prisons, Probation and Parole | 3 |
| 3700:480 | Policy Problems: Criminal Justice | 3 |
| 3700:481 | The Challenges of Police Work | 3 |
| 3700:482 | Current Issues in Criminal Justice | 3 |
| 3700:483 | Constitutional Problems in Criminal Justice | 3 |


| Internahip Requirement |  |
| :--- | :---: |
| $3700: 395$ | Intemship in Govemment and Poitics |

(Students are required to take a minimum two credits intemship. No more than four credits may be applied toward major in political science.)
Advanced Poltical Science Courses (choose two)

| 3700:c31 | The American Congress |
| :--- | :--- |
| $3700 \cdot 350$ | 3 |

3700:350 The American Presidency 3

3700:360 The Judicial Process
3700:370 Public Administration: Concepts and Practices
3700:380 Unan Politics and Policies
3700:402 Politics and the Media
3700:462 The Supreme Coutt and Civil Liberties
3700:474 Political Opinion, Behavior and Electoral Politics
3700:475 American Interest Groups
3700:476 American Political Parties

## 3750: Psychology

## Bachelor of Arts

The General Education requirement and a minimum of 40 credits in psychology including:

- 12 credits of core requirements:

| $3750: 100$ | Introduction to Psychology | 3 |
| :--- | :--- | :--- |
| $3750: 105$ | Professional and Career Issues in Psychology | 1 |
| $3750: 110$ | Quantitative Methods in Psychology | 4 |
| $3750: 220$ | Introduction to Experimental Psychology | 4 |
| - 16 credits from the following six courses: |  |  |
| $3750: 230$ | Developmental Psychology | 4 |
| $3750: 320$ | Biopsychology | 4 |
| $3750: 335$ | Dynamics of Personality | 4 |
| $3750: 340$ | Social Psychology | 4 |
| $3750: 345$ | Cognitive Processes | 4 |
| $3750: 410$ | Psychological Tests and Measurements | 4 |

- 12 credits of psychology electives, of which no more than four may be fulfilled with 495 Field Experience or 497 Independent Reading and/or Research in Psychology.
- Completion of second year of a foreign language or a similar level of proficiency in American Sign Language.


## 3850: Sociology

(3850: Sociology; Sociology/Criminology and Law Enforcement)

## Statement of policies - Admission

For students enrolled at the University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from their institutions, the following criteria must be satisfied for admission to the Department of Sociology:

- The student must be admissible to Buchtel College of Arts and Sciences
- A minimum grade point average of 2.20 must be met in all university work, including transfer credits. Only credits earned at an accredited institution of postsecondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in the grade point average.


## Graduation

A Sociology, Sociology/Criminology and Law Enforcement major must earn a cumulative 2.20 grade point average in Sociology and overall to graduate with such a declared major.

## Bachelor of Arts

## Sociology

- The General Education requirement and the second year of a foreign language.
- A minimum of 30 credits in sociology including:

| 3850:100 | Introduction to Sociology | 4 |
| :--- | :--- | ---: |
| 3850:301,2 | Methods of Social Research I and \|| | 8 |
| 3850:460 | Sociological Thery | 4 |
|  | Sociology Electives | 14 |

- Electives

The student should consult with a departmental adviser about using electives to enhance the student's interest area, e.g., academic sociology, criminology and law enforcement, health, family, aging and life cycle, social inequalities and social research.

## Sociology/Criminology \& Law Enforcement

Students who enter the Sociology/Criminology \& Law Enforcement program must complete coursework in Criminal Justice Technology. This may be done in one of three ways: (1) complete the program requirements for an A.S. in criminal justice; or (2) complete 18 credits of criminal justice coursework, of which three credits must be 2220:100; or (3) complete one of the two minors (General Criminal Justice or Corrections Area of Concentration) offered in Criminal Justice Technology.

- The General Education requirement and the second year of a foreign language.

| A minimum of 34 credits in sociology, including: |  | Credits |
| :---: | :---: | :---: |
| 3850:100 | Introduction to Sociology | 4 |
| 3850:301,2 | Methods of Social Research I, II | 8 |
| 3850:460 | Sociological Theory | 4 |
| 3850:330 | Criminology | 3 |
| 3850:441 | Sociology of Law | 3 |
| 3850:433 | Deviant Behavior | 3 |
| 3850:495 | Field Intemship | 3 |
| AND (choose one) |  |  |
| 3850:431 | Corrections | 3 |
| 3850:430 | Juvenile Delinquency | 3 |
| AND (choose one) |  |  |
| 3850:320 | Social Inequalities | 3 |
| 3850:421 | Racial and Ethnic Relations | 3 |

## Division Majors

## Humanities

The humanities division consists of the departments of classical studies, anthropology and archaeology, English, modern languages and philosophy. The disciplines of history and the creative and dramatic arts (art, music, theatre arts) are included. The divisional major must include the following:

- The General Education requirement and the second year of a foreign language.
- A minimum of 54 credits, at least 24 of which must be in courses at the 300/400 level. The 54 credits must include 18 credits in each of any three of the following six fields: classics, English, history, modern languages, philosophy and the creative and dramatic arts.
- The first two years of any language in either classics or modern languages will not be included in the 18 -credit requirement for those disciplines.
By field, the 18 -credit requirement must include:
- Classics:
$\begin{array}{lll}3200: 361 & \text { The Literature of Greece } & 3 \\ 3200 \cdot 362 & \text { The }\end{array}$
3200:362 The Literature of Rome 3
3200:189 Classical Mythology 3
- English:

300/400 level, including at least two courses at the 400 level (minimum) 9

- History:

300/400 level (minimum)
10

- Modern Languages:

| Composition and Conversation | 6 |
| :--- | :--- |
| Literature | 6 |

Any combination of linguistics and culture-civilization 6

- Philosophy:

| $3600: 101$ | Introduction to Philosophy | 3 |
| :--- | :--- | :--- |
| $3600: 120$ | Introduction to Ethics | 3 |
| $3600: 170$ | Introduction to Logic | 3 |

- Creative and Dramatic Arts:

Non-performance courses in art (7100), music (7500) and theatre arts (7800)
Courses for the humanities division major must be selected with the approval of the division adviser. For further information, please contact the Office of the Dean, Buchtel College of Arts and Sciences.

## Natural Sciences

The divisional major provides for a broad background in science with concentration in selected areas. It is an appropriate major for those preparing for admission to professional programs in medicine, dentistry or veterinary science or for those desiring a Liberal Arts degree with a general emphasis in science. Additional coursework is often necessary for those planning graduate studies in a particular science discipline. The natural sciences division consists of the departments of biology, chemistry, geology and environmental science, theoretical and applied mathematics, computer science, statistics, and physics. The divisional major must include:

- The General Education requirement.
- 47 credits at the $300-400$ level.
- A minimum of 64 credits in the natural science division and/or engineering, at least 27 of which must be in natural science divisional and/or engineering departments at the 300/400 level.
- At least 27 credits from one of the departments of the natural sciences division.
- At least 16 credits with at least two credits at the 300/400 level from another of the following disciplines: biology, chemistry, engineering, geology, mathematics or computer science or statistics, physics, polymer science.
- At least 16 credits from a third of these disciplines; or alternatively, at least eight credits in each of two other of these disciplines.
- A foreign language is strongly recommended.
- 3450:149 Precalculus (or higher level 3450 course) regardless of major or minor areas.
The courses for the natural sciences division major must be selected only from courses approved toward the department major. For further information, please contact the Office of the Dean, Buchtel College of Arts and Sciences.


## Social Sciences

The social sciences division consists of the departments of economics, geography and planning, history, political science, psychology, sociology, public administration and urban studies (graduate program only). The divisional major must include the following:

- The General Education requirement and the second year of a foreign language.
- A minimum of 54 credits, at least 24 of which must be in courses at the 300/400 level. The 54 credits must include a minimum of 15 credits in each of any three of the following six fields: economics, geography, history, political science, psychology and sociology-anthropology.
By field, the 15 -credit requirement must include: Credits
- Economics:

15
Any except 3250:100 Introduction to Economics"* (must include 3250:200 Principles of Microeconomics and 3250:201 Principles of Macroeconomics )

- Geography:
- History:

At least seven of the 15 credits at the $300 / 400$ level

- Political Science:

| At least seven of the 15 credits at the $300 / 400$ level |  |  |
| :--- | :--- | :--- | :--- |
| Government and Politics in the United States | 4 |  |
|  | or |  |
| $3700: 201$ | Ontroduction to Political Research |  |

Each student shall take at least one course in two of the four areas (American government and politics, comparative politics, international politics and political theory) shown below:
American Government and Politics:

| $3700: 210$ | State and Local Govemment and Politics | 3 |
| :--- | :--- | :--- |
| $3700: 341$ | The American Congress | 3 |
| $3700: 350$ | The American Presidency | 3 |
| $3700: 360$ | The Judicial Process | 3 |
| $3700: 370$ | Public Administration: Concepts and Practices | 4 |
| $3700: 380$ | Urtan Politics and Policies | 4 |
| $3700: 381$ | State Politics | 3 |
| $3700: 402$ | Politics and the Media | 3 |
| $3700: 440$ | Survey Research Methods | 3 |
| $3700: 441$ | The Policy Process | 3 |
| $3700: 461$ | The Supreme Court and Constitutional Law | 3 |
| $3700: 462$ | The Supreme Court and Civil Liberties | 3 |
| $3700: 480$ | Policy Problems | 3 |

$\begin{array}{lll}3700: 341 & \text { The American Congress } & 3\end{array}$
3700:360 The Amdicial Process
3700:370 Public Administration: Concepts and Practices
3700:380 Uitan Politics and Policies
State Politics
Poitics and the Media
3700:441
3700:461 The Supreme Court and Constitutional Law
3700:480 Policy Problems


- Sociology-Anthropology: 15

Courses for the social sciences division major must be selected with the approval of the divisional adviser. For further information, please contact the Office of the Dean, Buchtel College of Arts and Sciences.

## Social Sciences - PPE Track

The Social Sciences division PPE track consists of courses from the departments of Philosophy, Political Science, and Economics. The PPE divisional major must include the following:

- The General Education requirement and the $2 n d$ year of a foreign language.
- A minimum of 54 credits, at least 24 of which must be in courses at the 300/400 level. The 54 credits must include a minimum of 15 credits in each of the 3 following fields: Philosophy, Political Science, and Economics.
- By field, the 15 credit requirement must include:


## Philosophy:

3600:120
3600:170
3600:464
$3600: 3 x \times 14 \times x$
introduction to Ethics*
3
Philosophy of Science
300/400 level courses in Philosophy
3

Political Science:
3700:201 Introduction to Political Research 3
$3700: 303$ Introduction to Political Thought 3
$3700: 3 \times \times \sqrt{4 \times x} \quad 300 / 400$ level courses in Political Science 9

## Economics:

$3250: 244$ Introduction to Economic Analysis** 3
$\begin{array}{lll}3250: 400 & \text { Intermediate Macroeconomics } & 3 \\ 3250: 410 & \text { Intermen }\end{array}$
3250:410 Intermediate Microeconomics
3250:3x/4xx $\quad 300 / 400$ level courses in Economics

- The remaining nine credits of electives (to complete the total minimum PPE requirement of 54 credits) can be taken in either Philosophy, Political Science, or Economics. These nine credits do not have to be taken all in one department. It is recommended, however, that they be taken at the 300/400 level.


## Bachelor of Science/Doctor of Medicine Degree <br> (B.S./M.D. Program)

## Introduction

The University of Akron, Kent State University, Youngstown State University, and Northeastern Ohio Universities College of Medicine (NEOUCOM) offer, as a consortium, a six-year B.S.M.D. program. Each year The University of Akron admits a limited number of carefully selected students into its B.S.M.D. degree option. Only students with no college credit after graduation from high school are eligible. Students with college credit taken as high school students are eligible. The deadline for application to the program is October 1 for early admissions and December 15 for regular admissions.
Students selected for the program enter Phase I, the B.S. degree phase, where they may obtain the baccalaureate degree in two or three years on the Alson campus (summers included). Phase I students who successfully complete coursework requirements, mairtain required grade point averages, achieve required scores on the Medical College Admission Test, and meet all other standards of readiness for medical education are then promoted directly to NEOUCOM for Phase. Il of the B.S.M.D. program. Phase II consists of a four-year medical school course of study, at the NEOUCOM campus and at selected dinical campuses, leading to the M.D. degree.
During Phase I, B.S.M.D. students usually pursue a natural sciences division major in the Buchter College of Ats and Sciences, althought other majors may be selected with the approval of the B.S.M.D. Program Coordinator. B.S.M.D. students are eligible for participa tion in the University Honors College. Curricula for both options are listed below.
B.S.M.D. students pursuing either the regular or honors track may also complete a certificate in Gerontology by fufifiling requirements from courses available from the Institute for Life-Span Development and Gerontology and the Office of Geriatric Medicine, NEOUCOM. Application is made through the Institute for Life-Span Development and Gerontology.

## Requirements

## Group I: 15 hours

- Required:
1880:310 Medicine and the Humanities 3

3600:361 Biomedical Ethics
Remaining 9 credits from among the following:

| Classics (3200) |  | Greak (3210) |
| :---: | :---: | :---: |
| Latin (3510) |  | English (3300, above 112) |
| History (3400) |  | Philosophy (3600) |
| Humanities | Westem Tradition I, II (3400:210,211) | Wordd Civilizations (3400:385-391) |
| Group li: 13 hours |  |  |
| - Required: |  |  |
| 7600:105 | Introduction to Public Speaking | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| 3300:111 | English Composition I Honors | 4 |
| 3300:112 | English Composition II Honors or | 3 |
|  | Other approved writing class | 34 |

- Remaining credits from among the following:

Modern Languages (3520-3580 300 level or above)
Music (7500)
Art (7100)
Applied Music (7520) Theatre Ars (7800)
Theatre Organizations (7810)
Dance (7900)
Dance Organizations (7910)

## Group III: $\mathbf{9}$ hours

- Required:

3750:100 Introduction to Psychology

- Remaining six credits from among the following:

| Anthropology (3230) | Economics (3250) |
| :--- | :--- |
| Geography (3350) | Political Science $(3700)$ |
| Psychology $(3750)$ | Sociology $(3850)$ |

Group IV: 68 hours (satisfies requirement for Natural Sciences Divisional major).*

| Required: |  | Credits |
| :---: | :---: | :---: |
| Mathematics |  |  |
| 3450:221 | Analytical Geometry Calculus : | 4 |
| 3460:125 | Descriptive Computer Science | 2 |
| 3470:261,2 | Introductory Statistics I, II | 4 |
| Biology |  |  |
| 3100:111,112 | Principles of Biology 1,11 | 8 |
| 3100:211 | General Genetics | 3 |
| 3100:363 | Animal Physiotogy | 4 |
| 3100:467 | Comparative Vertebrate Morphology | 4 |
| 3100:485 | Cell Physiology | 4 |
| (plus 4 additional binlogy 300/400 credits - may be transiered from NEOUCOM) |  |  |
| Chemistry |  |  |
| 3150:151,153 | Principles of Chemistry I, II | 6 |
| 3150:152 | Principles of Chemistry I Laboratory | 1 |
| 3150:154 | Qualitative Analysis | 2 |
| 3150:263,264 | Organic Chemistry I, II | 6 |
| 3150:265 | Organic Chemistr Lab | 2 |
| 3150:401,402 | Biochemistry 1 , II | 6 |
| Physics |  |  |
| 3650:261,262 | Physics for Life Sciences lı II | 8 |

## Free Electives: 14 hours

Free electives may be selected from any departments except physical education (5540). Summit College math or science classes, mathematical sciences ( 3450,3460 , 3470 ) and sciences (3010, 3100, 3150, 3370, 3650). Credits earned in excess of requirements for any Group HIII may be applied toward this free elective requirement. (May be taken on credithoncredit basis.)
Specific B.S./M.D. Program Requirements: 11 hours

| 2780:290 | Special Topics | - 2 |
| :---: | :---: | :---: |
| 3100:180 | BSMD Orientation | 1 |
| 3100:190,191 | Health Care Delivery Systems | 2 |
| 3100:290,291 | Heath Care Delivery Systems | 2 |
| 1880:201 | Medical Seminar and Practicum I | 3 |
| Ptysical Education Requirement: |  |  |
| 5540:120-181 | Physical Education | 1 |

## B.S./M.D. Honors Track

Students accepted into the NEOUCOM B.S/M.D. program are also eligible to enroll in the University Honors College.
The B.S.M.D. Program Coordinator will serve as the Honors Preceptor for the B.S.M.D. students. Other faculty will become involved as each student plans the honors project. Requirements for retention in the Honors College are determined by the Honors Council.

## Honors Requirements:

Colloquia: $\dagger$

| 1870:250 | Honors Colloquium Humanities | 2 |
| :--- | :--- | :--- |
| 1870:360 | Honors Colloquium Social Sciences | 2 |


| Honors Project: | 3 |
| :--- | :--- |

A major research paper will be required. A University of Akron faculty member shall direct the paper. The work must be completed prior to the completion of the undergraduate degree. In any of the following options, each student is expected to file the formal paper with the department of choice and the Honors Council in compliance with the procedures established by the Honors Council. Two options are possible:

1) A student may register for three hours of regular honors project hours in any department currently offering such credit. The student would be expected to complete a major research paper which in some way relates medicine to the discipline of the department.
2) A student may complete a research baboratory project in biology during the first summer of medical school. A formal paper, directed by a University of Akron faculty member, will be submitted as partial completion of the honors requirements.

- B.SM.D. Honor students will be encouraged to enroll in honors sections whenever possible but honors work in the divisional major will not be required.
- Students who withdraw from the B.S.M.D. program who are otherwise eligible to continue in the Honors College may remain in the Honors College under current requirements.
- Students who withdraw or are no longer eligible to remain in the Honors College may continue in the B.S.M.D. program provided they meet current B.S./M.D. requirements.

[^24]
# College of Engineering 

G. Haritos, Ph.D., Dean<br>Subramaniya Hariharan, Ph.D, Associate Dean of Research<br>Paul C. Lam, Ph.D., Associate Dean, Undergraduate Studies and Diversity Programs

## OBJECTIVES

The College of Engineering provides educational opportunities for students at both the undergraduate and graduate levels who wish to pursue careers in engr neering. The faculty in the Coilege of Engineering performs research with the purpose of contributing new knowledge to the fields encompassed by engineering principles. Professional service is in concert with the objectives of the University.

## COLLEGE REQUIREMENTS

## Admission

To be admitted to the College, the student must have al completed 30 credits of coursework; b) completed the second course of Analytical Geometry-Calculus; and c) received "C-" or better in all required math courses that were attempted less than three times, or at least a " B " for any such course attempted a third time. The student must have no more than three grades for any one course and no more than six "repeats for change of grade." The student must have a 2.3 grade-point average in three of the following areas: overall, engineering, math, and science.
Students accepted into the University Honors College as engineering majors are automatically admitted to the College of Engineering. Incoming freshmen with appropriate credentials may receive direct admission to the College upon applica tion (See University Admissions in Section Three)

## Transfer Students

Students transferring into the College of Engineering from universities other than The University of Akron must satisfy the same College of Engineering Admission requirements as those students from The University of Akron.

## Continuation in the Baccalaureate Programs

## Academic Probation

A student is on academic probation when half or more of the credit hours or courses for any semester results in grades of $\mathrm{D}+, \mathrm{D}, \mathrm{D}-\mathrm{F}, \mathrm{I}$, and/or W ; the overall or engineering grade point average is less than 1.50; the overall or engineering grade point average for two consecutive semesters is less than 2.00; and the cumulative grade point average for all engineering courses is less than 2.00 . Students should consult the Associate Dean, Undergraduate Studies for removal from Academic Probation.

## Academic Suspension

A student who has been on Academic Probation for at least one semester, and who is not removed from probation by recommendation from the department head, shall be suspended from the College for a period of two consecutive semesters or a consecutive semester and a summer session only if the student's cumulative grade point average is greater than 2.00. If less than 2.00 , the student shall be dismissed from the University unless accepted by another college within the University. Any student who attempts any course for a third time and obtains a grade below a C - shall be suspended from the College for two consecutive semesters or a consecutive semester and summer session.

## Degrees

The College offers Bachelor of Science degrees in Biomedical Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering, Computer Engineering, Mechanical Engineering, Mechanical Polymer Engineering, and Engineering.

## Requirements for Graduation

Compliance with University requirements, Section 3 of this Bulletin.
Completion of the requirements in the appropriate list of courses and a minimum of 136-140 credits of coursework.
Recommendation of the student's department.
Achievement of 2.00 grade point average in all engineering coursework attempted with $4 \times 0 \times$ course prefix.

## Engineering Accreditation

Engineering is that profession in which knowledge of mathematics and natural sciences, gained by study, experience, and practice, is applied, with judgement, to develop ways to utilize economically the materials and force of nature for the benefit of mankind.
Admission to the engineening profession is normally through a university undergraduate program in óne of the disciplines of engineering. Curricular criteria are established by academic and industrial representatives that sit on the Accrediting Board for Engineering and Technology (ABET). The curricular criteria under which Akron's Engineering programs are currently accredited are:

- One year of mathematics and basic science
- One-half year of humanities and social sciences
- One year of engineering science
- One-half year of engineening design

In addition, the ABET 2000 Cnteria requires that (1) each program shall make a formal assessment of each student's ABET Required Abilities and (2) that a process must exist by which the student assessments can be used to modify the educational delivery process. The ABET Required Student Abilities are:

- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs.
- An ability to identify, formulate, and solve engineering problems.
- An ability to communicate effectively.
- An ability to use the techniques, skills, and modem engineering tools necessary for engineering practice.
- An ability to function on multidisciplinary teams.
- An understanding of professional and ethical responsibility.
- The broad education necessary to understand the impact of engineering solutions in global and societal context.
- A recognition of the need for, and an ability to engage in lifetong learning.
- A knowledge of contemporary issues.

The Biomedical Engineering, Computer Engineering. Mechanical Polymer Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering and Mechanical Engineering programs are ABET accredited programs.

## Cooperative Education

The optional cooperative education program provides for a coordinated sequence of alternate periods of classroom instruction and employment during the five-year program.
The cooperative program simultaneously provides for the development of fundamental principles in the classroom and for their application in practice. The student has the opportunity to find the type of work and organization in which the student can best apply individual ability. The student gains an appreciation of the problems of labor and management by firsthand experience. The student devel ops mature judgement by coping with the everyday problems. The employer of a co-op student has the ability to train and select a student whose abilities and aptitudes can be adapted to the needs of technical staff requirements.
While a student is at work, all rules and regulations prescribed by the employer must be obeyed. In addition, the student is subject to all current labor laws and conditions. The student is considered a full-time student by the University while on industrial assignments.
The University does not guarantee employment, but makes every effort to place a student in the best learning situation that is consistent with the acquisition of sound professional experience.

## PROGRAMS OF INSTRUCTION

## 4200: Chemical Engineering

Chemical Engineering education develops the student's intellectual capacity and ability to apply the principles of transport phenomena, thermodynamics, and chemical reaction kinetics to the creative resolution of technological problems.
All engineers are trained in the application of mechanics, materials, economics, systems, and controis. Chemical and biomolecular engineers, however, apply chemical principles to design, evaluate, build, and operate systems capable of converting inexpensive raw materials into marketable products via chemical reactions, biological processes, and physical separations.

The chemical and biomolecular engineer finds career opportunities in the chemical process industries, usually involving polymer production, petroleum refining, environmental remediation, materials research and development, process design and development, and process operations and control. In addition, chemical engineers are increasingly in demand in such areas of current interest as process simulations, biotechnology, supercritical fluid processes, and solids processing. Critical thinking skills developed throughout the curriculum enable chemical engineers to succeed in other fields including medicine, patent law, and international business.
The Chemical Engineering program maintains a balance between theory and practice to prepare students for careers in a highly technical global society. The curriculum stresses the integration of mathematics, science, and chemical engineering fundamentals throughout the program. At each level of the program, from freshman through seniors, students have the opportunity to gain experience in a wide range of emerging technologies through laboratory courses and design or research electives. Exciting work is performed in biocompatible polymeric materials, biological cellular and enzymatic processes, nanocomposite materials, chemical vapor deposition, computational molecular science, microscale separations, advanced process control, green chemistry, and novel catalytic reactions. Students are also encouraged to gain important practical experience through the optional cooperative education program.
Mission: The goal of the Chemical Engineering Program is to prepare baccalaureate graduates with the necessary skills so that they can contribute to a highly technical global society through their professional careers: The philosophy of the Chemical Engineering faculty is to provide a strong theoretical foundation supported by practical applications of that knowledge, which is consistent with the mission of The University of Akron.
The specific educational objectives of the Chemical Engineering Program are to educate chemical engineers who can:
A. Solve chemical engineering, materials engineering, or biotechnology problems through the application of engineering fundamentals and the use of engineering tools;
B. Understand practical aspects of engineering, including the abilities to design and conduct experiments and to analyze and interpret data;
C. Apply their theoretical and practical knowledge to the design of engineering systems, components and processes;
D. Function as practicing engineers, including the ability to communicate well, work effectively on a team, leam independently, and act ethically in their professional duties; and
E. Continue their professional development through continuing education, including graduate studies.
The chemical engineering program is accredited by ABET and meets the curriculum requirements specified by the American Institute of Chemical Engineers. Graduates must demonstrate:

- a thorough grounding in chemistry including organic and physical and a working knowiedge of advanced chemistry such as inorganic, analytical, materials chemistry, polymer science or biochemistry.
- a working knowledge of material and energy belances, thermodynamics, heat, mass, and momentum transfer, chemical reaction engineering, separation processes, process dynamics and control, and process economics and design.

Graduates must be able to:

- Relate chemical structure to material properties.
- Apply first principles in order to analyze and solve chemical engineering problems including comprehensive, open-ended design problems.
- Develop experiments from proposed hypotheses and interpret data.
- Pose and develop practical solutions to chemical engineering problems which include the limitations of environmental, safety, and ethical constraints.
- Design and select optimal prócesses for chemical production.
- Select and use computational tools (spreadsheets, numerical methods, process simulators) to design, analyze, and solve chemical engineering problems.
- Work effectively in teams.
- Write and speak effectively in a technical setting.
- Independently assimilate new concepts to facilitate lifetong leaming.

The Chemical Engineering program provides a unique opportunity to master teamwork and design project management skills. Teams of freshmen through senior Chemical Engineering undergraduates work on a realistic chemical engineering design project. Besides experience with a range of current chemical engineering topics, the projects allow students to develop teamwork, communication, presentation, project management and information technology skills. Many teams are mentored by practicing chemical engineers from industry.
The Chemical Engineering curriculum consists of:

- General Education - 29 credits.
- Natural science: Credits

3150:151,2,3 Principles of Chemistry I/Lab, II 7
3150:154 Qualitative Analysis . 2
3450:221,2,3 Analytic Geometry-Calculus I, II, III 12
3450:335 Introduction to Ordinary Differential Equations 3
3450:00x Advanced Mathematics Elective 2
3650:291,2 Elementary Clessical Physics I, II 8

- Advanced chemistry:

3150:263.4 Organic Chemistry I, ॥ 6
3150:265 Organic Chemistry Laboratory 2
3150:313,4 Physical Chemistry I, II . 6

- Engineering core:
$\begin{array}{lll}4200: 121 & \text { Chemical Engineering Computations } & 2 \\ 4200: 305 & \text { Materials Science }\end{array}$
4200:305 Materials Science 2
4300:201 Statics 3
4400:320 Basic Electrical Engineering 4
- Chemical Engineering:
- 4200:101 Tools for Chemical Engineering 2

4200:110 Project Management and Tearnwork I 1
4200:200 Material and Energy Balances 4
4200:210 Project Management and Tearmwork II . 1
4200:225 Equilibrium Thermodynamics 4
4200:310 Project Management and Tearmwork III 1
4200:321 Transport Phenomene 3
4200:330 Chemical Reaction Engineering , 3
4200:341 Process Economics 2
4200:351 Fluid and Thermal Operations $\quad 3$
4200:353 Mass Transfer Operations 3
4200:360 Chemical Engineering Laboratory 3
4200:410 Project Management and Teamwork IV 1
4200:435 Process Analysis and Control 3
4200:441 Process Design I 3
4200:442 Process Design II . 3

- Electives:
$\begin{array}{ll}4700: 407 \text { or Advanced Chemistry Elective } & 3 \\ \text { Engineering Design Elective } & 3\end{array}$
Chemical Engineering Science Electives
3
3
Students are required to achieve a C- or better in course 4200:200 to continue taking 4200:300 level courses and above.
Students enrolled prior to Spring 2003 semester in Chemical Engineering should contact the department for the transition schedule.


## Biotechnology Specialization Certificate

Chemical Engineering students may choose to specialize in biotechnology. The goal of this program is to allow engineering students with an interest in chemical and biotechnology to develop suitable preparation for careers or graduate study in biotechnology or in the medical fields without reducing their potential for careers in traditional chemical engineering. Students will have ample opportunity to work with researchers in biotechnology through their engineering and design electives.

- Students who complete this specialization are exempt from: Credits


## 3150:313, 314

4200:305 Materials Science

- Required courses

| $3100: 111,112$ | Principles of Biology I, Il | 8 |
| :--- | :--- | :--- |
| $3100: 311$ | Cell and Mołecular Biology | 4 |
|  | or |  |
| $3100: 331$ | Microbiology | 4 |
| $3150: 401$ | Biochemistry Lecture \{satisfies Advanced Chemistry Elective) | 3 |

- Chemical Engineering elective (minimum 3 credits) must be chosen from the following list
4200:194 Chemical Engineering Design I (with permission) 1
4200:294 Chemical Engineering Design II (with permission) 1-2
4200:394 Chemical Engineering Design III (with permission) . 1-3
4200:472 Separation Processes in Biochemical Engineering 3
4200:473 Bioreactor Design
4200:494 Design Project (with permission)
4200:496
opics in Chemical Engineering (with permission)
4200.497 Honors Project (with permission)
$\begin{array}{lll}\text { 4200:499. } & \text { Research Project(with permission) } & \text { 1-3 }\end{array}$
4800:360 Biofluid Mechanics 3
4800:400 Biomaterials
3
- Design Electives (minimum 3 credits)

4200:194 Chemical Engineering Design I (with permission) 1
4200:294 Chemical Engineering Design II (with permission) $\quad 1-2$
4200:394 Chemical Engineering Design III (with permission) 1.3
3
4200:494 Design Project (with permission)
4200:496 Topics in Chemical Engineering (with permission) 3
4200:497 Honors Project (with permission) 1 .
4200:499 Research Project (with permission) $1 \ni$
4300:482 Special Projects (with permission) 3
4800:485 Special Topics in Biomedical Engineering 1.3

## Polymer Engineering Specialization Certificate

- Required:

4200:408 Polymer Engineering

- Chemical Engineering students must select one course from the Polymer Engineering group and one course from the Polymer Science group:
Polymer Engineering Group:

| 4700:425 | Introduction to Blending and Compounding of Polymers | 3 |
| :--- | :--- | :--- |
| 4700:427 | Mold Design | 3 |

Polymer Science Group:

| 9871:401 | Introduction to Elastomers | . |
| :--- | :--- | :--- |
| 9871:402 | Introduction to Plastics | 3 |
| $9871: 407$ | Polymer Science (satisfies Advanced Chemistry elective) | 3 |
|  |  | 4 |

## BS/MS in Chemical Engineering

The five-year BS/MS program in Chemical Engineering provides superior undergraduate students with the opportunity to complete a master's of science degree in Chemical Engineering with an additional year of study beyond their bachelors degree. The program is only available to bachelor of science Chemical Engineering students at The University of Akron. Applications are accepted in the spring of the junior year.
4200:600 Transport Phenomena
4200:605 Chemical Reaction Engineering4200:610 Classical Thermodynamics4200:631 Chemical Engineering Analysis3
Chemical Engineering ElectivesApproved Electives
Approved MathematicMaster's Thesis3

## 4300: Civil Engineering

Civil Engineers plan, design, build, and operate the infrastructure of modern society. This includes highways, bridges, buildings, power plants, industrial facilities, tunnels, seaports, airports, offshore structures and almost anything else needed as the basis of modern life. Civil engineers are also vigorously engaged in environmental activities, particularly creating safe water supplies and transporting it to where it is needed, collecting and treating wastewaters, cleanup of environmental problems, and insuring the safe disposal of solid wastes.
To achieve the high level of professional competence needed, an extensive study of mathematics, mechanics (both solids and fluids), engineering materials, structural design and environmental reactions is required. The civil engineering sub-topics that utilize these fundamentals are environmental, geotechnical, hydraulic, structural, and transportation engineering. The civil engineering curriculum at The University of Akron insures a firm grounding in all these sub-topic areas, while allowing a special ization, if desired, in the environmental, geotechnical, transportation, and structural areas. Engineering design problems are incorporated into courses in each area. The senior capstone design course presents a problem involving one, or possibly all, of these areas in the design of complex systems.

Most civil engineering graduates work for design consultants, construction companies, or governmental agencies. Others work for industrial firms and utilities. Many civil engineers own their own businesses.
Program Educational Objectives have been established that represent the projected abilities of a program graduate $3-5$ years after graduation. The Civil Engineering Program Educational Objectives are the foundation of the program.
Program Objective \#1: Successfully and accurately complete Civil Engineering projects:

- Responsibility for designing a component or system
- As part of a team
- On time and within budget
- Knowledgeably utilize modem engineering tools (software and equipment)
- In an ethical and professional manner
- In role as project manager(some graduates)

Program Objective \#2: An ability to communicate effectively with written, oral, and visual means in both technical and non-technical settings.

Program Objective \#3: Professional service as evidenced by participation in a professional society and educational activities (e.g. mentoring, speaking to student organization, bridge contests).
Program Objective 制: Engage in lifelong learning as evidenced by participation in continuing education courses, workshops, graduate courses, and by becoming registered as a professional engineer.
The curriculum is designed to emphasize the fundamentals which places the graduate in a strong position to pursue further education, formally or informally, and to begin a career in any of the above areas. To meet the curriculum requirements specified by the American Society of Civil Engineers (ASCE) for ABET accreditation, the civil engineering program will prepare students who have the following attributes:

- An ability to apply knowledge of mathematics, science and engineering.
- An ability to design and conduct experiments, analyze and interpret data.
- An ability to design a system, component or process to meet desired needs.
- An ability to identify, formulate, and solve structural, environmental, hydraulic, geotechnical and transportation problems.
- An ability to communicate effectively with written, oral and visual means in both technical and non-technical settings.
- An ability to function on multi-disciplinary teams.
- An ability to design a civil engineering component or system with an understanding of professional and ethical responsibility.
- Have the broad education necessary to understand the impact of civil engineering solutions in a global and societal context.
- A recognition of the need for and an ability to engage in life-tong leaming.
- An ability to use techniques, skills and modem engineering tools necessary for civil engineering practice.
- General Education - 29 credits
- Natural Science

3150:151,2,3 Principles of Chemistry VLab, II
3370:105 Physical Geology for Engineers
3450:221,2,3 Analytic Geometry-Calculus I, II, III
3450:335 Introduction to Ordinary Differential Equations
3650:291,2 . Elementary Classical Physics I,II
Engineering Core:
4300:101 Tools for Civil Engineering
4300:201 Statics
4300:202 Introduction to Mechanics of Solids
4400:320 Basic Electrical Engineering
4600:203 Dynamics
4600:305 Thermal Science
4600:310 Fluid Mechanics

- Civil Engineering:

4300:120 Introduction to Civil Engineering Design
4300:230 Surveying
4300:306 Theory of Structures
4300:313 Soil Mechanics
4300:314 Geotechnical Engineering
4300:321 Intro to Environmental Engineering
4300:323 Water Supply and Pollution Control
4300:341 Hydraulic Engineering
4300:361 Transportation Engineering
4300:380 Engineering Materiats Laboratory
4300:390 Civil Engineering Seminar
4300:401 Steel Design
4300:403 Reinforced Concrete Design
4300:443 Applied Hydraulics
4300:471 Construction Administration
4300:490 Senior Design

- Electives: (One course must be a Civil Engineering Design course)

Technical Electives

- Statistics Elective (Choose one of the following):

3470:401 Probability and Statistics for Engineers
3470:461 Applied Statistics

## Approved Statistics course

## 4400: Electrical Engineering

The branches of electrical engineering include: research, development, design, manufacture and operation of electrical and electronic projects, services, and systems for instrumentation, automation, communication, power generation and distribution and computation.

The growth of electronics has been accelerated by the space age and the emergence of the high speed digital computer. There is hardly a segment of the economy that has not been influenced by electronics. The computer has found its way into virtually all aspects of modern life. A student wishing to specialize in computer engineering will find appropriate electives available.
The wide use of electrical means of measurement, control and computation has resulted in the need for electrical engineers in all types of industries. Varied employment opportunities are available.

The Electrical Engineering Program is accredited by ABET and meets the curriculum requirements specified by the Institute for Electrical and Electronic Engineers. The program is designed to meet career needs of its graduates, and the requirements of industrial employers and advanced educational programs, such as law schools, medical schools, and graduate programs in electrical engineering. The educational objectives of the program are that its graduates

- achieve competitively compensated entry level positions or entry into programs of advanced study in areas of their interest,
- prove themselves to be highly competent in engineering and related practice,
- continue to develop professionally through practical experience and a lifelong commitment to leaming, and
- exhibit high standards of ethical conduct and social responsibility in engineering.

Additionally, the program supports creativity and excellence in the practice of electrical engineering, and the advancement of knowledge.
The program is continuously updated and improved through a well defined assessment process, assuring that graduates are prepared to meet the above objectives by achieving:

- the ability to apply mathematics, science and engineering knowledge to the identification, formulation and solution of electrical engineering problems,
- specialized engineering knowledge in areas of interest related to career objectives,
- the ability to design systems, components or processes to meet client needs,
- the ability to design and conduct experiments and interpret technical data,
- the ability to work effectively in interdisciplinary teams and within engineering organizations,
- proficiency in technical communications - oral, written and visual,
- the ability to use tools of modern engineering practice effectively, including standard instruments, computational and presentation software, engineering libraries and the Intemet
- the ability and motivation to extend their competence into new areas, and
- an understanding of safety, environmental, intellectual property and societal impact issues in electrical engineering, and related professional ethics.
- General Education - 29 credits.
- Natural science: . Credit

3150:151,2. $\quad$ Principles of Chemistry $1 /$ Lab
3450:221,2,3 Analytic Geometry-Calculus I, II, III
3470:401 Probability and Statistics for Engineers
3650:291,2 Elementary Classical Physics I, II . 8

- Engineering core:

4200:305 Materials Science . 2
4600:305 Thermal Science 2
4300:201 Statics 3
4300:202 Introduction to Mechanics of Solids 3
4600:203 Dynamics 3
4450:208 Programming for Engineers 3

- Electrical engineering:

4400:101 Tools for Electrical and Computer Engineering 3
4400:163 Digital Logic Design - 4
4400:231,332 Circuits !. II*
4400:230,330 Circuits Laboratory I, II
4400:341 Communications and Signal Processing
3
E00:33,4 Electromagnetic 1, II
4400:360 Physical Electronics
4400:361 Electronic Design
4400:371 Control Systems I
4400:381 Energy Conversion
4400:399 Design Project Seminar
4400:401, 2 Senior Design Project l, II+

- Electives:


## 4450: Computer Engineering

Computer engineering applies computer technology along with traditional engineering science to address systems in which computing is an essential function. Such sys tems include the smart device or instrument, the flexible manufacturing system and communication system that characterizes the information age. Computer engineering covers a demanding range of science and technology, combining software with hardware, and the discrete with the continuous.

The Computer Engineering Program is accredited by ABET and meets the curriculum requirements specified by the Institute for Electrical and Electronic Engineers. The program is designed to meet career needs of its graduates, and the requirements of industrial employers and advanced educational programs such as law schools, médical schools and graduate programs in computer engineering. The educational objectives of the program are that its graduates

- achieve competitively compensated entry level positions or entry into programs of advanced study in areas of their interest,
- prove themselves to be highly competent in engineering and related practice,
- continue to develop professionally through practical experience and a lifelong commitment to leaming, and
- exhibit high standards of ethical conduct and social responsibility in engineering. Additionally, the program supports creativity and excellence in the practice of computer engineering, and the advancement of knowledge.
The program is continuously updated and improved through a well defined assessment process, assuring that graduates are prepared to meet the above objectives by achieving:
- the ability to apply mathematics, science and engineering knowledge to the identification, formulation and solution of computer engineering problems,
- specialized engineering knowledge in areas of interest related to career objectives,
- the ability to design systems, components or processes to meet client needs,
- the ability to design and conduct experiments and interpret technical data,
- the ability to work effectively in interdisciplinary teams and within engi neering organizations,
- proficiency in technical communications - oral, written and visual,

[^25]- the ability to use tools of modem engineering practice effectively, including standard instruments, computational and presentation software, engi neening libraries and the Intemet
- the ability and motivation to extend their competence into new areas, and
- an understanding of safety, environmental, intellectual property and societal impact issues in computer engineering, and related professional ethics.
- General Education - 29 credits

Credits

- Natural science:

3150:151,2 Principles of Chemistry I, Laboratory 4
3450:208 Introduction to Discrete Mathematics 4
3450:221,2,3 Analytic Geometry-Calculus 1,11,III
3450:335 Introduction to Ordinary Differential Equations
3470:401 Probability and Statistics for Engineers
3650:291,2 Elementary Classical Physics 1,II

- Computer Engineering:

4450:330 Computer Systems
4450:370 VLSI Design
4450:375 Operating Systerns Concepts
4450:480 Computer Systems Design

- Computer Science:
$\begin{array}{ll}\text { 3460:209 Introduction to Computer Science } \\ \text { 3460:210 } & \text { Data Structures \& Algorithms I }\end{array}$
3460:316 Data Structures \& Algorithms II
- Electrical Engineering:

4400:101 Toods for Electrical and Computer Engineering
4400:163 Digital Logic Design
4400:231,332 Circuits 1 , II
4400:230,330 Circuits Laboratory 1 , II*
4400:341 Communications and Sigral Processing
4400:343 Signals and Systems
4400:360 Physical Electronics
4400:399 Design Project Seminar
4400:401,2 Senior Design Project I, II+
4400:451 Electromagnetic Compatibility
4400:465 Programmable Logic
4400:470 Embedded Systems Interfacing

- Electives:

Computer Engineering Electives

## 4600: Mechanical Engineering

Mechanical engineers design and analyze physical systems and are employed in a variety of industries in different capacities. Mechanical engineers play important roles in many types of companies, including automotive, petroleum, energy generation and conversion, aerospace, tire, consulting, chemical, electronic, and manufacturing.

The Mechanical Engineering curriculum at The University of Akron is designed to give the student knowledge of fundamental principies of the (1) thermalfluids stem, (2) structures and motion stem, and (3) controls stem of mechanical engineering, as well as the application of these principles to pertinent problems. A significant measure of the mechanical engineering education is the degree to which it has prepared the graduate to pursue a productive engineering career that is characterized by continued professional growth.
To meet the curriculum requirements specified by The American Society of Mechanical Engineers (ASME) for ABET accreditation, the undergraduate program in Mechanical Engineering must satisfy the following program outcomes:

- Apply knowledge of mathematics, science and engineering in a logical and discerning manner.
- Design and perform laboratory experiments for thermal, fluid and mechanical systems; know how to analyze and interpret results.
- Design thermal, fluid, mechanical and control systems to meet specifications within environmental, social, political, ethical, health and safety, manufacturability and sustainability constraints.
- Participate effectively in teams involving several disciplines.
- Identify, formulate, and solve thermal, fluid and mechanical problems by applying first principles, including open-ended problems.
- Develop practical solutions for mechanical engineering problems under professional and ethical constraints.
- Communicate effectively with written, oral, and visual means in a technical setting.
- Understand the impact of engineering in a global; economic, environmental, and societal context.
- Be prepared for a lifetime of continuing education.
- Know about contemporary issues in engineering.
- Have an ability to use modern modeling and simulation techniques, and computing tools.


## Requirements

- General Education - 29 credits. Credits
- Natural science:

| 3150:151,2,3 | Principles of Chemistry /VLab, II | 7 |
| :--- | :--- | ---: |
| $3450: 221,2,3$ | Analytic Geometry-Calculus I II, III | 12 |
| $3450: 335$ | Introduction to Ordinary Differential Equations | 3 |
| $3650: 291,2$ | Elementary Classical Physics I, II | 8 |

- Engineering core:
3470:401 Probability and Statistics for Engineers $\quad 2$
4300:201 Statics 3

4300:202 Introduction to Mechanics of Solids 3
$\begin{array}{lll}4400: 320 & \text { Basic Electrical Engineering } & 4 \\ 4600: 165 & \text { Tods forMerhanical Engineering } & 3\end{array}$
4600:165 Tools for Mechanical Engineering
4600:203 Dynamics
4600:260 Engineering Analysis I
4600:300 Thermodynamics I .
4600:310 Fluid Mechanics
$-\quad 2$

- Mechanical engineering:

4600:301 Thermodynamics II 2
4600:311 Fluid Mechanics II 3
4600:315 Heat Transfer
4600:321 Kinematics
4600:336 Analysis of Mechanical Components
4600:337 Design of Mechanical Components
4600:340 Systems Dynamics and Response
Engineering Analysis II
4600:380 Mechanical Metallurgy
4600:400 Thermal System Components
4600:402 Serior Seminar
Fundamentals of Mechanical Vibrations
4600:441 Control Systems Design
4600:460 Concepts of Design
$\begin{array}{ll}\text { 4600:461 } & \text { ME Senior Design Project I } \\ \text { 4600:471 } & \text { ME Senior Design Project II }\end{array}$
ME Senior Design Project II
Mechanical Engineering Measurements Laboratory
Mechanical Engineering Laboratory
3
8

## .

3

4600:431 Fundamentals of Mechanical Vibrations

4600:471 ME Senior Design Project II
4600:484 Mechanical Engineering Labor

- Electives:

Electives must include three credits from Mechanical Engineering Design Electives, three credits from Technical Electives, and three credits from Mechanical Engineering Technical Electives.

## Polymer Engineering Specialization Certificate

Mechanical Engineering students may eam a Polymer Engineering Specialization Certificate by taking one of the following courses:

| $9871: 401$ | Introduction to Elastomers |  |
| :--- | :--- | ---: |
| 9871:402 | Introduction to Plastics | 3 |
| $9871: 407$ | Polymer Science | 3 |
| and the following | two courses: | 4 |
| 4700:425 | Introduction to Blending and Compounding of Polymers |  |
| 4700:427 | Mold Design |  |

A mechanical engineering student may choose a Design of Energy Systems or Design of Mechanical Systems polymer-related project in lieu of one of the above 4700 polymer engineering courses with approvals from the chairs of the Department of Mechanical Engineering and the Department of Polymer Engineering.

[^26]
## Motion and Control Specialization Certificate

All manufacturing processes involve motion and control which may range from simple use of pneumatics cylinders in robotics to coordinated motion and sequence control in assembly lines. The technology in motion and control grows and changes at a pace that makes systems of more than five years old obsolete. The primary purpose of the Motion and Control Specialization certificate program is to provide the graduating engineers with a focused expertise in motion and control and to furnish the necessary tools in order to enable them to follow the changes in technology after graduation. In addition, the program will also serve the practicing engineers and life-long leamers to come back to school to refresh their skills using the certificate program.
Persons interested in this program should contact the Department of Mechanical Engineering

## Admission:

To participate in the program, the student should be formally admitted to The University of Akron as a post-baccalaureate, undergraduate, graduate or nondegree graduate student.

| Requirements: | Credits |  |
| :--- | :--- | :--- |
| Students should successfully complete all three courses listed below: |  |  |
| $4600: 442 / 542$ | Industrial Automatic Control | 3 |
| $4600: 444 / 544$ | Robot Design and Control Applications | 3 |
| $4600: 670$ | Integrated Flexible Manufacturing Systems* | 3 |

## 4700: Mechanical Polymer Engineering

The Department of Mechanical Engineering in cooperation with the Department of Polymer Engineering has developed the undergraduate program in Mechanical Polymer Engineering. This program integrates mechanical engineering science and design with polymer processing science and technology.

The Mechanical Polymer Engineering curriculum at The University of Akron is designed to give the student knowledge of fundamental principles as well as the application of these principles to polymer processing problems. A significant measure of the Mechanical Polymer Engineering education is the degree to which it has prepared the graduate to pursue a productive engineering career in the polymer industry that is characterized by continued professional growth.

To meet the curriculum requirements for ABET accreditation, the undergraduate program in Mechanical Polymer Engineering must satisfy the following program outcomes:

- Apply knowledge of mathematics, science and engineering in a logical and discerning manner.
- Design and perform laboratory experiments for thermal, fluid, materials and mechanical systems; know how to analyze and interpret results.
- Design thermal, fluid, mechanical, materials and control systems to meet specifications within environmental, social, political, ethical, health and safety, manufacturability and sustainability constraints.
- Participate effectively in teams involving several disciplines.
- Identify, formulate, and solve thermal, fluid, materials and mechanical problems by applying first principles, including open-ended problems.
- Develop practical solutions for mechanical-polymer engineering problems under professional and ethical constraints.
- Communicate effectively with witten, oral, and visual means in a technical setting.
- Understand the impact of engineering in a global, economic, environmental, and societal context.
- Be prepared for a lifetime of continuing education.
- Know about contemporary issues in engineering.
- Have an ability to use modern modeling and simulation techniques, and comt puting tools.


## Requirements

- General Education - 29 credits
- Naturai Science: Credits

3150:151,2,3 Principles of Chemistry /Lab, II 7
3450:221,2,3 Analytic Geometry-Calculus' $1,11,111$
3450:335 Introduction to Ordinary Differential Equations 3
3650:291,2 Elementary Classical Physics I, II 8

- Engineering Core:

3470:401 Probability and Statistics for Engineers 2
4300:201 Statics
4300:202 Intro to Mechanics of Solids
4400:320 Basic Electrical Engineering
4600:165 Tools for Mechanical Engineering
4600:203 Dynamics
4600:260 Engineering Analysis I
4600:300 Thermodynamics i
4600:310 Fluid Mechanics !
2

- Mechanical Engineering:
4600:315 Heat Transfer 3

4600:336 Analysis of Mechanical Components 3
4600:337 Design of Mechanical Components 3
4600:340 Systems Dynamics and Response 3
4600:360 Engineering Analysis II
4600:380 Mechanical Metalliurgy
4600:400 Thermal System Components
4600:402 Senior Seminar
4600:431 Fundamentais of Mechanical Vibrations
4600:441 Control Systems Design
4600:460 Concepts of Design
4600:483 Mechanical Engineering Measurements Laboratory

- Polymer Engineering-Polymer Science:

470:281 Polymer Science for Engineers 2
4700:381 Polymer Morphology for Engineers 3

- Polymer Engineering:
4700:321 Polymer Fluid Mechanics 3

4700:422 Polymer Processing 3
4700:425 Intro to Blending and Compounding of Polymers 3
4700:427 Mold Design
4700:450 Engineering Properties of Polymers 3 .
4700:451 Polymer Engineering Laboratory 2
4700:499 Polymer Engineering Design Project 2
4700:497 Honors Project
The 4700 courses are taught and administered for course content and facuty assignments by the College of Poiymer Science and Polymer Engineering.

## 4800: Biomedical Engineering

Biomedical Engineering is a highly interdisciplinary field of engineering which combines a fundamental understanding of engineering principles with an appreciation of the life sciences. Biomedical Engineers are prepared to solve probiems in the health care industry and interact equally with other engineers and health care professionals. Students are prepared to embark on careers in research, design and development of medical devices, instrumentation, analysis tools, clinical eval uation methods, systems and processes, and other forms of medical technology.
The development of an in-depth understanding of the fundamentals of engineering is essential and therefore a degree in Biomedical Engineening focuses first on core engineering coursework, followed by advanced applications specific to the field of Biomedical Engineering. To maintain a core understanding of engineering, the program is divided into three tracks: Biomechanics, Instrumentation, and Signals and Imaging. The Biomechanics track is designed for those students who would pursue a Mechanical Engineering background with specialization in the areas of cardiovascuiar, orthopedic, rehabilitation engineering and system simulations. The Instrumentation, Signals and Imaging track is designed for those students who wish to pursue an Electrical Engineering background with speciaization in biomedical instrumentation, signal and image processing, imaging devices and detectors and system simulations. The Biomaterials and tissue Engineening track is designed for those students who desire to focus on the cellular aspects of Biomechanics with specialization in the areas of material interactions with the human body, design and development of biomaterials, including tissue engineering and drug delivery systems.
Students in the Department of Biomedical Engineering receive individual advising in their areas of interest. Graduates of the program will be prepared to apply their knowledge of engineering and medicine to design, test and evaluate systems or system components to be used in the health care industry, to design and develop research projects, including the analysis and interpretation of data and the dissemination of results, and to participate in other biomedical engineening proberm solving activities. Graduates will also be well prepared to enter graduate study in Biomedical Engineering or Medical School. Evaluation of the Bachelor's Degree Program in Biomedical Engineering is ensured through the use of exit-interviews and an alumni tracking and survey procedures.

The Department of Biomedical Engineering has established the following program out comes for obtaining ABET accreditation. Graduates of the undergraduate program in Biomedical Engineering will possess:

- The ability to demonstrate a basic knowledge of biology, anatomy, and physiot ogy, fundamental engineering conservation laws and track-specific engineering principles as applied to biomedical engineering,
- The ability to devise, design, and conduct biomedical engineering experiments and analyze the results,
- The ability to design medical devices, systems or techniques to meet specific goals,
- The ability to participate effectively as a member of a multi-disciplinary team,
- The ability to recognize, define, evaluate and solve biomedical engineering problems.
- An understanding of professional and ethical responsibility in biomedical engineering.
- The ability to communicate effectively with multi-disciplinary groups using witten, oral and visual means,
- The ability to appreciate the impact of biomedical engineering on society,
- The ability to pursue/sustain active professional growth,
- A knowledge of contemporary issues in medicine and engineeríng, as well as an awareness of current developments in society and technology,
- An ability to use modem techniques, skills and tools for biomedical engineening practice,
- The ability to apply advanced mathematics (including differential equations and statistics), science and engineering to solve problems at the interface of engineering and biology.
- The ability to make measurements on and interpret data from living systems, and
- The ability to address the problems associated with the interaction between ining and non-living materials and systems.

The Biomaterials and Tissue Engineering track

- General Education - 29 credits including:

Creaits
3250:244 Introduction to Economic Analysis 3
3600:120 Introduction to Ethics 3

- Mathematics:

3450:221, 2, 3 Analytic Grometry - Calculus I, li, III 12
3450:335 Introduction to Ordinary Differential Equations 3
3670:461 Applied Statistics . 4

- Natural Science:

3150:151, 2, 3 Principles of Chemistry 1, thabl 7
3150:154 Qualitative Analysis 2

3150:263, 5 Organic Chemistry 1, Lab
2
3650:291, 2 Elementary Classical Physics 1,11 8
3100:200, 1, 2, 3 Humen Anatomy and Physiology I II, Labs . 8

- Engineering Core

4200:321 Transport Phenomena 3
4300:201 Statics 3
4300:202 Mechanics of Sclids 3
4400:320 Basic Electrical Engineering 4
4600:203 Dynamics 3
4600:300 Thermodynemics I 4

- Biomedical Engineering

4800:101 Tools for Biomedical Engineering . 3
4800:111 Introduction to BME Design 3
4800:201 Sophomore Seminar in Biornedical Engineering 1
4800:220 Biomedical Computing 3
4800:305 Introduction to Biophysical Measurement 4
4800:360 Biofluid Mechanics 3
4800:365 Mechanics of Biological Tissues 3
4800:400 Biomaterials
4800:440 Advanced Biomaterials
4800:445 Experimental Techniques in Biomaterials and Tissue Enginearing

4800:492 BME Design II

- Electives: 9

Electives must include three credits from Biomedical Engineering ( 4800 ) and six credits from a list of approved electives from Chemistry, Mathematics, Physics, Polymer Engineering, Electrical Engineering or Mechanical Engineering.

## The Biomechanics track

- General Education - 29 credits including:

| $3250: 244$ | Introduction to Economic Analysis | 3 |
| :--- | :--- | :--- |
| $3600: 120$ | Introduction to Ethics | 3 |

- Mathematics:

3450:221, 2, 3 Araltic Geometry-Calculus I, II, III 12
3450:335 introduction to Ordinary Differential Equations 3.
3670:461 Applied Statistics 4

- Natural Science:

3100:200, 1, 2,3 Human Anatormy and Ptysidiogy I, tl and Lab s 4
3150:151, 2,3 Principles of Chemistry l, linab | 7
3650:291,2 Elementary Classical Physics I, II 8

- Engingering Core

4300:201 Statics

Dynamics
000,300 Thermodynamics I 4
He00.315 Transfor Process . 3
4600:321 Kinematics $\quad$ - 2
4600:420 Introduction to the Finite Element Method 3

- Biomedical Engineering

Credits
4800:101 Tools for Biomedical Engineering 3 .
4800:111 Introduction to BME Design 3
4800:201 Sophomore Seminar in Biomedical Engíneering Biomedical Com
Introduction to Biophysical Measurement
Modeling \& Simulation in Biomedical Systems
Biofluid Machanics
Mechanics of Biological Tissues
Biomaterials
Experimental Techniques in Biomechanics
BME Design
BME Design II
4800:460,
4800:492

- Electives: of approved electives from Biomedical Engineering, Mathematics, Physics, Połymer Engineering, Electrical Engineering or Mechanical Engineering.
The Instrumentation, Signals and Imaging track
- General Education - 29 credits including:

| $3250: 244$ | Introduction to Economic Analysis | 3 |
| :--- | :--- | :--- |
| $3600: 120$ | Introduction to Ethics | 3 |

- Mathematics:
3450:221, 2, 3 Analytic Geometry - Calculus I, I1, III 12
3450:335 Introduction to Ordinary Differential Equations 3

3670:461 Applied Statistics 4

- Natural Science:

3100:200, 1, 2, 3 Human Anatorny and Pthysiology I, 11 and Labs 4
3150:151, 2,3 Principtes of Chemistry I, ILLabl 7
3650:291, 2 Elementary Classical Physics I, II . 8

- Engineering Core

| 4300:201 | Statics | 3 |
| :--- | :--- | :--- |
| $4400: 363$ | Switching \& Logic | 4 |
| $4400: 230,1$ | Cricurits land Lab | 4 |
| $4400: 330,2$ | Circuits II and Lab | 4 |
| $4400: 343$ | Signals and Systems | 4 |
| $4400: 360$ | Ptysical Electronics | 3 |
| $4800: 305$ | Thermal Science | 2 |
| $4600: 203$ | Dymarics |  |

- Biomedical Engineering
4800:101 Tools for Biomedical Engineering - 3
4800:111 Introduction to BME Design 3

4800:201 Sophomore Seminar in Biomedical Engineering 1
4800:220 Biomedical Computing
4800:305 Introduction to Biophysical Measurement
4800:310 Modeling \& Simulation in Biomedical Systems
4800:325 Design of Medical Devices
4800:400 Biomaterials
4800:420 Biomedical Signals and Image Processing
4800:430/530 Design of Medical imaging Systems
4800:491 BME Design I
4800:492 . BME Design II

- Electives:

Electives must include three credits from Biomedical Engineering (4800) and six credits from a list of approved electives from Biomedical Engineering, Mathematics, Physics, Polymer Engineering, Electrical Engineering or Mechanical Engineering.

## Bachelor of Science in Engineering

This degree program was established to introduce flexibility into the College of Engineering. Within the 66 credits of the option portion of the program, a student can pursue a focused curriculum in areas such as business administration, industrial management, environmental engineering, biomedical engineering, and premedicine. The program of study may be very narrow as in the case of a student wishing to specialize in structural design, foundation and soil mechanics. For another student interested in patent law, the program may be broad, touching on chemical, mechanical, and electrical engineering subjects. The individual's program is designed to meet each student's announced goals.

## Admission

Admission to the program is restricted. A student requests admission by letter to the associate dean of the College of Engineering, outlining in some detail the particular objective and how the Bachelor of Science in Engineering program may enable the student to prepare for career goals. The mathematics, physics, and chemistry requirements are identical to those of the ABET accredited programs in Chemical Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering.

## General Curriculum Requirements

General Education and Science Core 61
Program Options Engineering 40
Program Options
26
Free Electives, adviser approval 10

# College of Education 

Cynthia Capers, Ph.D., Interim Dean<br>Evonn Welton, Ph.D., Assistant Dean for Student Affairs<br>Sajit Zachariah, Ed.D., Assistant Dean

## OBJECTIVES

Mission Statement: The College of Education is a community of professionals whose purpose is to provide leadership for community wellbeing through stant dard-setting programs that enhance teaching, learning and human development; research and inquiry; and outreach. We develop ourseives and others through continuous improvement and through a commitment to these core components of professional practice and scholarship: Knowledge, Technology, Diversity and Ethics.
The aim of the College of Education is to meet the comprehensive charge of our mission through initial and advanced teacher education programs as well as programs in administration, counseling, technical education. higher education, sport studies, athletic training and several teacher education programs housed outside the College. Programs include a balanced offering of a foundation in general edur cation, intensive study in the content area, and those professional courses and other leaming experiences which attempt to combine theory and practice.
The education program and courses presented in the bulletin reflect the most current courses and program offerings. For further information about specific programs and requirements, contact the College of Education Office of Student Affairs Advisement Office at (330) 972-6970.

## COLLEGE REQUIREMENTS

## Selection, Admission, Retention, and Teacher Licensure*

The College of Education has selective admission, retention, and graduation requirements for the completion of a program at The University of Akron.
For'all students applying to a College of Education teacher preparation program, the admission and degree requirements outlined in the current UA Undergraduate Bulletin will be used to determine admission (or readmission) and degree requirements to all programs.
For retention through graduation, all decisions are made by the department, following the College's or department's approved criteria. Prior to admission to a program, Ohio requires all colleges and universities preparing teachers and educational personnel to assess students in the areas of oral communication and academic achievement. Letters of recommendation may aiso be required. The University of Akron's College of Education admission procedures are designed to establish admission criteria, provide for assessments, allow for skills enhancement, reassessment and reapplication where appropriate, and support the recruitment of under-represented groups in education.

- General Education Requirements - To be admitted to the College of Education, all students must be able to meet the foilowing criteria: A student must have completed at least 30 semester hours of coursework. This course work must include three semester hours in each of the required courses in mathematics, natural science, social science, and public/oral communications, seven (7) semester hours in English composition and one (1) semester hour of physical education. Appropriate General Education equivalencies for transfer students will be determined by the University College Dean's Office. The remaining 10 semester hours must consist of general education coursework that meets the requirements of the University and the admission requirements of the department's program studies area.
- Grado-Point Average - For admission, a student must have an overall GPA of 2.50. Also, students must have a GPA of 2.50 in their department's specified pre-admission coursework (30-32 credits).
- Post-Baccalaureate Grade-Point Average - Upon review of previous coursework and experience, post-baccalaureate students seeking admission to a COE teacher education program who have an overall GPA less than 2.50 but greater than 2.20 may elect to complete appropriate post-baccalaureate coursework as would be specified by a departmental adviser sufficient to raise the overall GPA to 2.50 for admission.
- Basic Computer Literacy - Student must demonstrate basic computer literacy by demonstrating mastery of hands-on computer skills on a test in the Education Resource Center computer laboratory. The student with no previous computer background/skill is advised to take a basic computer literacy course.
- Academic Achievement - Competency in math skills as evidenced by a composite score of 22 or higher on the ACT, 1050 on the SAT; a grade of "B" or better in a General Education approved Mathematics course; or by the Praxis I Pre-Professional Skills Test (PPST) or computerized version (CBT), scoring at least 172 in mathematics. Competency in reading comprehension and writing as evidenced by a composite score of 22 or higher on the ACT, 1050 on the SAT; grade of "B" or better in 330:111 English Composition I; or by the Praxis I Pre-Professional Skills Test (PPST), or computerized version (CBD), scoring at least 171 in reading comprehension and at least 172 in writing.
- Speech and Hearing - Ohio law requires that all education students take a speech and hearing test through a licensed professional and/or approved clinic. Students with deficiencies must follow through on recommended treatment.
- Bureau of Criminal Investigation Clearance - Student must provide evidence of a current BCl clearance for admission to any teacher education licensure program. A BCl clearance is valid for 12 months from date of issue. If the BCl clearance has expired when application for an Ohio teacher's license is submitted, a second BCl clearance will be required. An individual who has not been a continuous resident of Ohio for the five year period preceding the clearance request must present both a BCl and an FBI clearance report.
- College of Education Application - All students must complete a College of Education application form.
- Admission Temeline - Admission to a College of Education teacher preparation program is in effect for five years from the date of admission.
All criteria and procedures regarding selective admission and retention are available in the Office of Student Services Advisement Center, Zook Hall 207, The University of Akron, Akron, OH 44325, phone (330) 972-6970.

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## Application for Admission to Professional Education Programs

All students are expected to complete an application for admission. Applications are available in the Office of Student Affairs, Zook 207.

- References - Students are expected to ask two individuals, not reiated to them, but who know them well, to complete a reference form attesting to their interpersonal skills and motivation level related to success as a career professional.
- Program Area of Study - All students are expected to comply with require ments specified by the program to which they are applying. These are avail able in the department.
- Advisement - All students will be assigned an adviser and will need to complete an individual advisement program plan. Students are encouraged to see their program adviser as frequently as necessary to assure they are maintaining positive progress in their program.
- Retention - Retention of students in each program will be evaluation-based Students will have opportunities to upgrade their skills and achievement in areas where such needs may exist. Completion of program requirements will be reviewed annually by the student and adviser. Areas of strength and weakness are to be evaluated, and, if a student presents an area of weakness, the adviser will refer the student for remediation. Approval to student teach is contingent on the student's progress through the program of study with satisfactory grades. Graduation is contingent on completion of coursework, student teaching, G.P.A. of 2.50 overall, 2.50 in education classes, and 2.50 in the student's major.
- Licensure - After graduation, students may apply for licensure through the Office of Student Affairs. The State of Ohio requires all applicants for licensure to submit a current BCl (Bureau of Criminal Investigation) Clearance. A BCl clearance is valid for 12 months from the date of issue. Ohio also requires all applicants for licensure to pass appropriate examination(s) for intended area(s) of licensure. Information about specific licenses can be obtained from the Office of Student Affairs Licensure Coordinator.
- Coursework - coursework more than 10 years old may not be applicabie for certification/iicensure. Check with your adviser regarding specific departmental policies.
- Transfer Students - Transfer students will be expected to meet the sarne admission standards as Akron students.
- Post-Baccalaureate Students - Qualified post-baccalaureate students seeking licensure only will be admitted to the College of Education and to the appropriate department once they meet all requirements.


## Bachelor's Degrees

A student prepares to teach any one of the foilowing areas or fields: early childhood (age 3 through grade 3), middle childhood (grades 4 through 9) the conventional academic fields found in programs for adolescent to young adult students (grades 7 through 12), in special education as an intervention specialist for early childhood (P-3 mild/moderate/intensive), mild/moderate (K-12), or moderate/intensive (K-12), the vocational field of family consumer sciences (grades 4 and beyond), multi-age (grades PK through 12) and postsecondary technical education. A minimum of 128 credits with a grade-point average of 2.50 overall, 2.50 in education classes, and 2.50 in the student's major must be completed to qualify for the bachelor's degree.

The specific subjects required for degrees in certain fields are set forth in subsequent pages. In all cases, the requirements include courses in general education, professional education and content areas.

The Bachelor of Arts in Education degree is granted to those whose major is in one of the academic fields. The Bachelor of Science in Education is granted to those whose major is in the other special fields or in early childhood or middle childhood education.
The Bachelor of Science in Postsecondary Technical Education is awarded to those who complete the requirements of that program.

## Teacher Education Program

Overview - The central theme of The University of Akron's Teacher Education Program is "Educator as Decision-Maker." This was chosen because the complexity of teaching is increasing and the professional knowledge base is growing. Decision-making is stressed in the standards-based programs that prepare teachers and other school personnel for professional practice. At the initial preparation level, programs are aligned with the Praxis Pathwise domains, Specialized Program Associations (SPA Standards), and the following standards developed by the Interstate New Teacher Assessment and Support Consortium (INTASC).
Interstate New Teacher Assessment and Support Consortium Principles (INTASC) - 1) The teacher understands the centrai concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning expe-
riences that make these aspects of subject matter meaningful. 2) The teacher understands how children learn and develop and can provide leaming opportunities that support their intellectual, social and personal development. 3) The teacher understands how students differ in their approaches to learning and creates instructional strategies that are adapted to diverse leamers. 4) The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills. 5) The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation. 6) The teachers uses knowledge of effective verbal, nonverbal and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom. 7)The teacher plans instruction based upon knowledge of subject matter, students, the commur nity and curriculum goals. 8) The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner. 9) The teacher is a reflective practitioner who continually evaluates the effects his/her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally. 10) The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.
Students must complete appropriate professional education courses with grades of ' C ' or better before being allowed to progress to the next phase of professional education courses

## Professional Preparation

Built on a foundation of general studies that begins prior to admission, the Teacher Education Program is organized into four phases that reflect how teachers can learn to make good decisions

- Phase I. Leaming About Leamers, "How can I use information about myseff and others to understand decisions about students and leamers?"
- Phase II. Leaming About Teaching, "How do I use principles of leaming to make instructional decisions?"
- Phase III. Leaming to Apply the Principles of Teaching, "How do I make instructional decisions for specific groups of students?"
- Phase N. Learning to Teach, "How do I make the best decisions for students?"
During each phase of the program, teacher candidates take a combination of core courses, field experiences, and courses in their program studies area that are tied to each phase. The core courses cover the knowledge base that is common for all teachers, regardiess of their teaching field. The field experiences provide teacher candidates with experience in schools from the very beginning of their program. Additionally during their field and clinical experiences, teacher candidates learn to apply what they are learning in courses.
Program studies area courses are related to teacher candidates' intended area of certification/licensure. In addition, teacher candidates have an adviser to help plan what to study and to review what has been accomplished.
The culminating experience for teacher candidates is student teaching. Under the sumervision of a team of college faculty and a classroom teacher, each student teacher begins to put newly developed competencies into practice.


## Clinical and Field-Based Experiences

All teacher candidates are required to participate satisfactorily in clinical and fieldbased experiences prior to recommendation for licensure for teaching in Ohio. These clinical and field-based experiences are designed to provide teacher candidates with the opportunity to apply theory and skills related to their areas of licersure in at least one-half of the clinical and field-based clock hours. The field-based experiences are planned in diverse settings. Clinical experiences are those planned activities in which teacher education students apply the principles of the field of teaching to individual cases or problems.

## Portfolio

Students admitted to their College of Education teacher preparation program and beginning their professional education coursework Fall 2002 and thereafter, will complete a student portfolio. Specific portfolio assignments are often completed as part of a course, clinical experience, or field experience and must be judged acceptable by the instructor before credit is awarded for the experience connected to that particular portfolio entry. The portfolio must be submitted for acceptance before student teaching and again prior to program completion.

## Student Teaching

Student teaching is an all-day, full-time experience in an approved public or private schoof for either 11 (adolescent to young adult licenses) or 16 (early and middle childhood and multi-age licenses) weeks. Intervention Specialist student teaching is for 16 weeks. Placements are made in appropriate sites at the discretion of the Extended Educational Experience Officer.
All teacher candidates must have an approved application to be placed for student teaching. As part of the application process, the teacher candidate must submit evidence of a passing score or scores on the appropriate Praxis II subject area test or tests, and evidence approval of his/her portfolio. Student teaching is a planned teaching experience in schools selected and supervised by the Office of Extended Educational Experiences in consultation with program faculty.

To qualify for student teaching, teacher candidates must have a 2.50 average overall, 2.50 in education classes, and 2.50 in the teacher candidate's major, and in methods courses(as defined by departments), core courses and in their teaching field(s). Satisfactory completion of field and clinical experience is also required before student teaching.
Note: Music majors, before assignment for student teaching, are required to pass the General Musicianship Examination described in the music section of the College of Fine and Applied Arts. To avoid possible delay in graduation, it is necessary for the teacher candidate to take the examination six months prior to the anticipated assignment for student teaching.

## Licensure

Every teacher in Ohio public schools is required to have a teaching license covering the fields in which teaching is being done. This license is issued by the Ohio State Department of Education upon recommendation of the Dean of the cor lege. The teacher candidate must provide evidence of a current BCl (Bureau of Criminal Investigation) Clearance, must pass appropriate examination requirements required in Ohio, complete the appropriate program requirements successfully, and be recommended for a teaching license. An individual who has not been a continuous resident of Ohio for the five year period preceding the clearance request must present both a BCl and an FBl clearance report. Application for the license may be obtained from the Office of Student Services, College of Education, Zook Hall 207; (330) 972-6970.

## Students Enrolled in Other Colleges at The University of Akron

All students, regardless of the degree-granting coilege in which they are enrolled, must fulfill requirements for admission to a teacher education program within the College of Education and must comply with procedures on selective admission and retention, and recommendation for licensure. Teacher preparation programs in the fields of music, visual arts, dramatheatre, and family and consumer sciences are housed in the College of Fine \& Applied Arts. (Please see requirements listed in the Fine \& Applied Arts section of the Bulletin.)

## Cooperative Education

The requirements for participation in the Co-op Program are as follows. The student must:

- Be admitted to the College of Education, which requires completion of at least a minimum of 30 credit hours with at least a 2.50 overall gradepoint average.
- Sign an agreement card which states that participation in Cooperative Education will not meet College of Education or State of Ohio requirements for clinicalfield experience or student teaching.
- Agree to abide by all rules and regulations of Cooperative Education.
- Apply for admission to Cooperative Education through the completion of a Cooperative Education workshop.


## PROGRAMS OF INSTRUCTION

## Department of Curricular $\mathbf{8}^{2}$ Instructional Studies

5200: Early Childhood Education<br>http://www. पakron.edu/colleges/educ/COE/programs.php<br>\section*{Early Childhood}

Prior to admission, students must complete 35 credit hours of coursework with a 2.50 GPA. These requirements provide Early Childhood majors with the breadth of knowledge (science, witten and oral communication, math and social studies) they will need to make decisions in the Early Childhood setting. Students admitted to Early Childhood Education must achieve a grade of "C" or higher in all professional education courses to be ellighle to student teach and gracuate from the College of Education. Other admission requirements are outlined on the program application form.
Courses and experiences prepare our teacher candidates to work in preschools, childcare centers, or to teach in primary schools. Various techniques to establish positive leaming environments are taught as students learn to plan, implement, and evaluate instructional programs, and to select, develop and implement methods and materials for the introduction of science, language arts, math and social sciences to children in an integrated curriculum which stresses critical thinking and problem solving.
These Education majors work toward licensure in early childhood. Endorsements such as Teaching English to Speakers of Other Languages (TESOL) and Reading can be added to licenses.

For specific program and licensure requirements, teacher candidates should contact a pre-admission adviser in Zook Hall 207, (330) 972-6970.

## Requirements for Admission to Early Childhood Education

Successful completion of courses required for admission to Early Childhood Education must be taken from the following course list. Teacher candidates must have an overall GPA of 2.5 and a 2.5 GPA in the following courses, with not less than a " C " in any of the courses listed.

- Written and Oral Communication - at least 10 credits Credits
$\begin{array}{lll}3300: 111 & \text { English Composition I } & 4 \\ 3300: 112 & \text { English Composition II } & 3\end{array}$
7600:105 Introduction to Public Speaking 3
7600:106 Introduction to Effective Oral Communications 3
- Social Science - a minimum of 7 credits
$3350: 100 \quad$ Introduction to Geography

3400:250/251 U.S. History to 1877/Since 1877
3700:100 Government and Politics 4

- Mathematics - minimum of 6 credits
$3450: 140 \quad$ Mathematics for Elementary Schoo Teachers i

3450:260 Mathematics for Elementary Schoot Teachers II

- Natural Science - a minimum of 8 credits
$\begin{array}{cc}3100: 103 & \text { Biology or any } 3100 \text { course at a higher level than } 3100: 103\end{array}$

3x0x:xxx $\quad$ Sciencels) from any set except Biology (see Bulletin) 4

- Child Development

7400:265 Child Development 3

- Physical EducationWeilness

5540:x0x Physical Education Welliess

- 42 semester hours of General Education requirements
- Professional Education with a "C" or better and a 2.5 GPA or better:

Core Courses
5100:200 Introduction to Education
5100:220 Educational Psychology
5100:300 Equity and Excelience in Education 3
5500:230 Educational Technology 3
$5500: 360 \quad$ Educational Planning 3
5500:370 Educational Implementation 3
5610:225 Introduction to Exceptionalities

| Reading Courses |  | Credits |
| :---: | :---: | :---: |
| 5500:245 | Understanding Literacy Development and Phonics | 3 |
| 5500:286 | Teaching Mutiple Texts through Genre | 3 |
| 5500:440 | Developmental Reading in Content Areas | 3 |
| 5500:445 | Evaluating Language Literacy | 3 |
| Early Childhood Core |  |  |
| 5200:100 | Orientation to Earty Childhood Education | 0 |
| 5200:215 | Child, Family, and School | 3 |
| 5200:319 | Integrating Expressive Arts in Earry Childhood* | 3 |
| 5200:325 | Advanced Earty Childhood Curriculum | 4 |
| 5200:342 | Teaching Mathematics to Young Children | 3 |
| 5200:340 | Developmental Writing in Early Childhood | 3 |
| 5200:420 | Integrated Primary Curiculum | 4 |
| 5200:425 | Advanced integrated Primary Curriculum | 4 |
| 5200:495 | Student Teeching (Pre-K through K) | 6 |
| 5200:496 | Student Teacting (Grades 1-3) | 6 |
| 5200:498 | Student Teaching Colloquium | 1 |
| 5610:450 | Special Education Programs in Early Childhood | 3 |
| 5610:459 | Collaboration \& Consultation in Schools | 3 |
| 5610:460 | Family Dymamics \& Community | 3 |
| 7400:265 | Child Devalopment | 3 |
| 7400:270 | Theory and Guidance Play | 3 |
| 7400:280 | Early Childhood Curriculum Methods | 3 |

## 5250: Middle Level Education <br> http://www, uakron.edu/colleges/educ/COE/programs.php

Prior to admission teacher candidates must complete 35 credit hours of coursework with a 2.50 GPA. These requirements provide Middle Childhood Education majors with the breadth of knowledge lscience, written and oral communication, math and social studies) they will need to make decisions in the Middle Childhood setting. Teacher candidates admitted to Middle Level Childhood Education must achieve a grade of "C" or higher in all professional education courses to be eligible to student teach and graduate from the College of Education. Other admission requirements are outtined on the program application form. Courses and experiences prepare teacher candidates to work in elementary, middle and junior high schools. Various techniques to establish positive learning environments are taught as teacher candidates learn, plan, implement and evaluate instructional programs, and select, develop and implement methods and materials for the introduction of science, language arts, math and social sciences to children in an integrated curriculum that stresses critical thinking and problem solving.
These Education majors work toward licensure in middle childhood. Endorsements such as Teaching English to Speakers of Other Languages (TESOL) and Reading can be added to licenses. All teacher candidates in Middle Childhood Education are also required to have two areas of concentration from outside the College of Education. Teacher candidates may choose from sciences, social sciences, mathematics, or reading and language arts. For specific program and required course listings in each area of concentration, teacher candidates should contact a preadmission adviser in Zook Hall 207, (330) 972-6970.

## Requirements for Admission to Middle Childhood Education

Successful completion of courses required for admission to Middle Childhood Education must be taken from the following course list. Teacher candidates must have an overall GPA of 2.5 and a 2.5 GPA in the following courses, with not less than a " $\mathrm{C}^{n}$ in any of the courses listed

| 3300:111 | English Composition I | 4 |
| :---: | :---: | :---: |
| 3300:112 | English Composition II | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Introduction to Efiective Orel Communications | 3 |
| - Social Science - a minimum of 7 credits |  |  |
| 3350:100 | Introduction to Geography | 3 |
| 3400:250/251 | U.S. History to $1877 /$ Since 1877 or | 4 |
| 3700:100 | Government and Politics | 4 |
| - Mathematics - minimum of 6 credits |  |  |
| 3450:140 | Mathernatics for Elementary School Teachers : | 3 |
| 3450:260 | Math for Elementary Schoot Teachers II | 3 |
| - Natural Science - a minimum of 8 credits |  |  |
| 3100:103 | Biology or any 3100 course at a higher level than 3100:103 | 4 |
| 3xxx:0xx | Science(s) from any set except Bickogy (see Bulletin) |  |

* Note: Prerequisites 7100:210 or 7500:201

| - Concentration |  | Credits |
| :---: | :---: | :---: |
|  | coursework from the Area of Concentration that is not aheady used above with a "C" or better. | 3 |
| - Physical EducationWellness |  |  |
| 5540:x0x | Physical EducatiorWMellness | 1 |
| - General Studies - 42 credits with a 2.5 GPA or better |  |  |
| Professional Education - 52 credits |  |  |
| - 2.5 GPA or better and a "C" or better in all coursework. |  |  |
| 5100:200 | Introduction to Education | 3 |
| 5100:220 | Educational Psyctiology | 3 |
| 5100:300 | Equity and Excellence in Education | 3 |
| 5250:100 | Orientation to Middle Level Education Program | 0 |
| 5250:300 | Middle Leval Education | 3 |
| 5250:495 | Student Teaching (Grades 46) | 6 |
| 5250:498 | Student Teaching (Grades 7-9) | 6 |
| 5250:498 | Student Teaching Colloquium | 1 |
| 5500:230 | Educational Technology | 3 |
| 5500:245 | Understanding Literacy Development and Phonics | 3 |
| 5500:286 | Teaching Multiple Texts through Genre | 3 |
| 5500:360 | Educational Planning | 3 |
| 5500:370 | Educational Implementation | 3 |
| 5500:440 | Developmental Reeding in the Cortent Area | 3 |
| 5500:445 | Evaluating Language Literacy | 3 |
| 5500:475 | Instructional Technology Applications | 3 |
| 5610:225 | Introduction to Exceptionalities | 3 |

- Areas of Concentration - Two areas of concentration are required to be completed from four areas: mathematics, readinglanguage arts, science and social studies. Students must maintain a 2.5 GPA overall in the areas of concentration.


## Mathematics - 24 credits

- 3 hours from General Education mathematics
3450:140 Math for Elementary School Teachers I 3
3450:145 College Algebra

College Algebra
3450:208 Intro to Discrete Math
3450:215 Concepts of Calculus
3450:260 Math for Elementary School Teechers II
3470:260 Basic Statistics
5250:342 Teaching Math to Middle Level Learners

## Reading/Language Arts - 40 credits

- 10 hours from general studies English Comp and Oral Communication
- 12 hours from reading listed above 5500:245,286,440,445
- 18 credits beyond reading and general studies

| $5250: 350$ | Teaching Lenguage Arts \& Media to Middla Level Learners | 3 |
| :--- | :--- | :--- |
| $5250: 351$ | Modes of Writing for Middle Grades | 3 |
| $5500: 442$ | Teaching Reading to Culturally Diverse Leamers | 3 |
|  | or |  |
| $5500: 485$ | Teaching Language Literacy to Second Language Learners | 3 |
| $5300: 330$ | Teaching Adolescent/Middle Level Literature | 3 |
| $3300: 350$ | Black American Literature | 3 |
| $3300: 362$ | World Literature | 3 |

## Science - 28 credits

- 8 hours from General Education natural science; 2 hours of electives selected from 3370:121-140, 3300:490, 495 or 499; 2 hours of science electives chosen so that the 8 hours of general education and electives include three areas of science: earth science (i.e., geology), life science (i.e., biology), and physical science (i.e., chemistry or physics). At least two of these courses must include a lab.

3010:495
3100:111
3150:101
3370:137
3370:101
3370:102 3650:130

3650:131
3650:261
5250:333

| Fieldhab Studies | 3 |
| :---: | :---: |
| Principles of Biology 1 | 4 |
| Chemistry for Everyone | 4 |
| Earth's Atmosphere and Weather | 1 |
| Introduction to Physical Geology or | 4 |
| Introduction to Historical Geology | 4 |
| Descriptive Astronomy or |  |
| Astronomy by inquiry | 4 |
| Physics for Life Sciences | 4 |
| Teaching Science to Middla Level Leamers | 4 |

## Social Studies - 45 hours

- 11 hours General Education from social science and area studies Credits

| 3250:200 | Principles of Microeconomics |
| :---: | :---: |
| 3350:250 | World Regional Geography |
| 3400:210 | Humanities in the Westem Tradition I |
| 3400:250 | U.S. History to 1877 |
| 3400:251 | U.S. History since 1877 |
| 3400:323 | Europe: Revolution to World War 1 1789-1914 or |
| 3400:324 | Europe: Wordd War I to Present |
| 3400:385-391 | Word Civilizations |
| 3400:385-391 | Word Civilizations |
| 3400:470 | Ohio History |
| 3700:100 | Government \& Politics in the United States |
| 3700:210 | State \& Local Government |
| 3750:100 | Intro to Psychology |
| 3850:100 | Intro to Sociology |
| 5250:338 | Teaching Social Studies - Middle Level |

Prior to admission, students must complete 30 credit hours of coursework with a 2.50 GPA as outlined below. These requirements provide Adolescent to Young Adult Education, P-12 and Specialty Program majors with the breadth of knowledge they will need to make decisions in the secondary school setting. Students admitted to Secondary Chilchood Education must achieve a grade of "C" or higher in all professional education courses to be eligible to student teach and graduate from the College of Education. Other admission requirements are outlined on the program application form.
The program mandates an expert knowledge in a specific content area. This knowt edge prepares and encourages teachers to be decision-makers by adapting and applying content knowledge to the needs and interests of a diverse student popula tion. Upon graduation with a Bachelor of Arts or Science in Education, teacher candidates are ready to teach in school settings appropriate to their licensure. For further licensure and graduation requirements, students should consult a departmental adviser.
The Department offers teacher licensure in the following areas: Language Arts (712), Math (7-12), Science (7-12), Social Studies (7-12), Foreign Language (P-12), Visual Arts ( $\mathrm{P}-12$ ), Dance ( $\mathrm{P}-12$ ), Drama/Theatre ( $\mathrm{P}-12$ ), Music ( $\mathrm{P}-12$ ) and Family and Consumer Science (4-12)
Endorsements, such as Teaching English to Speakers of Other Languages (TESOL) and Reading, can be added to licenses.
For specific program and licensure requirements, students should contact a preadmission adviser in Zook Hall 207, (330) 972-6970.

Requirements for Admission to Adolescent to Young Adult (AYA) or P-12 Specialty Programs
All applicants must successfully complete the following coursework prior to admission into an AYA program.

- Written and Oral Communication - at least 10 credits

| $3300: 111$ | English Composition I | 4 |
| :--- | :--- | :--- |
| $3300: 112$ | English Composition II | 3 |
| $7600: 105$ | Introduction to Public Speaking | 3 |
|  | or |  |
| $7600: 106$ | Introduction to Effective Oral Communications | 3 |

- Social Science - a minimum of 3 credits
- Mathematics - minimum of 3 credits

3450:xxx coursowork offered by the Mathematics Department that meets
General Education Math requirements (3450:100 or 140 does not count)
or
3470:xxx coursework offered by the Statistics department that meets the Generai
Education level mathematics requirement

- Natural Science - a minimum of 5 credits
- Physical EducationNellness
5540:xxx Physical EducationNe:liness

[^28]* Those receiving less than a " B " must take the PRAXIS I and pass for admission.
- Teaching Field(s) - a minimum of 8 credits

Does not include coursework eiready used above. A 2.50 GPA
in all such coursework is required. This includes credits beyond the minimum of 8 .

- Professional courses (courses to be taken in an approved sequence):

| 5100:200 | Introduction to Education | 3 |
| :---: | :---: | :---: |
| 5100:220 | Educational Psychology | 3 |
| 5100:300 | Equity and Excellencs in Education | 3 |
| 5300:100 | Orientation to the AYAP-12/Multi-Age Programs | 0 |
| 5300:311 | Instructional Techniques in Secondary Educatione | 5 |
| 5300:325 | Content Reading in Secondary Schools for AYAN or | 3 |
| 5500:455/555 | Literacy for Mudtioge Licensure | 3 |
| 5300:495 | Student Teaching | 8 |
| 5300:496 | Student Teaching Colloquium | 1 |
| 5500:230 | Educational Technology | 3 |
| 5500:360 | Educational Planning | 3 |
| 5500:370 | Educational Implementation | 3 |
| 5500:475 | Instructional Technotogy Applications | 3 |
| 5610:225 | Introduction to Exceptionalities | 3 |

## Teaching Fields

Each teacher candidate preparing for secondary school teaching must complete at least one teaching field. P-12 indicates that licensure in that field is for preschool through grade 12. Other fields lead to licensure for grades 7-12 or as noted. Minimum number of credits is shown for each field.
Minimum Number of Credits Required for Approval in Various Teaching Fields

| Comprehensive Subjects by Field | Credits |
| :--- | ---: |
| Integrated Language Arts | 45 |
| Integrated Mathematics | 42 |
| Biology (Life Sciencel and Earth Science | 7980 |
| Biology (Life Science) and Chemistry | $88-89$ |
| Biology (Life Science) and Physics | 82.83 |
| Earth Science and Chemistry | 83 |
| Earth Science and Physics | 71 |
| Chemistry and Ptyrsics | 83 |
| Life Science | 60 |
| Earth Science | 54 |
| Chemistry | 61 |
| Physics | 55 |
| Integrated Social Studies | 62 |
| AYA:Life Sciences | 60 |
| AYA:Earth Sciences | 54 |
| AYA:Physical Sciences - Physics | 55 |
| AYA:Physical Sciences - Chemistry | 61 |
| P-12 Drama Theatre | 45 |
| P-12 Foreign Language | 45 |
| P-12 Music | 54.56 |
| P-12 Visual Arts | 58 |
| Family and Consumer Science (Grades 4-12) |  |

Family and Consumer Science (Grades 4-12)

## Endorsements

## TESOL Endorsement <br> (Teaching English to Speakers of Other Languages)

This program introduces teacher candidates to the key issues in teaching English to non-native speakers through coursework in linguistics, second language theory and methods, and in related disciplines.

Teacher candidates seeking this validation must have studied a foreign language at sometime during their academic career.
Students who do not have English as a native language must demonstrate adequate proficiency in English with a valid TOEFL score of 580 or above and a score of 240 or above on the TSE (Test of Spoken English).

| Required coursework: |  | Credits |
| :---: | :---: | :---: |
| 3300:371 | Introduction to Linguistics or | 3 |
| 3300:489 | Serminar in English: Introduction to Bilingual Linguistics | 3 |
| 3300:473 | Serminar in Teaching ESL: Theory and Method | 3 |
| 3300:489 | Seminar in English: Sociolinguistics or | 3 |
| 5500:481 | Multicultural Education in the United States | 3 |
| 3300:489 | Seminar in English: Grammatical Structures of Modern English | 3 |
| 5500:487 | Techniques for Teaching English as a Second Language in the Bilingual Classroom | 4 |
| 5500:485 | Teaching Reading and Language Ats to Second Language Learners | 4 |
| 5300:395 | Field Experience | 2 |

Contact Lynn Smolen, Ph.D. at (330) 972-6961; Ismolen@uakron.edu.

## Reading Endorsement

Teacher candidates who are preparing to teach at the early childhood level or who already hold an early childhood teaching license may add a reading endorsement. For more information, contact Dr. Evangeline Newton (enewtonQuakron.edu).

## 5550: Physical Education** 5560: Outdoor Education@ 5570: Health Education@

The Department of Sport Science and Wellness Education offers the following undergraduate programs:

- Physical Education (Pré K-12)
- Community Heath (Enrollment Suspended)
- Athletic Training for Education Program
- Exercise Science
- Sport Studies
- General Education Courses for all Department of Sport Science and Wellness Education majors ( $43-45$ credits)

| 3100:200, 201 | Human Anatomy and Physiology I, Lab |
| :---: | :---: |
| 3100:202, 203 | Human Anatomy and Physiology II, Lab |
| 1000x:00x | Natural Science** ISee General Education requirements under University College. Select from any set except Biology.) |
| 3300:111 | English Composition ${ }^{\prime \prime}$ |
| 3300:112 | English Composition II" |
| 3400:210 | Humanities in the Westem Tradition I |
| xxxx:xox | Humanities coursework <br> (See General Education requirements under University Collego) |
| yxact:0x | Area Studies/Cultural Diversity (See General Education requirements under University Colfoge) |
| 3750:100 | introduction to Psychology** |
| 3850:100 | Introduction to Sociology* |
| 5540:00x | Physical Education (Heelth Education/Athletic Training/ Dance Education only)* |
| 5550:193 | Orientation to Physical Education (Physical Education majors only) |
| 7600:105 | Introduction to Public Spaaking* or |
| 7600:106 | Effective Oral Communication* |

[^29]- Mathematics (choose one option)*

Credits
Option 1
3470:260
Option 2
3450:138
3470:261
Option 3
3450:145
Basic Statistics

- Proiessional Education Courses for Physical Education and Health Education majors \# (33 credits)
5100:210 Characteristics of Leamers' 3 and
5100:211 Teaching and Learning Strategies ${ }^{1}$ 3
$5100: 410 \quad$ Professional lssues in Education 3
5500:310 Instructional Design ${ }^{2}$
and
5500:311 Instructional Resources ${ }^{2}$
5500:320 Diversity in Leamers
5500:330 Classroom Management
5500:455/555 Literacy for Multi-age Licensure 3
The following should be taken at the same time but only atter completion of all General Studies,
Professional Education, and Department requirements are compieted. To qualiyy for student
teaching, students must have a 2.5 GPA overall, a 2.5 GPA in all edurcation classes (with a " C " or
better in each class) and a 2.5 GPA or better in physical education courses (5550) with each course
earning a grade of " C " or better. Students must also pass the Praxis 11 along with other
requirements to qualify for student teaching.
5550:494 Student Teaching Colloquium for Physical and Heath Education 2
5550:495 Student Teaching for Physical and Heath Education 10
Reminder: All students pursuing teacher education programs at The University of Akron are subject to the selective admission and retertion requirements. Criteria and procedures are available in the Office of the Student Services, College of Education, Zook Hall 207, The University of Akron, Akron, OH 44325, (330) 972-6970.


## Pre-K-12 Physical Education

- General Education and Professional Education Courses listed above
- Courses should be taken from the following areas in the recommended sequence (see adviser):
Area 1
5550:102 Fitness, Leisure \& Healthy Lifestyle . 3
5550:308 Physical Education Activities VI: Dance and Tumbling 2
Area 2 Choose at loest four credtrs from the following:
5550:204 Physical Education Activities II: Teaching Individual and Dual Sports 2
5550:205 Physical Education Activities III: Team Sports
5550:306 Physical Education Activities IV: Badminton and Golf 2
5550:307 Physical Education Activities V: Tennis and Volieyball 2
Area 3 (all 5550: and 5560 courses in this Area required for admiselon to College of Education)

$$
\text { 3100:200, } 201 \text { Human Anstomy and Physioiogy ! Lab } 4
$$

3100:202, 203 Human Anatomy and Physiology II, Lab
5550:130 Physical Education Activities for Children
5550:193 Onientation to Physical Education"
5550:201 Kinesiology
5550:202 Diagnosis of Motor Skills
5550:203 Measurement and Evaluation in Physical Education
5550:211 First Aid and CPR
5550:235 Concepts of Motor Development and Learning
5550:245 Adapted Physical Education
5550:302 Physiology of Exercise
5550:335 Movement Experiences for Children
5550:345 Instuctional Techniques for Children in Ptysical Education 3
5550:346 Instructional Techniques: Secondary Physical Education 3
5550:450 Organization and Administration of Physical Education,
Intramurals, and Athletics
3
5550:452 Foundations of Physicsi and Heath Education 3
5560:454 Resident Outdoor Education 2

[^30]- Professional Education Requirements for Undergraduate and Post-Bac Students

|  |  | Credits |
| :--- | :--- | ---: |
| 5100:200 | Introduction to Education | 3 |
| $5100: 220$ | Educational Psychology | 3 |
| $5100: 300$ | Equity and Excellence in Education | 3 |
| $5500: 230$ | Educational Technology | 3 |
| $5500: 360$ | Educational Planning | 3 |
| $5500: 370$ | Educational Implementation | 3 |
| $5610: 225$ | Introduction to Exceptionalities | 3 |
| $5500: 455 / 555$ | Literacy for Multiege Licensure | 3 |
| $5550: 494$ | Student Teaching Colloquium for Physical and Health Education | 2 |
| $5550: 495$ | Student Teaching for Physical and Health Education | 10 |

## 5570: Community Health and Wellness Education

## Pre-K-12 Health Education

This program has been suspended until further notice due to low enrollment.

## Community Health

This program has been suspended until further notice due to low enrollment.

## School Nurse Program

This program has been suspended until further notice due to low enrollment.

## Licensure in Dance (Pre-K-12)

- This Multi-age Licensure program in Dance is designed to provide professional education coursework to individuals with a minimum of a baccalaureate degree and sufficient coursework in dance to meet the required performance proficiencies.


## Education Courses :

5100:200 Introduction to Education , 3

5100:220 Educational Psychology
5500:230 Educational Technology
5610:225 Introduction to Exceptionalities
Equity and Excellence in Education
$\begin{array}{ll}5500: 360 & \text { Educational Planning } \\ 5500: 370 & \text { Educational implementation }\end{array}$
5500:455 Literacy for P-12/Multi-Age Licensure
Seminar and Field Experience in Dance Education
7920:461 Seminar and Field Expenence in Dance Education
7920:462 Professional Issues in Dance Education
5550:494 Student Teaching Colloquium
5550:496 Student Teaching

## Athletic Training Education Program

Program Director, Stacey Buser, M.S., A.T., C/LAT, Clinical Instructor
The Athletic Training Education Program is a CAATE accredited competitive program which prepares students for eligibility to sit for the Board of Certification examination and the Ohio State Licensure examination. Students are prepared via didactic coursework, rotations with clinical instructors via The University of Akron varsity sports, clinical experiences, practicum experiences and field experiences. These include rotations with collegiate athletes, high school athletes, physically active populations, general practitioners, and orthopedic surgeons.

## Athletic Training Education Program Objectives

The Athletic Training Education Program at The University of Akron is a comprehensive major that will prepare students for a career in athletic training. It is the objective of the athletic training staff to provide experiences which will enrich didactic education of athletics training students. The students will be provided numerous clinical educational experiences with many allied health professionais for education and guidance in the profession of athletic training.

## Admission and Exit Requirements

Entrance into the Athletic Training Program is by selective admission. Students are encouraged to apply at the end of the freshman year. Applications are accepted May 1 of each academic year to admission in the following fall semester.

## Admission Requirements

1. Students must have taken the following courses in order to be eligible for admission into the Athletic Training Education program:

| 3100:200/201 Anatomy \& Physiology I and Lab |  |
| :--- | :--- |
| 3100:202/203 Anatomy \& Physiology II and Lab |  |
| $5550: 110$ | Introduction to Athletic Training |
| $5550: 212$ | First AidCPR: Professional Rescuer |
| $5500: 240$ | Care and Prevention of Athletic Injuries |
| $5500: 241$ | Cara and Prevention of Athietic Injuries Lab |

2. Each student must submit a completed application, which will include an essay on why the student has selected athletic training as a career choice, and the role athletic training will play on hisher profession.
3. Students must have two letters of recommendation which describe academic ability, character, and work ethic. One of these will be a professorfinstructor at The University of Akron.
4. The student must maintain a cumulative grade point average of 2.5 (with a C or better in 3100:200, 201, 202, 203).
5. The athletic training selection committee will interview all students in May of each academic year.
6. Once a student is accepted into the athletic training education program, student must pass the technical standards. This requires a physical examination by a licensed physician to ensure that all standards have been met by the student. Students must provide documentation of current immunizations.
In addition, students must maintain a 2.5 grade point average and eam a " C " or better in all core athletic training courses.

* Students will be required to follow all guidelines for acceptance into the College of Education, including a criminal background check.
** A copy of the technical standards, physical examination form, and all other athletic training materials can be obtained by contacting the Program Director in Memorial Hall 77D or by, http://hunw. uakron,eduathletic training.


## Athletic Training Education Program Graduation Requirements

To graduate with the athletic training major, the student must:
Obtain full admittance into the College of Education.

1. Successfully complete all University requirements.
2. Successfully complete all required Athletic Training courses.
3. Pass all designated Athletic Training courses with a C or better.
4. Have a minimum overall GPA of 2.5 . A 2.5 is also required in the major field of study.
5. Have completed an Athletic Training portiolio.
6. Complete exit interview with Program Director.
7. Complete exit evaluation forms of the Athletic Education Training Program and retum them to the Program Director. In addition, the athletic training student must complete an exit interview with the Program Director during the final semester in the program.

## Athletic Training Fees

Due to the allied health component of the clinical education program, there are some associated costs for the athletic training student. These costs are as fot lows:

- ATEP clothing
- Off-campus travel costs
- TB testing
- Malpractice insurance
- Hepatitis B vaccination series

Athletic training students will be required to show proof of TB testing, malpractice insurance and Hepatitis B vaccination series (or waiver) prior to clinical education Athletic training students can see the Program Director with questions regarding associated costs.

## Clinical Experience

Under Commission on Accreditation of Athletic Training Education (CAATE) guidelines, all clinical experiences are built into the core athletic training courses. The courses are designated with a * under core athletic training courses. The clinical experience component contains rotations either with an approved clinical instructor (varsity sport rotation), practicum (high school, physician office) or field experience. Athletic Training students are under the direct supervision of an approved clinical instructor during the clinical education. All students will be provided numerous educational and clinical opportunities, which will include, but not limited to, experience with contact athletics, non-contact athietics, collision athietics, gender differences, team and individual events, injoff-season athletics, and physically active individuals. The 800 hour State of Ohio licensure requirement will be met during the clinical education component of the education program.

The field experience and practicum rotations will be completed at any of our three affiliate allied health settings and their satellites. These include Akron General Sports and Physical Therapy, Summa Health Systems, and The PT Center for Sports and Family Physical Therapy.

PROGRAM STUDIES, ATHLETIC TRANHING EDUCATION PROGRAM

| Related required coursework |  | Credits |
| :---: | :---: | :---: |
| 2740:120 | Medical Terminology | 3 |
| 2740:230 | Basic Pharmecology | 3 |
| 3100:200 | Humen Anatomy and Physiology ! | 3 |
| 3100:201 | Human Anatorny and Physiology I lab | 1 |
| 3100:202 | Human Anatomy and Physiotogy II | 3 |
| 3100:203 | Human Anatormy and Ptysiology II Lab | 1 |
| 3750:100 | Introduction to Psychology | 3 |
| 3850:100 | tntroduction to Sociology | 4 |
| 5100:101 | Fundamental Education Computer Skills | 2 |
| 5550:150 | Concepts of Heath and Fitness | 3 |
| 5550:201 | Kinesiology | 3 |
| 5550:302 | Physiology of Exercise** | 3 |
| 5550:352 | Strength \& Conditioning Fundamentals | 3 |
| 5550:426 | Nutrition for Sports | 3 |
| 5570:101 | Personal Health | 2 |
| 7400:133 | Nutrition Fundamentals | 3 |
| Major required coursework |  |  |
| 5550:110 | Introduction to Athletic Training | 1 |
| 5550:212 | First Aid and CPR for the Professional Rescuer* | 2 |
| 5550:240 | Care and Prevention of Athletic Injuries\#* | 3 |
| 5550:241 | Care and Prevention of Athletic Iniuries Lab* | 1 |
| 5550:250 | Principles of Athletic Training | 2 |
| 5550:260 | Sports Rules \& Regulations | 1 |
| 5550:305 | Clinical Experience I\# | 2 |
| 5550:360 | Practicum in Sports Medicine li\# | 1 |
| 5550:395 | Field Experience* | $1-6$ |
| 5550:400 | Musculoskeletal Anatorny I | 3 |
| 5550:401 | Musculoskeletal Anatorny 11 | 3 |
| 5550:405 | Clinical Experience li* | 2 |
| 5550:412 | General Medical Aspects | 3 |
| 5550:415 | Seminar in Athletic Training | 2 |
| 5550:432 | Therapeutic Exercise \& Rehabilitation \|* | 3 |
| 5550:433 | Therapautic Exercise \& Rehebilitation I Lab* | 1 |
| 5550:439 | Advanced Athletic Injury Management: Upper Extremity Lab* | 1 |
| 5550:441 | Advanced Athlatic Injury Management: Upper Extremity* | 3 |
| 5550:442 | Therapeutic Modelities \& Pharmacology | 3 |
| 5550:443 | Therapeutic Modalities \& Phermecology Lab* | 1 |
| 5550:444 | Therapeutic Exercise \& Rehabilitation II Lab* | 1 |
| 5550:445 | Therapeutic Exercise \& Rehabilitation II* | 3 |
| 5550:449 | Organization and Administration for Health Care Professionals | 3 |

[^31]- Course requires cinical hours.

| 5550:465 | Psychology of Iniury Rehabilitation |
| :--- | :--- |
| 5550:467 | Practicum in Sports Medicine II\# |
| 5550:470 | Orthopedic Injury \& Pathology |
| 5550:475 | Advanced Athetic Injury Management: Lower Extremity"* |
| 5550:476 | Advanced Athletic Injury Management:Lower Extremity Lab |

Credits
2
1
2
3
1

## - Candidates interested in physical therapy school should:

1. Investigate academic entrance requirements at schools in which they might be interested and then tailor their program here to meet their needs.
2. Know that most schools require some field/clinical hours prior to admission. Students in this program will be responsible to accumulate these hours on their own and under the guidance of certified therapists.

## EXERCISE SCIENCE

Program Director Rachele M. Kappler, M.S.Ed., ACSM ES Certified, (330) 972-6524, kapplerQuakron odu

The Bachelor of Science in Education: Exercise Science is designed to prepare students for employment in commercial, corporate, clinical, community and government agencies with interest in the areas of physical activity and heath promotion. The Exercise Science program prepares individuals for work in clinical fitness centers, rehabilitation programs, or other programs that require exercise prescription and evaluation. The Exercise Science program prepares students to sit for certification examinations such as the American College of Sports Medicine (ACSM) and the American Council on Exercise (ACE). Visit pre-admission advising in Zook Hall 207 or Memorial Hall Room 140 for more information.

- The following are required program courses:

| 2740:120 | Medical Terminology | 3 |
| :---: | :---: | :---: |
| 3100:200, 201 | 'Humen Anatorny and Physiology 1, Lab | 4 |
| 3100: 202,203 | Human Anatomy and Physiokgy II, Lab | 4 |
| 3750:100 | Introduction to Psychology | 3 |
| 3850:100 | Introduction to Sociology | 4 |
| 7400:133 | Nutrition Fundamentals | 3 |
| 3100:X0X | Natural Science (1 credit, except from Biology Section) | 1 |
| 5550:150 | Concepts of Health and Fitness* | 3 |
| 5550:207 | Kinesiotogy | 3 |
| 5550:202 | Diagnosis of Motor Skills | 3 |
| 5550:203 | Measurement \& Eveluation in Physical Education | 3 |
| 5550:211 | First Aid and CPR | 2 |
| 5550:212 | First Aid and CPR: Proofessional Rescuer | 2 |
| 5550:220 | Heath Promotion and Behavior Change | 3 |
| 5550:235 | Concepts of Motor Leaming and Development | 3 |
| 5550:240 | Care and Prevention of Athletic Injuries | 3 |
| 5550:245 | Adapted Ptysical Education | 3 |
| 5550:302 | Physiology of Exercise* | 3 |
| 5550:327 | Exerciso Leadership | 3 |
| 5550:330 | Exercise and Weight Control | 3 |
| 5550:355 | Exerciso in Special Populations | 3 |
| 5550:400 | Musculoskeletal Anatomy I - Upper Extremity | 3 |
| 5550:401 | Musculoskeletal Anatomy II - Lower Extremity | 3 |
| 5550:403 | Exercise Testing* | 3 |
| 5550:404 | Exercise Prescription* | 3 |
| 5550:418 | Cardiorespiratory Function fonly required for physiological sciences concentration area) | 3 |
| 5550:426 | Nutrition for Sports | 3 |
| 5550:438 | Cardiac Rehab Principles ionly required for physiological sciences concentration area) | 3 |
| 5550:449 | Organization and Administration for Heath Care Professionals | 3 |
| 5550:480 | Special Topics | 3 |
| 5570:202 | Stress, Life-Style, and Your Heath | 3 |
| 7400:133 | Nutrition Fundamentals | 3 |
|  | Natural Science (except from Biology) | 1 |

*. To qualify for practicum placement in exercise science, student must have a 2.50 average overall, a 2.50 in all required major courses and must score a " C " or better in any of the required program courses.

[^32]
## Concentration Options for Exercise Science Majors

All students must choose a concentration area from the three areas listed below:

| 1 Physiological Sciences |  | Credits |
| :---: | :---: | :---: |
| 3100:265 | Introduction to Human Physiology | 4 |
| 5550:438 | Cardiac Rehat Principles | 3 |
| 3100:465 | Advanced Cardiovascular Physiology | 3 |
| 5550:418 | Cardiorespiratory Physiology | 3 |
| 5550:460 | Practicum in P.E | 7 |
| II. Pre-Physical Therapy Option@ |  |  |
| 3100:111 | Principles of Biology 1 | 4 |
| 3150151 | Principles of Chemistry I | 3 |
| 3150:152 | Principles of Chemistry Lab | 1 |
| 3650:261 | Physics for Life Sciences I | 4 |
| 3650:262 | Physics for Life Sciences II | 4 |
| 5550:460 | Practicum in P.E. | 4 |
| III. Sport Coaching/Strength Conditioning |  |  |
| 5550:350 | Principles of Coaching | 3 |
| 5550:352 | Strength and Conditioning Fundamentals | 3 |
| 5550:409 | Sport Behavior | 3 |
| 5550:462 | Legal Aspects of Physical Activitios | 2 |
| 5550:460 | Practicum in P.E. | 9 |

## SPORT STUDIES

Program Coordinator: Dr. Alan Kornspan, (330) 972-8145, alan3@uakron.edu
The Bachelor of Science in Education: Sport Studies is comprised of coursework related to leadership, programming, management, marketing, psychosocial, historical, philosophical, and legal aspects of sport. The student is prepared for job opportunities in athletic administration, collegiate recreationfintramural director, sports information, aquatics director, sport marketing director, sport programming, parks and recreation, and a multitude of other available opportunities. The sport studies program aiso prepares students for graduate studies in sport mant agement, sport behavior, and sport science. The major consists of sport studies required courses, sport studies concentration, and guided electives. All Sport Studies students take the Sport Studies Required Courses and then have the option of choosing the sport management or coaching/conditioning concentration. Visit Pre-Admission advising in Zook Hall 228 or Memorial Hall Room 140 for information.

- Sport Studies Required Courses

| $5550: 100$ | Introduction to Sport and Exercise Studies | 3 |
| :--- | :--- | :--- |
| $5550: 203$ | Measurement and Evaluation in PE | 3 |
| $5550: 211$ | First Aid \& CPR | 2 |
| $5550: 235$ | Concepts of Motor Dev. \& Leaming | 3 |
| $5550: 245$ | Adapted Physical Education | 3 |
| $5550: 362$ | Sport History | 3 |
| $5550: 364$ | Sport Ethics | 3 |
| $5550: 409$ | Sport Behavior | 3 |
| $5550: 410$ | Sport Sociology | 3 |
| $5550: 424$ | Sport Leadership | 3 |
| $5550: 450$ | Organization and Administration of Ptrysical Education | 3 |
|  | $\quad$ Intramurals and Athletics | 3 |
| $5550: 452$ | Foundations of Physical Education | 3 |
| $5550: 453$ | Principles of Coaching | 3 |
| $5550: 462$ | Legal Aspects of Physical Activity | 2 |
| $5550: 480$ | Special Topics in Sport | 3 |
| $5550: 490$ | Or | 3 |
| $5570: 101$ | Wersshop | 3 |
| $5570: 202$ | Stress Lifestyle, and Your Health | 3 |

[^33]
## Sport Studies Concentration

(Choose 1 of the following concentrations)

| Sport Menagement Concentration | Credits |  |
| :---: | :--- | :---: |
| $5550: 420$ | Sport Management | 3 |
| $5550: 422$ | Sport PlanningPromation | 3 |
| $5550: 366$ | Sport Communication | 3 |
| $5550: 368$ | Sport Facility Menegement | 3 |
| $5550: 370$ | Financial Aspect of Sport | 3 |
| $5550: 460$ | Physical Education Practicum | 5 |


| Coaching/Conditioning Concentration |  |  |
| :--- | :--- | ---: |
| 5550:160 | Introduction to Coaching | $\mathbf{3}$ |
| 5550:372 | Sport Performance Principles | 3 |
| 5550:420 | Sport Management | 3 |
| 5550:480 | Special Topics Approvad Coaching Special Topics Classes) | $\mathbf{3 6}$ |
| 5550:460 | Physical Education Practicum | $\mathbf{5 8}$ |

With advisor approval, Sport Studies students may replace Human Anatomy I and II with 8 credits of approved natural science courses meeting general education requirements. These natural science courses would be used for the student to gain admission to the College of Education.

## Department of Curricular and Instructional Studies

## 5610: Special Education

This program is designed to meet the needs of children and adolescents with exceptionalities, the College of Education offers three licensure options as folows: Intervention Specialist Early Childhood (P-3), Intervention Specialist Mild to Moderate (K-12), and intervention Specialist Moderate to Intensive (K-12). These programs prepare teacher candidates to work effectively with pupils who experience physical, learning, and/or emotional special education needs. Graduates of these programs are trained to put theory into practice by providing instruction for students with special needs in a variety of educational settings. These settings include the general education classioom setting, individual and small group tutoring, and special classes. For specific program and licensure requirements, student should contact a Pre-Admission Adviser in Zook Hall 207, (330) 972-6970.

Prior to admission into Special Education, you must complete the required General Education courses listed. These General Education requirements provide Intervention Specialist Education majors with the breadth of knowledge they will need to make decisions while teaching children with exceptionalities. Other admission requirements are outlined on the program application form.

## Intervention Specialist for Mild/Moderate Educational Needs

This program is designed to meet the standards of the State of Ohio teaching license for Intervention Specialist for Mild/Moderate Educational Needs. Students completing this program will be prepared to work as an Intervention Specialist with students who have mild/moderate educational needs. The program consists of 45 hours of General Education requirements, 18 hours of Teacher Education core requirements, 46 hours of Special Education core requirements and 19 hours of Intervention Specialist for Mild/Moderate Educational Needs program requirements. The total program requires 128 hours; there are no elective hours i the program.

- General Education - 45 credits

| English Composition Component: |  |  |
| :---: | :---: | :---: |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| Mathematics Component: |  |  |
| 3450:145 | College Algebra | 4 |
| Natural Science Component: |  |  |
| 3150:110 | General, Organic \& Biochemistry I and | 3 |
| 3150:111 | General, Organic \& Bicchemistry I Lab or | 1 |
| 3150:101 | Chemistry for Everyone* | 4 |
| 3100:265 | Introduction to Human Physiology** | 4 |


| Oral Communication Requirement:  <br> $7600: 105$ Introduction to Public Speaking * <br> or  |  |
| :--- | :--- |
| $7600: 106$ | Effective Oral Communication* |

Physical Education Component:
5550.211 First Aid \& CP

[^34]| Social Science Component: |  | Credits |
| :---: | :---: | :---: |
| 3850:100 | Introduction to Sociology* | 4 |
| 3750:100 | Introduction to Psychology* | 3 |
| Humanities Component: |  |  |
| 3400:210 | Humanities in Westem Tradition | 4 |
| 7100:210 | Visual Arts Awareness or |  |
| 7500:201 | Exploring Music: Bach to Rock | 3 |
| Plus one other Humanities course |  |  |
|  | see General Education options | 3 |
| Area SturiessCultural Diversity Component: |  |  |
| - Teacher Education Core - 18 credits |  |  |
| 5100:200 | Introduction to Education | 3 |
| 5100:220 | Educational Psychology | 3 |
| 5100:300 | Equity and Excellence in Education | 3 |
| 5500:230 | Educational Technology | 3 |
| 5500:360 | Educational Planning | 3 |
| 5500:370 | Educational Implementation | 3 |
| - Special Education Core - 46 credits |  |  |
| 5500:245 | Understanding Literacy Development and Phorics | 3 |
| 5500:286 | Teaching Multiple Texts Through Genre | 3 |
| 5500:440 | Developmental Reading in the Content Area | 3 |
| 5500:445 | Evaluating Language Literacy | 3 |
| 5610:100 | Orientation to intervention Specialist Programs | 0 |
| 5610:225 | Introduction to Exceptionalities | 3 |
| 5610:380 | Math Methods: Special Education | 3 |
| 5610:403 | Student Teeching Colloquium | 1 |
| 5610:450 | Special Education Programming: Early Childhood | 3 |
| 5610:452 | Special Education Programming: Secondary/Transition | 3 |
| 5610:459 | Collaboration \& Consultation in Schools and Community | 3 |
| 5610:460 | Farrily Dynamics \& Communications | 3 |
| 5610:463 | Assessment in Special Education | 3 |
| 5610:467 | Management Strategies in SpEd | 3 |
| 5610:470 | Clinical Practicum in Special Education | 3 |
| 7400:265 | Child Developrnent | 3 |
| 7700:430 | Aspects of Normal Languaga Development | 3 |
| - Specialization - 19 credits |  |  |
| 5610:447 | Ind. with Mildhntensive Educ. Needs: Characteristics and Implications | s 4 |
| 5610:451 | Special Education Programming: MildModerate I | 3 |
| 5610:457 | Special Education Programming: MildM Moderate II | 4 |
| 5610:488 | Studert Teaching: MildModerate | 8 |

## Intervention Specialist for Moderate/Intensive Educational Needs

This program is designed to meet the standards for the State of Ohio teaching license for Intervention Specialist for Moderate/Intensive Educational Needs. Teacher candidates completing this program will be prepared to work as an intervention Specialist with students who have moderate/intensive educational needs. The program consists of 45 hours of General Education requirements, 18 hours of Teaching Education core requirements, 46 hours of Special Education core requirements and 23 hours of Intervention Specialist for Moderate/Intensive Educational Needs program requirements. The total program requires 132 hours; there are no elective hours in the program.

| General Education - 45 credits: |  |
| :---: | :---: |
| English Composition component: |  |
| 3300:111 English Composition 1** | 4 |
| 3300:112 English Composition If | 3 |
| Mathematics component: |  |
| 3450:145 College Algebra** | 4 |
| Natural Science Component: |  |
| 3150:110 General, Organic \& Biochemistry I | 3 |
| $\begin{array}{cc}\text { 3150:111 } & \text { General, Organic \& Biochemistry I Lab } \\ \text { or }\end{array}$ | 1 |
| 3150:101 Chemistry for Everyone* | 4 |
| 3100:265 Introduction to Human Physiology* | 4 |
| Oral Communication Requirement: |  |
| 7600:105 Introduction to Public Speaking" <br> or | 3 |
| 7600:106 Effective Oral Communication | 3 |
| Physical Education Component: |  |
| 5550:211 First Aid \& CPR | 2 |

[^35]| Social Sci | mponent: | Credit |
| :---: | :---: | :---: |
| 3850:100 | Introduction to Sociology * | 4 |
| 3750:100 | Introduction to Psychology * | 3 |
| Humanities Component: |  |  |
| 3400:210 | Hurmanities in Westem Tradition | 4 |
| 7100:210 | Visual Arts Awareness or | 3 |
| 7500:201 | Exploring Music: Bach to Rock | 3 |
|  | Plus one other Humanities course |  |
|  | See General Education under University College for option | 3 |
| Area Studies/Cultural Diversity component: |  |  |
|  | See General Education under University College for option | 4 |
| Teacher Education Core - 18 credits: |  |  |
| 5100:200 | Introduction to Education | 3 |
| 5100:220 | Educational Psychology | 3 |
| 5100:300 | Equity and Excellence in Education | 3 |
| 5500:230 | Educational Technology | 3 |
| 5500:360 | Educational Planning | 3 |
| 5500:370 | Educational Implementation | 3 |
| Special Education - 46 credits: |  |  |
| 5500:245 | Understanding Literacy Development and Phonics | 3 |
| 5500:286 | Teaching Multipie Texts Through Genre | 3 |
| 5500:440 | Developmental Reading in the Content Area | 3 |
| 5500:445 | Evaluating Language Literacy | 3 |
| 5610:100 | Orientation to Intervention Specialist Programs | 0 |
| 5610:403 | Student Teaching Colloquium | 1 |
| 5610:225 | Introduction to Exceptionalities | 3 |
| 5610:380 | Math Mathods: Special Education | 3 |
| 5610:450 | Special Education Programming: Early Childhood | 3 |
| 5610:452 | Special Education Programming: Secondary/Transition | 3 |
| 5610:459 | Collaboration \& Consultation in Schools and Community | 3 |
| 5610:460 | Family Dynamics \& Communication | 3 |
| 5610:463 | Assessment in Special Education | 3 |
| 5610:467 | Managememt Strategies in Special Education | 3 |
| 5610:470 | Clinical Practicum in Special Education | 3 |
| 7400:265 | Child Development | 3 |
| 7700:430 | Aspects of Normal Language Development | 3 |
| Specialization - 23 credits: |  |  |
| 7700:101 | American Sign Language I | 3 |
| 5610:453 | Special Education Programming: Moderate/ntensive I | 4 |
| 5610:454 | Special Education Programming: Moderate/ntensive II | 4 |
| 5610:448 | Ind. with ModVntensive Educ. Needs: Charscteristics and | s |
| 5610:487 | Student Teeching: Moderate/Intensive Educational Needs | 8 |

## Early Childhood Intervention Specialist

This program is designed to meet the standards for the State of Ohio teaching license for Early Childhood Intervention Specialist. Teacher candidates completing this program will be prepared to work as an Early Childhood Intervention Specialist with learners with mild/moderate/intensive education needs from ages three through eight and prekindergarten through grade three, and for providing service coordination. The program consists of 45 hours of General Education requirements, 21 hours of Teacher Education core requirements, 42 hours of Special Education core requirements and 26 hours of Earhy Childhood Intervention Specialist program requirements. The total program requires 134 hours; there are no elective hours in the program.

- General Education - 45 credits:

| English Composition component: |  |
| :---: | :---: |
| 3300:111 English Composition 1** | 4 |
| 3300:112 English Composition II | 3 |
| Mathematics component: |  |
| -3450:145 College Algebra** | 4 |
| Natural Science Component: |  |
| 3150:110 General, Organic \& Biochemistry 1 and | 3 |
| 3150:111 $\begin{gathered}\text { General, Organic } \& \text { Biochemistry. I Lab } \\ \text { or }\end{gathered}$ | 1 |
| 3150:101 Chemistry for Everyone* | 4. |
| 3100:265 Introduction to Human Physiology ${ }^{*}$ | 4 |
| Oral Communication Requirement: |  |
| 7600:105 Introduction to Public Speaking* | 3 |
| 7600:106 Effective Oral Communication | 3 |
| Physical Education Component: |  |

[^36]- Required for adrnission to the College of Education. Total of 29 credits.

| Social Science Component: | Credits |  |
| :--- | :---: | :---: |
| $3850: 100$ | Introduction to Sociology * | 4 |
| $3750: 100$ | Introduction to Psychology * | 3 |

3750:100 Introduction to Psychology * 3
Humanities Component:
$3400: 210 \quad$ Humanities in Westem Tradition
7100:210 Visual Arts Awareness . 3
7500:201 Exploring Music: Bach to Rock 3
Plus one other Humanities course
See General Education under University College for options

Area Studies/Cultural Divarsity component:
See General Education under University College for options

- Teacher Education Core - 18 credits:

| $\mathbf{5 1 0 0 : 2 0 0}$ | Introduction to Education | $\mathbf{3}$ |
| :--- | :--- | :--- |
| $\mathbf{5 1 0 0 : 2 2 0}$ | Educational Psychology | $\mathbf{3}$ |
| $\mathbf{5 1 0 0 : 3 0 0}$ | Equity and Excellence in Education | $\mathbf{3}$ |
| $5500: 230$ | Educational Technology | $\mathbf{3}$ |
| $\mathbf{5 5 0 0 : 3 6 0}$ | Educational Planning | $\mathbf{3}$ |
| $5500: 370$ | Educational Implementation | $\mathbf{3}$ |

- Special Education - 42 credits:
5500:245 Understanding titeracy Development and Phonics 3

5500:286 Teaching Multiple Texts Through Genre 3
5500:440 Developmental Reading in Content Area 3
5500:445
Orientation to Intervention Specialist Frograms
Introduction to Exceptionalities
5610:380 Math Methods: Special Education
5610:450 Special Education Programming: Earty Childhood
Collaboration \& Consultation in Schools and Community
5610:460 Family Dymarnics \& Commurication
5610:464 Assessment \& Evaluation in Early Childhood
5610:467 Management Strategies in Special Education
5610:470 Clinical Practicum in Special Education
7400:265 Child Development
3

- Specialization - 26 credits:

| $7400: 270$ | Theory and Guidance Play | 3 |
| :--- | :--- | :--- |
| $7700: 101$ | American Sign Language I | 3 |
| $5610: 403$ | Student Teaching Colloquium | 1 |
| $5610: 448$ | Ind. with Mod/Intensive Educ. Needs: Characteristics and Implications | 4 |
| $5610: 453$ | Special Education Programming: Moderate/Intensive I | 4 |
| $5610: 461$ | Special Education Programming: Early Childhood-Moderate/Intensive | 3 |
| $5610: 485$ | Student Teaching: Early Childhood Intervention Specialist | B |

## Department of Educational <br> Foundations and Leadership

## Postsecondary Technical Education

Susan J. Olson, Ph.D.
Program Coordinator
solson@uakron.edu
(330) 972-8223

Prior to admission, students must complete 30 credit hours of coursework with a 2.50 GPA overall. These requirements provide Technical Education Program majors with the breadth of knowledge they will need to make decisions in their teaching or training career. Other admission requirements are outlined on the program application form, available online.
Within the Department, the Postsecondary Technical Education program prepares students to teach in postsecondary institutions or in education training programs in private industry or public agencies. This program does not provide for State of Ohio licensure for p-12. Specific teaching content areas for a Bachelor of Science Degree in Technical Education include: business, health, engineering, natural sciences and public service technologies. Students interested in teaching a subject in a technical specialty or training technique should consult the program coordinator.

Requirements for Admission to Postsecondary Technical Education Program
All applicants must successfully complete the following coursework prior to admission into Postsecondary Technical Education.

| - Written and Oral Communication - at least 10 credits | Credits |
| :---: | :---: |
| 3300:111 English Composition 1 | 4 |
| $\begin{array}{ll}3300: 112 & \text { English Composition II } \\ & \text { (with grades "C" or better) }\end{array}$ | 3 |
| 7600:105 Introduction to Public Speaking | 3 |
| 7600:106 Introduction to Effective Oral Communications | 3 |
| - Social Science |  |
| 3750:100 Introduction to Psychology | 3 |
| - Mathematics - minimum of 3 credits |  |
| - Natural Science - a minimum of 5 credits |  |
| - Physical Education/Wellness |  |
| 5540:00x Physical EducationWellness | 1 |
| - Teaching Field(s) - a minimum of 8 credits |  |
| Does not include coursework already used above. A 2.50 GPA in all such coursework is required. This includes credits beyond the minimum of 8 . | 8 |

## Requirements for Graduation

In addition, individuals must receive an overall GPA of 2.50 in all their coursework used to earn the Bachelor of Science in Postsecondary Technical Education. Students must earn a "C" or better in each Technical Education course (5400) and a C- or better in each Technical Field course.

- Degree Requirements - Bachelor of Science in Postsecondary. Technical
- Education (minimum 128 crs.)
- General Studies - 42 credits. Can be transferred from an accredidated institution of higher education or taken on-line as available at The University of Akson or taken at The University of Akron in a traditional face-to-face class.
- Technical Field (adviser approved hours) - 51-54 hours transferred from an accredidated institution of higher education
- Professional Postsecondary Technical Education - 32 hours completed fully online or taken in a hybrid face-to-face and online combination.
- Electives - 0-3 hours
- Students must complete their last 32 hours at The University of Akron to eam the Bachelor of Science in Postsecondary Technical Education.
- It takes a minimum of three semesters, not including summers, to complete this program.


## Required Professional Postsecondary Technical Education - 32 hours

| $5400: 400$ | Postsecondary Learner | 3 |
| :--- | :--- | ---: |
| $5400: 401$ | Leaming with Technology | 3 |
| $5400: 405$ | Work force Education for Youth and Adults | 3 |
| $5400: 415$ | Training in Business and Industry | 3 |
| $5400: 420$ | Postsecondary Instructional Technology | 3 |
| $5400: 430$ | Systematic Curriculum Design for Postsecondary Instruction | 3 |
| $5400: 435$ | Systematic Instructional Design in Postsecondary Education | 3 |
| $5400: 475$ | Instructional Practice Seminar | 3 |
| $5400: 480$ | ST: Workforce Education and Training | 3 |
| $5400: 490$ | Modifying On-Line Instruction | 2 |
| $5400: 495$ | Postsecondary Education Practicum | 3 |

All 5400 courses are available online or face-to-face.

# College of Business Administration 

Raj Aggarwal, D.B.A., Dean

## INTRODUCTION

The College of Business Administration (CBA) is a professional college of the University that is dedicated to teaching, business research, and public service. The coliege is accredited by the American Assembly of Collegiate Schools of Business (AACSB) and offers accredited baccalaureate and master's degree programs during the day and evenings.

## Mission Statement

The College of Business Administration promotes economic efficiency and the free enterprise system by preparing competent and responsible business leaders through comprehensive educational programs, relevant research, and professional service.
In our free society, effective leaders are indispensable, and effective business leaders are indispensable to the free enterprise system. The CBA educates a vital component of the region's business leaders and has prepared competent and responsible business leaders working throughout the world.

## Effective Instruction

The CBA emphasizes effective teaching as the primary means to produce future business leaders. The faculty are strongly committed to being involved with CBA students, and to being accessible to them. The CBA attempts to provide relatively small class sections throughout the curriculum.
Effective teaching includes challenging our students through a variety of teaching methods. The college relies heavily upon case method, seminar presentation, skills performance methods (oral and written), discussion method, and experiential learning in addition to traditional lectures. These methods are used to: 1) involve the students actively in their own education by requiring preparation and performance; 2) instill in students the ability to educate themselves as a lifelong habit; and 3) prepare students to more effectively and quickly bridge the gap to competent business leadership.
In addition, the CBA must provide students with an education in solid manage ment skills (critical thinking, problem analysis and solving, oral and written communications, computing and specific functional competencies), people skills (compassion, self-confidence, tolerance), and ethical values (responsibility and the ability to withstand the daily pressures of management without succumbing to personal interest). Exposure to business practitioners-in and out of the class-room-assists in achieving these goals. The CBA must introduce students to a basic understanding of professionalism, public service responsibilities, and the role of business in society. This requires that students develop a respect for learning and a preference for solutions that advance the public good. Further, the CBA emphasizes creativity, open-mindedness, and diverse cultural perspectives.
Since the college's inception, the college curnculum has been designed with equal emphasis on broad basic theoretical principles as well as immediate applied practices. Classroom knowledge is consistently made more significant by visits to businesses, the college's excellent tradition of student organizations, guest speaker programs, and other efforts to bring students and business people closer together.

## COLLEGE REQUIREMENTS

## Requirements for Admission

The College of Business Administration will admit students who have completed at least 40 semester hours of credit, who meet the academic performance requirements established by the faculty of the College, and who file an application for transfer.

## Academic Performance Requirements:

- Complete the following coursework or equivalent as part of the 40 -hour requirement:
- 3450:145 College Algebra
- a behavioral science course
- 3250:200 Principles of Microeconomics or 3250:201 Principles of Macroeconomics
- 6200:201 Accounting Principles I
- Earn at least a 2.50 overall grade-point average
- Earn at least a 2.00 grade-point average in business administration and economics courses.
- Earn at least a 2.00 grade-point average in any business major courses.


## Transfer Students

Transfer students and students using intercollege transfer from degree-granting colleges must satisfy the following admission requirements:

- Complete at least 40 semester hours of credit
- Earn at least a 2.50 overall grade-point average
- Earn at least a 2.00 grade-point average in business administration and economics courses.
- Eam at least a 2.00 grade-point average in any business major courses.
- All business transfer courses must be at a grade of " C " or higher.

Refer to the transfer students section under Other Admissions below.

## Other Apmissions

Students accepted into the University Honors College as business majors are automatically admitted to the College of Business Administration. Incoming freshman with appropriate credentials may receive direct admission to the College upon application (see University Admissions in Section Three).
University of Akron students who meet all criteria for admission to the College of Business Administration, except the 2.5 grade-point average, are encouraged to apply for admission on an individual case basis. In these circumstances, an admission committee will consider a number of factors for the student's benefit, including: grades in the most recent coursework, grades received in pre-business courses, ACT/SAT scores, and the difficulty of a previous major. Through the consideration of these indicators, students with a good probability of success in the College of Business Administration may be admitted. Application forms and procedures may be obtained from the College Office of Undergraduate Advising, located in Room 260 of the Business Administration Building. Telephone information is available at (330) 972-7042.
Transfer students from other colleges and universities, including other degreegranting colleges within The University of Akron system, must meet the same grade-point average and credit-hour standards as University of Akron students. Transfer students who have not completed the coursework listed under the Academic Performance Requirements will be conditionally admitted until the end of the semester one calendar year from the date of entrance into the program. Unconditional admission will be dependent upon successful completion of all coursework required for admission into the College of Business Administration. In the event the student fails to complete all coursework requirements within the calendar year, the student will be suspended from the College of Business Administration until all required coursework has been successfully completed.

## Transfer of Courses and Advanced Standing

Some courses taken outside of the University College or the College of Business Administration may be accepted in lieu of college and departmental requirements. The College of Business Administration will consider the following in determining whether or not to grant credit: the content, complexity and grading standards of courses taken elsewhere and the suitability of courses taken elsewhere for the program of study chosen here.
Transfer students from accredited two-year and four-year colleges are welcome. Transfer students should refer to the Requirements for Admission under College Requirements on the previous page.

## Continuation of the Baccalaureate Program

## Academic Probation

A CBA student shall be subject to academic probation if any one of the following three conditions exists:

- The accumulated GPA for all courses is less than 2.0; or
- The accumulated GPA for all CBA and Economics courses is less than 2.0; or
- The accumulated GPA in the major is less than 2.0.


## Degrees

The College of Business Administration, organized on a departmental basis,offers programs of study in accounting, business administration, e-marketing and advertising, finance, management, marketing, sales and international business. Seven baccalaureate degrees are offered: the Bachelor of Science in Accountancy, the Bachelor of Science in Business Administration, the Bachelor of Science in Management, the Bachelor of Science in Business Administration/Finance, the Bachelor of Science in Business Administration/Marketing, the Bachelor of Science in Business Administration/eMarketing/Advertising and the Bachelor of Science in Business Administration/International Business.

## Requirements for Graduation

To receive a baccalaureate degree from the College of Business Administration, a student must meet the following requirements:

- Complete a minimum of 128 semester credits with a minimum 2.30 gradepoint average. No more than three credits of physical education courses may be applied toward CBA degree requirements.
- In order to enroll in all CBA $3 x x$ and $4 x x$ courses, all students are required to have a minimum 2.00 overall grade-point average.
- After transfer into the College of Business Administration, students may take any courses for free elective credit, except those courses which would be duplicative or significantly overlap any pre-business or CBA course.
- Obtain at least a 2.00 grade-point average for courses in the major as well as for courses in business administration and economics.
- At least 50 percent of the business credit hours required for a business degree must be eamed at The University of Akron, including a minimum of 14 credits in the student's major program.
- Receive admission to the College of Business Administration and eam at least 15 credits within the college after admission is granted.
- Obtain the recommendation of the department faculty in the student's primary major.
- The Calculus Requirement, either 3450:215 or 3450:210, must be completed within the first 64 credit hours attempted.
- Complete other University requirements listed in Section 3 of this Bulletin.
- General Education requirement of 42 credits, including:

| $3250: 200$ | Principles of Microeconomics |
| :--- | :--- | :--- |
| Either of the following two sequences of mathematics:*   <br> 3450:145 College Algebra <br> and Credits <br> $3450: 215$ Concepts of Calculus** <br> or 4 <br> $3450: 210$ Calculus with Business Applications  | 4 |

One course chosen from psychology or sociology.(3230:150 can substitute for 3850:100) 3

- Complete the following core program in business and economics:

| $3250: 201$ | Principles of Macroeconomics | 3 |
| :--- | :--- | :--- |
| $6200: 201$ | Accounting Principles I | 3 |
| $6200: 202$ | Accounting Principles II | 3 |
| $6200: 250$ | Microcomputer Applications for Business | 3 |
| $6400: 220$ | Legal and Social Environment of Business \# | 3 |
| $6400: 321,2$ | or |  |
| $6400: 301$ | Cosiness Law I, II\# | 6 |
| $6500: 221$ | Quantitative Business Analysis I | 3 |
| $6500: 222$ | Quantitative Business Analysis II | 3 |
| $6500: 301$ | Management: Principles and Concepts | 3 |
| $6500: 330$ | Principles of Operations Management | 3 |
| $6500: 490$ | Business Policy | 3 |
| $6600: 300$ | Marketing Principles | 3 |
| $6800: 305$ | International Business | 3 |

## Minor Areas of Study

For an explanation of minor areas of study in the College of Business Administration, see Section 5 of this Bulletin.

## Certificate Programs

The College of Business Administration offers certificate programs in Entrepreneurship, Financial Planning, Health Care Selling, International Business, Professional Selling, and Retail Marketing, which are described in Section 6 of this Bulletin.

## Cooperative Education Program

The requirements for the College of Business Administration's Cooperative Education Program are as follows:

- Acceptance into the CBA.
- Complete 3250:200, 201 and 6200:201.
- Maintenance of a grade point average of at least 2.3.

Students must apply for participation in the program through the Center for Career Management.

## Internship Program

The requirements for the College of Business Administration's Internship Program are as follows:

- Acceptance into the CBA, pursuing a major or minor in business.
- Completion of 3250:200 and 6200:201.
- Maintenance of a grade point average of at least 2.5 (an employer may require a higher GPA).
- Satisfaction of additional requirements specified by the department of the stur dent's major or minor.
Students must apply for participation in the program through the Center for Career Management.

[^37][^38]
## PROGRAMS OF INSTRUCTION

## 6100: Géneral Business

This degree program is intended to offer flexibility to the student. Some students who intend to pursue careers in small business management, whether by creating or acquiring a business, or perhaps taking over a famity business enterprise, may find the flexibility of this degree program best for them. Other students with more administrative experience may aiso prefer the larger course selection offered by this degree program.
The Bachelor of Science in Business Administration (BSBA) program does not include a major per se. Instead, the students complete the CBA core curriculum and 27 credit hours from the following (including one course that fulfills the Information Systems requirement):


- information Systems Requirement (one of the above courses must be an Information Systems course) Select one of the following to fulfill one of the above:

| 6200:320 | Accounting information Systems | 3 |
| :---: | :---: | :---: |
| 6200:454 | Information Systems Security | 3 |
| 6400:379 | Advanced Corporate Finance | 3 |
| 6500:310 | Businoss Information Systems | 3 |
| 6800:490 | Marketing Strategy | 3 |
| And one additional course from the following: |  |  |
| 6100:201 | Introduction to ebusiness | 3 |
| 6100:495 | Internship in Business Administration | 3 |
| 6300:201 | Introduction to Entrepreneurship | 3 |
| 6600:275 | Professional Selling | 3 |
| 6800:405 | Multinational Corporations | 3 |
| 6800:421 | International Business Practices | 3 |
| Totell credites recqured 27 |  |  |

6200:454 Information Systerms Security
6500:310 Businass Information Systems 3
6600:490 Marketing Strategy 3
And one additional course from the following:
6100:495 Internship in Business Administration
6300:201 Introduction to Entrepreneurship
Prolessiona Soling
6800:421 Intemational Business Practices

## 6200: Accountancy

The George W. Daverio School of Accountancy prepares students for careers in accounting, auditing, taxation, and information systems services. The functions of accountancy and information systems are essential to the decision-making process in commerce, industry, and government. There are exceptional opportunities for professional advancement regardless of career path and the type of institution a graduate may choose.
Graduates may pursue certification credentials such as Certified Public Accountant (CPA), Certified Management Accountant (CMA), Certified Internal Auditor (CIA) and Certified information Systems Auditor (CISA). CISA is an information technology professional who specializes in the areas of audit, control and security.
After January 1, 2000, Ohio law requires 150 hours of college level education as a prerequisite for certification as a Certified Public Accountant in the state of Ohio. CPA certification is generally required for careers in public accounting. While not required, CPA certification is highly desirable for careers in other areas of accounting.

To receive a Bachelor of Science in Accounting degree from the George W.Daverio School of Accountancy, a student must complete the College requirements and the requirements for the program described below:

## Professional Accounting Program

Students in the accounting program must complete the following:

|  | Crectits |  |
| :--- | :--- | ---: |
| 3300:275 | Specialized Writing: Business | 3 |
| 6200:301 | Cost Management | 3 |
| $6200: 320$ | Accounting Information Systems | 3 |
| $6200: 321$ | Intermediate Accounting I | 3 |
| 6200:322 | Intermediate Accounting II | 3 |
| 6200:430 | Taxation I | 3 |
| $6200: 440$ | Auditing | 3 |
| 6200:454 | Information Systems Security | 3 |
| 6200:460 | Advanced Managerial Accounting | 3 |
| 6200:4xx | Accounting electives | 6 |
| Total credits required | 33 |  |

Students can take as electives those courses that are 6200:4xx except for 6200:408 (Intemational Financial Reporting and Analysis) and 6200:410 (Taxation for Financial Planning.) Internship in Business Administration (Accounting) 6100:495 and Honors Project in Business Administration (Accounting) 6100:497 may be used as electives.
Students who elect to work in public accounting as CPAs should plan to pursue our 150-credit hour Accelerated BS/MS (Accounting) degree. This degree can be completed in exactly 150 credits and offers students the opportunity to focus their studies in professional accountancy or accounting information systems. Students with an interest in pursuing the Accelerated BS/MS program should talk with the Chair of the School of Accountancy.

## MINIMUM REQUIREMENTS FOR PARTICIPATION IN AN ACCOUNTING INTERNSHIP

In addition to the internship requirements established in the College of Business, students must satisfy all of the following minimum requirements to participate in an accounting internship:

1. a grade of $B$ or better in 6200:201 (Accounting Principles I);
2. a grade of $B$ or better in 6200:202 (Accounting Principles II);
3. a passing score on the School of Accountancy's Pre-Internship Achievement test (PAT); and
4. registration in or completion of (a) 6200:320 (Accounting Information Systems) and (b) 6200:321 (Intermediate Accounting I)
The PAT is a 40 -item multiple choice test developed by the School of Accountancy. It covers primarily content from 6200:201 (Accounting Principles I). It is administered by the University's Computer Based Testing Center during the Center's regular office hours. Students are allowed up to three tries (each separated by at least one week) to obtain a passing score.
Students who do not satisfy the specific grade requirements in 6200:201 (Accounting Principles I) and 6200:202 (Accounting Principles II) may petition the Chair of the School of Accountancy for permission to participate in the Intemship. Scores on the PAT and performance in 6200:320 (Accounting Information Systems) and 6200:321 (Intermediate Accounting I) will be considered in evaluating petitions.

## 6400: Finance

The primary mission of the Department of Finance is to provide a quality education to students that will prepare them for leadership positions within the finance profession in business. Students acquire financial knowiedge and skills that can be applied in a variety of environments. The study of finance prepares students to understand the financial transactions in today's global economy. Careers in finance include corporate finance, investment management, financial markets and institutions, and personal financial services.
Careers in corporate finance include financial analyst positions in manufacturing, commercial, and service enterprises where initial assignments might include financial planning, capital expenditure analysis, cash management, credit management, lease evaluation, mergers and acquisitions, and special projects. Students with an interest in investment management are trained for careers as account executives, security analysts, or portfolio managers in bank trust departments, securities brokerage firms, investment research .firms, and investment banks. Careers in financial markets and institutions are available in banking, mutual funds, insurance companies, and other financial institutions. Banking careers include commercial lending, retail banking, treasury operations, trading, and trust operations. The rapidly expanding financial services field includes careers in personal financial planning, real estate, and insurance.
The finance curriculum offers students the opportunity to study in one of two specific areas of specialization - Corporate Financial Management and Financial Services. Students in the Financial Services program may also achieve a Concentration in Real Estate or Personal Financial Planning.
To receive a Bachelor of Science in Business Administration/Finance degree, the stur dent must successfully complete one or the other of these 33-credithour programs:

## Corporate Financial Management Program

All finance majors must complete three Finance Core colurses with an average grade of " C " over the three courses. In addition, students in the Corporate Financial Management Program must complete the required classes:

| Finance Core: |  | Credits |
| :---: | :---: | :---: |
| 8400:338 | Financial Markets and institutions | 3 |
| 6400:343 | Investments | 3 |
| 6400:379 | Advanced Corporate Finance | 3 |
| - Required: |  |  |
| 6400:200 | Foundations in Personal Finance | 3 |
| 6400:473 | Financial Statement Analysis | 3 |
| 6400:485 | Financial Strategy | 3 |
| - Electives: |  |  |
| Select at least 15 credits, six of which must come from 6200 courses and nine credits from the following: |  |  |
| 6100:495 | Internship in Business Administration | 3 |
| 6100:497 | Honors Project in Business Administration | 2-3 |
| 6200:321 | Intermediate Accounting I | 3 |
| 6200:322 | Intermediate Accounting II | 3 |
| 6200:430 | Taxation I | - 3 |
| 6200:431 | Taxation II | 3 |
| 6400:323 | International Business Law | 3 |
| 6400:403 | Real Estate Finance | 3 |
| 6400:416 | Enterprise Risk: Derivatives | 3 |
| $6400: 417$ | Retirement Planning | 3 |
| 6400:436 | Commercial Bank Management | 3 |
| 6400:438 | International Banking | 3 |
| 6400:447 | Security and Portfolio Analysis | 3 |
| 6400:481 | Internationał Business Finance | 3 |
| 6400:490 | Selected Topics in Finance | 13 |

## Financial Services Program

All finance majors must complete three Finance Core courses with an average* grade of "C." In addition, students in the Financial Services Program must complete at least 24 credits from those listed below in the electives:

| Finance Core: |  | Credits |
| :---: | :---: | :---: |
| 6400:338 | Financial Markets and Institutions | 3 |
| 6400:343 | Investments | 3 |
| 6400:379 | Advanced Corporate Finance | 3 |
| - Required: 6400:200 | Foundations in Personal Finance | 3 |
| - Electives: |  |  |
| 6100:495 | Internship in Business Administration | 3 |
| 6100:497 | Honors Project in Business Administration | 23 |
| 6200:410 | Taxation for Financial Planning | 3 |
| 6200:430 | Texation 1 | 3 |
| 6400:323 | International Business Law | 3 |
| 6400:390 | Real Estate Principles:A Value approach | 3 |
| 6400:402 | Income Property Appraisal | 3 |
| 6400:403 | Real Estate Finance | 3 |
| 6400:414 | Risk Management: Property and Casuarty Insurance | 3 |
| 6400:415 | Risk Management: Life and Heath Insurance | 3 |
| 6400:416 | Enterprise Risk: Derivativas | 3 |
| 6400:417 | Retirament Planning | 3 |
| 6400:424 | Legal Concepts of Real Estate | 3 |
| 6400:432 | Sominar in Financial Planning | 3 |
| 6400:436 | Commercial Bank Management | 3 |
| 6400:438 | International Banking | 3 |
| 6400:447 | Security and Portiolio Anelysis | 3 |
| 6400:473 | Financial Statement Analysis | 3 |
| 6400:490 | Selected Topics in Finance | 13 |
| 6600:275 | Professional Selling | 3 |

## Financial Services Program - Real Estate Concentration

A finance major completing the Financial Services Program with at least three of the courses below ( 9 credits) will be awarded a Concentration in Real Estate:

| $6400: 390$ | Real Estate Principles: A Value Approach | 3 |
| :--- | :--- | :--- |
| $6400: 402$ | Income Property Appraisal | 3 |
| $6400: 403$ | Feal Estate Finance | 3 |
| $6400: 424$ | Legal Concepts of Real Estate | 3 |

6400:390, 403, and 424 are accepted by the Ohio Real Estate Commission to satisfy coursework necessary for the Ohio License requirement. In addition, completion of a bachelor's degree meets the educational requirements for the State of Ohio real estate broker's examination

## Financial Planning Concentration

A finance major completing the Financial Services Program who completes the following courses will be awarded a Concentration in Financial Planning and will qualify to sit for the Certified Financial Planner Certification Examination as administered by the Certified Financial Planner Board of Standards:

| $6200: 410$ | Taxation for Financial Planning | 3 |
| :--- | :--- | :--- |
| $6200: 430$ | Taxation I | 3 |
| $6400: 343$ | Investments | 3 |
| $6400: 415$ | Risk Management: Life and Health Insurance | 3 |
| $6400: 417$ | Retirement Planning | 3 |
| $6400: 432$ | Seminar in Financial Planning | 3 |

## 6500: Management*

The emphasis on education in management is the result of several factors. First, managers are becoming increasingly aware that a professional approach to management requires understanding of quantitative methods, the behavioral sciences and the use of computers. Second, the management task is becoming much more complex in terms of the number of activities, volume of work and the broader impact of managerial decisions. Third, the practice of management in any setting requires a measure of specific preparation and qualification.
Events of the past several years have brought about a rapid and sweeping change in the business and industry of our society. The major in management reflects the complex problems of firms involved in manufacturing and/or service in a highly competitive and interactive global economy. The curriculum is designed to provide the student with a solid foundation in management. It also allows the student to emphasize a specific area of study by pursuing one of the management options.
The graduate with a management degree finds many employment opportunities with firms in staff, supervisory and other management positions. The graduate possesses, in addition, the required basic understanding for effectively managing facilities, equipment, information and personnel in a vanety of settings such as transportation, manufacturing, warehousing, research or institutional management. Also, the graduate has the fundamental preparation to undertake advanced study leading to a master's degree.
To receive the Bachelor of Science in Management with a major in management, a student must complete the common college Requirements for Graduation, and the requirements of one of the four options listed:

## Human Resource Management Option <br> Management Core: Complete all 9 credits: Credits

| 6500:302 | Organization Behavior and Leadership Skills | 3 |
| :---: | :---: | :---: |
| 6500:310 | Business Information Systems | 3 |
| 6500:471 | Management Project | 3 |
| Required: Complete all 15 credits: |  |  |
| 6500:341 | Humen Resource Manegement | 3 |
| 6500:342 | Labor Relations | 3 |
| 6500:350 | Fundementals of Enterprise Resource Planning | 3 |
| 6500:442 | Compensation Management | 3 |
| 6500:443 | Humen Resources Selection and Staffing | 3 |
| Electives: Six credits: |  |  |
| 6x00:30 $\times 14 \times 0$ | C8A Electives | 6 |
| Total credits req | ired | 30 |

## Supply Chain/Operations Management Option

Management Core: Complete all 9 credits:

| $6500: 302$ | Organization Behavior and Leadership Skills | 3 |
| :--- | :--- | :--- |
| $6500: 310$ | Business Information Systems | 3 |
| $6500: 471$ | Management Project | 3 |

## Concentration requirements:

Required: Complete all 15 credits:


[^39] requirements for the dual options of your choice.

## Information Systems Management Option

Management Core: Complete all 9 credits:

| $6500: 302$ | Organization Behavior and Leadership Skills | 3 |
| :--- | :--- | :--- |
| $6500: 310$ | Business Information Systems | 3 |
| $6500: 471$ | Management Project | 3 |

Required: Complete all 21 credits
6500:315 Applications Development for Business Processes 3
6500:324 Data Management for Information Systems 3

6500:325 Analysis \& Desion of Information Systems . 3
6500:350 . Fundamentals of Enterprise Resource Planning 3
6500:4
6500:425 Decision Support w/Data Warehousing and Data Mining 6500:427 Systems Integration
6500:427 Systems Integration 3

Electives: Three credits (choose one course from the following):

| $6100: 495$ | Intemship in Business Administration |
| :--- | :--- |
| $6500: 333$ | Supply Chain and Operations Analysis |
| $6500: 341$ | Human Resource Management |
| $6500: 426$ | E-Business Application Development |

$\begin{array}{lll}6100: 495 & \text { Intemship in Business Administration } & 3 \\ 6500: 333 & \text { Supply Chain and Operations Analysis } & 3\end{array}$
6500:341 Human Resource Management
6500:426 E-Business Application Development
6200:454 Information Systems Security
Total credits required

## E-Business Technologies Option

Management Core: Complete all 9 credits:

| 6500:302 | Organization Behavior and Leadership Skills | 3 |
| :--- | :--- | :--- |
| $6500: 310$ | Business Information Systems | 3 |

6500:471 Management Project
Required: Complete all 15 credits:

| $6100: 201$ | Introduction to E-business | 3 |
| :--- | :--- | :--- |
| $6500: 324$ | Data Management for Information Systerns | 3 |
| $6500: 350$ | Fundamentals of Enterprise Resource Planning | 3 |
| $6500: 420$ | Management of Data Networks | 3 |
| $6500: 426$ | E-business Apolication Development | 3 |

Electives: 6 credits (choose two courses from the following):

| $6100: 495$ | Intemship in Business Administration | $\mathbf{3}$ |
| :--- | :--- | :--- |
| $6200: 454$ | Information Systems Security | 3 |
| $6500: 341$ | Human Resource Management | 3 |
| $6500: 425$ | Decision Support with Data Warehouses \& Data Mining | 3 |
| $6600: 425$ | E-Marketing Practices | 3 |
| $6500: 390$ | Principlas of Supply Chain Management | 3 |
|  |  | 30 |

## 6600: Marketing*

Marketing is concemed with exchange - the process by which individuals or organizations provide or receive anything of value. The American Marketing Association defines marketing as "the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives." While marketing was traditionally considered a business function actively practiced only by for-profit organizations, it is now generally accepted that a marketing perspective and the use of marketing techniques can improve the operation of any organization, including not-for-profit organizations, government agencies, and other groups and individuals who were not historically thought to be among the users of marketing concepts and practices.
Given the rather broad and encompassing view of marketing, it is not surprising that a significant proportion of the work force is employed in some aspect of the various marketing functions and activities. While job opportunities are diverse, some of the more common areas of employment include retail merchandising and management, product development and planning, physical distribution and channels, marketing communications and brand management, industrial purchasing, and marketing research. In addition, a significant proportion of marketing graduates launch and pursue very successful careers in professional selling and sales management within the business to business sector of the economy. Consequentiy, the Department of Marketing offers a specialized major in Sales Management in addition to its major in Marketing Management.
Our majors must meet all requirements of 1) the General Education program, 2) the Pre-Business program, 3) the College of Business Core program, 4) the required courses within each program, and 5) the elective courses within each program.

To receive a Bachelor of Science in Business Administration/Marketing degree, the student must select either the Marketing Management Major or the Sales Management Major and successfully complete one or the other of these programs.

## Marketing Management Major**

- Required: Complete all 25 credits Credits

| Required Founderion Prerrequiathe Courses: |  |
| :--- | :--- |
| 6500:275 Professional Selling | 3 |

6600:335 Merketing Research and Anaytics . . 4
6600:340 Muti-Channel Marketing 3
6600:350 Integrated Marketíng Communications 3
6600:355 Buyer Behavior 3
$\begin{array}{lll}\text { Required Core } & \text { Competencies Courses: } \\ \text { 6600:385 } & \text { Intemational Marketing }\end{array}$
6600:440 Product and Brand Management 3
Pequired integrative Capstona Course:
M600:490 Marketing Strategy

- Electives: Complete any 6 credits
$6100: 495$ Internship in Business Administration $\quad 3$
6100:497 Honors Project in Business Administration 2.3
6600:425 eMarketing Practicas 3
6600:445 Creative Marketing Laboratory 3
6600:450 Strategic Retail Management 3
$6600: 475$ Business Negotiations .. 3
6600:480 Sales Managament 3
6600:491 Workshop in Marketing 1.3
6600:496 Special Topics in Marketing 1.3
Total Credits Required: 31

[^40]
## Sales Management Major**



## eMarketing and Advertising Major**

eMarketing has become an essential channel of distribution for almost every type of business in every type of product line serving today's customers. The Internet business concept is essentially in the introductory stage of the business life cycle. Growth within this emerging approach to business will provide eMarketing and Advertising majors with a wide variety of career opportunities with a very diverse set of product and service industries. Graduates of this program have the opportunity to pursue career opportunities in both the creative and the technological sides of Internet Marketing. The program is designed to provide the student with a full set of fundamental skills and work place competencies essential for success and advancement in one of the most dynamic areas of business. Both theory and practice are stressed through a series of foundation, analytical, creative, and "how to do it" expeniences. Students will not only know "what to do" but also "how to do it." Program learning experiences are greatly enhanced by the state-of-theart classroom end laboratories in the new Taylor Institute for Direct Marketing.
Majors must meet all requirements of: [1] the General Education Program, [2] the Pre-Business Program, [3] the College of Business Administration Core Courses Program, and [4] the eMarketing and Advertising Course Requirements and Electives.
To receive a Bachelor of Science in Business Administration eMarketing and Advertising degree, the student must successfully complete the following 34-credithour program:

| - Required: Complete all 28 credits | Credits |  |
| :--- | :--- | :--- |
| Required Foundetion Prerequisite Courses: |  |  |
| $6100: 201$ | Introduction to eBusiness | 3 |
| $660: 335$ | Marketing Research and Analytics | 4 |
| $660: 340$ | Multi-Channel Marketing | 3 |
| $660: 350$ | Integrated Marketing Communications | 3 |
| $6600: 355$ | Buyer Behavior | 3 |


| Required Core Competencies Courses: |  |  |
| :--- | :--- | :--- |
| 6600:425 | eMarketing Practices |  |
| $6600: 445$ | Cieative Marketing Laboratory | 3 |


| Pequired Integrative Capatone Courses*: |  |  |
| :---: | :---: | :---: |
| 6600:490 | Marketing Strategy and | 3 |
| 6100:495 | Internship in Business Administration or | 3 |
| 6600:492 | Direct interactive Marketing Practicum | 3 |

- Electives - Complete 6 credit hours:

| 6100:497 | Honors Project in Business Administration |
| :--- | :--- |
| 6500:324 | Databaso Management for Information Systems |
| 6500:425 | Decision Suppor with Data Warehousing/Data Mining |
| $6500: 427$ | Systems Integration |
| 6600:385 | Intemationel Marketing |
| 6600:440 | Product and Brand Management |
| 6600:450 | Strategic Retail Management |
| 6600:475 | Business Negotiation |
| 6600:480 | Sales Management |
| 6600:491 | Workshop in Marketing |
| 6800:496 | Special Topics in Marketing |
| Total credita reculred |  |

$2-3$
3
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$\mathbf{3 4}$

## 6800: International Business

The dynamic changes in the world's physical, political, economic, and cultural environments are resulting in threats to the well being of both individuals and organizations, as well as creating totally new market opportunities for business firms and enterprises. The challenge is to effectively compete in the global marketplace as it exists today and develops tomorrow. This academic program views international business in the broad context of all business transactions devised and carried out across national borders to satisfy the organizational and personal goals of firms and individuals. International business studies incorporate all of the functional business operations of accounting, finance, management, and marketing; as such, it is an integrative field of

[^41]study within an international framework. Given the growth and complexity of international business activities and practices, career opportunities are available and rewarding.
The International Business major must complete 1) the General Education program requirements, 2) the Pre-Business program requirements, 3) the College of Business Administration Core requirements, 4) the required courses within the International Business major, and 5) the elective courses within the International Business major.

To receive a Bachelor of Science in Business Administration/International Business each student must successfully complete all of the course requirements outlined in each of the four required categories and one of the options listed below.

## Required Categories:

- Intemational Business Cor

Credits
(Complete all courses - 6 credits)
$\begin{array}{lll}\text { 6800:405 } & \text { Multinational Corporations } & 3 \\ \text { 6800:421 } & \text { Intemational Business Practices } & 3\end{array}$

- Intemational Business Functional Specialties: (Complete four courses - 12 credits)
6200:408 International Financial Reporting \& Analysis . 3
6400:481 Intemational Business Finance 3
6500:457 International Management - 3
6600:385 Intemational Marketing 3
- Internátional Capstone Field Experience:
(Complete one or more courses - 3 credits)
6100:495 Intemship in Business Administration 3
6800:494 Intemational Business Practicum 1-3
- International Capstone Topical Investigations:
(Complete one or more courses - $\mathbf{2 3}$ credits)
6100:497 Honors Project in Business Administration $\quad 2.3$
6100:499 Independent Study in Business Administration 3
6400:323 Intemational Business Law 3 ,
6400:438 International Banking 3 ,
6500:459 Special Topics in International Management $\quad 1.3$
$6800: 496$ Special Topics in International Business 3

Global Interdisciplinary Option:

| (Complete four courses - 12-13 credits) |  |
| :--- | :--- |
| $3230: 370$ | Cultures of the World |
| $3250: 460$ | Economics of Developing Countries |
| $3250: 461$ | Principles of International Economics |
| $3350: 320$ | Economic Geography |
| $3350: 353$ | Latin America |
| $3350: 356$ | Europe |
| $3350: 360$ | Asia |
| $3350: 363$ | Africa South of the Sahara |
| $3350: 450$ | Development Planning |
| $3700: 300$ | Comparative Politics |
| $3700: 310$ | International Politics and Institutions |
| $3700: 312$ | The Politics of Intemational Trade and Money |
| $3700: 321$ | Western European Politics |
| $3700: 326$ | Politics Of Developing Nations |
| Total with | Globel Interdisciplinary Option: |

## Foreign Language Option:

(Complete One Language Sequence - 11 credits)
3520:xxx French Language
3520:101 Beginning French I 4
3520:102 Beginning French II 4
3520:201 Intermediate French | 3
3530:xxx German Language : $\quad 4$
3530:102 $\quad$ Beginning German If $\quad 4$
3530:201 Intermediate German I 3
3550:xxx Italian Language
3550:101 Beginning Italian |
3550:102 Beginning Italian || .
3550:201 Interrnediate Italian 1 3
$\begin{array}{lll}3570: x 0 x & \text { Russian Language } & 4 \\ 3570: 101 & \text { Beginning Russian I } & 4\end{array}$
$\begin{array}{ll}3570: 101 & \text { Beginning Russian I } \\ 3570: 102 & \text { Beginning Russian II }\end{array}$
3570:201 Intermediate Russian I 3
$\begin{array}{ll}3580: 00 x & \text { Spanish Language } \\ 3580: 101 & \text { Beginning Spanish 1 }\end{array}$
3580:101 Beginning Spanish 1
3580:102 Beginning Spanish II
Total with Forsign Lenguage Option:
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3
ption:


# College of Fine and Applied Arts 

James M. Lynn, Ph.D., Interim Dean

Julia A. Spiker, Ph.D., Associate Dean Academic Affairs

## OVERVIEW

The College of Fine and Applied Arts comprises seven schools and E.J. Thomas Performing Arts Hall. Three are "fine/performing arts" schools: Art, Dance, Theatre, and Arts Administration; and Music. Four are "applied arts" schools: Communication; Family and Consumer Sciences; Social Work: and SpeechLanguage Pathology and Audiology.
These seven schools share one common mission - to provide education that improves the human condition. In addition to preparing students for graduate study and professional career opportunities, the College seeks to benefit the larger community by enriching the creative and cultural climate, thereby enhancing the quality of life for individuals.

## COLLEGE REQUIREMENTS

## Requirements for Admission

To be admitted to the College of Fine and Applied Arts, the student must have completed at least 30 credits of work with at least a 2.30 grade-point average or above and have the approval of the dean. A student transferring to the School of Art from another institution must submit a portfolio of work for approval before admission. A student transferring from another coliege or institution into the music program must submit to a placement examination and an audition. The longer and more professionally oriented programs should be started during the first or second year when the student is still under the guidance of the Office of Academic Advising. The shorter majors need not be declared before the student is ready for transfer to the college. At the time of admission to the college, the student is assigned an adviser by the Director of the School.

## Requirements for Baccalaureate Degrees

- Compliance with University requirements, Section 3 of this Bulletin.
- Completion of a major program of instruction (see below).
- Electives consisting of courses offered for credit in the University's four-year degree programs, provided that the prerequisites as set forth in this Bulletin are met, and further provided that not more than two credits of physical edur cation activities, eight credits of applied music or four credits of music organizations are included. (Credit limitations on applied music and music organiza tions do not apply to the Bachelor of Music degree.) While credits from another institution or college may be accepted, application toward graduation will depend upon the nature of the student's program of study.
- The recommendation of the director of the student's major school.
- Demonstrated ability to use English. One other language may be required depending upon the degree program.


## Degrees

The following baccalaureate degrees are granted in the College of Fine and Applied Arts:

Bachelor of Arts in Studio Art, Art History, Art Education
Bachelor of Fine Arts (Cerarnics, Graphic Design, Metalsmithing, Photography, Painting/Drawing, Printmaking, Sculpture)
Bachelor of Ats: Family Development, Child Development, Food and Consumer Sciences, Child-Life Specialist
Bachelor of Arts in Fashion Merchandising: Apparel, Home Furnishings, and Fiber Arts tracks
Bachelor of Arts in Interior Design
Bachelor of Science in Dietetics
Bacheior of Arts in Family and Consumer Sciences Education
Bachelor of Arts in Music
Bachelor of Music in Performance, History and Literature, Theory/Composition,
Jazz Studies, and Music Education
Bachelor of Arts in Communication
Bachelor of Arts in Business and Organizational Communication, Interpersonal and Public
Communication, Mass Media-Communication
Bachelor of Arts in Speech-Language Pathology and Audiology
Bachelor of Arts in Social Work
Bachelor of Arts/Social Work
Bachelor of Arts in Theatre Arts
Bachelor of Arts in Theatre Arts-Musical Theatre
Bachelor of Arts in Dance
Bachelor of Arts in Dance Studies with Business Cognate
Bachelor of Fine Arts in Dance
Bachelor of Arts in Interdisciplinary Studies

## Graduation Requirements

A student must earn a major in a school of the college. A major consists of 24 to 84 credits in addition to the required General Education and, in the case of the Bachelor of Arts degree, foreign language courses. Part or all of these credits may be taken in specifically required courses depending upon the major. The exact requirements for each major will be found on the following pages in the section headed "Programs of Instruction."

## Minor Areas of Study

For an explanation of minor areas of study in the College of Fine and Applied Arts, see Section 5 of this Bulletin.

## PROGRAMS OF INSTRUCTION

## Bachelor of Arts in Interdisciplinary Studies

This degree meets the needs of students who have an interdisciplinary academic goal. It expands opportunities for nor-traditional students to complete their degrees at The University of Akron by allowing them to combine courses from various colleges to design a program. For more information on the program, see page 101.

## 7100: Art

## Bachelor of Arts

- Two years of a foreign language as required by major.
- Students must have an overall GPA of 2.5 in all 7100 art courses.
- Completion of studio or art history option as required by major.
- Electives - 6-25 credits.
- 7100:100 Survey of History of Art I, 7100:101 Survey of History of Art II, 7100:210 Visual Arts Awareness (included in General Education), and elective art history course(s) as required by major.


## Studio Art Option

- General Education (including 7100:210 Visual Arts Awareness) - 42 credits
- Completion of the second year of a foreign language or the following courses in American Sign Language - 14 credits:

| 7700:101 | American Sign Language I | 3 |
| :--- | :--- | :---: |
| $7700: 102$ | American Sign Language II | 3 |
| $7700: 103$ | Arts Orientation | 0 |
| $7700: 201$ | American Sign Language II | 3 |
| $7700: 202$ | American Sign Language IV | 3 |
| $7700: 222$ | Survey of Deaf Culture in America | 2 |

- Studio art coursework, including one course in each of six different areas of emphasis: e.g., printmaking, sculpture - 42 credits.
- Survey of History of Art I and II $(7100: 100,101)$ plus one additional advancedlevel art history course - 11 credits.

| $7100: 452$ | Service Learning in Art <br> or <br> 7100:496 | Intemship in Art |
| :---: | :---: | :---: |

- Electives - 16 credits.


## History of Art Option (Second-year of a foreign language required)

- General Education (including 7100:210 Visual arts Awareness) and second year of a foreign language - 56 credits
- History of art - 38 credits

| 7100:100 | Survey of History of Art | 4 |
| :---: | :---: | :---: |
| 7100:101 | Sunvey of History of Art II | 4 |
| 7100:103 | Arts Orientation | 0 |
| 7100:300 | Art Since 1945 or | 3 |
| 7100:355 | Contemporary Art Issue | 3 |
| 7100:301 | Medieval Art <br> or | 3 |
| 7100:303 | Italian Renaissance Art or | 3 |
| 7100:306 | Renaissance Art in Northem Europe | 3 |
| 7100:302 | Art in Europe During the 17th and 18th Centuries or | 3 |
| 7100:304 | Att in Europe During the 19th Century | 3 |
| 7100:307 | History of Graphic Design or | 3 |
| 7100:370 | History of Photography | 3 |
| 7100:309 | Greek Art <br> or | 3 |
| 7100:403 | Substitute course approved by Art History Chair Art and Critical Theory <br> or | 3 |
| 7100:407 | Methods of Art History | 3 |
| 7100:401 | Special Topies in History of Art | 3 |
| 7100:404 | History of Modemism | 3 |
| 7100:405 | History of At Symposium | 3 |
| 7100:498 | Special Problerns in History of Art | 3 |
|  | History of art electives | 12 |

- (Student may elect to take 3200:401 Egyptology I in place of one art history elective course)

Crectis
7100:402 Museology 3

- Studio art coursework: 7100:275 Introduction to Photography, and two art studio elective courses - 9 credits


## Art Education

B.A. in Art Education with Licensure in P-12 Art Education

- General Education requirement, including 7100:210 Visual Arts Awareness 42 credits.
- Phase One: Learning about Learners
5100:200 Introduction to Education 3

5100:220 Educational Psychology
5500:230 Educational Technology
5610:225 Introduction to Exceptionalities
5300:100 Orientation to AYAP-12Multi-Age 0

- Phase Two: Learning about Teaching

5500:360 Educational Planning 3
5100:300 Equity and Excellence in Education $\quad 3$
5500:370 Educational Implementation 3
5500:455/555 Literacy for Multi-age Licensure . 3

- Phase Three: Learning to Apply the Principles of Teaching

7100:410 Mathods of Teaching Elementary Art (Fall only) 3
$\begin{array}{lll}7100: 411 & \text { Methods of Teaching Secondary Art (Spring only) } & 3 \\ 7100: 185 & \text { Computer Graphics } & 3\end{array}$

- Phase Four: Learning to Teach 5300:495 Studer
7100:412 Student Teaching Colloquium
- Requirements

7100:103 Ars Orientation
7100:131 Foundation Drawing I
7100:144 Foundation 2-D Design
7100:145 Foundation 3-D Design
7100:222 Introduction to Sculpture
7100:233 Foundation Life Drawing
7100:494 ST in Art Education
7100:254 Introduction to Ceramics
7100:266 Introduction to Metalsmithing
7100:275 Introduction to Photography 3

- Choose one of the following courses:
$7100: 243 \quad$ Introduction to Painting
$7100: 246$ Introduction to Water-based Media 3
- Choose one of the following courses:
$7100: 213 \quad$ Introduction to Lithography
$\begin{array}{lll}7100: 213 & \text { Introduction to Lithography } & 3 \\ 7100: 214 & \text { Introduction to Screen Printing } & 3\end{array}$
7100:215 Introduction to Relief Printing 3
$7100: 216 \quad$ Introduction to Intaglio Printing 3
- Art History Courses - 14 credits

| $7100: 100$ | Sunvey of History of Art 1 | 4 |
| :--- | :--- | ---: |
| $7100: 101$ | Survey of History of Art il | .4 |
| $7100: 402$ | Museology | 3 |

7100:xxx Elective, 20th century focus recommended 3

- Studio art electives above the introductory level - 6 credits

Note: PRAXIS II is required for licensure.

## Bachelor of Fine Arts

- General Education requirement - 42 credits.
- Foundations Curriculum in Art Credits

| $7100: 100$ | Survey of History of Art I |
| :--- | :--- |
| $7100: 101$ | Survey of History of Art II |
| $7100: 103$ | Arts Orientation |
| $7100: 131$ | Foundation Drewwing I |
| $7100: 144$ | Foundation 2-D Design |
| $7100: 145$ | Foundation 3-D Design |
| $7100: 210$ | Visual Arts Awareness |
| $7100: 233$ | Foundation Lite Drewing |
| $7100: 250$ | Foundation Review |


| Photography |  | Credits |
| :---: | :---: | :---: |
| 3650:137 | Light | 3 |
| 7100:185 | Introduction to Computer Graphics | 3 |
| 7100:275 | Introduction to Photography | 3 |
| 7100:276 | Introduction to Professional Photography | 3 |
| 7100:280 | Digital Imaging | 3 |
| 7100:370 | History of Photography | 3 |
| 7100:375 | Photography II | 3 |
| 7100:475 | Advanced Photography (to be repeated) | 12 |
| 7100:476 | Photography Portiolio Review | 0 |
| 7100:477 | Advanced Photography: Coior | 3 |
| 7100:479 | Professional Photographic Practices | 3 |
| 7100:xxx | Printmaking to be selected from the courses offered in Printmaking) | 3 |
| Printmaking |  |  |
| Three of the following: |  |  |
| 7100:213 | Introduction to Lithography | 3 |
| 7100:214 | Introduction to Screen Printing | 3 |
| 7100:215 | Introduction to Relief Printing | 3 |
| 7100:216 | Introduction to Intaglio Printing | 3 |
| Required: |  |  |
| 7100:185 | Introduction to Computer Graphics | 3 |
| 7100:231 | Intermediate Drawing | 3 |
| 7100:275 | Introduction to Photography | 3 |
| 7100:317 | Printmaking If (must be repeated) | 6 |
| 7100:319 | Printmaking Review | 0 |
| 7100:375 | Photography II | 3 |
| 7100:418 | Advanced Printmaking (must be repeated) | 6 |
| One of the following: |  |  |
| 7100:243 | Introduction to Painting | 3 |
| 7100:246 | Introduction to Waterbased Media | 3 |
| Sculpture |  |  |
| 7100:185 | Introduction to Computer Graphics | 3 |
| 7100:222 | Introduction to Sculpture | 3 |
| 7100:223 | Sculpture: Stone or |  |
| 7100:224 | Installation Art | 3 |
| 7100:231 | Intermediate Drawing | 3 |
| 7100:254 | Introduction to Ceramics or | 3 |
| 7100:266 | Introduction to Metalsmithing | 3 |
| 7100:322 | Sculpture II | 3 |
| 7100:323 | Lost Wax Casting | 3 |
| 7100:420 | Sculpture Portiolio Review | 0 |
| 7100:422 | Advanced Sculpture (to be repeated) | 9 |

## 7400: Family and Consumer Sciences*

The mission of the School of Family and Consumer Sciences is to prepare professionals to take leadership positions as generalists and specialists in the areas of famity and consumer science. These include dietetics, family and child development, child life, nutrition, clothing, textiles and interiors and vocational family and consumer science education. Graduates are employed in public and private sectors in retailing, health and human services, dietetics, nutrition education and counseling, commercial and residential interior design, child care in hospital and community settings, food product development, food service administration, and teaching in private and public schools.

- General Education Requirement - 42 credits.* *
- Family and Consumer Sciences Core:

Students must meet the College of Fine and Applied Arts requirements for admission.
All students enrolled in baccalaureate programs in the School of Family and Consumer Sciences are required to complete the following core of requirements:

|  |  | Credits |
| :--- | :--- | :---: |
| 7400:447 | Senior Seminar: Critical Issues in Professional Development | 1 |
| $7400: 450$ | Families, Individuals and Environments | 3 |
| $7400: 362$ | Family Life Management | 3 |

## Bachelor of Arts in Family and Child Development

This degree offers the following emphases: family development, child development, and child-life specialist. Within the GED Social Science requirements, 3850:100 Introduction to Sociology and 3750:100 Introduction to Psychology are preferred by the department. Also, a student choosing the Child Development option must earn a " C " or better in both 7400:201 Courtship, Marriage and Family Relations and 7400:265 Child Development to be accepted into the program. In addition to departmental requirements listed under 7400: Family and Consumer Sciences, a student must complete one of the following options:

## Family Development ( 58 credits)

| $3750: 230$ | Developmental Psychology | 4 |
| :--- | :--- | ---: |
| $7400: 141$ | Food for the Family | 3 |
| $7400: 201$ | Courtship. Marriage and Family Relations | 3 |
| $7400: 255$ | Fatherhood | 3 |
| $7400: 265$ | Child Development | 3 |
| $7400: 300$ | Legal Environment of Families | 3 |
| $7400: 303$ | Children as Consumers | 3 |
|  | $\quad$ or |  |
| $7400: 301$ | Consumer Education | 3 |
| $7400: 360$ | Parent Child Relations | 3 |
| $7400: 362$ | Family Life Management | 3 |
| $7400: 401$ | American Families in Poverty | 3 |
| $7400: 404$ | Middle Childhood and Adolescence | 3 |
| $7400: 406$ | Family Financial Management | 3 |
| $7400: 440$ | Family Crisis | 3 |
| $7400: 441$ | Family Relations Middle \& Later Years | 3 |
| $7400: 442$ | Human Sexuality | 3 |
| $7400: 446$ | Culture, Ethnicity and the Family | 3 |
| $7400: 485$ | Seminar in FCS: Housing Across the Lifespan | 3 |
| $7400: 496$ | Parent Education | 3 |
| $7400: 494$ | Intemship: Child Development | 3 |
|  | Electives | 10 |

[^42]| Child Development |  | Creobits |
| :---: | :---: | :---: |
| 2200:110 | Foundations in Earty Childhood | 3 |
| 2200:245 | Infant/Toddiler Day-Care Programs or | 3 |
| 7400:365 | Infant, Family and Society | 3 |
| 2200:250 | Observing and Recording Child Behavior | 3 |
| 5200:360 | Teaching in the Early Childhood Center | 2 |
| 5200:370 | Early Childhood Center Laboratory | 2 |
| 7400:132 | Early Childhood Nutrition | 3 |
| 7400:201 | Courtship, Marriage and the Family | 3 |
| 7400:255 | Fatherhood: The Parent Role | 3 |
| 7400:265 | Child Development | 3 |
| 7400:270 | Theory and Guidance of Play | 3 |
| 7400:280 | Early Childhood Curriculum Methods | 3 |
| 7400:303 | Children As Consumers <br> or | 3 |
| 7400:301 | Consumer Education | 3 |
| 7400:360 | Parent-Child Relations | 3 |
| 7400:401 | American Families in Poverty | 3 |
| 7400:404 | Middle Childhood and Adolescence | 3 |
| 7400:446 | Culture, Ethnicity and the Family | 3 |
| 7400:460 | Organization and Supervision of Child-Care Centers | 3 |
| 7400:494 | Intemship: Child Development or |  |
| 2200:295 | Earty Childhood Practicum (see adviser) | 5 |
|  | Electives selected in consultation with adviser | 8 |

## Child Life Specialist

The Child-Life Speciaist works in a medical setting with children and their families. The psychosocial stress of hospitalization and medical procedures are reduced through normalization of the environment, developmentally appropriate activities, preparation and support for medical procedures and therapeutic play.
To become a Certified Child Life Specialist, a student must complete the academic requirements, three field experiences as defined by the Child Life Council and pass the Certification Examination of the Child Life Council. Level 1 field experience includes working with normally developing children in a non-medical setting. Field level 2 and 3 experiences occur in a Child Life program at an approved pediatric facility under the supervision of Academic and Clinical Certified Child Life Specialists. Field level 2 practicum includes 128 hours in the clinical setting and weekly class meetings. Field level 3 internship ranges from 480 to 650 hours, to be completed in an intensive, fult-time format.
The Organization for Children's Health Care is a University of Akron student group for the professional development of students preparing for a career working in the pediatric medical field. Working with community groups by providing activities with children are available.

## Admission to the Child Life Program:

Twelve students per year are accepted into the program. Applications are accepted by February 1 each year. Students who wish to apply must have completed 36 credits with a minimum grade-point average of 3.0 and have completed the prerequisite courses. The application packet includes essays and three letters of reference. The application packet may be obtained at the School of Family and Consumer Sciences. Students must meet the College of Fine and Applied Arts Requirements for admission. Previous volunteer experience in a pediatric hospital is encouraged although not required before applying to the program. Upon successful completion of an interview, students will sign a Child Life Specialist Contract and must maintain a 3.0 in all courses. Students are encouraged to meet with the child life adviser for course requirements.
Detailed information on admission to the program of study may be obtained by witing, to: Director of Child Life Program, Schrank Hall South, Room 215, Akron, $\mathrm{OH}, 44325-6103$.
In addition to the following: Credits

- GED requirement (which includes the following predetermined courses)

| $3750: 100$ | introduction to Psychology | 3 |
| :--- | :--- | :--- |
| $3850: 100$ | Introduction to Sociology | 4 |


| $3230: 150$ | or | 4 |
| :--- | :--- | :--- |

3150:101 Chemistry for Everyone 4
or
$\begin{array}{ll}\text { Chemistry and Society } & 3 \\ \text { Human Anatomy and Physiology I } & 3\end{array}$
Human Anatorny and Physiology Laboratory I 1
Statistics for Everyday Life 4
Or
Basic Statistics
or
Introduction to Statistics 1 . and
Introduction to Statistics II
introduction to Ethics
Diversity in American Society
or
3230:251
Human Diversity

- Family and Consumer Sciences core

| The core courses for the Child Life Program are: |  |
| :--- | :--- |
| 2740:120 | Medical Terminotogy |
| 3100:202 | Human Anatomy and Physiology II |
| 3100:203 | Human Anatomy and Physiology Lab II |
| $3750: 430$ | Psychological Disorders of Children |
| $5200: 360$ | Teaching in the Early Childhood Center |
| $5200: 370$ | Earty Childhood Center Lab |
| $7400: 133$ | Nutrition Fundamentals |
| $7400: 201$ | Courtship, Marriage and the Family |
| $7400: 265$ | Child Development |
| $7400: 270$ | Theories and Guidance of Play |
| $7400: 280$ | Earty Childhood Curriculum Methods |
| $7400: 295$ | Direct'Expeniences in the Hospital |
| $7400: 296$ | Hospital Based Child Life |
| $7400: 365$ | Infant, Families and Society |
| $7400: 400$ | Nutrition, Communication and Education Skills |
| $7400: 404$ | Middle Childhood and Adolescence |
| $7400: 451$ | The Child in the Hospital |
| $7400: 452$ | Child, lliness and Loss |
| $7400: 453$ | Faciltating Support Groups |
| $7400: 455$ | Practicum Experience in a Child-Life Program |
| $7400: 484$ | Hospital Settings, Children and Families |
| $7400: 495$ | Internship: Guided Experience in a Child-Life Prog |
| $7400: 496$ | Parent Education |

## Bachelor of Arts in Food and Consumer Sciences

## This program is temporarily suspended. No new majors will be admitted.

Students obtaining a Bachelor of Arts in Food and Consumer Sciences may pursue careers in the food industry or in food service management. Completion of this major will also provide the student with a minor in Business Administration.
In addition to school requirements listed under 7400: Family and Consumer Sciences, the student must complete the following courses:

| Core (A minimum grade of $\mathrm{C}[2.00$ ] required) |  | Credits |
| :---: | :---: | :---: |
| 7400:250 | Food Science Lecture and Lab | 4 |
| 7400:321 | Experimental Foods | 3 |
| 7400:403 | Advanced Food Preparation | 3 |
| 7400:424 | Nutrition in the Life Cycle | 3 |
| 7400:470 | The Food Industry: Analysis and Field Study | 3 |
| 7400:474 | Cultural Dimensions of Food | 3 |
| 7400:475 | Analysis of Food | 3 |
| 7400:476 | Developments in Food Science | 3 |
| 7400:494 | Internship: Family and Consurner Sciences | 5 |
| - Food Science Electives: |  |  |
| 7400:474 | Cultural Dimensions of Food | 3 |
| - Supporting Discipline Requirements: |  |  |
| $\begin{aligned} & 3300: 390 \\ & 2440: 103 \end{aligned}$ | Professional Writing Software Fundamentals | 3 2 |
| 3100:130 | Principles of Microbiology | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 6140:300 | Introduction to Finance | 3 |
| 6200:201 | Accounting Concepts for Business | 3 |
| 6300:201 | Introduction to Entrepreneurship | 3 |
| 6500:301 | Management Principles and Concepts | 3 |
| 6500:341 | Human Resource Management | 3 |
| 6600:300 | Marketing Principles | 3 |
| 7400:310 | Food Systerns Management I and | 5 |
| 7400:315 | Food Systerns Management I, Clinical | 2 |
| 7400:450 | Demonstration Techniques | 2 |

- Science Electives:
(Students choose at least six credits from the following courses.)
2840:201/202/255/270
3100:111/206/207/211-2/217/331/400/440
3150:134/335/336/401-5/411
3650:137-8/261/291
7400:424/426/487/474/475/476/485/490/491


## Bachelor of Arts in Fashion Merchandising

This degree offers emphases in three fashion-related areas: apparel, home furnishings, and fiber arts. Courses from the College of Business Administration and/or Summit College complement the degree by providing study in marketing. promotion, sales, and retailing. In addition to departmental requirements listed under 7400: Family and Consumer Sciences, a student must complete the courses in the core and the courses in one track.

## Core:

| 6600:275 | Professional Selling or | 3 |
| :---: | :---: | :---: |
| 2520:212 | Principles of Sales | 3 |
| 6600:350 | Integrated Marketing Communications or | 3 |
| 2520:203 | Principles of Advertising | 3 |
| 6600:450 | Strategic Retail Management or | 3 |
| 2520:202 | Retailing Fundamentals | 3 |
| 6600:300 | Marketing Principles or | 3 |
| 2520:101 | Essentials of Marketing Technology | 3 |
| 7400:123 | Fundamentals of Construction | 3 |
| 7400:139 | The Fashion and Fumishings Industries | 3 |
| 7400:225 | Textiles | 3 |
| 7400:352 | Strategic Merchandise Planning | 3 |
| 7400:427 | Global Issues in Textiles and Apparel | 3 |
| 7400:439 | Fashion Analysis | 3 |


| Track Op <br> - Apparel | Students must complete one track -33 credits: | Credits |
| :---: | :---: | :---: |
| 7400:125 | Principles of Apparel Design | 3 |
| 7400:219 | Dress and Culture | 3 |
| 7400:226 | Textile Evaluation | 3 |
| 7400:437 | Historic Costume | 3 |
| 7400:438 | History of Fashion | 3 |
| 7400:425 | Textiles for Apparel | 3 |
| 7400:494 | Internship | 3 |
| 7400:x0x | Apparel, Home Furnishings, and Fiber Arts Tracks Electives (see below)12 |  |
| - Home Furnishings Track - 35 credits: |  |  |
| 7400:158 | Introduction to Interior Design | 3 |
| 7400:259 | Family Housing | 3 |
| 7400:331 | Interior Design Theory | 3 |
| 7400:333 | Programming and Space Planniry | 3 |
| 7400:334 | Specifications for Interiors I | 3 |
| 7400:335 | Specifications for Interiors II | 3 |
| 7400:418 | History of Interior Design I | 4 |
| 7400:419 | History of Interior Design II | 4 |
| 7400:422 | Textiles for interiors | 3 |
| 7400:494 | Intemship | 3 |
| 7400:x0x | Appetrel, Home Furnishings, and Fiber Arts Tracks Electives (see below) | ow) 3 |
| - Fiber Arts Track - 33-35 credits: |  |  |
| 7400:125 | Principles of Apparel Design or | 3 |
| 7400:158 | Introduction to Interior Design | 3 |
| 7400:226 | Textile Evaluation | 3 |
| 7400:311 | Seminar in Fiber Arts | 6 |
| 7400:418 | History of Interior Design I and | 4 |
| 7400:479 | History of Interior Design II or | 4 |
| 7400:437 | Historic Costume and | 3 |
| 7400:438 | History of Fashion | 3 |
| 7400:422 | Textiles for Interiors or | 3 |
| 7400:425 | Textiles for Apparel | 3 |
| 7400:494 | internship | 3 |
| 7400:x0x | Apparel, Home Furnishings, and Fiber Arts Electives (see below) | 9 |

Electives for Apparel, Home Furnishings, and Fiber Arts Tracks:
(Courses used to futfill track requirements may not be used as elective courses, except for 7400:311.)
7400:158 Introduction to Interior Design 3
7400:219 Dress and Culture 3
7400:226 Textile Evaluation . 3
7400:257 Autocad for Interior Design . 3
7400:301 Consumer Education 3
or
3
7400:303 Children as Consumers
7400:305 Advanced Construction and Tailoring
7400:311 Seminar in Fiber Arts 3
7400:423 Professional Image Analysis 3
7400:436 Textile Conservation 3
7400:449 Flat Pattern Design 3
7400:485 Seminar in Family and Consumer Sciences 3
7400:490 Workshop in Family and Consumer Sciences

## Bachelor of Arts in Interior Design

The professional interior designer is qualified by education, experience, and examination to enhance the function and quality of interior spaces for the purpose of improving the quality of life, increasing productivity, and protecting the health safety, and welfare of the public. This four-year professional program prepares students for entry-level positions in residential or non-residential interior design. The program includes understanding and application of the design process; programming and space planning; furniture selection and layout; application of design and decorative elements; selection and application of lighting and color; codes, regulations, and barrier-free environments; building systems; development of drafting and communications skills; study of the basic and creative arts; the profession; environmental concerns; universal design; and computer applications in interior design. Lecture and studio course work are-included. Affiliation with the American Society of interior Designers (ASID) is available through membership in the student chapter.
The Bachelor of Arts in Interior Design is CIDA (Council for Interior Design Accreditation) accredited at the professional level. CIDA promotes excellence in interior design education through research and the accreditation of academic programs that prepare interior designers to create interior environments for improving the quality of the human experience. CIDA is a member of the Commission on Recognition of Postsecondary Accreditation (CORPA); is recognized by the U.S. Department of Education (DOE) as a reliable authority on the quality of interior design education; and is a member of the Association of Specialized and Professional Accreditors (ASPA).
The National Association of Schools of Art and Design has also granted institutional accreditation to the Interior Design Program. NASAD, the national accrediting agency for art and design and design-related disciplines, was established in 1944 to improve educational practices and to maintain high professional standards in art and design education. Institutional accreditation, gained only through peer review, is based on an art or design program's demonstrated content, competence, and educational substance as applied to the preparation of art and design professionals.

Also key to the success of any educational program is its interaction with the professional community. The Interior Design Program has an active Advisory Board with representation from the profession, the industry, and alumni.

## Program Philosophy

The four-year undergraduate program in interior design is a comprehensive program of study located in a publicly assisted open-enrollment urban university. The program is located in the School of Family and Consumer Sciences and within The College of Fine and Applied Arts. The program provides a balanced broad general education with specialized content integral to the interior design profession. The program seeks to develop students' understanding of the role of the interior designer in serving individuals and families in the built environments in which they live and work.

## Program Mission

The four-year Bachelor of Arts degree in interior design strives to provide a comprehensive program of study that promotes and maintains high standards of student and program performance. It works to promote scholarship and advancement of the profession. The interior design graduate is an entry-evel professional who has the foundational skills to synthesize information, analyze problems, and respond to and/or adapt to changes in the profession and society. The interior design graduate has the academic preparation to enhance the function and quality of interior spaces for the purpose of improving the quality of life, increasing productivity, and protecting the health, safety, and welfare of the public.

## Program Goals

- To provide a broad-based general education by requiring a broad-based core of liberal arts and sciences course which develop the skills and knowledge essential for all graduates of four-year baccalaureate programs.
- To provide a common core in Family and consumer Sciences by requiring a broadbased core of family and consumer science courses which provide the common knowledge-base for understanding the role of serving individuals and families in the environments in which they live and work.
- To provide a common body of knowledge of interior design by requiring a core of courses which reflects the common body of knowledge required in professional level programs of interior design.
- To provide high-quality standards for interior design education through professional accreditation.
- To promote an agenda for scholarly and creative activities.
- To promote advancement of the profession through NCIDO certification.


## Admission to the Interior Design Program:

Incoming freshmen will be designated as Pre-interior Design Candidates and will remain in the category until the following requirements have been met:

- Successful completion of the following courses:

| $7100: 144$ | Foundetion 2-D Design |
| :--- | :--- |
| $7100: 491$ | Architectural Presentations 1 |
| $7400: 158$ | Introduction to Interior Design |

- Completion of application to and acceptance by the College of Fine Arts as an Interior Design Major.
Upon admission into the program, students will sign an Interior Design Program Agreement and must maintain a grade-point average of 2.50 in all courses in the interior design core. Interior Design core courses must be taken in the prescribed sequence. Students must qualify for and sign the Program Agreement before taking any Interior Design courses beginning in the third year of the interior Design course sequence.
Transfer students from non-CIDA accredited interior design programs will be designated as Pre-Interior Design Candidates. Transfer students from CIDA accredited programs will be admitted directly into the program if they have an overall gradepoint average of 2.50 and Program Director approval of a submitted portfolio.
Post-baccalaureate students seeking an additional degree must have an overall grade-point average of 2.50 in all previous college-level work and meet with the Interior Design Program Director prior to enrolling in any Interior Design course.
Because of the professional nature of interior design, students must eam a grade of C - or better in all interior design core courses and electives. Grades below C - in . these courses will not be accepted for graduation.

Program information may be found on the internet at: http://www.uakron.edu/colleges/faa/schools/fcs/interior/_or by contacting: Mr. John Vollmer; Director, Interior Design Program, 215 U Schrank Hall South, The University of Akron, Akron. OH 44325. Telephone: 330-972-7721.

## - Interior Design Core Courses

Interior Design Majors are required to follow the program sequencing of courses as published due to prerequisites and course content sequencing requirements. There is no foreign language requirement.

| 2940:250 | Architectural Drafting |
| :--- | :--- |
| 3230:150 | Culturai Anthropology (Social Science) |
| 3750:100 | Introduction to Psychology (Social Science) |
| $7100: 210$ | Visual Arts Awareness (Humanities) |
| $7100: 100$ | Survey of Art History I |
| $7100: 144$ | Foundation 2-O Design |
| $7100: 491$ | Architectural Presentations \| |
| $7100: 492$ | Architectural Presentations II |
| $7400: 139$ | Fashion and Furnishings Industry |
| $7400: 158$ | Introduction to Interior Design |
| $7400: 225$ | Textiles |
| $7400: 257$ | AUTOCAD for Interior Design |
| $7400: 258$ | Light in Man-Made Environments |
| $7400: 259$ | Family Housing |
| $7400: 331$ | Interior Design Theory |
| $7400: 333$ | Programming and Space Planning |
| $7400: 334$ | Specifications for Interiors । |
| $7400: 335$ | Specifications for Interiors II |
| $7400: 336$ | Principles and Practices of Design |
| $7400: 337$ | Interior Design Contract Documents |
| $7400: 418$ | History of Interior Design I |
| $7400: 419$ | History of Interior Design II |
| $7400: 422$ | Textiles for Interiors |
| $7400: 433$ | Senior Design Studio I |
| $7400: 434$ | Senior Design Studio III |
| $7400: 435$ | Decorative Elements in Interior Design |
| $7400: 458$ | Senior Design Studio II |
| $7400: 459$ | Senior Design Studio IV |
| $7400: 478$ | Senior Portfolio Review |
| $7400: 479$ | The NCIDO Examination |
| $7400: 494$ | Intemship: Family and Consumer Sciences |
| $1000: \times 0 x$ | Course approved by Interior Design adviser |
|  |  |

3230:150
3750:100
7100:210
7100:100
7100:144

7400:158
7400.257

7400:258
7400:259
7400.33

7400:334

7400:418

7400:433

7400:459

7400:49
x000:000
ulturai Anthropology (Social Science)
Introduction to Psychology (Social Science)
Ats Awareness (Hurnanities)
of Att History 1
Architectural Presentations I
Architectural Presentations II

Fastod and Furishion lo Industry
Textiles
AUTOCAD for Interior Design

Family Housing
Programming and Space Planning
Specifications for Interiors ।
pecinications for interiors :i
Principles and Practicos of Design
History of Interior Design I
History of intenor Design If
Textiles for Interiors
Senior Dasign Sudi III

Decorative Elements in Intenior Design
enior Design Studio II
Senior Design Studio iv
The NCIDQ Examination
ntemship: Family and Consumer Sciences
Course approved by Interior Design adviser

## Bachelor of Arts (Step-Up <br> Program) with Summit College Marketing and Sales Technology

## General Information

In the first two years the student will be advised by faculty in Summit College. In the last two years, the student will be advised by the Clothing. Textiles, and Interiors faculty in the School of Family and Consumer Sciences, College of Fine and Applied Arts.

## Bachelor of Arts in Fashion Merchandising (Step-Up Program) with Summit College Marketing and Sales Technology, Fashion Option

- Completion of all requirements for the Associate Degree in Marketing and Sales Technology, Fashion Option, as established by Summit College, with technical electives taken from courses in the School of Family and Consumer Sciences, College of Fine and Applied Arts.

| Summit College | e Requirements | Credits |
| :---: | :---: | :---: |
| 2020:121 E | English | . 4 |
| 2040:240 H | Human Relations | 3 |
| 2040:247 S | Survey of Basic Economics | 3 |
| 2420:170 A | Applied Mathematics for Business | 3 |
| 2420:211 B | Basic Accounting I | 3 |
| 2420:243 S | Survey of Finance | 3 |
| 2420:280 E | Essentials of Business Law | 3 |
| 2440:103 S | Sotwars Fundamentals | 2 |
| 2520:101 E | Essentials of Marketing Technology | 3 |
| 2520:202 R | Retailing Fundamentals | 3 |
| 2520:203 P | Principles of Advertisirg | 3 |
| 2520:206 R | Retail Promotion and Advertising | 3 |
| 2520:210 C | Consumer Service Fundamentals | 2 |
| 2520:211 M | Mathematics of Retail Distribution | 3 |
| 2520:212 P | Principles of Sales | 3 |
| 2540:119 B | Business English | 3 |
| 5540:x00 P | Physical Education | 1 |
| 7600:105 in | Introduction to Public Speaking | 3 |
| Fashion Option |  |  |
| 2420:202 E | Elements of Human Resource Managernent | 3 |
| 7400:139 | The Fashion and Fumishings Industries | 3 |
| 7400:219 D | Dress and Culture | 3 |
| 7400:225 T | Textiles | 3 |
| 7400:226 T | Textile Evaluation | 3 |

## College of Fine and Applied Arts Requirements

- Completion of remaining General Education requirements
- Completion of remaining credits in the School of Family and Consumer Sciences curriculum
- Completion of language alternative: 14 hours of specified coursework, completed as a part of the requirements for the Associate Degree, will be accepted as language alternatives for the Bachelor's degree.
- The following courses required for the Associate Degree programs will be accepted as language alternative for those students completing both the Associate Degree in Marketing and Sales Technology, Fashion or Retailing Options, and the Bachelors of Arts in Clothing, Textiles and Interiors:

| 2020:240 | Hurman Relations | 3 |
| :--- | :--- | :--- |
| 2420:211 | Basic Accounting | 3 |
| 2440:103 | Software Fundamentals | 2 |
| 2520:206 | Retail Promotion and Advertising | 3 |
| 2520:211 | Mathematics and Retail Distribution | 3 |

- Completion of remaining credits in the School of Family and Consumer Sciences curriculum.

| 7400:447 | Senior Seminar: Critical Issues in Professional Development | 1 |
| :--- | :--- | :--- |
| 7400:450 | Families, Individuals and Environments | 3 |

## Bachelor of Arts in Fashion Merchandising, (StepUp Program) with Summit College Marketing and Sales Technology, Retailing Option

- Completion of all requirements for the Associate Degree in Marketing and Sales Technology, Retailing Option, as established by Summit College with the addition of two elective hours. Total electives is thus brought to nine which students fulfill by taking three courses selected from a list of suggested Clothing, Textiles, and Interiors courses from the School of Family and Consumer Sciences.

| Summit College Requirements |  | Credits |
| :---: | :---: | :---: |
| 7600:105 | Introduction to Public Speaking | 3 |
| 5540:xxx | Physical Education | 1 |
| 2020:121 | English | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2420:170 | Applied Mathematics for Business | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2420:211 | Basic Accounting : | 3 |
| 2420:243 | Survey in Finance | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2440:103 | Software Fundamentals and | 2 |
| 2520:215 | Advertising Projects or | 2 |
| 2520:219 | Sales Projects | 2 |
| 2520:101 | Essentials of Marketing Technology | 3 |
| 2520:202 | Retailing Fundamentals | 3 |
| 2520:203 | Principles of Advertising | 3 |
| 2520:206 | Retail Promotion and Advertising | 3 |
| 2520:210 | Consumer Service Fundamentals | 2 |
| 2520:211 | Mathematics of Retail Distribution | 3 |
| $2520: 212$ | Principles of Sales | 4 |
| 2520:217 | Merchandising Projects | 2 |
| 2540:119 | Business English | 3 |
| 7400:139 | The Fashion and Furnishings Industries | 3 |
| 7400:219 | Dress and Culture | 3 |
| 7400:225 | Textiles | 3 |

College of Fine and Applied Arts Requirements

- Completion of remaining General Education requirements
- Completion of remaining credits in the School of Family and Consumer Sciences curriculum
- Completion of language alternative: 14 hours of specified coursework, completed as a part of the requirements for the Associate Degree, will be accepted as language alternatives for the Bachelor's degree.
- The following courses required for the Associate Degree programs will be accepted as language alternative for those students completing both the Associate Degree in Marketing and Sales Technology, Fashion or Retailing Options, and the Bachelors of Arts in Clothing, Textiles and Interiors:

| 2020:240 | Hurnan Relations | 3 |
| :--- | :--- | :--- |
| 2420:211 | Basic Accounting | 3 |
| 2440:103 | Sofware Fundamentals | 2 |
| 2520:206 | Retail Promotion and Advertising | 3 |
| 2520:211 | Mathematics and Retail Distribution | 3 |

- Completion of remaining credits in the School of Family and Consumer Sciences curriculum.

| $7400: 123$ | Fundamentals of Construction | 3 |
| :--- | :--- | ---: |
| $7400: 133$ | Nutrition Fundamentals | 3 |
| $7400: 141$ | or | Food for the Family |
| $7400: 147$ | Orientation to Professional Stucies | 3 |
| $7400: 201$ | Courtship, Marriege and the Farnily | 1 |
|  | or | 3 |
| $7400: 265$ | Child Develcoment | 3 |
| $7400: 352$ | Strategic Merchandise Plenning | 3 |
| $7400: 362$ | Family Life Management | 3 |
| $7400: 425$ | Textiles for Apparel | 3 |
| $7400: 427$ | Global lssues in Textiles and Acparel | 3 |
| $7400: 439$ | Fashion Analysis | 3 |
| $7400: 447$ | Senior Serninar: Critical lssues | 1 |
| $7400: \times 0 \times$ | Fashion Merchandising Track | $24-26$ |

Fundamentals of Construction 3
Nutrition Fundamentals 3

Food for the Family
7400:147 Onientation to Professional Stucies
7400:201 Courtship, Marriege and the Farnily 3
or
Strategic Merchandise Plenning
Family Lie Managemen
Glabal Issues in Textiles and Apparel

Fashion Merchandising Track $24-26$

## Bachelor of Science in Dietetics

To become a registered dietitian (RD), a student must complete the academic requirements, complete a minimum of 900 hours of supervised experience in dietetic practice, obtain appropriate verification, and pass the dietetic registration examination. Only accredited programs like those at The University of Akron are recognized by the American Dietetic Association (ADA).
The University of Akron has two routes to prepare a student for a career in dietetics - the Didactic Program, the Coordinated Program. The Didactic Program includes all required coursework necessary to apply for a minimum of 900 hours of supervised experience in dietetic practice through a dietetic internship (DI). The Coordinated Program ailows students to complete 900 hours of supervised experience along with regular coursework during their junior and senior years. Regardless of the option chosen, students must have successfully completed their coursework and clinical experience before they are eligible to take the registration examination.
The University of Akron students apply through the College of Fine and Applied Arts Dean's Office to be considered for admission into the dietetics major. Students must meet the minimum criteria listed below:

- 2.8 overall GPA
- All prerequisites must be completed at the time of application
- no grade less than a " C " in any prerequisite course (grades of " C -" must be repeated)
- important note: Completion of all admission criteria does not guarantee admission into the dietetics major.
All eligible students will be admitted to the DPD program first. The curriculum for DPD and CP are the same for the first and second years. Students who desire to be admitted to the CP may apply to the program when CP program prerequisites have been completed. Up to 12 students per year are admitted to the Coordinated Program. Applications are accepted no later than February 1 of each year. Seats are limited and entry is competitive. Students who do not enter the CP program who meet other program requirements witl continue in the DPD program.


## First Year Prerequisite Courses for Undergraduate, Post-Baccalaureate and Transfer Students for Admission to the Dietetics program: $\mathbf{3 2}$ hours

| Fall Semester 16 hours |  | Credits |
| :---: | :---: | :---: |
| 3850:100 | Introduction to Sociology | 4 |
| 3470:260 | Basic Statistics | 3 |
| 3300:111 | English Composition | 4 |
| 3150:110 | Introduction to General, Organic and Biochemistry | 3 |
| 3150:111 | Introduction to General, Organic and Biochemistry Lab | 1 |
| 7400:320 | Career Decisions in Nutrition | 1 |
| Spring Sementer 16 hours |  |  |
| 3300:112 | English Composition | 3 |
| 3150:112 | Introduction to General, Organic and Bicchemistry |  |
| 3150:113 | Introduction to General, Organic and Biochemisty Lab | 1 |
| 3100:130 | Principles of Microbiology | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |

Students directly admitted to Family and Consumer Sciences/Predietetics will be assigned an adviser in the nutrition/dietetics department while completing the prerequisite courses. The criteria for direct admission is:

- New high school graduates (within two years) with a 3.5 high school GPA; 20 ACT or 950 SAT; upper $25 \%$ of high school graduating class having taken the core curriculum (Algebra, Geometry, Biology and Chemistry).
- Transfer students with a cumulative college GPA of a 2.8 and successful completion of all prerequisite courses for the dietetics major.
- Post-Baccalaureate students with a minimum baccalaureate GPA of 2.8 from an accredited college or university.

[^43]
## Intended Dietetics Major

All other students not directly admitted to the Dietetics program, but intending to major in dietetics will be admitted to and advised by University College. Intended Dietetics Majors in University College will have the opportunity to transfer to the College of Fine and Applied Arts as a DPD dietetics major once criteria are achieved.

## Nutrition Center

Evelyn Taylor, M.S., R.D., L.D., Director
The University of Akron Nutrition Center is a comprehensive regional center for the study and delivery of effective nutrition interventions: It provides the needed link between UA nutrition expertise and the extensive preventative health care needs of campus and our surrounding community. The Center serves as an educational resource for students and the community, provides nutrition services and conducts research in sports nutrition, chronic disease treatment, wellness and disease prevention, nutrition information technology, food safety and sanitation, and community nutrition. Nutrition Center services include:

- Nutrition risk assessments utilizing anthropomtetric equipment in private counseling setting.
- Laboratory analysis of blood, urine and other samples to support nutrition therapy and research.
- Nutrient analysis systems to support tailored nutrition counseling and risk assessment for practice and research purposes.
- On-site private nutrition counseling for meeting the needs of campus and community.
- Food systems management and sanitation consultation and education services.


## Didactic Program Option

- Family and Consumer Sciences Core (4 credits)
$\begin{array}{llc}\text { - General Education Requirement (42 credits) } & \text { Credits } \\ 3150: 110,111 & \text { Introduction to General, Organic, and Biochemistry }\end{array}$

| 3150:110, 111 | Introduction to General, Organic, and Biochemistry ${ }^{\text {* }}$ \# | 4 |
| :---: | :---: | :---: |
| 3150:112, 113 | Introduction to General, Organic, and Biochemistry \\| ${ }^{\ddagger}$ | 4 |
| 3300:111 | English Composition ${ }^{*}$ | 4 |
| 3300:112 | English Composition II* | 3 |
| 3400:210 | Humanities in the Western Tradition I. | 4 |
| xaxcxox | Humanities elective | 3 |
| xpoc:0xx | Humanities elective | 3 |


| xcx.ox | Humanities elective Note: See General Education P Humanities electives must be choc |  |
| :---: | :---: | :---: |
| 100:x00x | Area Studies and Cultural Diversity | 4 |
| 3470:260 | Basic Statistics | 3 |
| 3750:100 | Introduction to Psychology ${ }^{\ddagger}$ | 3 |
| 3850:100 | Introduction to Sociology* | 4 |
| 7600:105 | Introduction to Public Speaking* or | 3 |

7600:106 Effective Oral Communication

- Program Requirements ( 73 credits)
3100:130 Principles of Microbiology* $\ddagger$. 3

3100:200. 201 Human Anatorny and Physiology I. Lab" ${ }^{\text { }}$
3
3100:202, 203 Human Anatorny and Physiology II, Lab ${ }^{\circ} \ddagger$
6200:201 Accounting Concepts and Principles for Business * or
2420:211 Basic Accounting I*
6500:341 . Human Resource Management ${ }^{\ddagger}$
6500:480 Introduction to Heath-Care Management ${ }^{\ddagger}$
7400:133 Nutrition Fundamentals
7400:250 Food Science Lecture \& Lab" $\ddagger$
7400:310 Food Systems Management ${ }^{\ddagger}$
7400:315 Food Systems Management I Clinical ${ }^{\ddagger}$
7400:320 Career Decisions in Nutrition ${ }^{\ddagger}$
7400:328 $\quad$ Nutrition in Medical Science $I^{\ddagger}$
7400:400 Nutrition Communication and Education Skills ${ }^{\ddagger}$
7400:403 Advanced Food Preparation ${ }^{\ddagger}$
7400:413 $\quad$ Food Systems Management $\|^{\ddagger}$
7400:424 Nutrition in the Life Cycle ${ }^{\ddagger}$
7400:426 Human Nuttrition ${ }^{\ddagger}$
7400:428 Nutrition in Medical Science II ${ }^{\ddagger}$
7400:443 Nutrition Assessment
7400:480 Community Nutrition $\left.\right|^{\ddagger}$
7400:482 . Community Nutrition $11{ }^{\ddagger}$
7400:487 Sports Nutrition ${ }^{\ddagger}$
7400:489 Professional Preparation for Dietetics ${ }^{\ddagger}$

- Electives (11 hours)


## Coordinated Program Option

- Family and Consumer Sciences Core (4 credits)

Note: 7400:133 Nutrition Fundamentals* $\ddagger$ must be taken. (Meets PE requirement.)

- General Education Requirement (42 credits)
$\begin{array}{ll}3150: 110,111 & \text { Introduction to General, Organic, and Biochemistry } \|^{*} \ddagger \\ \text { 3150:112, 113 } & \text { Introduction to General, Organic, and Biochemisty } \|^{*} \ddagger\end{array}$
12,113
3300:111
3300:112 Engish Composition I*
3400:210 Humanities in the Western Tradition I
xcxx:xxx Humanities elective
$x$ xcx:xxx Humanities elective
Note: See General Education Program under University College.
Humanities electives must be chosen from two different sets.
Area Studies and Cultural Diversity
3470:260 Basic Statistics
$\begin{array}{ll}\text { 3470:260 } & \text { Basic Statistics } \\ \text { 3750:100 } & \text { Introduction to Psychology }\end{array}$
3850:100 Introduction to Sociology*
7600:105 Introduction to Public Speaking*
or
7600:106 Effective Oral Communication
- Program Requirements ( 88 credits)
$\begin{array}{ll}3100: 130 & \text { Principles of Microbiclogy* } \ddagger \\ 3100: 200,201 & \text { Human Anatorny and Physiology I, Lab" } \ddagger\end{array}$
$\begin{array}{lll}3100: 200,201 & \text { Human Anatomy and Physiology I, Lab" } \ddagger & 4 \\ 3100: 202,203 & \text { Human Anatorny and Physiology II, Lab" } \ddagger & 4\end{array}$
6200:201 Accounting Concepts and Principles for Business* 3
2420:211 Basic Accounting I
6300:201 Introduction to Entrepreneurship
6500:301 Management Principles and Concepts
6500:480 Introduction to Health-Care Management $\ddagger$
7400:133 Nutrition Fundamentals
7400:250 Food Science Lecture \& Lab* $\ddagger$
7400:310 Food Systems Management It
7400:315 Food Systems Management I Clinical $\ddagger$
7400:320 Career Decisions in Nutrition $\ddagger$
7400:328 Nutrition in Medical Science if
7400:329 Nutrition in Medical Science I Clinical $\ddagger$
7400:400 Nutrition Communication and Education Skills $\ddagger$
7400:403 Advanced Food Preparation
7400:413 Food Systems Management II $\ddagger$
7400:414 Food Systems Management ll Clinical $\ddagger$
7400:424 Nutrition in the Life Cycle $\ddagger$
7400:426 Human Nutrition $\ddagger$
7400:428 $\quad$ Nutrition in Medical Science II $\ddagger$
7400:429 Nutrition in Medical Science II Clinical $\ddagger$
7400:443 Nutrition Assessment
7400:444 Long Term Care Clinicals
7400:480 Community Nutrition $1 \ddagger$
7400:481 Community Nutrition I Clinical $\ddagger$
7400:482 Community Nutrition II $\ddagger$
7400:483 Community Nutrition HI Clinical $\ddagger$
7400:486 Steff Relief: Dietetics $\ddagger$
7400:487 Sports Nutrition
- Electives (4 hours)

| $7400: 485$ | Professional Preparation for the Coordinated Program | 1 |
| :--- | :--- | :--- |
| xxx:xxxx | Any elective | 3 |

[^44]| Step-Up Option with Summit Coliege (Restaurant Management) |  |  |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2020:222 | Technical Report Witing | 3 |
| 2040:247 | Suney of Basic Economics | 3 |
|  | Sefity and Sanitation | 2 |
| 2280:121 | Fundememals of Food Preparaion 1 | 4 |
| 2280:122 | Fundementals of Food Properation II | 4 |
| 2280:32 | Dinimg Foom Serice and Training | 3 |
| ${ }^{2280} 2323$ | Restuurant Operation end Management | 4 |
| $2280 \cdot 237$ | Intersstip | 2 |
| ${ }_{2280} 2240$ | Supensision in the Hospetatiry lndusty | 3 |
| 2280:245 | Menu, Purchasing and Cost Contral | 4 |
| 2280:256 | Hospinalic Law | 3 |
| 2280:243 | Food Equipment and Plant Operations | 3 |
| 2420.170 | Appied Mathemaics for usisinss | 3 |
| 2420:211 | Basic Accountinal | 3 |
| 2420:212 | Basic Acounning II | 3 |
| 2500223 | Business Communications |  |
| 2420:280 | Essentials of Business Law | 3 |
| 2520:203 | Principes of Adverising | ${ }^{3}$ |
| 2500:19 | Business Engish | ${ }^{3}$ |
| $3100 \cdot 130$ | Principes of Microbiobog ${ }^{*}$ | 3 |
| 3100:200, 201 |  | 4 |
| 3100:202, 203 | Human Anatomy and Physiology 11, lab ${ }^{\circ}$ | 4 |
| 3150:110,111 |  | 4 |
| 3150:12, 113 | Intuoducion to General. Ofganic \& Biochemisty II. $1 \mathrm{Lb}^{\dagger}$ | 4 |
| 3300:112 | Engish Composition II | 3 |
| $3400 \cdot 210$ | Humanties in the Westom Tradition 1 | 4 |
| >00:000 | Humentices lective | 3 |
| xexaxax | Humanities elective <br> Note: See General Education Program under University College Humanities electives must be chosen from two different sets. | ${ }^{3}$ |
| 3000:3853991 | Wordd Civiliation | 2 |
| $3470 \cdot 260$ | Basic Statisitis | 3 |
| 3750:100 | Inroducioiont ${ }^{\text {Pssycholosy }}{ }^{\text {t }}$ | 3 |
| 3650:100 | Intoduction to Sociology | 4 |
| 6500480 | 1 Introducion 1 O Heath Care Mangement ${ }^{\text {t }}$ | 3 |
| 7400:x0x | Cliotring Communiection, Texiles or Housing option | 3 |
| 7400:133 | Nutrion Fundamentes ${ }^{\ddagger}$. ${ }^{\text {a }}$ | ${ }^{3}$ |
| $7700 \cdot 147$ | Oiomeration to Professional Sturies in Famiva and Consumer Sciences | S 1 |
| 7400:201 | Coutship, Mariege, and the Family | 2 |
| 7400:265 | Child Develomment | 3 |
| 7400:250 | Food Stionee | 4 |
| 7400:315 | Food System Management C Clinical | 2 |
| 7400:320 | Carees in Nutution |  |
| $7400: 328$ | Nutrition in Medical Scierce ${ }^{\text { }}$ | 4 |
| 74003632 | Fanily Lfie Management | 3 |
| 7400:400 | Nutrition Communication and Education Skills | ${ }^{4}$ |
| 7700:403 | Advancosf Food Proparaion | 3 |
| $7400: 313$ 7400424 |  | $3_{3}^{3}$ |
| 7400:226 | Human Nutrition ${ }^{\text {a }}$ | 3 |
| 7400:228 | Nutution in Modical Science $1^{\text {² }}$ | 5 |
| 7400:447 | Critical ssuses in Femily and Consumer Sciencos | 1 |
| $7400 \cdot 488$ | Communir Nutition 1 | 3 |
| 7400:482 | Community Nutrion II | 3 |
| $7400: 487$ 760005 | Sports Nutrion | $3_{3}^{3}$ |
| 7600:005 |  | 3 |

## Bachelor of Arts in Family and Consumer Sciences Education with Licensure in Family and Consumer Sciences Education

Family and Consumer Sciences programs are found in middle schools, high schools, career centers and in adult education programs and may be called called "Home Economics," "Life Skills," or "Work and Family." After successfully completing the following requirements, a student will be qualified to obtain an initial Ohio Two-Year Provisional License in Vocational Family and Consumer Sciences Education grades 4-12.

- Meet requirements to be admitted to the College of Fine and Applied Arts, School of Family and Consumer Sciences and the College of Education Teacher and Teacher Education Program.
- Complete required FCS content and teacher education courses with a mini mum of a "C" grade.
- Pass Praxis II PLT 7-12 and FCS content tests.
- Successfully complete an 11-week student teaching field experience.

| Required courses: |  | Credits |
| :---: | :---: | :---: |
| General Education Requirements including 7400:133-44 |  |  |
| 7400:133 | Nutritional Fundamentals | 3 |
| Family and Consumer Sciences Courses |  |  |
| 7400:123 | Fundamentals of Clothing and Construction | 3 |
| 7400:141 | Food for the Family | 3 |
| 7400:125 | Principles of Apparel Design | 3 |
| 7400:201 | Courtship, Marriage, and Family Relations | 3 |
| 7400:241 | Introduction to Family and Consumer Sciences Education | 3 |
| 7400:259 | Famity Housing | 3 |
| 7400:265 | Child Development | 3 |
| 7400:301 | Consumer Education | 3 |
| 7400:360 | Parent-Chid Relations | 3 |
| 7400:404 | Middle Childhood and Adolescence | 3 |
| 7400:406 | Family Financial Management | 3 |
| 7400:442 | Human Sexuality | 3 |
| 7400:00x | FCS Elective | 6 |
| Recommended Electives |  |  |
| 7400:225 | Textiles | 3 |
| 7400:255 | Fatherhood: the Parent Role | 3 |
| 7400:305 | Advanced Constuction and Tailoring | 3 |
| 7400:362 | Famity Life Management | 3 |
| 7400:403 | Advanced Food Preparation | 3 |
| 7400:496 | Parent Education | 3 |

You must complete the following before admission into the College of Education:

- General Education - 24 credits which must include Oral Communication (3). English Composition (7), Mathematics (3), Social Science (3), Natural Science (5), Nutrition Fundamentals (3).
- Family and Consumer Sciences 8 credits not including Nutrition Fundamentals.
- 2.5 overall GPA
- Computer Literacy
- Speech and hearing Test
- Bureau of Criminal Investigation Clearance
- ACT 22 or SAT 1050 or Praxis I PPST with a score of at least 172 in mathematics, 173 in reading comprehension and 172 in writing.
- College of Education Application
- 2 recommendation forms


## Education Core

| $5100: 200$ | introduction to Education | 3 |
| :--- | :--- | :--- |
| $5100: 220$ | Educational Psychology | 3 |
| $5100: 300$ | Equity and Excellence in Education | 3 |
| $5300: 100$ | Orientation to the AYAP-12Multi-Age Programs | 0 |
| $5300: 325$ | Content Reading in Secondary Schools Ifor AYA | 3 |
|  | or |  |
| $5500: 480$ | Special Tooics: Reading for P-12/Multi-Age | 3 |
| $5300: 495$ | Student Teaching | 8 |
| $5500: 230$ | Educational Technology | 3 |
| $5500: 360$ | Educational Planning | 3 |
| $5500: 370$ | Educational Implementation | 3 |
| $5500: 475$ | Instructional Technology Applications | 3 |
| $5610: 225$ | Introduction to Exceptionalities | 3 |
| $7400: 491$ | Career-Technical FCS Instructional Strategies | 3 |
| $7400: 498$ | Student Teaching Seminar | 1 |

[^45]
## Senior Honors Program

Senior honors project in family and consumer sciences and family ecology is one to three credits per semester and may be repeated for a total of six credits. Prerequisite: Senior standing in the Honors Program and approval of honors project by faculty preceptor.

## 7500: Music

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University. To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.
Prospective students should contact the School of Music for information on specialized programs, as well as dates and times for The Undergraduate Placement Examination in Music Theory. A student entering The University of Akron Fall 1992 or thereafter who is majoring in music is required to earn a grade of "C-" or better in all music courses required in the degree program. A student receiving a grade below " $\mathrm{C}-$-" in a required music course must repeat the course.

## Changing Major Instruments

A student may later change his declared major instrument after being admitted to the School of Music, but must then audition and satisfy all requirements for the new area as an entering student.

## Applied Music Requirements

- Studio Study (Private Lessons) - Skill in at least one major area of performance must be progressively developed to the highest level appropriate to the student's major. All students majoring in music are required to enroll in applied music on their declared major instrument every semester.
A performance major in the Bachelor of Music program must enroll for four credits in applied music each semester which equates to one-hour lesson or two half-hour lessons each week. All other students enroll for two credits in applied music on their declared major instrument each semester which equates to a half-hour lesson each week.
Because of the tutorial nature of applied music study, there is an additional fee for applied music registration beyond the normal credit-hour tuition and general service fee.
The offering of applied music instruction is dependent upon the availability of instructors. Although students may request study with a given instructor, the audition does not guarantee study with a particular member of the faculty. The priority for assignment is as follows: 1) collegiate music majors; 2) music minors; 3) non-music majors who are members of University performing ensembles; 4) pre-college students in the high school/college program of the School of Music; and, 5) all others.

Students will not be eligible for applied music study 1) if they fail to pass the entrance audition; 2) if a particular instructor's studio is full; 3) if the quality of work demonstrated is judged unacceptable by the applied instructor; or 4) if faculty in the student's applied area conclude on the basis of a jury that a continuation of applied study is not merited. Students in the studio are expected to exhibit a mature attitude and productive behavior.

## Levels of Applied Music Study

- The study of applied music is divided into seven course levels. These conform to levels of proficiency and the requirements of the various degree programs.
Entrance to applied music is by audition. Advancement in level is by jury examination only.

7520:000 Level for elective credit in non-music programs, pre-college adults, preparatory program enrollment, and for correcting deficiencies before permission is granted to enroll at the 100 level. Credits in applied music at this level cannot be counted toward any degree requirements in music.
Music majors may apply a maximum of eight credits from any of the following levels to their degree program. A maximum of 32 credits may be counted toward degree requirements.

| 7520:100 | Freshman level |
| :--- | :--- |
| $7520: 200$ | Sophomore level |
| $7520: 300$ | Junior level |
| $7520: 400$ | Senior level |

## Minimum Performance Levels Required by Degree Program

- Bacheior of Music in Performance Major - Thirty-two credits and completion of the 400 level in the primary performance area. A junior recital is required at the 300 level. A full senior recital is also required.
- Bachelor of Music in Composition Major - Eight credits in a performance area and jury to the 300 level in piano. A full senior composition recital is required.
- Bachelor of Music in Music Education - Sixteen credits and completion of the 300 level in the primary performance area. A half recital is required.
- Bachelor of Music in Jazz Studies - Sixteen credits and completion of the 200 level in the primary performance area; additional jury to the 200 level in flute and clarinet for saxophone majors and the 200 level in classical guitar for electric guitar majors. A full senior recital is required.
- Bachelor of Music in History and Literature - 16 credits in the primary performance area and jury to the 300 level in that area. A half recital is required.


## Jury System in Applied Music

- A jury examination is the only way in which a student may advance from one course level to another. Each music major may take a jury examination on the declared major instrument in the primary performance area once each year, after two semesters of study, and/or after the minimum number of credits is attained. However, a faculty member may require a student to take additional semesters of study prior to an advancement jury.
Each applied area is empowered to terminate applied study, to advise a student that further study will not apply to a degree program unless the next jury examination demonstrates capacity to continue. A jury examination may be used by a student studying applied music at the 000 level as an audition to the 100 level.


## Applied Repertory of Study

- Each applied music section (brass, composition, guitar, keytoard, percussion, piano, strings, voice, and woodwinds) has a published repertory of study requirements for each of the course levels. These requirements are available from the Applied Area Coordinator, individual applied instructors, and the School of Music office.


## Studio Classes

- Each music major is required to attend the weokly 50 -minute class taught by his applied instructor. Attendance at studio class is part of the requirement for applied music study, and reflects in the student's grade in applied music. Every student is required to perform in studio class at least once each semester.


## Sectional Recitals

- Each applied section holds a sectional recital each week. Attendance by students studying in the section is required. Students who have performed in studio class may sign up to perform on sectional recitals.


## Applied Study for Non-music Majors

- Non-music majors may enroll for applied music with the permission of the individual applied instructor or the area coordinator, whichever is appropriate to the area of study. Acceptance for studio study is based upon an audition, usually given the first week of classes. Only students who meet applied studio standards will be accepted for applied instruction.


## Recital Attendance Requirements

- Bachelor of Music majors are required to enroll and.receive credit for eight semesters of 7500:157(Student Recital). Bachelor of Arts music majors are required to enroll and receive credit for four semesters. Student Recital (7500:157) carries no academic credit and has no fee. Further information on the attendance requirement is available in the School of Music office.


## Ensemble Requirement

Enrollment in all ensembles requires permission of the instructor.

- Major Conchucted Ensemble Requirement - Students who are music majors must enroll for eight (8) semesters in a major conducted performance ensemble on their declared major instrument. Guitar and keyboard majors should refer to the Memo of Agreement for specific ensemble requirements. Auditions for membership are held each year and occasionally each semester. Students must enroll in the major conducted ensemble appropriate to their declared major each semester; on an academic year basis.
Students pursuing a major in History and Literature, Performance, Theory, Composition, and Music Education must complete a minimum of eight semesters. However, keyboard majors in Music Education may substitute one year of a major choral ensemble in place of a Keyboard Ensemble. Four semesters are required for Jazz Studies majors, music minors, and those pursuing the Bachelor of Ats degree in music. Students who do not complete degree requirements within eight semesters must continue to enroll in a major conducted ensenble each semester until graduation requirements are met, except semester when student teaching.
Major conducted Ensembles include: Concert Choir, Guitar Ensemble, Keyboard Ensemble, Concert Band, Symphonic Band, University Band, University Symphony Orchestra, and University Singers.
- Non-major Conducted Ensemble Requirement - Non-major conducted ensembles may be taken in addition to, but not instead of, major conducted ensembles. Jazz Studies majors are required. to complete eight credits in jazz ensembles in addition to four semesters of major conducted ensembles.
Non-major conducted Ensembles include: the Akron Symphony Chorus, Brass Choir, Chamber Orchestra, Instrumental Ensembles, Jazz Ensemble, Jazz Lab Band, Madrigal Singers, Marching Band, New Music Ensemble, Steel Drum Band, and Blue and Gold Brass (Basketball Band), and Opera Workshop.
- Unconchucted Ensembles - Unconducted ensembles may be taken in addition to, but not instead of, major conducted ensembles.
Unconducted ensembles include: Brass Ensembles, Jazz Combos, Mixed Ensembles; Percussion Ensembles, String Ensembles, Vocal Ensembles, and Woodwind Ensembles.
Ensemble credit is repeatable


## Minimum Proficiency Requirements in Keyboard and Voice

- All music majors must meet minimum proficiencies in keyboard and voice.

Keyboard proficiency is met by successfully completing keyboard Harmony I and II and passing a final keyboard examination.

- Core curriculum in music (for all degree programs) Credits

7500:121 Theory and Musicianship I
7500:122 Theory and Musicianship II
7500:154 Music Literature I
7500:155 Music Literature il
7500:221 Theory and Musicianship III
7500:222 Theory and Musicianship IV
7500:261 Keyboard Harmony I
7500:262 Keyboard Harmony II
7500:351 Music History I
7500:352 Music History II
Total Core

## Bachelor of Arts

- Total of 131 credits required for degree.

General Education requirement and 2nd year of a foreign language - 56 credits.

- Core Curriculum in music - 30 credits.
- Performance courses:

| $7500: 157$ | Student Recital (four semesters) | 0 |
| :--- | :--- | ---: |
| $7510: 00 x$ | Music Organization (four semesters in a major conducted ensemble |  |
|  | on primary instrument) | 4 |
| $7520: 00 \times$ | Applied Music | 8 |
|  | (Jury to the 300 level required prior to graduation on a primary instrument) |  |

- Electives - 33 credits.

The Bachelor of Arts program is intended as a cultural course or as a preparation for graduate study but not as professional preparation for a performance or teaching career.

## Bachelor of Music

Performance (emphasis in accompanying)

- Total of 133 credits required for degree.
- General Education requirement - 42 credits.
- Core curriculum in music - 30 credits.
- Applied music and performance courses:

| $7510: 114$ | Keyboard Ensemble leight semesters in a major conducted ensemble) 8 |  |
| :--- | :--- | :--- |
| $7520: \times 0 \times$ | 8 |  |
|  | Applied Piano | 32 |
|  | (Jury to the 30 level required on primary instrument prior to graduation) |  |
|  | Applied Voice |  |

- In order to complete this program, students are required to have a reading knowledge of French, German, and Italian. This can be accomplished through 7500:265 and 266.
- Additional required music courses - 14-15 credits

| $7500: 325$ | Research in Music | 2 |
| :--- | :--- | :--- |
| $7500: 361$ | Conducting | 2 |
| $7500: 365$ | Song Literature | 2 |
| $7500: 371$ | Analytical Techniques | 2 |
| $7500: 451$ | Introduction to Musicology | 2 |
| $7500: 497$ | Independent Study (Chamber Music) | 2 |

- Electives -4 credits
- Senior recital (to include works as soloist, accompanist and in chamber ensembles).


## Performance (emphasis in brass)

- Total of 132 credits required for degree.
- General Education requirement - 42 credits.
- Core curriculum in music - 30 credits.
- Applied music and performance courses - 40 credits Credits

| 7500:157 | Student Recital (eight semesters) |
| :--- | :--- |
| 7510:000 | Music Organization* |
| 7520:00X | Applied Music - primary instrument (completion of the 400 leve |
|  | is required prior to graduation) |

$\begin{array}{ll}\text { 7510:xox } & \text { Music Organization* } \\ \text { 7520:x0x } & \text { Applied Music - primary instrument (completion of the } 400 \text { level }\end{array}$ is required prior to graduation)

- Additional required music courses - $14-15$ credits

| 7500:361 | Conducting | 2 |
| :---: | :---: | :---: |
| 7500:371 | Anatytical Techniques | 2 |
| 7500:372 | Techniques for the Analysis of 20th Century Music | 2 |
| 7500:454 | Orchestration | 2 |
| 7500:471 | Counterpoint | 2 |
| 7500:497 | Independent Study (with approval of applied instructor and adviser) | 2 |
| 7500:353 | Electronic Music |  |
|  | (As an altemative to 7500:452 Composition, or 7500:454 Orchestration, or 7500:471 Counterpoint) |  |

- Electives 5-6 credits.
- Senior recital (full recital required).


## Performance (emphasis in piano/harpsichord)

- Total of 132 credits required for degree.
- General Education requirement- 42 credits.
- Core curriculum in music - $\mathbf{3 0}$ credits.
- Applied music and performance courses 40 credits.

| 7500:157 | Student Recital (eight semesters) |
| :--- | :--- |
| $7510: x x x$ | Music Organization** |
| $7520: x 0 x$ | Applied Music - primary instrument (completion of the 400 level |

7510:xxx $\quad$ Music Organization*
7520:xx is required prior to graduation)

- Additional required music courses - 14 credits.

| $7500: 271$ | Piano Pedagogy and Literature I | 2 |
| :--- | :--- | :--- |
| $7500: 272$ | Piano Pedagogy and Literature II | 2 |
| $7500: 325$ | Research in Music | 2 |
| $7500: 361$ | Conducting | 2 |
| $7500: 371$ | Analytical Techniques | 2 |
| $7500: 451$ | Introduction to Musicology | 2 |
| $7500: 497$ | Independent Study (with approval of applied instructor and adviser) | 2 |

- Electives - 6 credits.
- Senior recital (full recital required).


## Performance (emphasis in strings)

- Total of 133 credits required for degree.
- General Education requirement - 42 credits.
- Core curriculum in music - 30 credits.
- Applied music and performance courses - 40 credits.

| $7500: 157$ | Student Recital (eight semesters) |
| :--- | :--- |
| $7510: 00 x$ | Music Organization* |
| $7520: x \times x$ | Applied Music - primary instrument (completion of the 400 level |
| is required prior to graduation) |  | is required prior to graduation)

- Additional required music courses - 15-16 credits

| 7500:361 | Conducting |
| :--- | :--- |
| 7500:371 | Analytical Techniques |
| 7500:372 | Techniques for the Analysis of 20th Century Music |
| $7500: 454$ | Orchestration |
| 7500:463 | Repertoire and Pedagogy: String Instruments |
| $7500: 471$ | Counterpoint |
| $7500: 497$ | Independent Study (with approval of applied instuctor and adviser) |
| $7500: 353$ | Elecranic Music |
|  | (As an altemetive to 7500:454 Orchestration) |

- Electives - 5-6 credits.
- Senior Recital (full recital required)


## Performance (emphasis in voice)

- Total of 144 credits required for degree
- General Education requirement - 42 credits.
- Core curriculum in music - 30 credits.
- Applied music and performance courses - 40 credits. Credits

| $7500: 157$ | Student Recital (eight semesters) | 0 |
| :--- | :--- | ---: |
| $7510: 00 x$ | Music Organization** | 8 |
| $7520: 00$ | Applied Music - primary instrument (completion of the 400 level |  |
|  | is required prior to graduation) | 32 |
| $7520: 025$ | Applied Piano - (completion of the 100 level) |  |

- Additional required music courses - 14 credits.

| 7500:371 | Anslytical Techniques | 2 |
| :---: | :---: | :---: |
| 7500:471 | Counterpoint | 2 |
| 7500:361 | Conducting | 2 |
| 7500:265 | Diction for Singers I | 2 |
| 7500:266 | Diction for Singers II | 2 |
| 7500:365 | Song Literature | 2 |
| Foreign Language Requirement - 12 credits |  |  |
| 3550:101 | Itatian | 4 |
| 3530:101 | German | 4 |
| 3520:101 | French | 4 |

- Senior recital (full recital required).
- Electives 6 credits.

Performance (emphasis in voice/musical theatre)

- Total of 145 credits required for degree.
- General Education requirement - 42 credits.
- Core curriculum in music - 24 credits.

| $7500: 151$ | Theory I | 3 |
| :--- | :--- | :--- |
| $7500: 152$ | Theory II | 3 |
| $7500: 154$ | Music Literature I | 2 |
| $7500: 155$ | Music Literature I | 2 |
| $7500: 141,2,241,2$ | Ear Training/Sight Reading I, II, II, IV | 4 |
| $7500: 251,2$ | Theory III, IV | 6 |
| $7500: 261$ | Keyboard Harmony I | 2 |
| $7500: 262$ | Keyboard Harmony II | 2 |

- Applied music and performance courses - 41 credits.

| $7500: 157$ | Student Recital (eight semesters) | 0 |
| :--- | :--- | ---: |
| $7500: 108$ | Opera Workshop (3 semesters) | 3 |
| $7510: 1 \times \infty$ | Choral Ensembles (by audition) | 2 |
| $7520: \times 24$ | Applied Voice (Jury to the 400 level required prior to graduation) | 32 |
| $7520: 25$ | Apolied Piano (Jury to the 300 level required prior to graduation | 4 |

- Additional required music courses - 2 credits.
7500:320 Musica! Theatre History and Literature I 2
- Theatre Core - 20 credits

| $7800: 145$ | Movement Training | 3 |
| :--- | :--- | :--- |
| $7800: 151$ | Voice and Diction | 3 |
| $7800: 172$ | Acting I | 3 |
| $7800: 262$ | Stage Makeup | 3 |
| $7800: 321$ | Musical Theatre History II | 2 |
| $7800: 421$ | Musical Theatre Production | 3 |
| $7800: 475$ | Acting for Musical Theatre | 3 |

- Dance Core - 13 credits
7900:119 Modem I
7900:124 Ballet

7900:130 Jazz Dance I
7900:230 Jazz Dance II
7900:144 Tap Dance I
7920:270 Musical Theatre Dance Techniques $\quad 2$

- Senior recital (full recital required - recital may include a maximum of one group of songs from approved operettas and musical theatre works).
- Electives - 3 credits.


## Performance (emphasis in woodwinds)

- Total of 132 credits required for degree.
- General Education requirement - 42 credits. Credits
- Core curriculum in music - 30 credits.
- Applied music and performance courses - 40 credits.

| 7500:157 | Student Recital (eight semesters) | 0 |
| :---: | :---: | :---: |
| 7510:00x | Music Organization* | 8 |
| 7520:00x | Applied Music - primary instrument (completion of the 400 level is required prior to graduation) | 32 |
| Additional required music courses - 14-15 credits |  |  |
| 7500:325 | Research in Music | 2 |
| 7500:361 | Conducting | 2 |
| 7500:371 | Analytical Techniques | 2 |
| 7500:454 | Orchestration | 2 |
| 7500:471 | Counterpoint | 2 |
| 7500:497 | Independent Study (with approval of applied instructor and adviser) | 2 |
| 7500:353 | Electronic Music (As an alternative to 7500:452 Composition or 7500:454 Orchestration or 7500:471 Counterpoint) | 3 |

- Electives - 5-6 credits.
- Senior recital (full recital required).


## Performance (emphasis in organ)

- Total of 131 credits required for degree.
- General Education requirement - 42 credits.
- Core curriculum in music (7500:262 not required) - 28 credits.
- Applied music and periormance courses - 40 credits.

| $7500: 157$ | Student Recital (eight semesters) |
| :--- | :--- |
| $7510: 00 \times$ | Music Organization* |
| $7520: 00 \times$ | Applied Music - primery instrument (completion of the 400 level |
|  | is required prior to greduation) |

$\begin{array}{ll}7510: \times 0 x & \text { Music Organization* } \\ 7520: 00 x & \text { Applied Music - primary instrument (completion of the } 400 \text { level }\end{array}$ is required prior to graduation)

- Additional required music courses - 15 credits

7500:263 Service Playing for Organists (in lieu of 7500:262
7500:361 Conducting
7500:371 Analytical Techniques
7500:456 Advanced Conducting: Choral
7500:462 Repertoire and Pedagogy: Organ
7500:471 Counterpoint
7500:497 Independent Study (Choral Arranging)

- Electives 6 credits.
- Senior recital (full recital required).

Performance (emphasis in percussion)

- Total of 132 credits required for degree.
- General Studies - 42 credits.
- Core curriculum in music - 30 credits.
- Applied music and performance courses - 40 credits.

| 7500:157 | Student Recital (eight semesters) | 0 |
| :--- | :--- | :--- |
| $7510: 00 x$ | Music Onganization* | 8 |
| $7520: x 0 x$ | Applied Music - primary instrument (completion of the 400 level |  |
|  | is required prior to graduation) |  |

- Additional required music courses - 14-15 credits

| 7500:361 | Conducting |
| :--- | :--- |
| 7500:371 | Analytical Techniques |
| $7500: 372$ | Techniques for the Analysis of 20rh Century Music |
| $7500: 432$ | Teacting and Literature: Percussion Instruments |
| $7500: 454$ | Orchestration |
| $7500: 455$ | Advanced Conducting: Instrumental |
| $7500: 471$ | Counterpoint |
| $7500: 353$ | Electronic Music |
|  | (As an altemative to $7500: 471$ Counterpoint) |

- Electives - 56 credits.
- Senior recital (full recital required).


## Performance (emphasis in guiter)

- Total of 132 credits required for degree
- General Education requirement 42 credits.
- Core curriculum in music (7500:262 not required) 28 credits. Credits
- Applied music and performance courses - 40 credits.

| $7500: 157$ | Student Recital (eight semesters) | 0 |
| :--- | :--- | :--- |
| $7510:$ moxx | Music Organization* | 8 |
| $7520: 00 x$ | Applied Music - primary instrument (completion of the 400 level |  |
|  | is required prior to graduation) | 32 |

- Additional required music courses - 16-17 credits.

| $7500: 259$ | Fretboard Harmony (in lieu of 7500:262) | 2 |
| :--- | :--- | :--- |
| $7500: 361$ | Conducting | 2 |
| $7500: 371$ | Analytical Techniques | 2 |
| $7500: 467$ | Guitar Pedagogy | 2 |
| $7500: 468$ | Guitar Aranging | 2 |
| $7500: 469$ | History and Literature of the Guitar and Lute | 2 |
| $7500: 471$ | Counterpoint | 2 |
| $7500: 497$ | Independent Study (with approval of applied instructor and adviser) | 2 |
| $7500: 353$ | Electronic Music | 3 |
|  | (As an altemative to $7500: 471$ Counterpoint) |  |

- Electives 5-6 credits.
- Senior recital (full recital required).


## History and Literature

- Total of 133 credits required for degree.
- General Education requirement 42 credits.
- Core curriculum in music 30 credits.
- Applied music and performance courses 24 credits.

| $7500: 157$ | Student Recital (eight semesters) | 0 |
| :--- | :--- | ---: |
| 7510:xxx | Music Organization* | 8 |
| $7520: \times x x$ | Applied Music primary instrument |  |
|  | (Jury to the 300 level requirad prior to graduation) | 16 |

- Additional music courses - 14-15 credits.

| $7500: 325$ | Research in Music | 2 |
| :--- | :--- | :--- |
| $7500: 361$ | Conducting | 2 |
| $7500: 371$ | Analytical Techniques | 2 |
| $7500: 451$ | Introduction to Musicology | 2 |
| $7500: 454$ | Orchestration | 2 |
| $7500: 455$ | Advanced Conducting: Instrumental | 2 |
| $7500: 353$ | Electronic Music | 3 |
|  | (As an alternative to 7500:452 Composition) |  |

- Special study electives in music - 8 credits.

Graduate-level courses are available to those undergraduate upperclassmen who qualify for special permission to register.
7500:497 Independent Study in Music $\quad 1.2$

7500:601 Choral Literature 2
7500:621 Music History Survey: Middile Ages and Renaissance 2
7500:622 Music History Survey: Baroque Era 2

7500:623 Music History Survey: Classical and Romantic Eras ${ }^{2} 2$
7500:624 Musillitor Surve: 20th Coeter

- Cognate area such as history, language or other arts - 8 credits
- Electives - 6-7 credits
- A reading proficiency equal to the second year of undergraduate study in an approved foreign language (preferably German, French, or Italian) is required for completion of the degree program.
- Senior Recital (half recital required)


## Composition

- Total of 133 credits required for degree.
- General General Education requirement - 42 credits.
- Core curriculum in music - 30 credits.
- Additional music performance courses - 32 credits.

7500:157 Student Recital (eight semesters)
7510:xxx Music Organization*
7520:xox Applied Music primary instrumental
(Jury to the 300 level required prior to graduation)
7520:00x
Applied Music composition
(Jury to the 300 level piano is required prior to graduation)

- Additional music courses - 23 credits.

| $7500: 353$ | Electronic Music | 3 |
| :--- | :--- | ---: |
| $7500: 361$ | Conducting | 2 |
| $7500: 371$ | Analytical Techniques | 2 |
| $7500: 372$ | Techniques for Analysis: 20th Century Music | 2 |
| $7500: 451$ | Introduction to Musicology | 2 |
| $7500: 454$ | Orchestration | 2 |
| $7500: 455$ | Advanced Conducting: Instrumental | 2 |
|  | o |  |
| $7500: 456$ | Advanced Conducting: Choral | 2 |
| $7500: 471$ | Counterpoint | 2 |
| $7500: 497$ | Independent Study of.Music |  |

- Senior recital of original composition.
- Electives - 8 credits.


## Jazz Studies **

- Total of 135 credits required for degree.
- General Education requirement - 42 credits.
- Core curriculum in music - 30 credits.
- Additional music courses - 6-7 credits.

| 7500:361 | Conducting |
| :--- | :--- |
| 7500:371 | Analytical Techniques |
| 7500:454 | Orchestration |

- Additional jazz courses - 21 credits.

7500:210,1 Jazz Improvisation I, II
7500:212 The Music industry: A Survey of Practices and Opportunities
7500:307 Technique of Jazz Ensemble Performance and Direction
7500:308 Jazz History and Literature
7500:309 Jaz Keyboard Techniques
7500:310 Jazz Improvisation III
7500:311 Jazz Improvisation IV
7500:407 Jazz Arranging and Scoring
7500:497 Independent Study (Practicum in Jazz Studies)

- Applied music and performance courses - 28 credits.

7500:157 Student Recital (eight semesters)
7510:xxx Music Organization
Major Conducted
Jazz Ensembles
7520:xxx
Applied Music primary instrument
(Jury to the 300 level required prior to graduation)
Saxophone majors must jury to the 200 level of
applied flute and clarinet prior to graduation
Guitar majors must jury to the 100 level of
applied classical guitar prior to graduation.

- Electives -7-8 credits.
- Senior recital.


## Music Education

The music education curriculum strives to bring each of its students to an intellectual understanding of the pedagogical, historical, and theoretical aspects of musical performance while demanding the highest levels of technical and artistic development in the teaching and performing of music.

In view of the heavy educational requirements, students may be required to attend eight semesters plus one or two summer terms in order to complete the degree within a four-year period.

- General Education requirement - 42 credits.
- Core curriculum in music - 30 credits.
- Professional Education (Including Equity \& Excellence in Music Education, 7500:315, Student Teaching, 5300:495 and Student Teaching Colloquium, $7500: 492$ ) 24 credits. Credits

| $7500: 157$ | Student Recital (eight semesters) | 0 |
| :--- | :--- | :--- | 7500:457 Senior Recital

Ionehalf recital duning 12 months prior to graduation but not during 0
the semester of student teaching)

- Additional Music Courses by Major:

Band - Wind and Percussion Instruments/Applied Music and Performance Courses - 27 credits.

| 7510:104 | Symphonic Band <br> or | 8 |
| :---: | :---: | :---: |
| 7510:125 | Concert Band | 8 |
| 7510:121 | University Singers (one semester minimum) | 1 |
| 7510:126 | Marching Band (as prerequisite for 7500:205) Two semesters. Instrumental majors excepting bow | 2 |
| 7520:x0x | Applied Music primary instrumental (completion of the 300 is required prior to student teaching) | 16 |
| Minimum keyboard and conducting proficiencies must be attained before assignment to studen teaching. |  |  |
| Additional Required Music Courses - 27 credits |  |  |
| 7500:102 | Introduction to Music Education | 2 |
| 7500:254,5 | String Methods I, II | 2 |
| 7500:276 | Trumpet and French Horn Methods@ | 1 |
| 7500:277 | Clarinet and Saxophone Methodse | 1 |
| 7500:289 | Music Education Department Jury | 0 |
| 7500:298 | Technotogies of Music Education | 2 |
| 7500:305 | Marching band Organization and Technique | 2 |
| 7500:307 | Technique of Jazz Ensemble Performance and Direction | 2 |
| 7500:339 | Teaching General Music I | 2 |
| 7500:345 | Low Brass Methods@ | 1 |
| 7500:346 | Flute and Double Reed Methods ${ }^{\text {a }}$ | 1 |
| 7500:361 | Conducting | 2 |
| 7500:442 | Instrumental Methods( ${ }^{\text {a }}$ | 2 |
| 7500:443 | Instrumental Practicum(9) | 2 |
| 7500:454 | Orchestration | 2 |
| 7500:455 | Advanced Conducting: Instrumental | 2 |
| 7500:458 | Percussion Methods, | , |

Orchestra - Violin, Viola, Cello, String Bass/Applied Music and
Performance Courses - $\mathbf{2 5}$ credits

| 7510:103 | Symphony Orchestra | 8 |
| :--- | :--- | ---: |
| 7510:121 | University Singers (one semester minimumi) | 1 |
| $7520: x 0 x$ | Applied Music - primary instrument | 16 |

- Additional Music Courses - 23 credits

7500:102 Introduction to Music Education 2
7500:254,5 String Methods I, II
7500:276 Trumpet and French Horn Methods@ $\quad 1$
7500:277 Clarinet and Saxophone Methodse 1
7500:289 Music Education Department Jury 0
7500:298 Technologies of Music Education 2
7500:339 Teaching General Music I 2
7500:345 . Low Brass Methods 1
7500:346 Flute and Double Reed Methodse
7500:361 Conducting
2
7500:443 Instrumental Practicum 2
7500:454 Orchestration 2

7500:458 Percussion Methods© 1

[^46]Choral/General Music - Voice, Keyboard, or Guitar/Applied Music and Performances Courses - 24 credits

| 7510:120 | Concert Choir or |  |
| :---: | :---: | :---: |
| 7510:121 | University Singers | 8 |
| 7520:00x | Applied Music - primary instrument (completion of the 300 level is required prior to student teaching) | 16 |
| 7500:276 | Trumpet and French Hom Methods or | 1 |
| 7500:227 | Clarinet and Saxophone Methods | 1 |

- Additional Required Music Courses - 24 credits

| Vocal Majors: |  |  |
| :--- | :--- | :--- |
| $7520: 022$ | Applied Classical Guitar | 2 |
| $7520: 025$ | Applied Piano | 2 |
| Keyboard Majors: |  |  |
| $7520: 022$ | Applied Classical Guitar | 2 |
| $7520: 024$ | Applied Voice | 2 |
| Guiter Majors: |  |  |
| $7520: 024$ | Applied Voice | 2 |
| $7520: 025$ | Applied Piano | 2 |
| All Majors: |  | 2 |
| $7500: 102$ | Introduction to Music Education | 2 |
| $7500: 265$ | Diction for Singers I | 2 |
| $7500: 268$ | Group Vocal Techniques for Choral Music Education | 2 |
| $7500: 289$ | Music Education Department Jury | 0 |
| $7500: 298$ | Technologies of Music Education | 2 |
| $7500: 339$ | Teaching General Music I | 2 |
| $7500: 340$ | Teaching General Music II | 2 |
| $7500: 341$ | JH/MS Choral Methods | 2 |
| $7500: 344$ | Secondary Choral Music Methods | 2 |
| $7500: 361$ | Conducting | 2 |
| $7500: 363$ | Intermediate Conducting:Choral | 2 |
| $7500: 442$ | Instrurnental Methods | 2 |
| $7500: 456$ | Advanced Conducting: Choral * | 2 |

Before taking any of the upper level music courses ( 300 and up) the student must be accepted into the Music Education Program. For acceptance into the Music Education Program, the student must (a) successfully complete all of the above coursework for the first and second years with a grade of " C " or better in all music coursework, (b) have a cumulative grade point average of 2.5 or higher, (c) have a score of 11 or higher on a scale of 15 from the student's applied teacher, major conducted ensemble director, music education professor, music theory IV professor and the undergraduate music coordinator, (d) pass the music education jury 7500:289 and (e) jury to the 200 level on herhis applied instrument.

- One-half recital during 12 months prior to graduation but not during the semester of student teaching.
- Must be enrolled in at least one major conducted ensemble for four years (eight semesters).
- All Keyboard majors must complete 6 six semesters of Keyboard Ensemble, and Guitar majors must complete six semesters of of Guitar Ensemble in addition to their major choral ensemble.
- Jurying to the 300 level on applied instrument is required prior to student teaching.
- Students must pass Praxis II Music Content exam prior to student teaching.


## 7600: Communication

## Requirements for transferring into the School of Communication

 Admission to the College of Fine and Applied Arts.
## Bachelor of Arts

- General Education requirement and Second Year of a Language - 56 credits
- Communication Core (Grade of $C$ or better required for all core courses.) Crecits

| $7600: 102$ | Survey of Mass Communication | 3 |
| :--- | :--- | :--- |
| $7600: 115$ | Survey of Communication Theory | 3 |
| $7600: 384$ | Communication Research | 3 |
|  |  | 3 |

- Concentration in business and organizational communication, interpersonal and public communication, or mass media communication as described in tracks plus departmental electives:
- University electives: 24
- Total:


## Bachelor of Arts in Business and Organizational Communication <br> Bachelor of Arts in Interpersonal and Public Communication <br> 

- General Education requirement and "tag" degree coursework 56
- Communication Core 9
- Area of specialization as described below plus School of Communication electives
- University electives 24
- Total


## Exit requirement

To graduate with a degree from the School of Communication, a student must attain an overall minimum 2.30 GPA for all courses taken in the School of Communication.

Business and Organizational Communication

- Communication Core
- Major: Choice of Organizational Communication or Public Relations track as follows:

Public Relations Track:

| Major area: (required) |  |
| :--- | :--- |
| $7600: 303$ | Public Relations Writing |
| $7600: 309$ | Public Relations Publications |
| $7600: 403$ | Public Relations Strategies |
| $7600: 404$ | Public Relations Cases |
| $7600: 406$ | Contemporary Public Relations |
| Choose four (12 credits) of the following: | 3 |
| $7600: 235$ | Interpersonal Communication |
| $7600: 252$ | Persuasion |
| $7600: 345$ | Business \& Professional Speaking |
| $7600: 405$ | Media Copywriting |
| $7600: 450$ | Special Topics in Public Relations |
| $7600: 480$ | Communication Intemship fin Public Relations) |
| Complete 12 credits of School of Communication electives | 3 |
| Communication Total | 3 |

Organizational Communication Track:
Major area: (required)
7600:226 Interviewing 3
$7600: 235$ Interpersonal Communication 3
7600:344 Group Decision Making 3
7600:345 Business \& Professional Speaking 3
7600:435 . Communication in Organizations 3
$\begin{array}{lll}\text { Choose } 12 \text { credits from the following list: } \\ 7600: 245 \quad \text { Argumentation } & 3\end{array}$
$\begin{array}{lll}7600: 245 & \text { Argumentation } \\ 7600: 300 & \text { Newswriting } & \\ 76025\end{array}$
7600:252
7600:303 Public Relations Writing
7600:309 Public Relations Publications
7600:325 Intercultural Communication
$\begin{array}{ll}100.325 & 3 \\ 3\end{array}$
7600.436 Analyzing Organizational Communication 3

7600:437 Training Methods in Communication
7600:454 Theory of Group Processes
Communication Electives: (not used for above requirements)
3
$-12$
Communication Total

| Interpersonal and Public Communication <br> - Required courses |  | Credirs |
| :---: | :---: | :---: |
|  |  |  |
| 7600:235 | Interpersonal Communication | 3 |
| 7600:245 | Argumentation | 3 |
| 7600:346 | Advanced Public Speaking | 3 |
| - AND take 9 credits selected from: |  |  |
| 7600:225 | Listening | 1 |
| 7600:226 | Interviewing | 3 |
| 7600:227 | Nonverbal Communication | 3 |
| 7600:252 | Persuasion | 3 |
| 7600:325 | Intercultural Communication | 3 |
| 7600:344 | Group Decision Making | 3 |
| 7600:355 | Freedom of Speech | 3 |
| - And take two courses (6 credits) selected from: |  |  |
| 7600:454 | Theory of Group Processes | 3 |
| 7600:457 | Public Speaking in America | 3 |
| 7600:470 | Analysis of Public Discourse | 3 |
| 7600:471 | Theories of Rhetoric | 3 |
| 7600:475 | Political Communication | 3 |
| Communication Elactives: (not used for above requirements) |  | 15 |
| Communication Total |  | 48 |

## Mass Media-Communication

- Major: Choice of Radio/TV, Media Production, or News Track as follows:


## Radio/TV Track:

| Required courses (18 credits) |  |  |
| :--- | :--- | ---: |
| $7600: 280$ | Media Production Techniques | 3 |
| $7600: 300$ | Newswriting | 3 |
| $7600: 387$ | Radio/V Writing | 3 |
| $7600: 396$ | Radio/TV Programming | 3 |
| $7600: 484$ | Regulations in Mess Media | 3 |
| $7600: 486$ | Broadcast Sales and Management | 3 |
| And choose two courses (6 credits): |  |  |
| $7600: 375$ | Communication Technology and Change | 3 |
| $7600: 388$ | History of Broadcasting | 3 |
| $7600: 400$ | History of Journalism in America | 3 |
| $7600: 408$ | Women, Minorities and News | 3 |
| And choose one course (3 credits): | 3 |  |
| $7600: 270$ | Voice Training for the Media |  |
| $7600: 282$ | Radio Production | 3 |
| $7600: 283$ | Studio Production | 3 |
| $7600: 345$ | Business and Professional Speaking | 3 |
| And choose one | course (3 credits): | 3 |
| $7600: 302$ | Broadcast Newswriting |  |
| $7600: 462$ | Advanced Media Writing | 3 |
| $7600: 416$ | New Media Writing | 3 |
| Communication Electives: (not used for above requirements) | 3 |  |
| Communication | Total: | 3 |


| Media Production Track: |  |  |
| :---: | :---: | :---: |
| Required courses: |  |  |
| 7600:280 | Media Production Techniques | 3 |
| 7600:282 | Radio Production | 3 |
| 7600:283 | Studio Production | 3 |
| 7600:300 | News Writing | 3 |
| 7600:368 | Basic Audio \& Video Editing | 3 |
| 7600:372 | Single Camera Production | 3 |
| 7600:387 | Radio \& Television Writing | 3 |
| 7600:468 | Advanced Audio \& Video Editing | 3 |
| Choose one class from the following (3 credits): |  |  |
| 7600:270 | Voice training for Media | 3 |
| 7600:375 | Communication Technology and Change | 3 |
| 7600:417 | New Media Production | 3 |
| Choose one class from the foilowing ( 3 credits): |  |  |
| 7600:302 | Broadcast Newswriting | 3 |
| 7600:416 | New Media Writing | 3 |
| 7600:462 | Advance Media Writing | 3 |
| Communication Electives: |  | 9 |
| Communication Total |  | 48 |


| News Track: |  | Credits |
| :---: | :---: | :---: |
| Required News courses |  | 9 |
| 7600:300 | Newswriting | 3 |
| 7600:301 | Advanced Newswriting | 3 |
| 7600:308 | Feature Writing | 3 |
| And choose two courses (6 credits): |  |  |
| 7600:302 | Broedcast Newswriting | 3 |
| 7600:416 | New Media Writing | 3 |
| 7600:420 | Magazine Writing | 3 |
| And choose three courses (9 credits): |  |  |
| 7600:282 | Radio Production | 3. |
| 7600:283 | Studio Production | 3 |
| 7600:304 | Editing | 3 |
| 7600:417 | New Media Production | 3 |
| 7600:425 | Commercial Electronic Publishing | 3 |
| And choose two courses (6 credits): |  |  |
| 7600:400 | History of Journalism in America | 3 |
| 7600:408 | Women, Minorities and News | 3 |
| 7600:410 | Joumaism Management | 3 |
| 7600:484 | Mass Media Regulations | 3 |
| And: |  |  |
| Communication Electives: (not used for above requirements) |  | 9 |
| Communica | Total | 48 |

## Bachelor of Arts (Step-Up Program) with Summit College College

The School of Communication will accept any Summit College degree in a Steptlp program with any Communication major for a BAT degree. Students would be required to complete any remaining General Education course requirements, based on a General Education Evaluation from University Cohege. The student's Associate Degree would fulfill his/her Tag coursework requirement. Students would need to complete all other communication requirements for their major listed in the Undergraduate Bulletin.

## 7700: Speech-Language Pathology and Audiology

Bachelor of Arts (Clinical or Non-Clinical Option)* Bachelor of Arts in Speech-Language Pathology and Audiology<br>(Clinical or Non-Clinical Option)@*

## Program Description

The School of Speech-Language Pathology and Audiology offers an undergraduate (preprofessional) and graduate program of academic and clinical training in speech-language pathology and audiology. Audiologists are hearing care special ists for evaluation and treatment of individuals with hearing and balance disorders. Scope of practice includes hearing assessments, selecting and fitting hearing aids/assistive listening devices, programming cochlear implants, balance testing, and counseling regarding hearing loss. Speech-language pathologists work with children and adults with language, voice, fluency, articulatory and phonologic disorders, and swallowing problems. They provide assessment and treatment for these problems as well as working in prevention of them.

Course work focuses on the evaluation and treatment of the many disordered communication processes. Students who complete 7700:321, 330, and 235 with a "B" average or better and have at least a 3.2 overall grade point average may also take the elective course: 7700:4 Observation and Clinical Techniques. This course includes accumulation of a minimum of 25 hours of supervised observa tion, as required for graduate study by the American Speech-Language-Hearing Association. A master's degree is required for employment as a speech-language pathologist. An Au.D. is required for certification as an audiologist.
Typical work settings for speech-language pathologists and audiologists include: schools, hospitals, clinics, private practice, physicians' offices, industry and universities. For employment in school settings, individuals must be certified by the department of education of the state in which they will be working. Since more than 50 percent of practicing speech-language pathoogist's work in public school settings, it is recommended that undergraduate students who are interested in pursuing careers in speech-language pathology complete the requirements for educational certification, except for student teaching, which can only be taken at the graduate level. These educational requirements can be taken as electives. Each student should consult with the undergraduate coordinator adviser about this option

## Program Requirements

- Completion of the General Education requirement and the second year of a foreign language for the B.A. or the non-foreign language option for the tagged degree (B.A.T. in Speech-Language Pathology and Audiology). 45 credits. Students may count 14 hours of American Sign Language for the foreign language requirement.
- Electives - 21 credits
- Core in Speech-Language Pathology and Audiology Credits

7700:110 Introduction to Disorders of Communication 3
$\begin{array}{ll}7700: 210 & \text { Introduction to Clinical Phonetics } \\ 7700: 215 & \text { Introduction to Hearing and Speech Science }\end{array}$
7700:215
7700:230
Language Science and Acquisition
Principles of Audiology
Audiologic Rehabilitation
Anatomy and Physiology of Speech and Hearing
Anatorny and Physiology Laboratory
Articulatory and Phonologic Disorders
Organic Disorders of Communication
Language Disorders
Multicultural Considerations in Audiology and
Speect-Language Pathology

## 7750: Social Work

## Program Description

The mission of the undergraduate social work program is to prepare students for graduate study and ethical generalist practice with and on behalf of diverse populations in Northeast Ohio whose wellbeing and quality of life are at risk. The program places special emphasis on human dignity and worth, social justice, human diversity, empowerment and cultural competence, and on the enhancement of social functioning, by drawing on client strengths and community resources.
The social work major is an accredited undergraduate professional program preparing students for entry level practice positions in social service agencies employing Social Workers.
Elective courses are available in such areas as health, community development, child welfare, mental health or retardation, family service, corrections, etc Certificate programs in Afro-American Studies, Gerontology (Aging) and Victim Studies can be scheduled within the elective framework of the curriculum.
The Bachelor of Arts degree with a major in social work requires completion of 14 credits of a foreign language (Spanish is recommended; sign language as well as other foreign languages are accepted). The Bachelor of Arts in Social Work degree does not require a language. Both degrees require 128 hours.
There are Step-Up program arrangements between this program and the Associate in Community Services Technology program offered in Summit College, as well as the Associate in Social Services Technology program at the Wayne General and Technical College.
Curricula have been developed (Step-Up program arrangements) so that students completing the associate degree programs in Community Services Technology (Summit College), Social Services Technology Wayne College), and Human Services Technology (Stark State College) with social services emphasis programs can complete either the B.A. or B.A.IS.W. curriculum in social work by completing the required courses listed below.
The Social Work Program at The University of Akron is fully accredited by the Council on Social Work Education.
Students wishing to major in social work must file an application with the College of Fine and Applied Arts. In addition, a separate application packet must be filed with the School of Social Work. A 2.3 grade point average is required for admission to the School. Once admitted, the student should maintain a 2.5 grade point average in social work major courses.

## Bachelor of Arts

- Completion of the General Education requirement, 42 credits including.

3100:103 Natural Science Biology/Lab . 4
3850:100 introduction to Sociology and 4

- Course Prerequisites for the Social Work major:

| $7750: 270$ | Poverty and Minority Issues | 3 |
| :--- | :--- | :--- |

7750:276 Introduction to Social Weffare 4
7750:427 Human Behavior and Social Environment I 3

- Social Work major:

7750:401,2,3,4 Social Work Practice I, II, III, IV 12
7750:405 Practice | Skills Lab 3
7750:421 Field Experience Seminar I 1
7750:422 Field Experience Seminar II 1
$7750.425 \quad$ Social Work Ethics 3
7750:430 Human Behavior and Social Environment II 3
7750:440 Social Work Research I 3
7750:441 Social Work Research II . 3
7750:445 Social Policy Analysis for Social Workers 3
7750:493 Fieid Experience: Social Agency I 4
$\begin{array}{lll}7750: 494 & \text { Field Experience: Social Agency if } & 4 \\ 7750: 4 \times x & \text { Electives in Social Work } & 6\end{array}$

- General Electives, 22 credits including 14 credits in a foreign language.

[^47]
## Bachelor of Arts/Social Work

- Completion of the General Education requirement, 42 credits including: Credits

| 3100:103 | Natural Science Biology/Lab <br> and |
| :--- | :--- |
| Introduction to Sociology |  |

- Course prerequisites for the Social Work major:

| $7750: 270$ | Poverty and Minority Issues |
| :--- | :--- |
| $7750: 276$ | Introduction to Social Welfare |
| $7750: 427$ | Human Behavior and Social Environment I |

7750:427 Human Behavior and Social Environment I

- Social Work major:

| $7750: 401,2,3,4$ | Social Work Practice I, II, III, IV | 12 |
| :--- | :--- | ---: |
| $7750: 405$ | Practice I Skills Lab | 3 |
| $7750: 421$ | Field Experience I | 1 |
| $7750: 422$ | Field Experience Seminar II | 1 |
| $7750: 425$ | Social Work Ethics | 3 |
| $7750: 430$ | Hurnan Behavior and Social Environment II | 3 |
| $7750: 440$ | Social Work Research I . | 3 |
| $7750: 441$ | Social Work Research II | 3 |
| $7750: 445$ | Social Policy Analysis for Social Workers | 3 |
| $7750: 493$ | Field Experience: Social Agency I | 4 |
| $7750: 494$ | Field Experience: Social Agency II | 4 |
| $7750: 4 \times x$ | Electives in Social Work | 6 |

- General Electives, 22 credits including 14 credits in a foreign language.


## 7800: Theatre

## Bachelor of Arts

- General Education Requirement, including the second year of a foreign larguage - 56 credits.
- Theatre - 57 credits
- Electives - 15 credits.
- Minimum Semester Hours Required-128 credits.

| The Fundamentals (27 credits) | Credits |  |
| :---: | :--- | :---: |
| $7800: 100$ | Experiencing Theatre | 3 |
| $7800: 103$ | Theatre Onentation | 0 |
| $7800: 108$ | introduction to the Visual Arts of the Theatre | 3 |
| $7800: 145$ | Movement Training | 3 |
| $7800: 151$ | Voice and Diction | 3 |
| $7800: 172$ | Acting 1 | 3 |
| $7800: 262$ | Stege Makeup | 3 |
| $7800: 264$ | Playscript and Performance Analysis | 3 |
| $7800: 265$ | Basic Stagecratt | 3 |
| $7800: 274$ | Digital Technology for Theatre | 3 |

## Advanced Skills (22 credits)

| 7800:200 | Theatre Organization and Production Management | 3 |
| :---: | :---: | :---: |
| 7800:335 | History of Theatre and Dramatic Literature I | 3 |
| 7800:370 | Directing I | 3 |
| 7800:435 | History of Theatre and Dramatic Literature II | 3 |
| 7800:336 | Scenic Design | 3. |
| Choose one of the following: |  |  |
| 7800:306 | Stage Costume Design or | 3 |
| 7800:355 | Stage Lighting Design | 3 |
| Choose one of the following: |  |  |
| 7800:373 | Acting II or | 3 |
| 7800:472 | Methods of Teaching Elementary Theatre Arts or | 3 |
| 7800:473 | Methods of Teaching Secondary theatre Arts | 3 |
| 7800:471 | Senior Seminar | 1 |

## Production/Performance Labs (8 credits; 4 must be production credits)

| $7810: 100-410$ | Production Lab | $1-2$ |
| :--- | :--- | :--- |
| $7810: 100-410$ | Performance Lab | $1-2$ |

- As an addition to this degree, a student may complete professional education courses through the College of Education to be licensed to teach drama/theatre in Ohio's public schools.
- All candidates for the B.A. must enroll in at least one credit of production laboratory ( $7810: x x x$ ) every semester. A maximum of sixteen 7810 credits may be used for the degree.


## Bachelor of Arts in Theatre Arts

## 1) Theatre Arts

This B.A. option allows the student to design an area of concentration (with an adviser's approval) that prepares the student for competency in all areas of theatre - acting/directing, theatre history/criticism and design/technical theatre. The student will have the skills to teach theatre, to undertake graduate work in theatre or to undertake professional work in commercial or regional theatre.

- General Education requirement - 42 credits.
- Theatre core - 54 credits.
- Tag Area of Study (with approval from adviser) - 14 credits
- Electives - 18 credits.
- Total minimum semester hours - 128 credits.

|  |  | Credit |
| :---: | :---: | :---: |
| The Fundamentals (26 credits) |  |  |
| 7800:100 | Experiencing Theatre | 3 |
| 7800:103 | Theatre Orientation | 0 |
| 7800:108 | Introduction to the Visual Arts of the Theatre | 3 |
| 7800:145 | Movement Training | 3 |
| 7800:151 | Voice and Diction | 3 |
| 7800:172 | Acting 1 | 3 |
| 7800:262 | Stage Makeup | 3 |
| 7800:264 | Playscript and Performance Analysis | 3 |
| 7800:265 | Basic Stagecraft | 3 |
| Advanced Skilis (22 credits) |  |  |
| 7800:200 | Theatre Organization and Production Management | 3 |
| 7800:335 | History of Theatre end Drametic Literature I | 3 |
| 7800:370 | Directing I | 3 |
| 7800:435 | History of Theatre and Dramatic Literature II | 3 |
| 7800:336 | Scenic Design | 3 |
| Choose one of the following: |  |  |
| 7800:306 | Stage Costume Design or | 3 |
| 7800:355 | Stage Lighting Design | 3 |
| Choose one of the following: |  |  |
| 7800:373 | Acting II or | 3 |
| 7800:470 | Theatre in Education | 3 |
| 7800:471 | Senior Seminar | 1 |

Production/Performance Labs (8 credits; 4 must be production credits)

| $7810: 100-410$ | Production Lab | $1-2$ |
| :--- | :--- | :--- |
| $7810: 100-410$ | Performance Lab | $1-2$ |

Electives

| $7800: 301$ | Introduction to Thestre through Filtm | 3 |
| :--- | :--- | :--- |
| $7800: 170$ | Introduction to Acting for Nor-majors | 3 |
| $7800: 263$ | Scene Painting | 3 |
| $7800: 301$ | Introduction to Theatre through Film | 3 |
| $7800: 307$ | Advanced Stage Costume Design | 3 |
| $7800: 351$ | Advanced Voice and Movement | 3 |
| $7800: 374$ | Acting III | 3 |
| $7800: 403$ | Special Topics in Theatre Arts | 3 |
| $7800: 421$ | Musical Theatre Production | 3 |
| $7800: 436$ | Styles of Scenic Design | 3 |
| $7800: 467$ | Conternporary Theotre Styles | 3 |
| $7800: 461$ | Directing II | 3 |
| $7800: 475$ | Acting for Musical Theatre | 3 |
| $7800: 480$ | Independent Study | 3 |

- As an addition to this degree, a student may complete professional education courses through the College of Education to be licensed to teach drama/theatre in Ohio's public schools.
- All candidates for the B.A. must enroll in at least one credit of production laboratory ( $7810: 000$ ) every semester. A maximum of sixteen 7810 credits may be used for the degree.


## (2) Musical Theatre

As of the start of the Fall 2005 semester, admissions to this program have been suspended. No student will be permitted to declare a major in Musical Theatre-Theatre after the start of Fall Semester 2005.

## 7900: Dance

## Bachelor of Fine Arts

The BFA dance major is designed for the student who wishes to pursue professional training in dance through an emphasis in ballet and modem dance technique. This program offers extensive training in technical, performing and choreographic skills and is supported by a core of coursework in dance history, peda gogy, and physical analysis. The BFA in Dance prepares students for performing, graduate studies in performance and choreography, fields related to dance such as arts administration, dance history, physical therapy, dance therapy, dance edur cation, or dance ethnology, as well as teaching in private studios.
Placement into the dance program for the first year of study as a probationary dance major is by audition only.
To be admitted to the BFA degree program in Dance in the School of Dance, Theatre, and Arts Administration, students must work for one year of study as a probationary dance major, demonstrate acceptable work habits, pass the Freshman Jury and Interview to gain admittance to the college and status as a BA in Dance major in preparation for auditioning for the BFA program at the end of the sophomore year. Maintain a 2.875 GPA in all dance classes for a total of two years. BFA students may be placed on artistic probation if they demonstrate less acceptable work habits. Full status must be regained to graduate. To graduate with the BFA in Dance, students must complete one full year of Ballet VIll with a minimum of " $B$ " and be enrolled in a ballet technique class each semester until they satisty their technique requirements and maintain an overail 2.875 GPA in all dance classes.

Advancement in levels of dance techniques is by receipt of a "B+" grade or better for one semester for advancement from Ballet VI to VII to VIII respectively. and by receipt of a " $B$ " grade or better for one semester in all other technique classes.

- General Education requirements - 42 credits
- Required dance courses - 84 credits

|  |  | Creots |
| :---: | :---: | :---: |
| 7900:103 | Dence Orientation | 0 |
| 7900:115 | Dance as a Art form | 2 |
| 7900:116,7 | Physical Analysis of Dance I, 11 | 4 |
| 7910:112 | Dance Production Ensemble | 1 |
| 7910:200 | BFA Audition | 0 |
| 7910:201 | Freshman Jury and Interview | 0 |
| 7920:122,222 | Ballet V, VI | 12 |
| 7920:141,241 |  |  |
| or 341 | Pointe I, II or III | 2 |
|  | or | or |
| 7920:334 | Pas de Deux | 2 |
| 7920:333 | Partnaring | 2 |
| 7920:228 | Modern V | 3 |
| 7920:229 | Modam V | 3 |
| 7920:274 | Digital Technology for Dance | 3 |
| 7920:316,7 | Choreography I, II | 4 |
| 7920:320 | Movement Fundamentals or | 2 |
| 7920:321 | Rhythmic Analysis for Dance | 2 |
| 7920:322,422 | Bailet VII, VIII | 16 |
| 7920:328 | Modem VII | 3 |
| 7920:329 | Modam VIII | 3 |
| 7920:361 | Leaming Theory for Dance | 2 |
| 7920:362 | Instructional Strategies for Dance | 2 |
| 7920:416 | Choreography III | 2 |
| 7920:417 | Choreography IV | 2 |
| 7920:432 | History of Ballet | 2 |
| 7920:433 | Dance History: 20th Century | 2 |
| 7920:445 | Dance Priosopty and Criticism | 3 |
| 7920:471 | Senior Seminar | 1 |
| - Choose from one of the following for a total of 2 credits: |  |  |
| 7900:130 | Jaz 1 | 2 |
| 7900:230 | Jazz II | 2 |
| 7920:351 | Jaz III | 2 |
| 7920:451 | Jazz N | 2 |
| 7900:144 | Tap I | 2 |
| 7900:145 | Tap II | 2 |
| 7920:246 | Tap III | 2 |
| 7920:347 | Tap N | 2 |

- Required performance course (7910) - 4 credits
- Required somatics and world dance (7915) - 2 credits
- General Electives - 7 credits
- Minimum semester hours required - 133 credits
- As an addition to this degree, a student may complete professional education courses through the College of Education to be licensed to teach dance or drama/theatre in Ohio's public schools. See dance technique competencies and course requirements listed under the licensure program.


## Bachelor of Arts

This BA dance major is designed for the student who wishes to pursue dance training through an emphasis on the four major dance idioms of ballet, modem, jazz and tap dance. This program offers a core of coursework in choreography, dance history, pedagogy, and physical analysis. Students acquiring this degree are prepared for graduate studies in the fields related to dance such as arts administration, dance history, physical therapy, dance therapy, dance education, or dance ethnology, as well as teaching in private studios.

Placement into the dance program for the first year of study as a probationary dance major is by audition only. Advancement in levels of dance techniques is by receipt of a "B+" grade or better for one semester for advancement from Ballet VI , to VII to VIII respectively, and by receipt of a " B " grade or better for one semester in all other technique classes.

To be admitted to the BA program in Dance in the School of Dance, Theatre, and Arts Administration, students must complete one year of study as a probationary dance major, demonstrate acceptable work habits, pass the Freshman Jury and Interview and maintain a 2.785 GPA in all dance classes. All students are required to be enrolled in a dance technique class each semester until they satisty their technique requirements. Completion of two semesters in Ballet VI with a minimum of a " $B$ " grade is required of students pursuing this BA degree.

- General Education requirement and foreign language** - 56 credits
- Dance - 65 credits
- Required dance courses:

Credits
7900:103 Dance Orientation
7900:115 Dance as an Art Form
7910:112 Dance Production Ensemble
7910:201 Freshman Jury and Interview
7920:116, 7 Physical Analysis for Dance I, II
7920:122, 222 Ballet $\mathrm{V}, \mathrm{V}$
7920:228 Modem V
7920:274 Digital Technology for Dance
7920:316, 7 Choreography I, II
7920:320 Movernent Fundamentals
7920:321 Rhythmic Analysis for Dance
7920:333 Partnering
7920:361 Leaming Theory for Dance
7920:362 instructional Strategies for Dance
7920:432 History of Ballet
7920:433 Dance History: 20th Century
7920:445 Dance Philosophy and Criticism
7920:471 Senior Seminar

- Choose a minimum of one from each category as dance electives for a minimum of 9 credits
Category A

| $7920: 229$ | Modem VI | 3 |
| :--- | :--- | :--- |
| $7920: 328$ | Modem VII | 3 |

7920:329 Modem VIII 3
Category B
7920:351 Jaz Dance III
7920:451 Jaz Dance N 2
Categry C
7920:246 Tap Dance III
7920:347 Tap Dance IV 2

- Choose one category D or E for a total of four credits:

Category D
7920:416 Choreography IIf 2

7920:417 Choreography IV 2
Category E
7920:461 Seminar and Field Experience in Dance Education
2
7920:462 Professional lssues in Dance Education
2

- Required performance courses (7910) - 3 credits.
- Required somatics and world dance (7915) - 4 credits.
- General Electives - 9 credits.
- Minimum semester hours required - 130 credits.
- As an addition to this degree, a student may complete professional education courses through the Coilege of Education to be licensed to teach dance or drama/theatre in Ohio's public schools. See dance technique competencies and course requirements listed under the licensure program.


## Bachelor of Arts in Dance Studies with a Business Cognate or Minor

This BA degree is designed to offer students a broad learning experience in dance, including ballet, modem, tap. and jazz, supplemented by business studies. Core coursework includes choreography, dance history, pedagogy, and physical analysis. This program prepares students for dance studio management, graduate studies in the fields related to dance such as arts administration, dance history, physical therapy, dance therapy, or dance ethnology, as well as teaching in private studios.

Placement into the dance program for the first year of study as a probationary dance major is by audition only. Advancement in levels of dance techniques is by receipt of a " $\mathrm{B}+$ " grade or better for one semester for advancement from Ballet VI to VII to VIII respectively, and by receipt of a " B " grade or better for one semester in all other technique classes.
To be admitted to the BA program in Dance in the School of Dance, Theatre and Arts Administration, students must complete one year of study as a probationary dance major, demonstrate acceptable work habits, pass the Freshman Jury and Interview and maintain a 2.785 GPA in all dance classes. All students are required to be enrolled in a dance technique class each semester until they satisfy their technique requirements. Completion of two semesters of Ballet V is required for the BA in Dance Studies with a Business Cognate.

- General Education (no language) - 42 Credits
- Dance Courses -70-72

Technique - 38-40
$\begin{array}{lrr}7900: 103 & \text { Dance Orientation } & 0 \\ 7900: 224-7920: 122 & \text { Ballet III-V (four semesters with two semesters of Baliet } \mathrm{V} & 14-16\end{array}$
7900:224-7920:122 Ballet III-V (four semesters with two semesters of Ballet V ) 14-16
7900:219-7920:228 Modem III-V with one semester of Modem $V$ 9
7900:130 Jazzl 2
7900:144 Tap I
7900:145 Tap II
7900:230 Jazill
7920:333 Pertnering
7915:111-117 World Dance
7915:101-104 Dance Somatics
$7900 \cdot 150$ Blomer
7910:201 Freshman Jury and Interview $\quad 1$
Lecture/Crestive - 27
7900:115 Dance as an Art Form 2

7920:274 Digital Technology for Dance 3
7920:116, 117 Physical Analysis for Dance I, II 4
7920:316, 317 Choraography 1, II
7920:320 Movement Fundamentals
or
7920:321 Rhythmic Analysis 2
7920:361 Leaming Theory for Dance . 2
7920:362 Instructional Strategies for Dance 2
7920:432 History of Ballet
7920:433 Dance History: 20th Century
7920:445 Dance Philosophy and Criticism . Dis
7920:471 Senior Seminar
Peformance - 5
7910:101-110 Dance Ensembles 2
7910:111 Touring Ensemble 2
7910:112 Dance Production Ensemble 1

- General Electives - 5-7
- Business Cognate -9*

Choose a minimum of 9 credits from the following business minors in this recommended order:
1)Entrepreneurship, 2) Business Administration for Non-business Majors, 31Pre MBA Minor for
non business majors, 4)Sales Management of 5) Consumer Marketing.
Total crectits 128

As an addition to this degree, a student may complete professional education courses through the College of Education to be licensed to teach dance or drama/theatre in Ohio's public schools. See dance technique competencies and course requirements listed under the licensure program.

## Musical Theatre-Dance

As of the start of the Fall 2005 semester, admissions to Bachelor of Fine Arts in Musical Theatre-Dance have been suspended. No student will be permitted to declare a major in this program after the start of Fall Semester 2005.

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# College of Nursing 

N. Margaret Wineman, Ph.D., R.N., Dean<br>Kathleen Ross-Alaolmolki, Ph.D, R.N., Assistant Dean of Academic Nursing Programs<br>Annette Mitzel, M.S.N., R.N., Director, Academic Nursing Center<br>Rita Klein, Ed.D., Director of Student Affairs

## ACCREDITATION

The Baccalaureate nursing program is approved by the Ohio Board of Nursing. The Baccalaureate and Masters programs are fully accredited by the Commission on Collegiate Nursing Education (CCNE). CCNE is a resource of information regarding tuition, fees and length of program and can be contacted at One Dupont Circle, NW, Suite 530, Washington, D.C. 20036-112; (202) 887-6791.

## MISSION

As an integral part of The University of Akron, the College of Nursing promotes the general mission of the University. The college offers diverse and compreheri sive nursing education programs at the undergraduate and graduate levels. The programs of study, based on professional standards, prepare individuals to provide nursing care in a variety of settings. The College of Nursing supports nursing research that contributes to the health and wellbeing of society. The college is committed to serving culturally, racially, and ethnically diverse populations. Through academic and community collaboration the college promotes excellence in nursing education, research, practice, and service.

## GOALS

1) Prepare generalist and advanced practice nurses who are eligible for initial licensure and for certification.
2) Provide a foundation for lifeiong commitment to professional development and scholarship through continuing education and advanced study at the master's and doctoral levels.
3) Prepare nurses who are sensitive in caring for diverse populations in a variety of settings.
4) Prepare professional practitioners who integrate leadership roles and etthical standards in a continuously changing health care arena and society.

## PHILOSOPHY

The College of Nursing faculty believe that the foci of professional nursing are individuals, families and communities.
The individual is seen as a complex whole whose existence involves patterns, dynamic change, transformation and interdependence. The individual interrelates within the environment in biological, psychological, social, spiritual, cultural and other dimensions. The individual is unique and universal. The individual is a thinking, feeling, interacting, evolving, creating, valuing being.
Familles are individuals dynamically connected with each other over time in traditional and non-traditional configurations.

Communities are groups of people with one or more common characteristics who are in relationship to one another and may or may not interact.
Health is comparative, dynamic, multidimensional and has personal meaning. It includes disease, nondisease, and quality of life. People have the right to participate in decisions affecting and effecting personal health.

Environment includes all living and nonliving dimensions with which the individual, family and community have interrelationships. The dynamic environmental interrelations define and establish rules for health and modes of action.
Nursing is an art and a science. The discipline of nursing is concerned with individual, family and community and their responses to health within the context of the changing health care environment. Professional nursing includes the appraisal and the enhancement of health. Personal meanings of health are understood in the nursing situation within the context of familial, societal and cultural meanings. The
professional nurse uses knowledge from theories and research in nursing and other disciplines in providing nursing care. The role of the nurse involves the exercise of social, cultural and political responsibilities, including accountability for professional actions, provision of quality nursing care, and community involvement.
Education is an individualized, lifelong process. Leaming includes the individual's interrelations with the environment, knowledge and skill acquisition, development of critical thinking and self-awareness. Self-expression enables the student to respond to clients who have unique human values and cultural heritage. Each nursing student brings attitudes, beliets, values, feelings, knowledge and experiences into the learning environment. These variables influence learning that occurs through continual construction and reconstruction of experiences in relation to environmental influences.

Nursing education at the baccalaureate level synthesizes knowledge from nursing, humanities, and social, cultural, physical and natural sciences to operationaize clinical decision-making. The student is prepared to function as a nurse generalist in a variety of settings. Faculty and students continually seek to refine the commitment to and understand the relationship between theory and practice. Students are encouraged to become self-directed, collaborative, interdependent and independent. These variables are the foundation for lifelong leaming and professional development.
Nursing education at the master's level builds upon baccalaureate nursing education and provides foundation for doctoral study. Graduate education prepares advanced practice nurses with expertise in critical thinking and decision making, effective communication, and therapeutic interventions. Through a variety of leaming experiences, Master of Science in Nursing students analyze and use theoretical formulations and research findings in advanced practice.
Nursing education at the doctoral level prepares nurses for full participation in the discipline as scholars and researchers. Emphasis is placed on the development of nurses who are informed about the many dimensions of scholarship, including research, practice, and teaching and the integration of the three. Through various didactic collaborative and research opportunities, doctoral students leam how to develop and test knowledge about health, illness and nursing care, and how to use the knowledge to enhance teaching, improving patient care and influence health care policy.

## REQUIREMENTS

## Admission to Baccalaureate Program

Five classifications of students will be considered for admission to the baccalaure ate nursing program: 1) the basic student (entering freshmen), 2) the registered nurse, 3) the licensed practical nurse, 4) the postbaccalaureate student and 5) the transfer student from other colleges and universities. The College of Nursing offers separate sequences which provide both the R.N. and L.P.N. with the opportunity to earn a Baccalaureate Degree. The LPN sequence begins in the spring. The RN sequences begin in the summer.
A transfer student may receive credit for quality work eamed in approved colleges. Transfer students entering The University of Akron from an accredited institution must have all coursework applicable to the College of Nursing requirements evaluated in writing by the respective University of Akron departments. A copy of the departmental course approval or denial must be contained in the student's file. Enrollment of a transfer student is contingent upon availability of University facilities and an assessment of the sufficiency of prior academic work. Transfer course grades will be combined with courses taken at The University of Akron when ranking students for College of Nursing admission.
A registered nurse (RN) who receives preparation in a diploma or associate degree is evaluated individually. A RN/BSN student is held to a minimum of 128 semester hours to graduate.

A student who wishes to be considered for admission to the Coliege of Nursing must meet the following requirements:

- Complete all University College requirements and College of Nursing prerequir sites with a minimum grade of " C " or higher.
- Have a minimum prerequisite course cumulative 2.75 grade-point average.
- Have a minimum cumulative 2.75 grade-point average in the required prerequisite biological sciences.
- All grades of transfer work will be combined with those earned at The University of Akron in the computation of a grade-point average for admission to the College of Nursing.


## Felony And Misdemeanor Record Check

All students entering the College of Nursing are required to submit their fingerprints to the Federal Bureau of Investigation ( FBI ) and the Ohio Bureau of Criminal Identification and Investigation (BCII). This record check may reveal both students' sealed and unsealed convictions. Anyone with a drug trafficking conviction (felony) will not be considered for admission or will be dismissed from the College of Nursing. Students should inform the College of Nursing immediately of any convictions, guilty pleas, or findings of guilt that occur after enrollment in the Coliege of Nursing. Felony and misdemeanor records may result in an inability to progress in the nursing program and subsequent withdrawal from the nursing program.

## Felony Preclusion Rule For Licensure R.C. 4723.09 <br> In effect for all students entering a prelicensure nursing program after June 1, 2003.

During the senior year of the nursing program, as part of the application process to take the state licensing examination (NCLEX-RN), the Ohio Board of Nursing requires students to submit their fingerprints to the Federal Bureau of Investigation (FBI) and the Ohio Bureau of Criminal Identification and Investigation (BCII). If the fingerprint check reveals an egregious felony, the Board of Nursing will deny the applicant entrance to the NCLEX-RN examination. According to the Ohio Board of Nursing, egregious felonies include aggravated murder, murder, voluntary manslaughter, felonious assault, kidnapping, rape, sexual battery, gross sexual imposition, aggravated arson, aggravated robbery and aggravated burglary. Other felonies will be referred to the Compliance Unit for investigation and may result in either a denial of entrance to the examination or licensure with a permanent and public notation of Board action (i.e. punishment).

For information concerning the Ohio Board of Nursing licensure requirements see Web site www.state.oh.us/nur.
Note: Students who wish to be licensed in other states should be aware that similar background check requirements may apply. Consult the applicable state Board of Nursing for further information.

## Repeat Policy

If College of Nursing Prenursing students or University College Intended Nursing majors do not successfully complete science prerequisite courses the first time, they are allowed to repeat the course for a change of grade one time only. Students who take a science course for the third time to eam a grade of " C " will NO LONGER be eligible for the nursing major until the first science course is five (5) years old.

## Admission Procedures

All basic BSN applicants will be considered at once and will be selected at the end of each spring semester to start the following fall. All student applicants will be categorized and ranked in order from the highest science grade-point average (GPA) down until the class is filled. The number admitted to each sophomore class will vary depending on the number of available slots. Having a science GPA of $2 ; 75$ will not guarantee admission to the College.

## Admission Consideration Categories

Students are placed in the following categories:

- Priority Admission Category - All Direct Admit and Continuing College of Nursing Prenursing students who were admitted or transferred to the college before the first day of spring semester are prioritized by science GPA (Army ROTC scholarship holders are guaranteed placement in the major.)
- Full Admission Category - All Direct Admits, Continuing College of Nursing Prenursing students as of the first day of spring semester and intended Nursing majors in University College are prioritized by science GPA.
Acceptance of the student into the major is the responsibility of the dean in consultation with the dean of the University College and the Admissions Committee of the College of Nursing. Admission to the program in nursing does not guarantee the student's placement in the nursing courses at the time the student may wish to pursue them. The college reserves the right to approve admission to those individuals whose abilities, attitudes, and character promise satisfactory achievement of the college objectives.

Upon admission to the major, all students must adhere to the following policies and the deadline of July 31:

- Pay the Liability Insurance Fee included in the Fall tuition invoice.
- If a licensed nurse, provide a copy of à valid Ohio license to Records Specialist.
- Complete required immunizations and physical examination.
- Complete CPR certification prior to starting nursing courses. Maintain current CPR certification throughout the program. Failure to maintain current CPR certification will result in removal from clinical courses.
- Complete requirements for fingerprinting by Federal Bureau of Investigation ( FBI ) and the Ohio Bureau of Criminal Investigation ( BCII ).
- Submit FBI and BCII reports.
- Purchase uniforms according to directions supplied upon admission.

Written evidence of completion of these requirements must be submitted to the College of Nursing Records Specialist prior to Juty 31.

## Notification of Admission

Following completion of Spring semester, all applicants will be notified of admission by late-June. Notification of admission status will be either full admission, provisional admission, placement on a waiting list, or denial due to the filing of available spaces. A limited number of students who do not receive full admission will be placed on a waiting list. The waiting list exists through the first week of Fall classes.

## Reapplication Process

Applications or inter-college transfers to the College of Nursing are only effective for the current academic year. A student not admitted from the wait list or denied admission may reapply. Student reapplying are again ranked in the appropriate category for admission consideration.

## Transfer of Nursing Courses for Advanced Placement

## Policies

- Students wishing to transfer nursing courses from other baccalaureate nursing programs into the College of Nursing at The University of Akron must meet all university transfer requirements and College of Nursing admission criteria.
- Transfer applicants must be in good academic standing and eligible to return in the next term to their previous baccalaureate nursing program.
- Students must have completed all prerequisite courses for the curriculum level into which they seek placement or received university transfer credit for pre requisites.
- Transfer credit for baccalaureate nursing courses taken in another NLNAC or CCNE accredited B.S.N. program may be granted after review and approval of supporting materials by the College of Nursing faculty.
- Courses accepted for transfer will determine the student's placement in the appropriate level of the College of Nursing curriculum.
- Nursing courses for the Associate Degree or Diploma program will not be considered for transfer credit into the basic B.S.N. program. Registered nurses licensed in the United States may receive 36 By-Pass credits.
- Transfer credit will not be granted for nursing coursework completed more than two years prior to application.
- Transfer students will be admitted into the nursing major on a spaceavailable basis.


## Procedures

1. Contact the College of Nursing, Director of Student Affairs, The University of Akron, Akron, OH 44325-3701, (330) 972-7551.
2. Submit a letter to the Director of Student Affairs, College of Nursing, signed by the Dean/Director on school letterhead from the previous B.S.N. program verifying good academic standing and eligibility to retum the next term. This letter must be received in order to begin review of materials.
3. Contact The University of Akron Office of Admissions to initiate general University transfer procedures.
4. Submit a sample program of study, transcripts, and course syllabi to the Director of Student Affairs, by April 1 for Fall semester consideration and by November 1 for Spring Semester admission. These materials will be used by the faculty to determine admission and appropriate placement.
5. Following faculty review and recommendations, the College of Nursing Admissions Committee will determine admission and placement at its December and May meetings.
6. Applicant will receive a letter from the Assistant Dean Academic Nursing Programs, following the Admissions Committee meeting indicating admission status and, if admitted, the level of placement in the B.S.N. curriculum.

## Continuation in the Baccalaureate Program

A student must maintain a grade-point average of 2.3 ( $\mathrm{C}+$ ) or higher on a 4.00 scale in all nursing courses (8200) to progress and graduate from the College. A student receiving a C - or below in any nursing course (8200) or corequisite course will be required to repeat the course. A student may repeat only one clinical and one non-clinical course during the nursing program. Students may not progress into the next course with an incomplete or failing grade.
Students should refer to their Student Handbooks for the policies and procedures of the College. Handbooks are available online through Student Affairs to students upon admission to the College. Students should also refer to each course syllabus distributed at the beginning of each semester for course expectations/requirements.

## Requirements for Graduation

- Complete all University requirements as listed in Section 3 of this Bulletin.
- Complete a minimum of 130 semester credits for the degree and earn a minimum of 2.30 grade-point average in the nursing major and a 2.00 grade-point average for all collegiate work atternpted at The University of Akron.
- Complete all courses required in the Program of Study for Nursing students within four years of admission to the nursing major.
- Complete the last 32 credits in the baccalaureate program at The University of Akron.
- Complete all requirements which were in effect at the time of transfer to the College of Nursing.

Basic Baccalaureate Program

## Full-time Option

| Yeer 1 Fail Semester |  | Credits |
| :---: | :---: | :---: |
| 8200:100 | Intro to Nursing | 1 |
| 3100:200/201 | Anatorny \& Physiology I, Lab | 4 |
| 3150:110/111 | Intro to General \& Organic Biochemistry, Lab | 4 |
| 3300:111 | English Composition | 4 |
| 3470:260 | or |  |
| 3470:250 | Stats for Everyday Life, Lab | 4 |
| Total |  | 16-17 |
| Year 1 Spring Semester |  |  |
| 3100:202,203 | Anatomy \& Physiology II, Lab | 4 |
| 3300:112 | English Comp | 3 |
| 3150:112/113 | Intro to Biocherristry II, Lab | 4 |
| 7600:105 | Intro to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| 3750:100 | Intro to Psychology | 3 |
| Total |  | 17 |
| Yew 2 Fell Semester |  |  |
| 3750:230 | Developmental Psychology | 4 |
| 8200:211 | Fundementals in Nursing I | 5 |
| 8200:225 | Health Assossment | 3 |
| 8200:217 | Pathophysiology for Nurses | 3 |
| 3100:130 | Principles/Microbiology, Lab | 3 |
| Totel |  | 18 |
| Year 2 Sprina Semester |  |  |
| 7400:316 | Science of Nutrition | 4 |
| 8200:212 | Fundamentals in Nursing \#1 | 5 |
| 8200:230 | Nursing Pharmacology | 3 |
| 8200:215 | Professional Role Develcpment | 2 |
| 8200:325 | Cultural Dimensions in Nursing or | 2 |
| 8200:409/509 | Intemational Health | 2 |
| 5400:00x | Physical Education | 1 |
| Total |  | 17 |
| Yew 3 Fehl Semestier |  |  |
| 8200:350 | Nursing of the Childbearing Family | 5 |
| 8200:360 | Nursing of Adults | 5 |
| 3400:210 | Humanities in Western Tradition | 4 |
| 3600:120 | Intro to Ethics | 3 |
| Total |  | 17 |
| Year 3 Spring Semester |  |  |
| 8200:370 | Nursing of Older Adult | 5 |
| 8200:380 | Mental Health Nursing | 5 |
| 3850:100 | intro to Sociology or | 4 |
| 3230:150 | Cultural Anthropology | 4 |
|  | Area Studies | 2 |
| Totel |  | 18 |
| Year 4 Fell Sernester |  |  |
| 8200:410 | Nursing of Farmilies with Chitdren | 5 |
| 8200:440 | Nursing of Communities | 5 |
|  | Area Studies | 2 |
| 8200:435 | Nursing Research | 2 |
|  | Electives | 2 |
| Total |  | 18 |
| Year 4 Spring Semester |  |  |
| 8200:430 | Nursing in Complex/ Critical Settings | 5 |
| 8200:450 | Senior Precticum \& Nursing Leadership | 5 |
|  | Humanities Option | $3-4$ |
| Totel |  | 13-14 |
| Total Hours |  | 30-132 |

## Part-time Option*

## Prerequisites:

Students interested in the Part-time Option of the Basic Baccalaureate Program may apply for admission to the College of Nursing after completing a total of 57 credits as follows:

|  |  | Credits |
| :---: | :---: | :---: |
| 3100:130 | Principles of Microbiology ${ }^{\dagger}$ | 3 |
| 3100:200, 201 | Human Anatorny and Physiology I, Lab | 4 |
| 3100:202, 203 | Human Anstorny and Physiology II, Lab | 4 |
| 3150:110, 111 | Introduction to General, Organic and Biochemistry 1, Lab ${ }^{\dagger}$ | 4 |
| 3150:112, 113 | Introduction to General, Organic and Biochemistry II, Lab | 4 |
| 3300:111,112 | English Composition I, II ${ }^{\dagger}$ | 7 |
| 3400:210 | Humanities in the Western Tradition $1^{\dagger}$ | 4 |
| 3470:260 | Basic Statistics ${ }^{\dagger}$ <br> or | 3 |
| 3470:250 | Statistics for Evaryday Life ${ }^{\dagger}$ | 4 |
| 3600:120 | Introduction to Ethics ${ }^{\dagger}$ | 3 |
| 3750:100 | Introduction to Psychology ${ }^{\dagger}$ | 3 |
| 3750:230 | Developmental Psychology | 4 |
| 3850:100 | Introduction to Sociology ${ }^{\dagger}$ | 4 |
| 3230:150 | ${ }^{\text {or }}$ Outural Anthropology ${ }^{\dagger}$ | 4 |
| 5540:120-190 | Ptysical Education ${ }^{\dagger}$ | 1 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication ${ }^{\dagger}$ | 4 |
| 8200:100 | Introduction to Nursing | 1 |
|  | Electives | 2 |


| Sophomore Year |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| 8200:211 | Foundations of Nursing Practice I | 5 |
| 8200:217 | Pathophysiology | 3 |
| Epring |  |  |
| 8200:212 | Foundations of Nursing Practice II | 5 |
| 8200:225 | Health Assessment | 3 |
| Surmmer |  |  |
| 7400:316 | Science of Nutrition | 4 |
| 8200:325 | Cultural Dimensions in Nursing | 2 |


| Junior Year |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| 8200:215 | Professional Rola Development | 2 |
| 8200:350 | Nursing of Childbearing Families | 5 |
| Spring |  |  |
| 8200:230 | Nursing Phermacology | 3 |
| 8200:360 | Nursing Care of Adults | 5 |
| Summer |  |  |
|  | Area Studies/Cutural Diversity Requirement ${ }^{\dagger}$ | 2 |


| Junior/Senior Year |  |
| :--- | :--- |
| Fell |  |
| 8200:370 | Nursing Care of Older Adults |
| $8200: 380$ | Mental Health Nursing |
| Spping |  |
| $88200: 410$ | Nursing of Families with Children |
| $8800: 440$ | Nursing of Communities |
| Summer |  |
| $8200: 435$ | Nursing Ressarch |
|  | Area Stucies/Cultural Diversity Requirement ${ }^{\dagger}$ |


| Senior Year |  |  |
| :--- | :--- | :--- |
| Fall |  |  |
| B200:430 | Nursing in Complax/Critical Situations | 5 |
| Spring <br> $8200: 450$ | Nursing Precticum \& Leadership | 5 |

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## R.N. Sequences

(This sequence limited to registered nurse graduates of Associate Degree and Diploma nursing programs.)

The RN program is designed for those registered nurses holding a diploma or associate degree in nursing, or a baccalaureate degree in another field. It is specifically designed for those who are interested in obtaining the baccalaureate degree in Nursing and/or continuing on to a master's degree in nursing. Students must complete $68-69$ hours of the prerequisite undergraduate coursework prior to acceptance into the sequence. The RN program consists of 32 hours of upperdivision baccalaureate coursework. Students meeting additional admission requirements may opt to take 3 graduate courses for a total of 8 credits while meeting the baccalaureate requirements. Continuation in the graduate program is predicated on meeting graduate program requirements and acceptance into the graduate nursing program.

| Prerequisites and Corequisites |  | Credits |
| :---: | :---: | :---: |
| 3100:130 | Principles of Microbiology | 3 |
| 3100:200,201 | Human Anatorny \& Physiology, Lab | 4 |
| 3100:202,203 | Human Anatomy \& Physiology II, Lab | 4 |
| 3150:110,111 | Intro to General, Organic \& Biochemistry/Lab I | 4 |
| 3150:112,113 | Intro to General, Organic \& Biochemistry/Lab II | 4 |
| 3230:150 | Cultural Anthropology or | 4 |
| 3850:100 | Introduction to Sociology | 4 |
| 3300:111,112 | English Composition I, II | 7 |
| 3400:210 | Humanities in the Western Tradition 1 | 4 |
|  | Humanities elective | 3 |
| 3600:120 | Intro to Ethics | 3 |
| 3400:385-391 | Area Studies and Cultural Diversity | 4 |
| 3470:260 | Basic Statistics or | 3 |
| 3470:250 | Statistics for Everydsy Life, Lab | 4 |
| 3750:100 | Intro to Psychology | 3 |
| 3750:230 | Developmental Psychology | 4 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| 5540:120-190 | Physical Education | 1 |
|  | Electives | 7 |

## Senior Year

8200: 325 Cultural Dimensions in Nursing 2
8200:336 Concepts of Professional Nursing $\quad . \quad . \quad 4$
8200:337 Health Assessment/RN only 3
8200:405 Nursing Care of Healthy Individuals/Families 3
8200:406 Palliative Nursing Care .
8200:415 Complex Care of Aging Families/RN only
8200:436 Nursing Research/RN only
8200:444 Nursing Care of Communities Practicum/RN only
8200:445 Nursing Care of Communities/RN only
8200:446 Professional Nursing Leadership
8200:447 Professional Nursing Leadership Precticum
8200:448 Professional Nursing Capstone

## Accelerated Option for the Basic Baccalaureate in Nursing Program

The accelerated option is designed for those students with a baccalaureate degree and prerequisites to earn a Bachelor of Science Degree in Nursing in four semesters - one academic year and two summers.

| $8200: 211$ | Fundamemtals Nursing Practice I |
| :--- | :--- |
| $8200: 212$ | Fundamentals Nursing Practice II |
| $8200: 215$ | Protessional Role Development |
| $8200: 217$ | Psthophysiology for Nurses |
| $8200: 225$ | Healh Assessment |
| $8200: 230$ | Nursing Phermacology |
| $8200: 325$ | Cultural Dimensions in Nursing |
| $8200: 350$ | Nursing of the Childbearing Farnily |
| $8200: 360$ | Nursing Care of Adults |
| $8200: 370$ | Nursing Care of Older Adults |
| $8200: 380$ | Mental Health Nursing |
| $8200: 410$ | Nursing of Femilies with Children |
| $8200: 430$ | Nursing in Complex and Critical Situations |
| $8200: 435$ | Nursing Research |
| $8200: 440$ | Nursing of Communities |
| $8200: 450$ | Nursing Practicum \& Leadership |

[^50]8200:211
8200:215 Professional Role Development
Psthophysiology for Nurses

8200:230 Nursing Pharmacology
8200:350 Nursing of the Childtbearing Family
8200:360 Nursing Care of Adults
8200:370 Nursing Care of Older Adults
Mental Health Nursing
8200:430 Nursing in Complex and Critical Situations
8200:440 Nursing of Communities
8200:450 Nursing Practicum \& Leadership 5

[^51]
## LPN/BSN Sequence

| (Prerequisite Courses) |  | Credits |
| :---: | :---: | :---: |
| 3100:130 | Principles of Microbiology | 3 |
| 3100:200, 201 | Human Anstorry and Physiology I, Lab | 4 |
| 3100:202, 203 | Human Anatorry and Physiology II, Lab | 4 |
| 3150:110, 111 | Introduction to General, Organic and Biochemistry I, Lab | 4 |
| 3150:112, 113 | Introduction to General, Orgenic and Biochemistry II, Lab | 4 |
| 3300:111,112 | English Composition 1, II | 7 |
| 3470:260 | Basic Statistics ${ }^{\dagger}$ or | 3 |
| 3470:250 | Statistics for Everyday Life ${ }^{\dagger}$ | 4 |
| 3600:120 | Introduction to Ethics | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 3750:230 | Developmental Psychology | 4 |
| 3850:100 | Introduction to Sociofogy ${ }^{\dagger}$ | 4 |
| 3230:150 | Cuitural Anthropology ${ }^{\dagger}$ | 4 |
| 5540:120-190 | Physical Education | 1 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Oral Cormmunications ${ }^{\dagger}$ | 3 |
|  | Electives | 2 |
| Spring Semester starts |  |  |
| 8200:211 | Foundations of Nursing Practice 1 | 5 |
|  | (Advanced Placement Testing) |  |
| 8200:216 | Transition to Baccelaureate Nutsing | 3 |
| Summer |  |  |
| 8200:212 | Foundations of Nursing Practice II | 5 |
| 8200:225 | Health Assessment | 3 |
| 7400:316 | Science of Nutrition | 4 |
| Junior Level |  |  |
| 8200:217 | Pathophysiology for Nurses | 3 |
| 8200:230 | Nursing Pharmacology | 3 |
| 8200:325 | Cultural Dimensions in Nursing | 2 |
| 8200:350 | Nursing of Childbearing Femilies | 5 |
| 8200:360 | Nursing Care of Adults | 5 |
| 8200:370 | Nursing Care of Older Adults | 5 |
| 8200:380 | Mental Health Nursing | 5 |
| Senior Year |  |  |
| 3400:210 | Humanities in the Westem Tradition I | 4 |
|  | Humanities Electiva | 3 |
|  | Arge Studies/Cultural Diversity Requirement | 2 |
|  | Area Studies/Cultural Diversity Requirement | 2 |
| 8200:410 | Nursing of Families with Children | 5 |
| 8200:430 | Nursing in ComplexCCritical Situations | 5 |
| 8200:435 | Nursing Research | 2 |
| 8200:440 | Nursing of Communities | 5 |
| 8200:450 | Nursing Practicum \& Leadership | 5 |
|  | Total minimum credits for grachation: | 130-132 |

LPN/BSN Sequence Policies and Procedures

- If the LPN has completed the ACCESS to Registered Nursing course offered by a NEMAG-approved school, credit will be given for N216. (NEMAG stands for Nursing Education Mobility Action Group, a consortium of nursing programs in Northeast Ohio that offer a regionally approved transition course for LPN's entering RN programs.)
- Following successful completion of N216, N225 and N212, the LPN/BSN student enters the junior level of the BSN program and progresses with all remaining courses tò graduation.
- LPN/BSN course sequence is under revision.


## Agencies

Some of the agencies which provide clinical experiences for the baccalaureate program are:

Akron General Medical Center Head Start Center
Akron Health Department Henry Center for Child Care and Learning
Arbors at Fairlawn
Barberton Citizens Hospital
Brecksville Veterans Administration Hospital
Chambrel at Montrose
Children's Hospital Medical Center
College of Nursing, Center for Nursing
Community Based Corrections Facility
Cuyahoga Falls General
Edwin Shaw Hospital
First American Home Care
Haven of Rest
Heartland-Massillon

Homeless Outreach Program
Olsten Kimberty Quality Home Care
Portage Path Community Mental Health Center
Rockynol Retirement Community
St. Elizabeth's Hospital-Youngstown
SUMMA Akron City Hospital SUMMA St. Thomas Medical Center
Surnmit County Health District
Tri County Home Nurses, Inc. University Center for Child Development
Visiting Nurse Service, Summit County

## Northeastern Ohio Universities College of Medicine

## HISTORY AND PURPOSE OF THE COLLEGE OF MEDICINE

The Northeastern Ohio Universities College of Medicine (NEOUCOM) was created by an act of the 100th General Assembly of Ohio and was officially established as a public institution of higher learning on November 23, 1973 The college is governed by a board of trustees appointed by the boards of trustees of The University of Akron, Kent State University and Youngstown State University. All three universities are accredited by the North Central Association of Colleges and Secondary Schools. The college was first accredited by the Liaison Committee on Medical Education of the Association of American Medical Colleges in May 1981, and in 1989, 1996 and 2005 received full re-accreditation from the LCME for a seven-year period.

## ADMISSION: B.S./M.D.

High school seniors and recent high school graduates, having demonstrated appropriate academic competence and motivation toward a career in medicine, will be considered for admission into the B.S.M.D. program. Students who have not attended college after graduation from high school should write to the Office of Admissions, The University of Akron, Akron, OH 44325-2001 for application forms. The deadline for applications is October 1 for early action admissions and December 15 for regular admissions.

## ADMISSION: M.D.

Applicants with a traditional college background may be considered by NEOUCOM for admission to the M.D. Program (Phase II). Students should contact the Northeastern Ohio Universities College of Medicine, Rootstown, OH 44272, for further information. Criteria for admission to the M.D. Program include demonstrated proficiency in appropriate coursework, scores from the Medical College Admission Test (MCAT) taken at least one year prior to anticipated fall enrollment date, as well as a commitment to the field of medicine and extracurricular and work activities.

## THE B.S./M.D. PROGRAM

The curriculum requires that the student be enrolled for 11 months in each of six academic years. The first two or three years (Phase I) are spent at The University of Akron. The coursework during this period focuses chiefly on studies in the humanities, social sciences, and all basic premedical sciences but will also include orientation to clinical medicine. Progress through Phase I will be based on academic performance and development of personal maturity appropriate to assumption of professional responsibility. The Phase I Committee for Academic and Professional Progress, including University and College of Medicine faculty, will assess these factors and will recommend the Phase I student for promotion and formal admission to Phase II, the medical school.
The first year of Phase II is devoted primarily to the basic medical sciences, e.g., anatomy, physiology, microbiology, etc., and will be conducted at the NEOUCOM campus in Rootstown.
In all four years, the student will develop competence in the clinical aspects of medicine through instruction provided principally at one or more of the associated community hospitals.

## COST

Normal undergraduate fees will be assessed for Phase I. Fees for Phase Il are set by the College of Medicine Board of Trustees and are commensurate with those at publicly supported medical schools elsewhere in this state.

## LOCATION

The NEOUCOM campus is located on S.R. \#44 in Rootstown just south of the 1-76 intersection, across from the Rootstown High School.

## College of Polymer Science and Polymer Engineering

## Undergraduate Contributions

The College of Polymer Science and Polymer Engineering was formed in 1988 by joining the Department of Polymer Science from the Buchtel College of Arts and Sciences and the Department of Polymer Engineering from the College of Engineering. The College offers both the Master of Science and Doctor of Philosophy graduate degrees in Polymer Science and Polymer Engineering.
There are no undergraduate degree programs in the College; however, the College offers undergraduate elective courses for science and engineering majors as well as two general interest interdisciplinary polymer courses for all undergraduate university students. Two certificate programs have been developed with the College of Engineering, and these programs are described in this Bulletin under Chemical and Mechanical Engineering (4200 and 4600, respectively).
An undergraduate interdisciplinary program, Mechanical Polymer Engineering, has been organized by the faculties of mechanical and polymer engineering. This new baccalaureate program, leading to a Bachelor of Science in Mechanical Polymer Engineering degree, was initiated in the fall of 1995. The program emphasizes a traditional mechanical engineering background along with eight required polymer engineering courses. In addition, there is a senior design project course that requires polymer engineering. This program is described in the College of Engineering section of this Bulletin under Mechanical Polymer Engineering (4700).

## Minor Areas of Study

## REQUIREMENTS

The University of Akron has approved minor fields of study that may be placed on a student's record when all requirements have been completed.
The following rules apply to all minors:

- The student must complete at least 18 credits. (Note: some minors may require additional credits).
- At least six of the 18 credits must be at the $300 / 400$ level, except where the department does not offer $300 / 400$ level courses.
- A minimurn grade-point average of 2.0 in each minor is required.
- A minor may be designated at any time during the student's career up to and including the time the degree clearance is processed.
- A minor will be placed on the student's record only at the time the student receives a baccaleureate degree and only on application.
- Courses to be applied toward the granting of a minor may not be taken credithon-credit. A maximum of 6 bypassed credits may be used, but all other credits must be eamed.
- The student must earn at least nine credits at The University of Akron in courses approved by the faculty granting the minor. Written permission of the dean and the head of the department which grants the minor is required for an exception.
- Courses required for a minor may carry prerequisites, which must be honored before the student may enroll.


## ADVISEMENT

Although not required to do so, students are advised to contact faculty in the department(s) in which they may wish to earn minors early in their undergraduate programs.

## PROGRAM REQUIREMENTS

(All programs listed in alphabetical order)

## Addiction Services

- Total number of credits required for a minor in Addiction Services: 20
- Required core courses:

| $2260: 260$ | Introduction to Addiction** | Credits |
| :--- | :--- | :---: |
| $2260: 240$ | Drg Use and Abuse** | 3 |
| $2260: 267$ | Addiction Assessment and Treatment Planning | 3 |
| $2260: 261$ | Addiction Treatment | 3 |
| $2260: 286$ | Addiction Services Internship | 4 |
|  |  | 2 |
| Electives: Select 5 credits from the following: |  |  |
| $2260: 210$ | Addiction Education and Prevention* |  |
| $2260: 263$ | Group Principles in Addiction | 3 |
| $2260: 264$ | Addiction and the Family* | 3 |
| $2260: 265$ | Women and Addiction** | 3 |
| $2260: 268$ | Co-Occurring Disorders* | 3 |
| $2260: 269$ | Criminai Justice and Addiction | 3 |
| $2260: 270$ | Relapse Prevention* | 3 |
| $2260: 271$ | Behavioral Addictions | 3 |
|  |  | 3 |

## Anthropology (Interdisciplinary)

- Required core courses:

| $3230: 150$ | Cultural Anthropology | 4 |
| :--- | :--- | :--- |
| $3230: 151$ | Human Evolution | 4 |

- Six additional credits of Anthropology (3230)or Archaeology courses (3240).
- Six additional credits from the Interdisciplinary Anthropology Program of Study.
- Twenty total credits are required.

[^52]
## Art

## Art <br> Art History

- Foundations curriculum need not be completed.
- Prerequisites must be honored.
- Select from the following: Crodit

| $7100: 100$ | Survey of History of Art I |
| :--- | :--- |
| $7100: 101$ | Survey of History of Art II |
| $7100: 300$ | Art since 1945 |
| $7100: 301$ | Medieval Art |
| $7100: 302$ | Art in Europe during the 17th and 18th Centuries |
| $7100: 303$ | Halian Renaissance At |
| $7100: 304$ | 19th Century Art |
| $7100: 306$ | Renaissance Art in Northern Europe |
| $7100: 355$ | Contemporary Art Issues |
| $7100: 370$ | . History of Photgraphy |
| $7100: 401$ | Special Topics in History of Art |
| $7100: 405$ | History of Art Symposium |
| $7100: 498$ | Special Probtems in History of Art |

At since 1945
7100:302 Avt in Europe during the 17th and 18th Centuries
7100:303 Italian Renaissance At
19th Century Art

7100:370 History Pry Asues
1100:401 Special Topics in History of At
7100:498 Special Problems in History of Art

| Ceramics |  |
| :--- | :--- |
| $7100: 254$ | Introduction to Ceramics |
| $7100: 354$ | Ceramics II |
| $7100: 454$ | Advanced Ceramics |
|  | (May be repeated for a total of 15 credits.) |

## Computer Imaging

| $7100: 185$ | Introduction to Computer Graphics <br>  <br>  <br> $7100: 289$ |
| :--- | :--- |
| or Procuction I <br> $7100: 280$ Digital Imaging <br> $7100: 383$ Multimedia Production <br>  Nine credits from the following: <br> $7100: 281$ Web Page Design <br> $7100: 381$ Digital Imaging II <br> $7100: 385$ Computer 3-D Modeling and Animation <br> $7100: 486$ Interactive Multimedia Development <br>  Total |  |

## Drawing

- Student must complete:

| 7100: 131 | Foundation Drawing |  | 3 |
| :--- | :--- | :--- | :--- |
| $7100: 233$ | Foundation Life Drawing |  | 3 |
| $7100: 231$ | Intermediate Drawing |  | 3 |


| - And select 3 courses from the following |  |  |
| :--- | :--- | :--- |
| $7100: 283$ | Drawing Techniques |  |
| $7100: 335$ | Intermediate Life Drawing | 3 |
| $7100: 450$ | Advanced Life Drawing | 3 |
| $7100: 489$ | Special Topics (in Drawing) | 3 |

## Illustration

| $7100: 185$ | Introduction to Computer Graphics |
| :--- | :--- |
|  | or |
| $7100: 289$ | Production 1 |
| $7100: 283$ | Drawing Techniques |
| $7100: 335$ | Intermediate Lite Drawing |
| $7100: 480$ | Advanced Graphic Design |
| $7100: 484$ | Illustration |
| $7100: 485$ | Advenced Illustration (to be repeated) |

## Metalsmithing

- Select from the following:

| $7100: 266$ | Introduction to Metaismithing |
| :--- | :--- |
| $7100: 268$ | Color in Metals |
| $7100: 366$ | Metalsmithing II |
| $7100: 368$ | Color in Metals |
| $7100: 466$ | Advanced Motalsmithing (may be repeated) |

## Painting

| - Select from the following: | Credits |  |
| :--- | :--- | ---: |
| $7100: 243$ | Introduction to Painting | $\mathbf{3}$ |
| $7100: 246$ | Introduction to Water Color Painting | $\mathbf{3}$ |
| $7100: 248$ | Airrush Techniques | $\mathbf{3}$ |
| $7100: 249$ | Figure Painting | $\mathbf{3}$ |
| $7100: 335$ | Intermediate Lite Drawing | $\mathbf{3}$ |
| $7100: 348$ | Interrediate Painting | $\mathbf{3}$ |
| $710: 50$ | Advanced Life Drawing | $\mathbf{3}$ |
| $7100: 455$ | Advanced Painting | $\mathbf{3}$ |

## Photography

- Select from the following:
7100:275 Introduction to Photography 3
7100:276 Introduction to Professional Photography 3
7100:370 History of Photography

7100:375 Photography II
7100:475 Advanced Photography (may be repeated)
7100:477 Advanced Photography: Color
7100:479 Professional Photographic Practices

## Photography for Non-Art Majors

| $7100: 274$ | Photography I for Non-art majors | $\mathbf{3}$ |
| :--- | :--- | :--- |
| $7100: 374$ | Photography II for Non-art majors | $\mathbf{3}$ |
| $7100: 474$ | Advanced Photography for Nor-art majors (may be repeated) | $\mathbf{3}$ |

- Select 3 courses from the following:
7100:370 History of Photography 3
7100:276 Introduction to Professional Photography 3

7100:477 Advanced Photography: Color 3
7100:474 Advanced Photography for Nomart majors (may be repeated) . 3

## Printmaking

| - Select from the following: |  |  |
| :--- | :--- | :--- |
| $7100: 243$ | Introduction to Painting |  |
| $7100: 231$ | Intermediate Drawing | 3 |
| $7100: 335$ | or | Intermediate Life Drawing |
| $7100: 348$ | Intemediate Painting (to be repeated for a total of 6 credits) | 3 |

- And select two courses from this list, at least one from the 400 level:

| $7100: 246$ | Introduction to Water-based Media | $\mathbf{3}$ |
| :--- | :--- | :--- |
| $7100: 249$ | Figure Painting | $\mathbf{3}$ |
| $7100: 450$ | Advanced Líe Drawing (May be repeated) | $\mathbf{3}$ |
| $7100: 455$ | Advanced Painting (May be repeated) | $\mathbf{3}$ |
| $7100: 489$ | Special Topics (in Painting) | $\mathbf{3}$ |

Professional Photography

- Required core courses:

| $7100: 185$ | Introduction to Computer Graphics | 3 |
| :--- | :--- | :--- |
| $7100: 275$ | Introduction to Photography | 3 |
| $7100: 276$ | Introduction to Professional Photography | 3 |
| $7100: 280$ | Digital Imaging | 3 |
| $7100: 318$ | PortraitFashion Photography | 3 |
| $7100: 320$ | Illustration/Advertising Photography | 3 |
| $7100: 479$ | Professional Photographic Practices | 3 |

## Sculpture

- Select from the following:

| $7100: 222$ | Introduction to Sculpture |  |
| :--- | :--- | :--- |
| $7100: 322$ | Sculpture II | $\mathbf{3}$ |
| $7100: 422$ | Advanced Sculpture (May be repeated) | $\mathbf{3}$ |
| $7100: 254$ | Introduction to Coramics | $\mathbf{3}$ |
|  | or | $\mathbf{3}$ |
| $7100: 266$ | Introduction to Metalalsmithing |  |
| $7100: 321$ | Figurative Sculpture | $\mathbf{3}$ |
| $7100: 323$ | Lost Wax Casting | $\mathbf{3}$ |
| $7100: 223$ | Sculpture: Stone | $\mathbf{3}$ |
| $7100: 224$ | Installation Art | 3 |

## Biology

- Total credits required for a minor in biology: 23-24. Credits

| $3100: 111,2$ | Principles of Biology I, II | 8 |
| :--- | :--- | :---: |
| $3100: 211$ | General Genetics | 3 |
| $3100: 217$ | General Ecology | 3 |
| $3100: 311$ | Cell and Molecular Biology | 3 |
| $3100: 331$ | or | 4 |
| $3100: 316$ | Microbiology | 4 |
| $3100: \times 0 x$ | Evolutionary Biology | 3 |
|  | Any 300/400-level course | - |

## Business Administration for Non-Business Majors

- Total credits required for a minor in Business Administration: 18
- Required Courses:

| 6140:300 | Introduction to Finance |
| :--- | :--- |
| 6200:201 | Accounting Principles I |
| 6500:301 | Maragement: Principles and Concepts |
| 6600:300 | Marketing Principles |3

6200:201 Accounting Principles I
6600:300 Marketing Principles

- Electives: Select 2 courses ( 6 credits) from the following:
6200:x0x

Any three credit Accountancy course for which
the student has the appropriate prerequisites 3
6300:xxx
Any three credit Entrepreneurship course for which the student has the appropriate prerequisites
6400:220 The Legal and Social Environment of Business 3
6500:00x A 300/400 level course in Management for which
the student has the appropriate prerequisites3

6800:305
Intemational Business
3

## Business Management Technology

- Required core courses:

| $2040: 247$ | Survey of Basic Economics |
| :--- | :--- |
| $2420: 103$ | Essentials of Maragement Technology |
| $2420: 202$ | Elements of Human Resource Management |
| $2420: 211$ | Basic Accounting I |
| $2420: 280$ | Essentials of Business Law |
| $2420: 00 x$ | Elective |
| $2520: 101$ | Essentials of Marketing Technology |

- Choose elective from the following:

| $2420: 170$ | Applied Mathematics for Business | 3 |
| :--- | :--- | :--- |
| $2420: 212$ | or | 3 |

$\begin{array}{lll}2420: 243 & \text { or } \\ \text { Survey in Finance } & 3\end{array}$

## Chemistry

- Total credits required for a minor in chemistry: 19-22.
- Core comprised of the following:

| $3150: 151$ | Principles of Chemistry I |
| :--- | :--- |
| $3150: 152$ | Principles of Chemistry I Laboratory |
| $3150: 153$ | Principles of Chemistry II |
| $3150: 263,4$ | Organic Chemistry Lecture I, II |

- An additional six credits from $300 / 400$-level chemistry courses. For example, a pre-med, medical technology, or biology student might take 3150:401, 2 Biochemistry (three credits each). An engineering or physics major might select 3150:313,4 Physical Chemistry (three credits each). Analytical or instur mental courses might be attractive to others.
- Chemical engineering majors automatically fuffill the requirements for a minor in chemistry.
- Students who intend to minor in chemistry should seek advice from the Chemistry Department about the $300 / 400$-level courses that would be most relevant to their interests.


## Classical Studies

Required core courses:

| Any 2 of the following: |  | Credits |
| :---: | :---: | :---: |
| 3200:230 | Sports and Society in Ancient Greece and Rome | 3 |
| 3200:220 | introduction to the Ancient World | 3 |
| 3200:289 | Mythology of Ancient Greece | 3 |
| - Electives: (12 hours) |  |  |
| 3240:100 | Introduction to Archaeology | 3 |
| 3240:313 | Archaeology of Greece | 3 |
| 3240:314 | Archaeology of Rome | 3 |
| 3200:361 | Literature of Greece | 3 |
| 3200:362 | Literature of Rome | 3 |
| 3200:401 | Egyptology | 3 |
| 3400:308 | Greece | 3 |
| 3400:317 | Roman Republic | 3 |
| 3400:318 | Roman Empire | 3 |
| 3400:404 | Studies in Roman History | 3 |
| 3600:211 | History of Ancient Philosophy | 3 |
| 3600:432 | Aristotle | 3 |
| 3230:357 | Magic, Myth and Religion | 3 |

## Communication

The minors offered in the School of Communication are designed for non-communication majors only.

## Interpersonal and Group Communication

- Required:

| $7600: 115$ | Survey of Communication Theory | 3 |
| :--- | :--- | :--- |
| $7600: 235$ | Interpersonal Communication | 3 |
| $7600: 344$ | Group Decision Making | 3 |

- Select 9 credits from among the following ( 3 credits must be $300 / 400$ level)

| $7600: 226$ | Interviewing | 3 |
| :--- | :--- | :--- |
| $7600: 227$ | Nonvertal Communication | 3 |
| $7600: 245$ | Argumentation | 3 |
| $7600: 252$ | Persuasion | 3 |
| $7600: 325$ | Intercultural Communication | 3 |
| $7600: 454$ | Theory of Group Process | 3 |
| $7600: 450$ | Special Topics 1. | 3 |

## Mass Communication

- Required
$\left.\begin{array}{lll}7600: 102 & \text { Survey of Mass Communication } & 3 \\ 7600: 388 & \text { Broadcast History } \\ \text { or }\end{array}\right]$
- Electives - 12 credits (at least 3 credits at the $300-400$ levell) selected from:

| $7600: 270$ | Voice Training for Media | 3 |
| :--- | :--- | :--- |
| $7600: 280$ | Media Production Techniques | 3 |
| $7600: 282$ | Radio Production | 3 |
| $7600: 283$ | Studio Production | 3 |
| $7600: 300$ | Newswriting | 3 |
| $7600: 301$ | Advanced Newswiting | 3 |
| $7600: 302$ | Broadcast Newswiting | 3 |
| $7600: 304$ | Editing | 3 |
| $7600: 308$ | Feature Writing | 3 |
| $7600: 368$ | Basic Audio and Video Editing | 3 |
| $7600: 375$ | Communication Technology \& Change | 3 |
| $7600: 372$ | Single Camera Production | 3 |
| $7600: 385$ | American Film History: the beginning to 1945 | 3 |
| $7600: 386$ | American Fitm History: 1945 to the present | 3 |
| $7600: 387$ | Radio and TV Writing | 3 |
| $7600: 388$ | History of Broadcasting | 3 |
| $7600: 396$ | RadioMTV Programming | 3 |
| $7600: 400$ | History of Journalism in America | 3 |
| $7600: 408$ | Women, Minorities and News | 3 |
| $7600: 410$ | Joumalism Management | 3 |
| $7600: 420$ | Magazine Writing | 3 |
| $7600: 425$ | Commercial Electronic Publishing | 3 |
| $7600: 462$ | Advanced Media Writing | 3 |
| $7600: 468$ | Advanced Audio and Video Editing | 3 |
| $7600: 484$ | Regulations in Mass Media | 3 |
| $7600: 486$ | Broadcast Sales and Management | 3 |

## Mass Media Production

| Required |  | Credits |
| :--- | :--- | :---: |
| $7600: 280$ | Media Production Techriques | 3 |
| $7600: 300$ | Newswriting | 3 |
| $7600: 368$ | Basic Audio and Video Editing | 3 |
| Electives -9 | credits selected from: |  |
| $7600: 282$ | Radio Production | 3 |
| $7600: 283$ | Studio Production | 3 |
| $7600: 372$ | Single Camera Production | 3 |
| $7600: 387$ | Radio \& TV Writing | 3 |
| $7600: 417$ | New Media Production | 3 |
| $7600: 468$ | Advanced Audio and Video Editing | 3 |

## Media History

| Required |  |  |
| :---: | :---: | :---: |
| 7600:102 | Survay of Mass Communication | 3 |
| 7600:388 | History of Broadcasting | 3 |
| 7600:400 | History of Joumalism in America | 3 |
| - Electives - 9 credits selected from the following: |  |  |
| 7600:385 | American Film History to 1945 | 3 |
| 7600:386 | American Film History 1945-present | 3 |
| 7600:408 | Women, Minorities and News | 3 |
| 7600:481 | Film as At | 3 |
| 7600:484 | Mass Media Regulation | 3 |
| 7600:490 | Film History: Workshop (may be repeated up to 3 credits) |  |
| News |  |  |
| - Required |  |  |
| 7600:300 | Newswriting | 3 |
| 7600:301 | Advanced Newswriting | 3 |
| 7600:304 | Editing | 3 |
| 7600:308 | Feature Writing | 3 |
| - Electives - 6 credits selected from the following: |  |  |
| 7600:302 | Broadcast Newswriting | 3 |
| 7600:400 | History of Journalism in America | 3 |
| 7600:408 | Women, Minorities and News | 3 |
| 7600:416 | New Media Writing | 3 |
| 7600:420 | Magazine Writing | 3 |
| 7600:425 | Commercial Electronic Publishing | 3 |

## Organizational Communication

- Required:

| $7600: 115$ | Survey of Communication Theory |
| :--- | :--- |
| $7600: 435$ | Communication in Organizations |
| $7600: 436$ | Analyzing Organizational Communication |
| 9 credits selected from the following: |  |
| $7600: 235$ | Interpersonal Communication |
| $7600: 325$ | Intercultural Communication |
| $7600: 344$ | Group Decision Making |
| $7600: 345$ | Business and Professional Speaking |
| $7600: 437$ | Training Methods in Communication |
| $7600: 454$ | Theory of Group Process |
| $7600: 450$ | Special Topics |
|  | (Depends on topic; only with prior approval of School Director) |

## Public Communication

- Required: 7600:115 Survey of Communication Theory3
- Select 15 credits from among the following (6 credits at 300/400 level):

| 7600:245 | Argumentation |
| :--- | :--- |
| $7600: 252$ | Persuasion |
| $7600: 345$ | Business and Professional Speaking |
| $7600: 346$ | Advanced Public Speaking |
| $7600: 355$ | Freedom of Speech |
| $7600: 457$ | Public Speaking in America |
| $7600: 470$ | Analysis of Pubicic Discourse |
| $7600: 471$ | Theories of Rhetoric |
| $7600: 475$ | Political Communication |
| $7600: 450$ | Special Topics |
| 1 | (Depends on topic; only with prior approval of School Director) |

Public Relations

| - Required: |  | Credits |
| :--- | :--- | :---: |
| 7600:115 | Survey of Communication Theory | 3 |
| $7600: 406$ | Contemporary Public Relations | 3 |
| - Select 12 | credits from among the following: |  |
| $7600: 303$ | Public Relations Writing | 3 |
| $7600: 309$ | Public Relations Publications | 3 |
| $7600: 403$ | Public Relations Strategios | 3 |
| $7600: 404$ | Public Relations Cases | 3 |
| $7600: 450$ | Special Topics in Pubicic Relations | 3 |

## Community Services Technology

- Required core courses:

| $2040: 240$ | Human Relations | 3 |
| :--- | :--- | :--- |
| $2260: 100$ | Introduction to Community Services | 3 |
| $2260: 150$ | Introduction to Gerontological Services | 3 |
| 2260:260 | Introduction to Addiction | 3 |
| $2260: 240$ | Drug Use and Abuse | 3 |
| $2260: 278$ | Techniques of Community Work | 4 |

## Computer Information Systems

Programming Specialist Option

| - Required core courses: |  |
| :--- | :--- |
| $2440: 121$ | Introduction to Logic/Programming |
| $2440: 140$ | Internet Tools |
| $2440: 160$ | JAVA Programming |
| $2440: 170$ | Visual BASIC |
| $2440: 180$ | Database Concepts |
| $2440: 00$ | Computer Information Systems Electives |
| - Electives: |  |
| $2440: 145$ | Operating Systems |
| $2440: 210$ | Client/Server Programming |
| $2440: 234$ | Business Programming |
| $2440: 241$ | Systems Analysis and Design |
| $2440: 251$ | CIS Projects |
| $2440: 256$ | C++ Programming |
| $2440: 290$ | Special Topics: Computer Information Systems |

## Microcomputer Specialist Option

- Required core courses

| 2440:121 | Introduction to Logic/Programming | 3 |
| :--- | :--- | ---: |
| 2440:140 | Internet Tools | 3 |
| 2440:145 | Operating Systems | 3 |
| 2440:170 | Visual BASIC | 3 |
| 2440:175 | Microcomputer Application Support | 3 |
| 2440:180 | Database Concepts | 3 |
| 2440:x0x | Computer Intormation Systems Electives | 3 |
| Electives: |  |  |
| 2440:210 | ClientServer Programming | 3 |
| 2440:241 | Systems Analysis and Design | 3 |
| 2240:247 | Hardware Support | 3 |
| 2440:257 | Microcomputer Projects | 3 |
| 2440:267 | Microcomputer Database Applications | 3 |
| 2240:268 | Network Concepts | 3 |
| 2440:290 | Special Topics: Comouter Information Systems |  |

## Computer Maintenance and Network Technology

Students must pass department exam (CISBR) or successfully complete 2440:105 (as needed as a result of the department placement exam) before enrolling in Computer Information Systems courses.
Students may elect one of two options.
All students must achieve a 2.0 in each course to be eligible for this minor.

- Bridge courses:

Cradits
2440:105 Introduction to Computers

- Required core courses (18 credits):

| 2440:145 | Operating Systems | 3 |
| :---: | :---: | :---: |
| 2440:268 | Network Concepts (MS option) | 3 |
| 2440:201 | Networking Basics (CISCO option) or | 3 |
| 2600:240 | Microsoft Networking I (MS option) | 3 |
| 2440:202 | Router and Routing Basics (Cisco option) or | 3 |
| 2600:242 | Microsoft Networking II (MS aption) | 3 |
| 2440:203 | Switching Basics \& Intermediate Routing (Cisco option) or | 3 |
| 2600:244 | Microsoft Networking III (MS option) | 3 |
| 2440:204 | WAN Technologies (Cisco option) | 3 |
| 2440:247 | Hardware Support | 3 |

## Computer Science

- Total credits required are as follows:

Computer Science

| 3450:208 | Introduction to Discrete Mathematics | 4 |
| :---: | :---: | :---: |
| 3450:221 | Analytic Geometry-Calculus \| or | 4 |
| 3450:215 | Concepts of Calculus | 4 |
| 3460:209 | Introduction to Computer Science | 4 |
| 3460:210 | Data Structures and Agorithms I | 4 |
| 3460:316 | Data Structures and Algorithms II | 3 |
| 3460:306 | Assembly and System Programming | 4 |

## Conflict Management

The University has a long history of the interdisciplinary study of conflict, because understanding the nature of conflict is the first step toward reducing conflict and violence at home, in our communities, workplaces and schools. This undergraduate minor, jointly administered by the departments of Political Science and Sociology, will build on that tradition to enhance the capacity of students to effectively work toward reducing the harms associated with conflict and violence from interpersonal to international.
This minor consists of 18 credits, with 6 credits of required coursework, 9 additionai credits including at least 6 credits taken at the 300/400 levels, and a 3-credit internship.

- Required Core Courses (6 credits):

| Conflict and Mediation Core (3 crediss) |  |
| :---: | :---: |
| 3700:334 | Law, Mediation, and Viclence |
| Socio-Cultural Core (3 credits, choose one) |  |
| 3230:150 | Cuttural Anthropology |
| 3750:340 | Social Psychology |
| 3850:315 | Sociological Social Psychology |
| Elective Courses (choose 9 credits): |  |
| 3230:251 | Human Diversity |
| 3700:335 | Law and Society |
| 3700:363 | Crime, Punishment, and Poiltics: A Comparative Perspective |
| 3700:481 | The Challenges of Police Work |
| 3850:320 | Social inequalities |
| 3850:340 | The Farmily |
| 3850:421 | Racial and Ethnic Relations |
| 3850:441 | Sociology of the Law |
| 3850:447/547 | The Sociology of Sex and Gender |
| 3850:455 | Family Violence |
| 7600:227 | Nonverbal Communication |
| 7600:325 | Intercultural Communication |

- 

3850:340 The Family

3850:421 Racial and Ethnic Relations
3850:447/547 The Sociology of Sex and Genider
7600:227 Nonverbal Communication

Electives must include courses from at least two different departments.

## - Internship: (3 credits)

All students will complete a 3-credit intemship. (See Political Science or Sociology department guidelines for further information.)
For further information, contact Dr. William Lyons, Jr., Director at (330) 972-5855 or see muw. uakion.edu/centers/conflict.

## Consumer Marketing

This minor provides the student an opportunity to develop and document an understanding of consumer marketing issues.

| Required courses - 12 credits |  | Credits |
| :---: | :---: | :---: |
| 6600:300 | Marketing Principles | 3 |
| 6600:340 | Muti-Channel Marketing | 3 |
| 6600:350 | Integrated Marketing Communications | 3 |
| 6600:355 | Buyer Behavior | 3 |
| - Elective Courses - 6 credits |  |  |
| 6100:201 | Introduction toe Business | 3 |
| 6600:275 | Professional Selling | , |
| 6600:425 | eMarketing Practices | 3 |
| 6600:440 | Product and Brand Management | 3 |
| 6600:450 | Stratogic Retail Management | , |
| 6600:490 | Marketing Strategy | 3 |
| Total cractis required |  | 18 |

## Criminal Justice Technology

- Core courses:
2220:100 Introduction to Criminal Justice 3
2220:102 Principles of Criminal Law 3

2220:104 Evidence and Criminal Legal Process 3

- Additional courses for general criminal justice minor:
2220:250 Criminal Case Mariagement 6
2220:260 Critical Incident Interventions for Criminal Justice . 3
2220:270 Community Corrections 3
2220:xxx Technical Elective 3
- Additional courses for corrections area of concentration:

| $3850: 100$ | Introduction to Sociology | 4 |
| :--- | :--- | :--- |

3850:330 Criminology $\quad 3$

2220:270 Community Corrections 3
3850:431 Corrections 3

- Additional courses for security area of concentration:
2220:101 Introduction to Security Administration Technology 3
2230:104 Fire Investigation Methods 4
2230:204 Fire and Life Satety Education 3

2220:290 Special Topics in Security . . 3

## Dance

- Dance Technique Classes - 12 credits
- Dance minors must complete at least one semester of Ballet II and Modern II or higher.

Ballet:

- Choose one to two classes for a minimum of 4 credits*

| 7900:124 | Ballet I | 2 |
| :--- | :--- | :--- |
| 7900:125 | Ballet II | 2 |
| 7900:224 | Ballet III |  |
| 7900:225 | Balllat $V$ | 3 |
| 7920:122 | Ballet $V$ |  |
| 7920:222 | Ballet $V$ I |  |
| 7920:322 | Ballet VII |  |
| 7920:422 | Ballat VII |  |

## Modern:

Credits

2
2
2
2
3
3
3
3

- Choose one to two classes for a minimum of 4 credits*

| 7900:119 | Modem I |
| :--- | :--- |
| 7900:120 | Modern II |
| 7900:219 | Modern III |
| 7900:220 | Modem IV |
| 7920:228 | Moden V |
| 7920:229 | Modern VI |
| 7920:328 | Modem VII |
| $7920: 329$ | Modem VIII |

## Jazz and Tap:

- Choose one or more classes for a minimum of 2 credits*

| $7900: 130$ | Jazz Dance I | 2 |
| :--- | :--- | :--- |
| $7900: 230$ | Jazz Dance II | 2 |
| 7920:351 | Jazz dance lil | 2 |
| 7920:451 | Jazz Dance IV | 2 |
| 7900:144 | Tap Dance I | 2 |
| 7900:145 | Tap Dance II | 2 |
| 7920:246 | Tap Dance II | 2 |
| $7920: 347$ | Tap Dance $N$ V |  |

## Dance Somatics:

- Choose one or more classes for a minimum of 1 credit

| 7915:101 | Dance Somatics: Yoga |
| :--- | :--- |
| 7915:102 | Dance Somatics: Pilates |
| 7915:103 | Dance Somatics: Alexander Technique |
| 7915:104 | Dance Somatics: Gyrokinesis |

## World Dance and Ballroom:

- Choosewne or more classes for a minimum of 1 credit

| $7915: 111$ | World Dance: Africa |
| :--- | :--- |
| $7915: 112$ | World Dance: Asia |
| $7915: 113$ | World Dance: Europe |
| $7915: 114$ | World Dance: Pacific Rim |
| $7915: 115$ | World Dance: Renaissance |
| $7915: 116$ | World Dance: Baroque |
| $7915: 117$ | World Dance: Spanish |
| $7900: 150$ | Beliroom Dance I |

- Dance Lecture classes - 8 credits

| Choose either for a total of $2-3$ credits <br> $7900: 115$ <br> Dance as an Art Form <br> or | 2 |
| :--- | :--- | :--- |



Choose from the following for a minimum of 6 credits
7920:316 Choreography 1
7920:321 Rhythmic Analysis for Dance
7920:361 Learning Theory for Dance
$\begin{array}{ll}\text { 7920:432 } & \text { History of Ballet } \\ \text { 7920:433 } & \text { Dance history: 20th Century }\end{array}$
Total

## Database Marketing

Database Marketing involves the transformation of raw data into useful information. This information is converted into applied knowledge that meets the direct marketing needs of various business operations. As the name implies, marketing strategies are formulated and implemented based on the information gleaned from different databases and organized into patterns and trends that provide the foundation for developing and conducting a successful marketing program tailored to the needs of a particular targeted group of consumers.
A total of 19 credit hours are required for this minor. The student must complete 5 required courses and 1 elective course. To be granted this minor, the student must complete at least 9 credit hours of 6600 courses in addition to the requirements for any other major, minor, or certificate that has been earned.


## Direct Interactive Marketing

Direct Interactive Marketing involves businesses dealing directly with their customers using one-to one marketing strategy. This form of marketing encompasses such channels of distribution as eMarketing, telemarketing, interactive television, direct selling and other forms of response marketing. As the fastest growth form of marketing, this direct and interactive approach to building customer relationships has become an absolute mainstay of all progressive business enterprises. Career opportunities are diverse and abundant.

A total of 19 credit hours is required for this minor. The student must complete 4 required courses and 2 elective courses. To be granted this minor, the student must complete at least 9 credit hours of 6600 courses in addition to the requirements for any other major, minor, or certificate that has been eamed.

- Required: Complete all courses (13 credit hours)

| 6600:335 | Marketing Research and Analytics | 4 |
| :--- | :--- | ---: |
| 6600:340 | Multi-Channel Marketing | 3 |
| 6600:445 | Creative Marketing Laboratory | 3 |
| 6600:492 | Direct interactive Marketing Practicum | 3 |
| - | Elective: Complete two courses (6 credit hours) |  |
| 6500:324 | Database Management for Information Systems |  |
| 6600:350 | Integrated Marketing Communications | 3 |
| 6600:425 | eMarketing Practices | 3 |
| 6600:490 | Marketing Strategy | 3 |
| Total credits required | 3 |  |

## Economics

- One of the following:

| $3250: 200,201$ | Principles of Economics | 6 |
| :--- | :--- | :--- |
| $3250: 244$ | Introduction to Economics Analysis | 3 |

- One of the following:

| $3250: 400$ | Intermediate Macroeconomics | 3 |
| :--- | :--- | ---: |
| $3250: 410$ | Intermediate Microeconomics | 3 |
| Electives in Economics | $9-12$ |  |

- All students are encouraged to consult with the Undergraduate Student Adviser in the Economics Department about the best choice of coursework. Students are advised to consider taking both 3250:400 Intermediate Macroeconomics and 3250:410 Intermediate Microeconomics. Check bulletin listings or call department about special topics courses (3250:440) offered each semester and surnmer.


## Labor Economics

- Required:

3250:410 Intermediate Microeconomics 3

- One of the following:

| $3250: 200,201$ | Principles of Economics | 6 |
| :--- | :--- | :--- |
| $3250: 244$ | Introduction to Economic Analysis | 3 |

- Choose at least two of the following:
3250:330 Labor Problems 3

3250:333 Labor Economics 3
3250:430 Labor Market and Social Policy 3
3250:432 The Economics and Practice of Collective Bargaining 3

- Electives in Economics (3-6)

NOTE: All students are encouraged to consult with the Undergraduate Student Adviser in the .

Economics Department about your best choices of coursework.

[^53]
## Emergency Management

The discipline of emergency management continues to evolve as disasters and major emergencies become more frequent. Emergency management is becoming more complex and there is a demand for welleducated individuals in both the private and public sectors.
This minor allows students in other disciplines to incorporate an emergency management background with their major degree program. Some of the disciplines that compliment a minor in Emergency Management include communications, computer information sciences, political science, geography, public health, sociot ogy, and business. The courses offered will provide Emergency Management foundations useful in many careers and disciplines.

- Completion of 18 hours of Emergency Management Classes, as follows:

| Required Classes |  | Credits |
| :--- | :--- | :---: |
| 2235:305 | Principles of Emergency Management | 3 |
| 2235:350 | Emergency Resporse, Preparedness, and Planning | 3 |
| 2235:370 | Hazard Processes for Emergency Management | 3 |
| 2235:xox | Emergency Management Electives | 9 |
| Electives |  |  |
| 2235:320 | Emergency Management Business | 3 |
| 2235:355 | Emergency Mangerment Research Methods and Applications | 3 |
| 2235:360 | Introduction to Terrorism | 3 |
| $2235: 380$ | Disaster Victims: Casualtios and Recoveries | 3 |
| 2235:385 | Disasters in Film and Media | 3 |
| 2235:405 | Hazard Prevention and Mitigation | 3 |
| 2235:410 | Disaster Relief and Recovery | 3 |
| $2235: 490$ | Current Topics in Emergency Management | 3 |

## English

(Note: English courses 111, 112, 250, 251, 252 and 281 are not accepted for any minors)

## English

Any 18 hours of courses in the English Department with at least 6 of those hours at the 300/400 level.

## English Literature

Any 18 hours of courses in British literature with at least 6 of those hours at the 300/400 level.

## American Literature

Any 18 hours of courses in American literature with at least 6 of those hours at the 300/400 level.

## African American Literature and Language

- Any 18 hours of African American literature and language courses.
- Students may choose from such courses as:

| $3300: 350$ | Black American Literature | 3 |
| :--- | :--- | :--- |
| $3300: 389$ | African American Novet | 3 |
| $3300: 389$ | African American Drama | 3 |
| $3300: 489$ | Hartem Renaissance | 3 |
| $3300: 489$ | Toni Morrison | 3 |
| 3300:489 | African American Poetry | 3 |
| $3300: 489$ | Sociolinguistics | 3 |
| $3300: 471$ | U.S. Dialects | 3 |
| $3300: 474$ | African American English | 3 |

## Professional Writing

- Required
$3300: 390,391$ Professional Writing I, II 6 (Do not have to be taken in sequence)
- One from the foilowing:

| $3300: 376$ | Legal Writing | 3 |
| :--- | :--- | :--- |
| $3300: 479$ | Management Reports | 3 |
| $3300: 489$ | Science Writing | 3 |

- One departmental linguistics or language course.
- Two additional courses from any of the literature, language or witing offerings in the department.


## Creative Writing

- Two introductory courses in creative witing from the following:

3300:277 Credits
3300:278 Introduction to Fiction Writing
3300:279 Introduction to Script Writing 3

- One advanced course in creative writing from the following:

| $3300: 377$ | Advanced Poetry Writing | 3 |
| :--- | :--- | :--- |
| $3300: 378$ | Advanced Fiction Writing | 3 |

3300:379 Advanced Script Writing 3

- One literature course primarily concemed with modern work.
- Two additional courses from any of the literature or language offerings of the department, which may include a second advanced course in creative writing.


## Popular Literature and Film

This minor enables students to understand how mass-produced, popular literature and film reveal underlying cultural assumptions about authority, family responsibility, and gender roles held by the mainstream audience.

- 12 hours of courses in popular literature or film at the 300/400 level in the Department of English.
- 6 hours of courses in any literature or film topics at any level in the Department of English.
- Students may choose from courses, such as

| $3300: 283$ | Film Appreciation | 3 |
| :--- | :--- | :--- |
| $3300: 380$ | Film Criticism | 3 |
| $3300: 389$ | Popular Culture | 3 |
| $3300: 389$ | Stephen King | 3 |
| $3300: 389$ | Detective Fiction | 3 |
| $3300: 399$ | Gothic Imagination | 3 |
| $3300: 440$ | Women and Film | 3 |
| $3300: 460$ | Film and Literature | 3 |
| $3300: 484$ | Fantasy | 3 |
| $3300: 485$ | Science Fiction | 3 |
| $3300: 489$ | Contemporary Women Gothic Writers | 3 |

NOTE: The following courses taken to fulifll specific requirements in the English Major cannot also be used to fulfill the 18 hours requirement in this minor: 3300 : 300 Critical Reading and Writing; 3300:301 English Literature 1; 3300:315 Shakespeare: Early; 3300:316 Shakespeare: Mature; 3300:341 American Literature I; one course in world or multicultural literature.

## Entrepreneurship

All students at the University can earn a Minor in Entrepreneurship where they will learn skills related to creativity, innovation, and entrepreneurship. The applied program focuses on the individual needs of the student whether it is creating a new enterprise, buying or growing an existing enterprise, franchising, family business, and corporate or social entrepreneurship. Numerous enterprises have been created and built through this nationally recognized program.

| - Required Courses (12 credit hours): | Credits |  |
| :--- | :--- | :---: |
| $6300: 201$ | Introduction to Entrepreneurship | 3 |
| $6300: 301$ | New Venture Creation | 3 |
| $6600: 300$ | Marketing Principles | 3 |
| $6140: 300$ | Introduction to Finance | 3 |
| or |  |  |
| $6400: 301$ | Corporate Finance | 3 |
|  | or | 3 |
| $6300: 330$ | Financing New Ventures | 3 |

- Electives (choose 6 credit hours):

| $6100: 201$ | Introduction to E-Business |
| :--- | :--- |
| $6100: 495$ | Internship in Business |
| $6100: 499$ | Independent Study in Business |
| $6200: 301$ | Cost Management |
| $6200: 430$ | Taxation I |
| $6200: 431$ | Taxation II |
| $6200: 440$ | Auditing |
| $6200: 460$ | Advanced Managerial Accounting |
| $6300: 360$ | Entrepreneurial Field Project. |
| $6400: 343$ | Investments |
| $6400: 390$ | Real Estate Principles: A Value Approach |
| $6400: 403$ | Real Estate Finance |
| $6400: 415$ | Risk Management \& Insurance |
| $6400: 473$ | Financial Statement Analysis |
| $6500: 310$ | Business Information Systems |
| $6500: 333$ | Supply Chain and Operations Analysis |
| $6500: 334$ | Service Operations Management |
| $6500: 341$ | Human Resource Management |
| $6500: 435$ | Quality Management and Control |
| $6500: 457$ | International Management |
| $6600: 350$ | Integrated Marketing Communication |
| $6600: 275$ | Professional Selling |
| $6600: 425$ | eMarketing Practices |
| $6600: 440$ | Product and Brand Management |
| $6600: 475$ | Business Negotiations |
| $6800: 421$ | International Business Practices |
| Total credits required |  |

Family and Consumer Sciences

| Fashion |  | Credits |
| :---: | :---: | :---: |
| 7400:139 | The Fashion and Furnishings Industries | 3 |
| 7400:219 | Dress and Culture | 3 |
| 7400:225 | Textiles | 3 |
| 7400:352 | Strategic Merchandise Planning or | 3 |
| 7400:226 | Textile Evaluation | 3 |
| 7400:438 | History of Fashion | 3 |
| 7400:439 | Fashion Aralysis | 3 |
| Family Development |  |  |
| (Prerequisites must be honored.) |  |  |
| 7400:201 | Courtship, Marriage and the Family | 3 |
| 7400:265 | Child Development | 3 |
| The remaining 12 credits may be selected from the following: |  |  |
| 7400:255 | Fatherhood: The Parent Role (online) | 3 |
| 7400:360 | Parent-Child Relations* (online) | 3 |
| 7400:362 | Family Life Management | 3 |
| 7400:401 | American Families in Poverty | 3 |
| 7400:404 | Middle Childhood and Adolescence* | 3 |
| 7400:440 | Family Crisis | 3 |
| 7400:441 | Family Relationships in Middle and Later Years | 3 |
| 7400:442 | Human Sexuality* |  |
| 7400:446 | Culture, Ethnicity and the Family | 3 |
| 7400:496 | Parent Education* | 3 |

## Child Development

(Prerequisites must be honored.)

| $7400: 201$ | Courtship, Marriage and the Family | 3 |
| :--- | :--- | :--- |
| $7400: 265$ | Child Development | 3 |
| The remaining | 12 credits may be selected from the following: |  |
| $7400: 132$ | Early Childhood Nutrition | 3 |
| $7400: 255$ | Fatherhood: The Parental Role (online) | 3 |
| $7400: 270$ | Theory and Guidance of Play | 3 |
| $7400: 280$ | Early Childhood Curriculum Methods | 3 |
| $7400: 360$ | Parent-Child Relations* (online) | 3 |
| $7400: 401$ | American Families in Poverty | 3 |
| $7400: 404$ | Middle Childhood and Adolescence* | 3 |
| $7400: 446$ | Culture, Ethnicity and the Family | 3 |
| $7400: 460$ | Organization and Supervision of Child-Care Centers | 3 |
| $7400: 496$ | Parent Education* | 3 |

## Clinical Nutrition

| $7400: 133$ | Nutrition Fundamentals | 3 |
| :--- | :--- | :--- |
| $7400: 328$ | Nutrition in Medical Science I | 4 |
| $7400: 424$ | Nutrition in the Life Cycle | 3 |
| $7400: 426$ | Human Nutrition* | 3 |
| $7400: 428$ | Nutrition in Medical Science II | 5 |

## Community Nutrition

7400:133 Nutrition Fundamentals 3
7400:424 Nutrition in the Life Cycle 3
7400:426 Human Nutrition* 3
7400:480 Community Nutrition 1 3
7400:482 Community Nutrition II 3

## Consumer Services Minor

(Prerequisites must be honored.)

| $7400: 300$ | Legal Environment of Families | 3 |
| :--- | :--- | :--- |
| $7400: 301$ | Consumer Education | 3 |
| $7400: 303$ | Children as Consumers | 3 |
| $7400: 362$ | Family Life Management | 3 |
| $7400: 401$ | American Families in Poverty | 3 |
| $7400: 406$ | Farnily Financial Management | 3 |


| Food Systems Administration | Credits |  |
| :---: | :--- | ---: |
| 2280:238 | Cost Control Procedures | 3 |
| $6500: 341$ | Human Resource Management | 3 |
| $7400: 133$ | Nutrition Fundamentals | 3 |
| $7400: 245$ | Food Theory and Applications । | 3 |
| $740: 246$ | Food Theory and Applications II | 3 |
| $7400: 310$ | Food Systems Management I | 3 |
| $7400: 315$ | Food Systems Management I, Clinical | 5 |
| $7400: 413$ | Food Systems Management II | 2 |

## Finance for Business Majors

The Finance Minor for Business Majors provides an opportunity to earn a recognized study in Finance while completing a major in another department of the College of Business Adrninistration.

- Required Core Courses (12 credits)

| 6400:200 | Foundations in Personal Finance | 3 |
| :---: | :---: | :---: |
| 6400:338 | Financial Markets and Institutions | 3 |
| 6400:343 | Investments | 3 |
| 6400:379 | Advanced Corporate Finance | 3 |
| And two of the following courses (6 credits): |  |  |
| 6100:495 | Internship in Finance | 3 |
| 6200:430 | Taxation I | 3 |
| 6400:323 | International Business Law | 3 |
| 6400:390 | Real Estate Principles: A Value Approach | 3 |
| 6400:402 | Income Property Appraisal | 3 |
| 6400:403 | Real Estate Finance | 3 |
| 6400:415 | Risk Management: Life and Health Insurance | 3 |
| 6400:417 | Retirement Planning | 3 |
| 6400:424 | Legal Concepts of Real Estate Law | 3 |
| 6400:436 | Commercial Bank Management | 3 |
| 6400:447 | Security and Portfolio Analysis | 3 |
| 6400:473 | Financial Statement Analysis | 3 |
| 6400:481 | International Business Finance | 3 |
| 6400:490 | Selected Topics in Finance | 3 |
| Total erecits required |  | 18 |

## Financial Planning

The 24-credit minor in Financial Planning will permit students to acquire the educational foundation for a career in financial planning and will qualify them to sit for the Certified Financial Planner Certification Exarnination.

| 6200:410 | Taxation for Financial Planning | 3 |
| :--- | :--- | ---: |
| $6200: 430$ | Taxation I | 3 |
| $6400: 200$ | Foundations in Personal Finance | 3 |
| $6400: 301$ | Corporate Finance |  |
|  | or |  |
| $6140: 300$ | Introduction to Finance (non-business students only) | 3 |
| $6400: 343$ | Investments | 3 |
| $6400: 415$ | Risk Management: Life and Health Insurance | 3 |
| $6400: 417$ | Retirement Planning | 3 |
| $6400: 432$ | Seminar in Personal Financial Planning | 3 |
| Total credits required |  | 24 |

## Financial Services

## for Non-Business Majors

The professional opportunities in the financial services areas of banking, insurance, real estate, and financial planning are expanding rapidly. This program provides the non-business major an opportunity to develop career-focused skills in the financial services area.

- Required ( 12 credits)

| $6400: 200$ | Foundations in Personal Finance | 3 |
| :--- | :--- | :--- |
| $6140: 131$ | Personal Finance | 3 |
| $6140: 341$ | Contemporary Investments | 3 |
| $6140: 300$ | introduction to Finance | 3 |

- Electives (6 credits)

6200:410 Taxation for Financial Planning 3
6400:338 Financial Markets and Institutions
6400:390 Real Estate Principles: A Value Approach
6400:402 Income Property Appraisal
6400:403 Real Estate Finance
6400:415 Risk Management: Life and Heatth Insurance
6400:417 Retrement Planning
6400:424 Legal Concepts of Real Estate Law
6400:432 Seminar in Financial Planning
6400:436 Commercial Bank Management
6600:275 Professional Selling
Total credtts required

| Fire | Protection | Credits |
| :---: | :---: | :---: |
| 2230:100 | Introduction to Fire Protection | 4 |
| 2230:102 | Fire Safety in Building Design and Construction | 3 |
| 2230:104 | Fire Investigation Methods | 4 |
| 2230:204 | Fire and Life Safety Education | 3 |
| 2230:205 | Fire Detection and Suppression Systems | 3 |
| Total credits required | $\mathbf{1 7}$ |  |

## Geography and Planning

## Geography - 18 credits

| $3350: 250$ | World Regional Geography | 3 |
| :--- | :--- | :--- |
| $3350: 305$ | Maps and Map Reading | 3 |
| $3350: 310$ | Physical and Environmental Geography | 3 |
| $3350: 320$ | Economic Geography | 3 |

- The remaining six credits are to be selected from any Geography and Planning courses.

Urban and Regional Planning

- Planning requirements - 6 credits:

| 3350:405 | Geographic Information Systems | 3 |
| :--- | :--- | :--- |
| $3350: 433$ | Practical Approaches to Planning | 3 |

- Planning electives - 9 credits:
3350:415 Environmental Planning 3
3350:422 Transportation Systems Planning 3

3350:432 Land Use Planning Law 3
3350:437 Planning Analysis and Projection Methods 3
3350:438 Land Use Planning Methods 3
$\begin{array}{lll}\text { 3350:439 } & \text { History of Urban Design and Planning } & 3 \\ \text { 3350:450 } & \text { Development Planning } & 3\end{array}$

- Geotechniques electives - 3 credits:

| $3350: 440$ | Cartography |  |
| :--- | :--- | :--- |
| $3350: 447$ | Remote Sensing | 3 |
| $3350: 483$ | Spatial Analysis | 3 |
| $3350: 496$ | Fiald Research Methods | 3 |

## Geographic Information Science and Cartography

- Geotechniques requirements - 9 credits:

| 3350:405 | Geographic Information Systems | 3 |
| :---: | :---: | :---: |
| 3350:440 | Cartography | 3 |
| 3350:447 | Remote Sensing | 3 |
| Geotechniques electives - 9 credits: |  |  |
| 3350:407 | Advanced Geographic Information Systems | 3 |
| 3350:441 | Global Positioning Systems (GPS) | 1 |
| 3350:442 | Cartographic Theory and Design | 3 |
| 3350:444 | Applications in Cartography and Geographic Information Systems | 3 |
| 3350:445 | GIS Database Design | 3 |
| 3350:446 | GIS Programming and Customization | 3 |
| 3350:449 | Advanced Remote Sensing | 3 |
| 3350:481 | Research Methods in Geography and Planning | 3 |
| 3350:483 | Spatial Analysis | 3 |
| 3350:496 | Fieid Research Methods | 3 |

## Geology and Environmental <br> Science

- Minimum of 20 credits of departmental courses; 17 of which must be in courses having a laboratory.
- At least six credits must be at the 300/400 level.
- Student should consult with the Director of Undergraduate Studies in the Geology and Environmental Science Departrnent for minors.


## History

- Ten of the 18 credits must be at the upper-division level ( $300 / 400$ ). A minimum of 3 credits in each of the following three areas of course offerings is required: 1) United States; 2)Europe; and 31AncientNon-Western/Cross-Cultura!
- With the approval of the History Department undergraduate adviser, a student may apply 3 credits of course-work in a related discipline (a cognate course) toward the fulfililment of the History minor.
- Courses in World Civilizations and Humanities in the Western Tradition may not be used to meet requirements for the minor in History.


## Hospitality Management

| Restaurant Management |  | Credits |
| :---: | :---: | :---: |
| 2280:101 | Introduction to Hospitality | 3 |
| 2280:120 | Safetyand Sanitation | 2 |
| 2280:121 | Fundamentals of Food Preparation 1 | 4 |
| 2280:160 | Wine and Beverage Service | 3 |
| 2280:232 | Dining Room Service and Training | 3 |
| 2280:245 | Menu, Purchasing and Cost Control | 4 |
| Culinary Arts |  |  |
| 2280:101 | Introduction to Hospitality | 3 |
| 2280:120 | Safety and Saritation | 2 |
| 2280:121 | Fundamentals of Food Preparation I | 4 |
| 2280:122 | Fundamentals of Food Preparation II | 4 |
| 2280:245 | Menu, Purchasing and Cost Control | 3 |
| 2280:261 | Baking and Classical Desserts | 3 |
| Hotel/Lodging Management |  |  |
| 2280:101 | Introduction to Hospitality | 3 |
| 2280:120 | Safety and Sanitation | 2 |
| 2280:232 | Dining Room Service and Training | 3 |
| 2280:240 | Supervision in the Hospitality Industry | 3 |
| 2280:250 | Front Office Operations | 3 |
| 2280:268 | Revenue Centers | 3 |
| 2280:278 | Hospitality Industry Marketing | 3 |

## International Business

This minor provides students with a basic understanding of international business and its environments.

- Required: Complete all courses - 12 credits

| 6600:300 | Marketing Principles | 3 |
| :---: | :---: | :---: |
| 6600:385 | International Marketing | 3 |
| 6800:305 | International Busingss | 3 |
| 6800:405 | Multinational Corporations | 3 |
| - Electives: Complete two (2) courses - 6-7 credits |  |  |
| 3250:461 | Principles of Intemational Economics | 3 |
| 3700:300 | Comperative Politics | 4 |
| 3700:312 | Politics of International Trade and Money | 3 |
| 6100:495 | Intersship in Business | 3 |
| 6400:323 | International Business Law | 3 |
| 6400:487 | International Business Finance | 3 |
| 6500:457 | Intemational Management | 3 |
| 6800:421 | International Business Practices | 3 |
| 6800:496 | Special Topics in International Business | 3 |
| Total eredits required |  | 18-19 |

## Management

| General Management Option |  | Credits |
| :---: | :---: | :---: |
| 6500:301 | Management: Principles and Concepts | 3 |
| 6500:310 | Business Information Systems | 3 |
| 6500:330 | Principles of Operations Management |  |
| 6500:341 | Human Resource Management |  |
| 6500:3x $\times 14 \times \times$ | Management Electives |  |
| Human Resource Management Option |  |  |
| 6500:301 | Management: Principies and Concepts | 3 |
| 6500:310 | Business Information Systems | 3 |
| 6500:341 | Human Resource Management | 3 |
| - Select THREE of the following for which you have the prerequisites: |  |  |
| 6500:302 | Organizational Behevior and Leadership Skills | 3 |
| 6500:342 | Labor Relations | 3 |
| 6500:442 | Compensation Management |  |
| 6500:443 | Human Resources Selection and Staffing | 3 |
| 6500:457 | International Management | 3 |
| Management Information Systems Option |  |  |
| 6500:301 | Management: Principles and Concepts | 3 |
| 6500:310 | Business information Systems | 3 |
| 6500:315 | Applications Development for Business Processes | 3 |
| 6500:350 | Fundamentals of Enterprise Resource Planning | 3 |
| - Select TWO of the following for which you have the prerequisites: |  |  |
| 6500:324 | Data Management for information Systems | 3 |
| 6500:325 | Analysis, Design and Development of information Systems | 3 |
| 6500:330 | Principles of Operations Management | 3 |
| 6500:341 | Human Resource Management | 3 |
| 6500:420 | Management of Data Networks | 3 |
| 6500:425 | Decision Support with Data Warehousing and Data Mining | 3 |
| 6500:426 | E-Business Application Development | 3 |
| Supply Chain/Operations Management |  |  |
| 6500:301 | Management: Principles and Concepts | 3 |
| 6500:310 | Business Information Systems | 3 |
| 6500:330 | Principles of Operations Management | 3 |
| 6500:333 | Supply Chain and Operations Anelysis | 3 |
| 6600:390 | Principles of Supply Chain Management | 3 |
| - Select ONE of the following for which you have the prerequisites: |  |  |
| 6500:334 | Service Operations Management | 3 |
| 6500:350 | Fundamentals of Enterprise Resource Planning | 3 |
| 6500:433 | Supply Chain Logistics Planning | 3 |
| 6500:434 | Production Planning and Control | 3 |
| 6500:435 | Quality Management and Control | 3 |

## Marketing and Sales Technology

| 2520:101 | Essentials of Marketing | 3 |
| :--- | :--- | :--- |
| 2520:202 | Retailing Fundamentals | 3 |
| 2520:203 | Principles of Advertising | 3 |
| 2520:204 | Services Marketing | 3 |
| 2520:206 | Retai Promotion and Advertising | 3 |
|  | or |  |
| 2520:221 | Advertising Campaign | 3 |
| 2520:212 | Principles of Sales | 3 |
| 2520:254 | Sales Management Technology | 3 |
|  |  |  |
|  |  |  |
| To be awarded only at the time a student receives a baccalaureate degree. |  |  |

## Mathematics/Applied Mathematics

| - Total credits required: | 24 |  |
| :--- | :--- | :---: |
| $3450: 221,2,3$ | Analytic Geometry-Calculus I, II, III | 12 |
| $3450: 312$ | Linear Algebra |  |
|  | or | 3 |
| $3450: 438$ | Advanced Engineering Mathematics : |  |

- Approved 300/400-level mathematical sciences electives lat least six credits in 3450 courses


## Military Studies: Military Science

In addition to earning a minor in Military Science, Army ROTC classes and leadership training will help you sharpen your written and oral briefing skills as well as give you the tools to help you succeed in school and in your future career. We emphasize the practical application of leadership skills through classroom, lab and adventure training that will improve your self-confidence and management abilities. You can leam this minor even though you are not part of the Army ROTC program; however, being in Army ROTC entitles you to participate in more advanced leadership training opportunities, apply for tuition and room and board scholarships, and opens the door to an unparalleled opportunity to serve your country in the most respected institution in the nation - America's military.

|  |  | Crad'ts |
| :--- | :--- | :---: |
| $1600: 100$ | Introduction to Military Science I | 2 |
| $1600: 101$ | Introduction to Military Science II | 2 |
| $1600: 200$ | Basic Military Leadership | 2 |
| $1600: 201$ | Small Unit Operations | 2 |
| $1600: 300$ | Advanced Leadership I | 3 |
| $1600: 301$ | Advanced Leadership II | 3 |
| $1600: 305$ | Leadership Techniques and Principles: A Military Perspective | 3 |
| $1600: 400$ | Military Management I | 3 |
| $1600: 401$ | Military Management II | 3 |
| $1600: 490$ | Special Topics in Military Science | $1-3$ |

## Modern Languages

## French, German, Spanish, or Italian

The German and Italian minors have been suspended (effective Fall 2003) until sufficient resources become available.
A minimum of 18 credits is required.
The student must have at least 12 credits beyond the second year excluding courses which are not counted for credit toward a major.

## Music

| Jazz Studies |  |  |
| :---: | :---: | :---: |
| 7500:210 | Jazz Improvisation I | 2 |
| 7500:211 | Jaz Improvisation II | 2 |
| 7500:212 | Music Industry Survey | 2 |
| 7500:307 | Technique of Jazz Ensemble Performance and Direction | 2 |
| 7500:308 | History and Literature of Jaz | 3 |
| 7500:497 | Independent Study in Music | 2 |
| 7510:115 | Jazz Ensemble | 4 |
| 7520:00x | Applied Jazz Study | 8 |
| Music |  |  |
| 7500:121 | Theory and Musicianship I | 4 |
| 7500:122 | Theory and Musicianship II | 4 |
| 7500:351 | Music History or | 3 |
| 7500:352 | Music History II | 3 |
| 7500:30x | Music Elective (Selected from any 7500 course at 300 or 400 level) | 2 |
| 7510:00x | Music Organization (four semesters in a major conducted ensemble) |  |
| 7520:x0x | Applied Music <br> (This eight-credit requirement must be satisfied in four separate semesters. In order to complete the Minor in Music, the student must successtully jury to the $\mathbf{2 0 0}$ level.) |  |
| Total credita |  | 25 |

## Office. Administration

The following courses must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record.

| General Secretarial - $\mathbf{1 8}$ credits | Cradits |  |
| :---: | :---: | :---: |
| 2440:105 | Introduction to Computers \& Application Software | 3 |
| 2540:121 | Introduction to Office Procedures | 3 |
| 2540:129 | Information/Records Manegement | 3 |
| 2540:151 | Intermediate Word Processing | 3 |
| 2540:253 | Advanced Word Processing | 3 |
| 2540:281 | Editing/Prootreading/Transcription | 3 |

## Word Processing - 19 credits

| $2440: 105$ | Introduction to Computers \& Application Sottware | 3 |
| :--- | :--- | :--- |
| $2540: 151$ | Intermediate Word Processing | 3 |
| $2540: 253$ | Advanced Word Processing | 3 |
| $2540: 270$ | Business Software Applications | 4 |
| $2540: 271$ | Desktop Publishing | 3 |
| $2540: 281$ | Editing/Proofreading/ranscription | 3 |

Note: A minor in Office Administration may only be awarded at the time a student receives a baccalaureate degree.

## Paralegal Studies

The Paralegal Studies Minor provides the student with an opportunity to develop an understanding of, and the role of non-attomeys in, the legal field. The minor requires 12 credit hours of core classes and allows the student to select 6 hours of elective, 3 hours of which must be at the 200 level.

| $2290: 101$ | Introduction to Legal Assisting Technology | 3 |
| :--- | :--- | :--- |
| $2290: 104$ | Basic Legal Research and Writing | 3 |
| $2290: 110$ | Tort Law | 3 |
| $2290: 214$ | Civi Procedures | 3 |
| $2290: x 0 x$ | Electives (at least three hours to be completed at the 200 level) | 6 |

## Philosophy

| General Philosophy Minor |  | Credits |
| :---: | :---: | :---: |
| A total of 18 credits in philosophy including: |  |  |
| - | At least three credits at the introductory level: |  |
| 3600:101 | Introduction to Philosophy or | 3 |
| 3600:120 | Introduction to Ethics $\alpha$ | 3 |
| 3600:170 | Introduction to Logic | 3 |

- At least six credits at the 300/400 level:
- The remaining nine credits are to be selected from any philosophy offerings.


## Bioethics Minor\#

A total of 18 credits including:

| Required: 12 credits of Philosophy |  |
| :---: | :---: |
| 3600:120 | Introduction to Ethics* |
| 3600:361 | Biomedical Ethics |
| 3600:323 | Advanced Topics in Ethics |
| and ONE of the following: |  |
| 3600:464 | Philosophy of Science |
| 3600:480 | Seminar (on Bioethics topic) |
| - Electives: 6 credits from the following: |  |
| 1880:310 | Medicine and the Humanities |
| 3230:457 | Medical Anthropology |
| 3600:392 | Intersship in Philosophy (in Bioethics) |
| 3600:464 | Philosophy of Science |
| 3600:480 | Seminar (on a Bioethics topic) |
| 3750:320 | Biopsychology |
| 3750:335 | Dynamics of Personality |
| 3750:340 | Social Psychology |
| 3750:420 | Abnormal Psychology |
| 3750:430 | Psychotogical Disorders of Children |
| 3850:342 | Sociology of Health and Illness |
| 3850:444 | Social lssues in Aging |
| 3850:450 | Sociology of Mental lliness |
| 5570:322 | Current Topics in Heath Education |
| 6500:480 | Introduction to Hearth-Care Management |
| 7400:442 | Human Sexuality |
| 7400:451 | Child in the Hospital |
| 7750:456 | Social Work in Heath Services |
| 8200:217 | Pathophysiology for Nurses |
| 8200:470 | Community Heath Nursing |

## Philosophy of Science and Religion Minor*

A total of 18 credits including:

- Required: 12 credits of Philosophy

3600:125 . Theory and Evidence*
3600:331 Philosophy of Religion
3600:333 Philosophy of Science and Religion
3600:464 Fhilosophy of Science

- Electives: 6 credits from the following:

| 3100:316 | Evotutionary Biclogy |
| :---: | :---: |
| 3100:428 | Biology of Behavior |
| 3100:482 | Neurobiology |
| 3230:151 | Human Evolution* |
| 3230:455 | Culture and Personality |
| 3300:360 | The Old Testament as Literature |
| 3300:366 | European Backgrounds of English Literature |
| 3370:102 | Introductory Historical Geology |
| 3370:360 | Paleobiotogy |
| 3370:405 | Archaeological Georogy |
| 3400:487 | Science \& Technology in U.S. History since 1800 |
| 3600:392 | Intemship in Philosophy (in science andor religion) |
| 3600:471 | Metaphysics |
| 3600:480 | Seminar (on science and/or religious issues) |
| 3650:301 | Elementáry Modem Physics |
| 3750:320 | Biopsychology |
| 3850:315 | Sociological Social Psychology |
| 3850:410 | Social Structures and Personality |
| 3850:460 | Sociological Theory |

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## Philosophy of World Religions Minor\#

| A total of 18 credits including: Credi |  |  |
| :---: | :---: | :---: |
| - Required: 12 credits of Philosophy |  |  |
| 3600:201 | Philosophy of World Religions | 3 |
| 3600:331 | Philosophy of Religion | 3 |
| and TWO of the following: |  |  |
| 3600:312 | History of Medieval Philosophy | 3 |
| 3600:340 | Eastern Philosophy | 3 |
| 3600:414 | Aquinas | 3 |
| 3600:415 | Augustine | 3 |
| - Electives: 6 credits from the following: |  |  |
| 3200:220 | Introduction to the Ancient World* | 3 |
| 3200:289 | Mythology of Ancient Greece** | 3 |
| 3230:357 | Magic, Myth and Religion | 3 |
| 3300:360 | The Old Testament as Literature | 3 |
| 3300:361 | The New Testament as Literature | 3 |
| 3400:320 | Medieval Europe 1200-1500 | 3 |
| 3400:321 | Europe: Renaissance to Religious Wars | 3 |
| 3400:341 | Istamic Fundarmentalism and Revolution | 3 |
| 3400:342 | The Crusades through Arab Eyes | 3 |
| 3400:425 | The Reformation | 3 |
| 3400:493 | ST in History (on Religious issue) | 3 |
| 3600:211 | History of Ancient Philosophy | 3 |
| 3600:312 | History of Medieval Philosophy | 3 |
| 3600:313 | History of Modem Philosophy | 3 |
| 3600:340 | Eastem Philosophy | 3 |
| 3600:392 | Intemship in Philosophy (World Religion) | $1 \cdot 3$ |
| 3600:414 | Aquinas | 3 |
| 3600:415 | Augustine | 3 |
| 3600:480 | Seminar (on Religious issue) | 3 |
| 3850:365 | ST in Sociology (on Religious issue) | $1-3$ |

## Pro-Law Philosophy Minor\#

A total of 18 credits including:

- Required: 12 credits of Philosophy

| 3600:120 | Introduction to Ettrics: | 3 |
| :---: | :---: | :---: |
| 3600:170 | Introduction to Logic* | 3 |
| and TWO of the following: |  |  |
| 3600:323 | Advanced Topics in Ethics | 3 |
| 3600:324 | Social \& Political Philosophy | 3 |
| 3600:361 | Biomedical Ethics | 3 |

- Electives: 6 credits from the following:
3002:301 Civil Rights Movement in America 3

3250:405 Economics of the Public Sector 3
3300:376 Legal Witing
3300:389 ST: Politics \& American Literature
3350:432 Land Use Planning Law
3400:452 American Revolutionary Era
3400:453 Age of Jefterson \& Jackson
3400:317 The Roman Republic
3600:211 History of Ancient Philosophy
3600:312 History of Medieval Philosophy
3600:313 History of Modem Philosophy
3600:323 Advanced Topics in Ethics
3600:324 Social \& Political Philosophy
3600:361 Biomedical Ethics
3600:362 Business Ethics
3600:363 Police Ethics
3600:478 20th Century Analytic Philosophy
3600:421 Philosophy of Law
3600:462 Theory of Knowledge
3700:302 American Political Ideas
3700:334 Law, Mediation \& Violence
3700:335 Law \& Society
3700:355 Lawyers, Lawsuits \& the Practice of Justice
3700:360 The Judicial Process
3700:361 Politics of the Criminal Justice System
3700:363 Crime, Punishment \& Politics
3700:461 The Supreme Court \& Constitutional Law
3700:462 The Supreme Court \& Civil Liberties
3700:483 Constitutional Problems in Criminal Justice
3750:440 Personal Psychology \& the Law
3850:330 Criminotogy
3850:441 Sociology of Law
6400:220 Legal \& Social Environment of Business
6400:323 International Business Law
7600:245 Argumentation
7600:252 Persuasion
7750:470 Low for Social Workers

| Physics? |  |  |
| :---: | :---: | :---: |
| - Required | or all students: | Crodits |
| 3650:291,2 | Elementary Classical Physics 1 , 1 I* | 8 |
| 3650:301 | Elementary Modem Physics | 3 |
| 3650:3x | Electives | 7 |
| - Recommended electives: |  |  |
| 3650:322,3 | Intermediete Laboratory 1, \|| | 6 |
| 3650:340 | Themal Ptysics | 3 |
| 3650:350 | Modeiling and Simulation | 3 |
| Political Science |  |  |
| - Each student shall complete at least nine of the required credits in $300 / 400$ level coursework in political science. |  |  |
| - Available minor concentrations: |  |  |
| American Politics* |  |  |
| 3700:100 | Govemment and Politics in the United Steres | 4 |
| Fourteen credits from the following: |  |  |
| 3700:210 | State and Local Govemment and Poitics | 3 |
| 3700:341 | The American Congress | 3 |
| 3700:350 | The American Presidency | 3 |
| 3700:360 | The Jucicicil Procass | 3 |
| 3700:370 | Public Administration: Concepts and Practices | 4 |
| 3700:380 | Uldan Politics and Policies | 4 |
| 3700:381 | State Politics | 3 |
| 3700:395 | Intemship in Goverrment and Poitics** | 29 |
| 3700:402 | Politics and the Medie | 3 |
| 3700:440 | Survey Research Methods | 3 |
| 3700:470 | Campaign Management | 3 |
| 3700:471 | Canpaign Management II | 3 |
| 3700:472 | Campaign Finance | 3 |
| 3700:474 | Political Opinion, Behavior and Electoral Politics | 3 |
| 3700:475 | American Intierest Groups | 3 |
| 3700:476 | American Poolitical Parties | 3 |
| Comparative Politics |  |  |
| 3700:150 | Word Poolitics and Govemments | 3 |
| 3700:300 | Comparative Politics | 4 |
| Eleven additional credits from the following: |  |  |
| 3700:304 | Modem Political Thought | 3 |
| 3700:321 | Westem Eurapean Politics | 3 |
| 3700:326 | Politics of Developing Nations | 3 |
| 3700:405 | Politics in the Middle East | 3 |
| 3700:425 | Latin American Poolitics | 3 |
| International Politics |  |  |
| 3700:150 | World Politics and Govermment | 3 |
| 3700:310 | International Poitics and Institutions | 3 |
| 3700:415 | Comporative Foreign Policy | 3 |
| Eight additional credits from the following: |  |  |
| 3700:300 | Comperative Politics | 4 |
| 3700:304 | Modem Political Thought | 3 |
| 3700:312 | The Politics of Intemetional Trade and Money | 3 |
| 3700:321 | Westem European Politics | 3 |
| $3700 \cdot 326$ | Politics of Developing Nations | 3 |
| 3700:328 | American Foreign Policy Procsss | 3 |
| 3700:405 | Politics in the Middla East | 3 |
| $3700: 410$ 3700425 | Intemational Defensse Policy | 3 |
| 3700:425 | Latin American Politics |  |

## Political Science

level coursework in political science.

- Available minor concentrations:

American Politics*

| Public Policy Analysis |  | Crodits |
| :---: | :---: | :---: |
| 3700:100 | Government and Politics in the United States | 4 |
| 3700:201 | Introduction to Political Research | 3 |
| 3700:441 | The Policy Process | 3 |
| Eight additional credits from the following: |  |  |
| 3700:370 | Public Administration: Concepts and Practices | 4 |
| 3700:402 | Politics and the Media | 3 |
| 3700:440 | Survey Research Methods | 3 |
| 3700:442 | Methods of Policy Analysis | 3 |
| 3700:480 | Policy Problems | 3 |
| 3700:474 | Political Opinion, Behavior and Electoral Politics | 3 |
| Pre-Law* |  |  |
| 3700:100 | Government and Politics in the United States | 4 |
| 3700:360 | The Judicial Process | 3 |
| 3700:461 | The Supreme Court and Constitutional Law | 3 |
| Eight additional credits from the following: |  |  |
| 3700:210 | State and Local Government and Politics | 3 |
| 3700:341 | The American Congress | 3 |
| 3700:361 | Politics of the Criminal Justice System | 3 |
| 3700:395 | Intersship in Govemment and Politics* | 2-9 |
| 3700:462 | The Supreme Court and Civil Liberties | 3 |
| Political Science/Criminal Justice\# |  |  |
| 3700:100 | Government and Politics in the U.S. | 4 |
| 3700:201 | Introduction to Political Research |  |
| 3700:361 | Politics of the Criminal Justice System | 3 |
| - Eight additional credits from the following: |  |  |
| 3700:363 | Crime, Punishment, Politics: A Comparative Perspective |  |
| 3700:395 | Internship in Govermment and Politics\# | 2-9 |
| 3700:450 | Administering Prisons, Probation and Paroie | 3 |
| 3700:480 | Policy Problems: Criminal Justice | 3 |
| 3700:481 | The Challenges of Poice Work |  |
| 3700:482 | Current Issues in Criminal Justice | 3 |
| 3700:483 | Constitutional Problems of Criminal Justice | 3 |

## Politics of Homeland Security

This minor will help students gain a better understanding of the threats facing the Homeland as well as what our government is doing to intervene and respond to those threats.


## Pre-MBA for Non-Business Majors

- Total credits required for the Pre-MBA Minor for Non-Business Majors: 18

| $6200: 201$ | Accounting Principtes I | 3 |
| :--- | :--- | :--- |
| $6500: 301$ | Management: Principles and Concepts | 3 |
| $6600: 300$ | Marketing Principles | 3 |
| $6200: 250$ | Microcomputer Applications for Business | 3 |
| $6400: 220$ | Legal \& Social Environment of Business | 3 |
| $6400: 301$ | Corporate Finance | 3 |
|  | or |  |
| $3250: 244$ | Introduction to Economic Analysis | 3 |

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## Psychology

- A total of 19 credits in Psychology with eight credits of $300 / 400$-level coursework.

Credits

- Required for all students:

3750:100 Introduction to Psychology 3

- At least one course from these 100-200-level courses:

| 3750:110 | Quantitative Method in Psychology |
| :--- | :--- |
| 3750:220 | Introduction to Experimental Psychology |
| 3750:230 | Developmental Psychology |

3

## introduction to Expenmental Psychology

- At least one course from these 300 -level courses:

| $3750: 320$ | Biopsychology | 4 |
| :--- | :--- | :--- |
| $3750: 335$ | Dpnamics of Personality | 4 |
| $3750: 340$ | Social Psychology | 4 |
| $3750: 345$ | Cognitivy Processes | 4 |
| $3750: 380$ | Industrial/Organizational Psychology | 4 |

- Courses from the following list which relate to student's area of interest:

| 3750:400 | Personality | 4 |
| :--- | :--- | ---: |
| 3550:410 | Psychological Tests and Measurements | 4 |
| 3750:420 | Abnormal Psychotogy | 4 |
| 3750:430 | Psychological Disorders of Children | 4 |
| 3750:435 | Cross-cultural Psychology | 4 |
| 3750:440 | Personnel Psychology and the Law | 4 |
| 3750:441 | Clinical and Counseling Psycholdgy I | 4 |
| 3750:443 | Human Resource Management | 4 |
| 3750:444 | Organizational Theory | 4 |
| 3750:445 | Psychology of Small Group Behavior | 4 |
| 3750:450 | Cognitive Development | 4 |
| 3750:460 | History of Psychology | 3 |
| 3750:474 | Psychology of Women | 4 |
| 3750:475 | Psychology of Adulthood and Aging | 4 |
| 3750:480 | Special Topics in Psychology | $1-4$ |
| $3750: 485$ | Applied Developmental Psychology | 4 |

## Sales Management

This minor provides the student an opportunity to develop and document an understanding of sales management issues. A total of 18 credit hours are required for this minor. The student must complete 12 credit hours of required courses and 6 credit hours must be selected from a list of electives. To be granted this minor, the student must complete at least 9 credit hours of 6600 courses in addition to the requirements for any other major, minor, or certificate that has been earned.

- Required: Complete all courses - 12 credits

| 6500:301 | Management: Principles and Concepts | 3 |
| :--- | :--- | :--- |
| 6600:275 | Professional Selling | 3 |
| $6600: 300$ | Marketing Principles | 3 |
| $6600: 480$ | Sales Management | 3 |

- Electives: Complete any 6 credits

| $6100: 495$ | Internship in Business' | 3 |
| :--- | :--- | ---: |
| $6500: 302$ | Organizational Behavior and Leadership Skills | 3 |
| $6500: 341$ | Human Resource Management | 3 |
| $6500: 390$ | Pinciples of Supply Chain Management | 3 |
| $6600: 350$ | Integrated Marketing Communications | 3 |
| $6600: 475$ | Business Negotiations | 3 |
| $7600: 235$ | Interpersonal Communication | 3 |
| Total crecitse required | $\mathbf{1 8}$ |  |

## Sociology

- Nineteen total credits are required.
- Required for all students:

3850:100 Introduction to Sociootogy
4

- A minimum of 15 additional credits of sociology courses at the 300/400 level are required. Students may wish to select courses which relate to a particular interest area. These areas are outlined in materials available in the Department of Sociology for assistance in course selection for the minor program.


## Speech-Language Pathology and Audiology

- Required core courses:

```
Credits
```

| $7700: 110$ | Introduction to Disorders of Communication | 3 |
| :--- | :--- | :--- |
| $7700: 120$ | Introduction to Audiology/Aural Rehabilitation | 4 |
| $7700: 211$ | Introduction to Speech Science | 2 |
| $7700: 230$ | Language Science and Acquisition | 4 |
| $7700: 322$ | Organic Disorders of Communications | 4 |
| $7700: 440$ | Augmentative Communication | 3 |

## Statistics

| $3450: 221,2$ | Analytic Geometry-Calculus I, II | 8 |
| :--- | :--- | :--- |
| $3450: 312$ | Linear Algebra | 3 |
| $3470: 461$ | Applied Statistics | 4 |
| $3470: 462$ | Applied Regression and ANOVA | 4 |
|  | Approved 400-evel statistics electives: | 6 |

## Theatre Arts

In order to obtain a Minor in Theatre Arts, the student must successfully complete a minimum of 18 credits; 12 credits of required core courses and 6 credits must be from theatre 300-400 level courses. The course list is as follows:

- Core

| $7800: 100$ | Experiencing Theatre | 3 |
| :--- | :--- | :--- |
| $7800: 108$ | Introduction to the Visual Arts of the Theatre | 3 |
| $7800: 172$ | Acting I | 3 |
| $7800: 264$ | Playscript and Performance Analysis | 3 |

- Electives (or others as approved by adviser)

7800:336 Scenic Design
7800:335 History of Theatre and Dramatic Literature I 3
7800:435 History of Theatre and Dramatic Literature II 3
7800:355 Stage Lighting Design 3
$\begin{array}{lll}7800: 370 & \text { Directing I } & -3 \\ 7800: 373 & \text { Acting II } & 3\end{array}$

## Women's Studies

This minor focuses on the cultural practices that have largely excluded and devalued differences in gender, sexual orientation, ethnicity, race and class. This interdisciplinary minor requires certain core classes and then allows 12 hours of electives (two courses on the 300/400 levell. At least one elective course must be taken from each of the following areas: hurnanities, social sciences, fine and applied arts plus an additional women's studies or cross-listed class from any area.

| - Required for all students: | Credits |  |
| :--- | :--- | ---: |
| 1840:300 | Introduction to Women's Studies | 3 |
| 1840:480 | Feminist Theory | 3 |
| 1840:490 | Women's Studies Lecture Series | 1 |
| 1840:493 | Individual Studies on Women | $1-3$ |
|  | or |  |
| 1840:489 | Internship in Women's Studies | $1-4$ |

- Electives: One course from each of the following three areas: humanities, social sciences, fine and applied arts, plus an additional women's studies or cross-listed course from any area.

| Humanities |  |  |
| :---: | :---: | :---: |
| 1840:485 | Special Topics: Women as Survivors* | 3 |
| 1840:485 | Special Topics: Worlds of Women* | 3 |
| 1840:493 | Individual Studies on Women" | $1 \cdot 3$ |
| 3300:386 | Women in Modem Novels | 3 |
| 3300:389 | Special Topies: Ethnic Women in Literature | 3 |
| 3300:389 | Special Topics: Women Writers | 3 |
| 3300:489 | Women and Film* | 3 |
| 3300:489 | 20th Century Women Writers* | 3 |
| 3300:453 | Americar Women's Poet | 3 |
| 3600:355 | Philosophy of Feminism | 3 |


| Social Sciences |  |
| :--- | :--- |
| 1840:485 Special Topics: Boys to Men: Masculinity in Contemporary Society* | 3 |

1840:485 Special Topics: Boys to Men: Masculinity in Contemporary Society* 3
$\begin{array}{llr}\text { 1840:485 } & \text { Special Topics: Women, Poverty and Welfare* } & 3 \\ \text { 1840:489 } & \text { Intemship in Women's Studies* } & 1-4\end{array}$
1840:493 Individual Studies on Women* 1.3
2540:265 Women in Management 3
3230:472 The Anthropology of Sex and Gender 3
3400:325 Women in Modem Europe 3

3400:340 Airican-American Women's History 3
3400:400 Gender and Cutture in China
3700:392 Special Topics: Women in Politics
3750:474 Psychology of Women*
3850:325 Sociology of Women in Global Society"
3850:447/547 The Sociology of Sex and Gerder
$3850 \cdot 455$ Family Violence 3
Fine and Applied Arts
1840:485 Women, Minorities and Media*
1840:493 Individual Studies on Women* 1.3

7100:401 Women in Art" 3
7400:201 Coutship, Marriage and the Family
7400:219 Dress and Culture
7400:265 Child Development 3
7400:442 Human Sexuality 3
7400:485 . Women and Food 3
7600:408 Women, Minorities and News* 3
7750:411 Women's Issues in Secial Work Practice* 3
7750:480 Special Topics: Gay and Lesbian Issues* 3
Summit College
2260:265 Women and Addiction

# Interdisciplinary and Certificate Programs of Study 

## OVERVIEW

To add to the dimensions of the traditional disciplines, the University has established interdisciplinary and interdepartmental programs of study. In addition to a major, the student may elect to pursue one of these programs.
interdisciplinary Studies programs feature courses which integrate and analyze issues and concepts from more than one field. The goal of this type of study is to place knowledge into a greater perspective than would be possible through any one traditional field. This is accomplished by taking courses from a variety of departments as well as courses which may be team taught. Interdisciplinary Studies and certificate programs will include coursework designated as 1800:.
Upon completion of any of these programs, a statement will be placed on the student's permanent record indicating the area of concentration. The certificate indcating the area of concentration will be awarded when the student completes requirements for a degree unless the program specifies that it is free standing . and does not require participation in a degree program.

## ACCOUNTING SPECIALIST

This certificate program is designed to address the needs of students who desire to develop an aptitude or interest in accounting technology. This program may be valuable to business technology majors and others who are pursuing a more specialized level of training to enhance their eaming capability. This emphasis is on serving the objectives of those students seeking the higher skills level and toward providing the training for Certified Bookkeeper, a certification awarded by the American Institute of Professional Bookkeepers.
The awarding of this certificate is not contingent upon completion of a degree program.

- Students entering the Business Management Technology Program must pass department placement exams or complete the following Bridge Courses prior to enrolling in the program.

| Bridge Courses: |  | Credits |
| :---: | :--- | :---: |
| 2440:105 | Introduction to Computers and Application Software | 3 |
| 2540:140 | Keyboarding for Nonmajors | 2 |
|  |  |  |
| Required |  |  |
| $2420: 211$ | Basic Accounting i | 3 |
| $2420: 212$ | Basic Accounting II | 3 |
| $2420: 213$ | Essentiels of Management Accounting | 3 |
| $2420: 217$ | Survey of Taxation | 4 |
| $2420: 243$ | Survey in Finance | 3 |
| $2420: 215$ | Computer Applications for Accounting Cycles | 3 |
|  | or |  |
| $2420: 220$ | Applied Accounting | 3 |

## ADDICTION SERVICES (BASIC)

This certificate program is intended for individuals who wish to enhance their knowledge of addiction and addiction treatment. This certificate is independent of a degree and is designed for individuals in one of the following categories:
(1) The person who is preparing for the CD licensing.
(2) The person who has not had specialized addiction training but wants to deverop expertise in this area.
(3) The person employed in the field who would like to upgrade hisher knowledge.

## Requirements



This certificate program is intended for individuals who wish to enhance their knowledge of addiction and addiction treatment. This certificate is independent of a degree and is designed for individuals in one of the following categories:
(1) The person who is preparing for the CD licensing.
(2) The person who has not had specialized addiction training but wants to devel op expertise in this area.
(3) The person employed in the field who would like to upgrade his/her knowt edge.

## Requirements

| $2260: 210$ | Addiction Education and Prevention | 3 |
| :--- | :--- | :--- |
| $2260: 240$ | Drug Use and Abuse | 3 |
| $2260: 260$ | Introduction to Addiction | 3 |
| $2260: 261$ | Addiction Treatment | 4 |
| $2260: 267$ | Addiction Assessment and Treatrnent Planning | 3 |
| $2260: 263$ | Group Principles in Addiction | 3 |
| $2260: 264$ | Addiction and the Farnily | 3 |
| $2260: 270$ | Relapse Prevention | 3 |
|  |  |  |
| Addiction elective (choose from following): |  |  |
| $2260: 265$ | Women \& Addiction | 3 |
| $2260: 268$ | Co-Occurring Disorders | 3 |
| $2260: 269$ | Criminal Justice \& Addiction | 3 |
| $2260: 271$ | Behavioral Addictions | 3 |

## AGING SERVICES

This program is intended for individuals who wish to enhance their knowledge of the aging process, study issues pertinent to the elderly, and develop skills useful in working with senior citizens. This program is not limited to community services majors.
This certificate program is generally designed for individuals in one of the following categories:

- The person with no degree but who is contemplating working with senior citizens.
- The person with a degree who has not had specialized training in the field of gerontology, but who would like to work in this field.
- The person employed in this field who would like to upgrade his/her knowledge and skills.
- Persons interested in enhancing the quality of their postretirement years or those of family and friends.
Persons interested in this program should consult with the Public Services Department. This certificate may be earned independent of earning a degree.


## Requirements

| 2020:121 | English |
| :--- | :--- |
| 2020:222 | Technical Report Writing |
| 2040:240 | Human Relations |
| 2040:244 | Death and Dving |
| 2260:150 | Introduction to Gerontological Services |
| 2260:278 | Techniques of Community Work |
| 2260:279 | Technical Experience: Community and Social Services |
| 3006:450 | Interdisciplinary Seminar in Gerontology |
| 3006:486 | Retirement Specialist |
| 7400:441 | Farnily Relationships in Middle and Later Years |

## APPLIED POLITICS

John C. Green, Ph.D., Director

The Ray C. Bliss Institute and the Department of Political Science have combined to offer a Certificate Program in Applied Politics for undergraduate students. The Certificate Program in Applied Politics offers coursework in the history, organization and management of campaigns intended to influence the outcome of political decisions. Working from a set of core courses, students are allowed to concentrate in the area of applied politics of greatest interest-campaigns, communications, lobbying, political parties, etc. Believing that democracy is best served by having active and informed citizens, the certificate is designed for all students, no matter what their degree program, as long as they have a deep interest in practical politics.

## Requirements

Persons are eligible for admission to the Certificate Program in Applied Politics if they have been admitted to study as special, non-degree or full-time students in any department of the University. Student shall seek admission to this program by filing an application with the Bliss Institute. The student shall schedule courses with the assistance of an adviser at the earliest possible time.

## Core Courses

| 3700:470 | Campaign Management I | 3 |
| :--- | :--- | :--- |
| 3700:471 | Campaign Management II | 3 |
| $3700: 395$ | Intemship in Govemment and Politics | 3 |

## Electives

In addition to the core courses, students must complete 9 elective credits. Three credits must be from the following:

| $3700: 402$ | Politics and the Media |
| :--- | :--- |
| 3700:440 | Survey Research Methods |
| $3700: 472$ | Campaign Finance |
| $3700: 473$ | Voter Contact and Elections |
| 3700:474 | Public Opinion, Behavior and Electoral Politics |
| 3700:475 | American Interest Groups |
| $3700: 476$ | American Political Parties |
| $7600: 475$ | Political Communication |

Completed electives must also include an additional 6 credits from above or from approved courses in Political Science, Communication, or other departments. Students must maintain at least a " $B$ " (3.0) average in their coursework for the certificate.

## Certificate

Political Science majors will, upon completion of the program, be awarded a B.A. or B.S. degree in Political Science with a Certificate in Applied Politics. Majors in other disciplines will have the Certificate noted on their permanent record.

## ASIAN AND MIDDLE EASTERN STUDIES

The program in Asian and Middle Eastern Studies at the University of Akron offers interdisciplinary certificates in Asian Studies (including East, South East, or South) or Middle Eastern Studies for undergraduates as well as graduate students. The structure of each certificate option provides students a good amount of flexibility and the opportunity to count certain key courses towards their General Education requirements. Strategic languages of East Asia or the Middie East are required, and a wide range of courses in fields including History, Anthropology, Political Science, Economics, Geography, Sociology, and Business are offered.

The University of Akron recognizes the importance of a truly global education. Students who complete certificates will find that their courses of study provide them with in-depth training in a special area that may be particularly useful as they pursue careers in Academia, Law, Public History, Education, Business, and even Medicine, where they will practice their profession abroad or use their international experience to expand their understandings of these regions as they work with topics on or populations from Asia and the Middle East. Certificates in Asian and Middle Eastern Studies can complement any Major in the university and are also appropriate for nor-degree students who might like to return to the university for mid-career training.
A minimum GPA of 3.0 in any of the undergraduate certificate tracks is required. The program strongly encourages study abroad, and will offer additional credits, to be applied toward the certificate, for certain courses that require overseas study in a country of the student's focus (Asia, Middle East) or for other individual experiences abroad. Students will also need to take classes in more than two disciplines (i.e., History, Geography, Political Science). Special courses that are not on the permanent bulletin might be offered that may fill a requirement. Students will need to complete the equivalent of a fourth-semester-level language class (a South or East Asian language for the Asian Studies Certificate, or a modern Middie Eastern language for the Middle Eastern Studies Certificate. Students will then complete 15 credits of approved electives for each track. Therefore, students must meet with the director to plan a course of study.

## East/South Asian Studies Track Requirements

## - 15 credits

- In order to make the most of the interdisciplinary courses the program offers, students must choose their electives from at least three departments. For exarnple, a student who is majoring in History might want to take three courses in History, one in Political Science, and one in Geography. Exceptions are only made with the director's approval.

| Interdisciplinary Electives: |  |
| :---: | :---: |
| 3350:360 | Asia |
| 3370:141 | Natural Environment of China |
| 3370:495 | Field Course: China Field Trip |
| 3400:200 | Empires of Ancient Asia |
| 3400:300 | Imperial China |
| 3400:301 | Modem Chins |
| 3400:303 | Modern East Asia |
| 3400:382 | The Vietnam War |
| 3400:385 | World Civilizations: China** |
| 3400:386 | World Civilizations: Japan"* |
| 3400:387 | Word Civilizations: Southeast Asia** |
| 3400:388 | World Civilizations: India** |
| 3400:400 | Gender and Culture in China |
| 3400:401 | Japan and the Pacific War, 1895-1945 |
| 3400:416 | Modern India |
| 3400:493 | Special Studies: North American History |
| 3560:304 | Japanese Culture through Film |
| 7100:401 | Special Topics: The Att of India |
| 7100:401 | Special Topics: The Art of Chine |
| 7100:401 | Special Topics: The Art of Korea and Japan |
| 7100:401 | Special Topics: The Art of Buddhist Japan |
| 7915:112 | Word Dance: Asia |
| 7915:114 | World Dance: Pacific Rim |

3350:360 Asia
Natural Environment of China
Field
3400:300 Imperial China
3400:301 Modem China
3400:303 Modern East Asia
3400:382 The Vietnam War
3400:386 World Civilizations. Japan *
3400:387 Wortd Civilizations: Southeast Asia**
Wond Civizations. India
Japan and the Pacific War, 1895-1945
Modem India
Cos. North American History
inture through Film
Special Topics: The Art of China
pecial Kopics. The At of Korea and Japan
World Dance: Asia
World Dance: Pacific Rim

[^57]- Courses with comparative content are encouraged. Electives can also be included from the following list, subject to the director's approval. The director may need to review the course content:


## Credits

1840:485
3004:201
3200:220
3230:357
3230:370
3850:421
3230:457
3230:416
3230:420
3230:472 3240:101-120
3300:362
3300:389
3300:389
3350:250
3350:375
3350:497
3370:498
3400:340
3400:351
3400:493
3600:201
3600:340
3700:310
3700:326
3700:328
3700:415
6200:408
6400:323
6400:481
6500:457
6600:385
6800:305
6800:405
6800:421
6800:496
7100:401
7400:446
7600:325

Special topics in Women's Studes
Introduction to Intemational Development
Introduction to the Ancient World
Magic, Myth, and Religion
Cultures of the World
Race and Ethnic Relations
Medical Anthropology
Sex and Gender
The Anthropology of Food
Special Topics in Anthropology
Case Studies in Archaeology
World Literature
Special Topics: Literature and Language
Special Topics: Ethnic Women in Literature
World Regional Geography
Geography of Cultural Diversity
Regional Field Studies
Special Topics in Geology
Special Topics in History
Global History: Encounters and Conflicts
Special Studies: North American History
Philosophy of World Religions
Eastem Philosophy
Intemational Politics and Institutions.
Poltics of Developing Nations
American Foreign Policy Process
Comparative Foreign Policy
International Financial Reporting and Analysis
International Business Law
International Business Finance
International Manegement
International Marketing
Intemational Business
Multinational Corporations
International Business Practices
Special Topics in Intemational Business
Special Topics in the History of Art
Culture, Ethnicity and the Family
Intercultural Communication

|  |  | Credits |
| :--- | :--- | :---: |
| $3230: 472$ | Special Topics in Anthropology | 3 |
| $3240: 101-120$ | Case Studies in Archaeology | 1 |
| $3250: 461$ | Principles of International Economics | 3 |
| $3300: 362$ | World Literature | 3 |
| $3300: 389$ | Special Topics: Literature and Language | 3 |
| $3300: 389$ | Special Topics: Ethnic Women in Literature | 3 |
| $3350: 250$ | World Regional Geography | 3 |
| $3350: 375$ | Geography of Cultural Diversity | 3 |
| $3350: 497$ | Regional Field Studies | 3 |
| $3370: 498$ | Special Topics in Geology | 3 |
| $3400: 340$ | Special Topics in History | 3 |
| $3400: 351$ | Global History: Encounters and Conflicts | 4 |
| $3400: 493$ | Special Studies: North American History | 3 |
| $3600: 201$ | Philosophy of World Religions | 3 |
| $3600: 340$ | Eastem Philosophy | 3 |
| $3700: 310$ | International Politics and Institutions | 3 |
| $3700: 326$ | Politics of Developing Nations | 3 |
| $3700: 328$ | American Foreign Policy Process | 3 |
| $3700: 415$ | Comparative Foreign Policy | 3 |
| $6200: 408$ | International Financial Reporting and Analysis | 3 |
| $6400: 323$ | International Business Law | 3 |
| $6400: 481$ | International Business Finance | 3 |
| $6500: 457$ | International Management | 3 |
| $6600: 385$ | International Marketing | 3 |
| $6800: 305$ | International Business | 3 |
| $6800: 405$ | Multinational Corporations | 3 |
| $6800: 421$ | International Business Practices | 3 |
| $6800: 496$ | Special Topics in International Business | 3 |
| $7100: 401$ | Special Topics in the History of Art | 3 |
| $7400: 446$ | Culture, Ethnicity and the Family | 3 |
| $7600: 325$ | Intercultural Communication | 3 |

## BIOTECHNOLOGY SPECIALIZATION CERTIFICATE

The goal of this program is to allow engineering students with an interest in chemistry and biotechnology to develop suitable preparation for graduate study in biotechnology or the medical fields without reducing their potential for careers in traditional chemical engineering. Students will have ample opportunity to work with researchers in biotechnology through their engineering and design electives.

- All current requirements for the Bachelor's of Science in Chemical and Biomolecular Engineering (except: 3150:313,314 Physical Chemistry I and II and 4200:305 Material Science)

| $3100: 111,112$ | Principles of Biology I and II | 4 |
| :--- | :--- | :--- |
| $3100: 31 i$ | Cell and Molecular Biology |  |
| or |  |  |
| $3100: 331$ | Microbiology | 4 |

- Advanced Chemistry Elective -2 credits
$3150: 401 \quad$ Biochemistry Lecture I 3
- Chemical and Biomolecular Engineering Elective - 3 credits

4200:472 Separation Processes in Biochemical Engineering 3
4200:473 Bioreactor Design 3
4200:496 Topics in Chemical Engineering (with permission) 3
4200:194 Chemical Engineering Design I (with permission) 1
4200:294 Chemical Engineering Design II (with permission) 1-2
4200:394 Chemical Engineering Design III (with permission) 1-3
4200:494 Design Project (with permission) 3
4200:497 Honors Project (with permission) 1-3
4200:499 Research Project (with permission) $\quad$ 1-3
4800:360 Biofluid Mechanics 3
4800:400 Biomaterials 3

- Design Electives - 6 credits

4200:473 Bioreactor Design 3
4200:496 Topics in Chemical Engineering (with permission) 3
4200:194 Chemical Engineering Design I (with permission) 1
4200:294 Chemical Engineering Design II (with permission) 1-2
4200:394 Chemical Engineering Design III (with permission) 1-3
4200:494 Design Project (with permission) 3
4200:497 Honors Project (with permission) 1-3
4200:499 Research Project (with permission) 1-3
4300:482 Special Projects (with permission) 3
4800:485 Special Topics in Biomedical Engineering $1-3$

## BUSINESS MANAGEMENT TECHNOLOGY

This certificate program is intended to promote understanding of the basic aspects of business formation and operation. The program can be useful for nonbusiness majors benefiting from an introduction to a new discipline. The emphasis is on serving the objectives of the students who expect to enhance their value to current employers or those students who may want to acquire newer skills toward seeking prospective employment.

The awarding of this certificate is not contingent upon completion of a degree program.

- Students entering the Business Management Technology Program must pass department placement exams or complete the following Bridge Courses prior to enroling in the program.

| Bridge Courses: |  | Credits |
| ---: | :--- | :---: |
| 2440:105 | Introduction to Compurars and Application Software | 3 |
| 2540:140 | Keyboarding for Nonmajors | 2 |
| Required: |  |  |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2520:101 | Essentials of Marketing Technology | 3 |

## CHILD CARE WORKER

## Requirements

This certificate program provides basic vocational training for child-care practitioners. The course of study is a means of meeting the short range goals of students interested in acquiring skills for job placement in early childhood settings. This certificate may be attained independent of earning a degree.

| $2040: 240$ | Human Relations | 3 |
| :--- | :--- | :--- |
| $2200: 245$ | Infant/Toddier Day-Care Programs | 3 |
| $2200: 250$ | Observing and Recording Children's Behavior- | 3 |
| $2200: 246$ | Multicultura Issues in Child Care | 3 |
| $2200: 247$ | Diversity in Early Childhood Literacy | 3 |
| $5200: 360$ | Teaching in the Early Childhood Center | 2 |
| $5200: 370$ | Early Childhood Center Laboratory | 2 |
| $7400: 265$ | Child Development | 3 |
| $7400: 270$ | Theory and Guidance of Play | 3 |
| $7400: 280$ | Early Childhood Curriculum Methods | 3 |

## COMPUTER INFORMATION SYSTEMS

This cerificate provides the opportunity to become proficient in the use of popular micro computer software. This certificate may be obtained independent of a degree. Students entering the Computer Information Systems Program must pass department placement exams or complete the following Bridge Courses prior to enrolling in the program.

| Bridge Courses: |  | Credits |
| :--- | :--- | :---: |
| 2440:105 | Introduction to Computers and Application Software | 3 |
| 2540:140 | Keyboarding for Nonmejiors | 2 |
|  |  |  |
| Required Courses: |  |  |
| 2440:121 | introduction to Logic/Programming | 3 |
| 2440:140 | Intemet Tools | 3 |
| 2440:175 | Microcomputer Application Support | 3 |
| 2440:267 | Microcomputer Database Applications | 3 |

## Programming Certificate

Students entering the Business Management Technology Program must pass department placement exams or complete the following Bridge Courses prior to enrolling in the program.

| Bridge Courses: |  |  |
| :--- | :--- | :--- |
| 2440:105 | Introduction to Computers and Application Software |  |
| 2540:140 | Keyboarding for Nonmeiors | 3 |
| Required | Courses: | 2 |
| 2440:121 | Introduction to Logic/Programming |  |
| 2440:160 | Java Programming | 3 |
| 2440:170 | Visual Basic | 3 |
| 2440:256 | C++ Programming | 3 |

## Cisco Networking Technology Certificate

The Cisco Networking Certificate provides the network administration and techni cal support skills needed to provide Cisco support to business and industry. This certificate my be obtained independent of a degree.
Students entering the Computer Information Systems Program must pass department placement exams or complete the following Bridge Courses prior to enrolling in the program.

## Bridge Courses:

2440:105 introduction to Computers and Application Software 3

2540:140 Keyboarding for Nonmajors 2
Required Courses:

| Required Courses: |  |  |
| :--- | :--- | :--- |
| $2440: 201$ | Networking Basics | 3 |
| $2440: 202$ | Router and Routing Basics | 3 |
| $2440: 203$ | Switching Basics and Intermediate Routing | 3 |
| $2440: 204$ | WAN Technologies (Cisco option) | 3 |
|  |  |  |

Cisco Networking classes offered at main campus only.

## Database Development Certificate

The Database Development Certificate provides students from other disciplines an opportunity to gain database skills demanded by business and industry. This certificate may be obtained independent of a degree.
Students entering the Computer Information Systems Program must pass department placement exams or complete the following Bridge Courses prior to enrolling in the program.

| Bridge Courses: |  |  |
| :---: | :---: | :---: |
| 2440:105 | introduction to Computers and Application Software | 3 |
| 2540:140 | Keyboarding for Nonmejors | 2 |
| Required Courses: |  |  |
| 2440:121 | Introduction to Logic/Programming | 3 |
| 2440:180 | Database Concepts | 3 |
| 2440:210 | Client Server Programming | 3 |
| 2440:234 | Business Programming | 3 |

## Webmaster Certificate

The Webmaster Certificate provides students from other disciplines an opportunity to gain Web development skills demanded by business and industry. This certificate may be obtained independent of a degree. Students entering the Computer Information Systems Program must pass department placement exams or complete the following Bridge Courses prior to enrolling in the program.

| Bridge Courses: | Credits |  |
| :---: | :--- | :---: |
| 2440:105 | Introduction to Computers and Application Software | $\mathbf{3}$ |
| 2540:140 | Keytoarding for Nonmajors | $\mathbf{2}$ |
| Required | Courses: |  |
| 2440:121 | Introduction to Logic/Programming | $\mathbf{3}$ |
| 2440:140 | Internet Tools | 3 |
| 2440:141 | Web Site Administration | 3 |
| 2440:211 | Interactive Web Programming | 3 |
| 2440:212 | Multimedia \& Interactive Web Elements | 3 |

## COMPUTER PHYSICS

## E. Von Meerwall, Ph.D., Director

## Requirements

To qualify for the certificate program, a student must be in good academic standing in the major department and must submit a written request for admission to the director of the program. This course of study adds a component of both physics and computer science to a major in a traditional area of science. The physics courses, beyond Elementary Classical Physics, emphasize computer applications, including data analysis and use of computers to solve physical problems.
Physics

| 3650:291,2 | Elementary Classical Physics : II | 8 |
| :---: | :---: | :---: |
| 3650:350 | Modeling and Sirmulation | 4 |
| Mathematics |  |  |
| 3450:221,2 | Analytic Geometry-Cakulus I, II | 8 |
| Computer Science |  |  |
| 3460:206 | Introduction to C Programming | 3 |
| 3460:209 | Introduction to Computer Science | 4 |
| 3460:210 | Date Structures and Algorithms . | 4 |

The certificate program has been structured to be accessible to most students working toward an undergraduate degree in a traditional area of science. The certificate may be combined with a minor in physics for students who wish to obtain a background in physics which emphasizes applications and uses of computers to collect and analyze data and to solve physical problems.

## COMPUTER SCIENCE

Wolfgang Pelz, Ph.D., Department Chair

## Requirements

## Entrance

To qualify for the Computer Science Certificate Program, a student must be in good academic standing in the major department, must have completed four credits of mathematics in the Department of Theoretical and Applied Mathematics and must submit to the department chair a written request for admission to the program. The request will outline the student's reasons and goals for enrolling in the program. The area of concentration adds a further dimen sion of both mathematics and computer science to the student's major in one of the traditional academic disciplines. A minimum grade-point average of 2.00 in the certificate is required. The Certificate in Computer Science will only be grant ed upon completion of a degree program or if a degree has already been earned.

| Courses |  | Credits |
| :---: | :---: | :---: |
| 3450:208 | Introduction to Discrete Mathematics | 4 |
| 3450:215 | Concepts of Calculus or | 4 |
| 3450:221 | Anslytic Geometry-Calculus I | 4 |
| 3460:209 | Introduction to Computer Science | 4 |
| 3460:210 | Data Structures and Algorithms: | 4 |
| 3460:306 | Assembly and System Programming | 4 |
| 3460:316 | Data Structures and Algorithms II | 3 |
| >0xP:00x | Approved 300/400-Level Computer Science Electives | 6 |

## CONFLICT MANAGEMENT FOR EDUCATORS

This 21-credit, interdisciplinary, certificate was designed by the Center for Conflict Management in collaboration with the College of Education for educators or students interested in teaching at any level.

Core Courses ( 6 credits):

| Conflict Core |  | 3 |
| :--- | :--- | :--- |
| $3700: 334$ | Law, Mediation, and Violence |  |
| Socio-Cultural Core (choose one) |  |  |
| $3850: 315$ Sociological Social Psychology | 3 |  |
| $3750: 340$ | Social Psychology | 4 |
| $3230: 150$ | Cultural Anthropology | 4 |

Elective Courses (choose 12 credits):

| Education Options |  |  |
| :--- | :--- | :--- |
| $5100: 210$ | Characteristics of Leaming | 3 |
| $5500: 320$ | Diversity in Leamers | 3 |
| $5500: 330$ | Classroom Management | 3 |

Political Science Options

| $3700: 341$ | American Congress | 3 |
| :--- | :--- | ---: |
| $3700: 350$ | American Presidency | 3 |
| $3700: 360$ | Judicial Process | 3 |
| $3700: 392$ | S: Power and Community, Local Conflict Resolution |  |
| $3700: 475$ | American Imterest Groups | $1-3$ |
| $3700: 476$ | American Political Parties | 3 |
|  |  | 3 |

Sociology Options

| 3850:320 | Social Inequalitios | 3 |
| :--- | :--- | ---: |
| 3850:421 | Racial and Ethnic Relations | 3 |
| 3850:428 | Victim in Society | 3 |
| 3850:430 | Juvenile Delinquency | 3 |
| 3850:4475547 | The Sociology of Sex and Gender | 3 |
| 3850:455 | Farnily Violence | 3 |

Communications Options

| $7600: 227$ | Nonverbal Communication | 3 |
| :--- | :--- | :--- |
| $7600: 325$ | Intercultural Communication | 3 |

Electives must include courses taken from at least three of these areas Intemship

Students must take at least three credits of internship in either the Political Science Department or the Sociology Department intemship program, or they can arrange an intemship with the Center Director directly.
For further information, contact Dr. William Lyons, Jr., director, at (330) 972-5855 or see wnw. uakron, edu/centers/conflict.

## CONSTRUCTION ENGINEERING TECHNOLOGY

## Certificate Program in Construction Management

## Requirements

A minimum of 18 hours is required
The certificate program in Construction Management is open to undergraduates or graduates who have been admitted to The University of Akron. This program is aimed at developing technical knowledge and skills necessary to supervise a construction project. This certificate may be earned independently of earning a degree, but all coursework can be applied to the B.S. degree in Construction Engineering Technology.
The following courses are required:
Credits

| 2990:351 | Construction Quality Control |
| :--- | :--- |
| 2990:352 | Field Maragement and Scheduling |
| 2990:358 | Advanced Estimating |
| 2990:359 | Construction Cost Control |
| 2990:453 | Legal Aspects of Construction |
| 2990:468 | Construction Management |
| 2990:498 | Independent Study in Construction |

$\square$
2990:352 Field Maragement and Scheduling
3
2990358

2900:43
2990:468
2990:498 Independent Study in Construction $\qquad$
Because most of the required courses have prerequisites, students should consult with the program director of the Construction Technology program for a contract before beginning coursework.
One semester of co-op or an internship with a construction or construction related company is required.
For further information, contact:
Construction Engineering Technology Program Director
Summit College
The University of Akron
Akron, $\mathrm{OH} 44325-6104$
http://sc.uakron.edu

## Certificate Program in Heavy Construction

The certificate program in Heavy Construction is open to undergraduates or graduates who have been admitted to The University of Akron. This program is aimed at developing technical knowledge and skills necessary to supervise a construction project. This certificate may be earned independently (with prerequisite or appropriate work related experience - see program director) of eaming a degree, but all coursework can be applied to the B.S. degree in Construction Engineering Technology.

## Requirements:

A minimum of 17 hours is required.
The following courses are required:

| 2990:352 | Field Management \& Scheduling | 2 |
| :--- | :--- | :--- |
| 2990:358 | Advanced Estimating | 3 |
| 2990:361 | Construction Formwork | 3 |
| 2990:420 | Hydrology \& Groundwater | 3 |
| 2990:465 | Heaw Construction Methods | 3 |
| 2990:498 | Independent Study in Construction | 3 |

Because most of the required courses have prerequisites, students should consult with the program director of the Construction Engineering Technology program for a contract before beginning coursework.
For further information, contact:
Constructioh Engineening Technology Program Director
Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-2055
hitp://sc. uakron.edu

## Certificate Program in Materials Testing Technology

The purpose of the certificate program in Materials Testing is to train individuals in the processes and procedures involved in standardized laboratory testing of construction related materials. The certificate program requirements may be comt pleted without completing other degree requirements. Students working toward an A.A.S. degree in Construction Engineering Technology or a B.S. degree in Construction Engineering Technology may complete the necessary coursework to complete the certificate requirements. Courses completed for the certificate in addition to the initial degree requirements may count as technical electives for the chosen degree.

Requirements: A minimum of 16 hours is required.
The following courses are required: Credits

| 2990:125** | Statics | $\mathbf{3}$ |
| :--- | :--- | :--- |
| 2990:237 | Materials Testing I | 2 |
| 2990:238 | Materials Testing II | 2 |
| 2990:241 | Strength of Materials | $\mathbf{3}$ |
| 2990:320** | Advenced Materies Testing | $\mathbf{3}$ |
| 2990:355 | Computer Applications in Construction | $\mathbf{3}$ |

For further information, contact:
Construction Engineering Program Director
Summit College
The University of Akron
Alvon, OH 443256104
(330) 972-2055
htto://sc.uakron.edu

## Certificate Program in Residential Building Technology

## Requirements

## A minimum of 15 hours is required.

The certificate program in Residential Building Technology is aimed at providing knowledge and skills to anyone planning to work in the building construction industry. This certificate program may be earned independently of earning a degree. All coursework can be applied to an A.A.S. degree or a B.S. degree in Construction Engineering Technology.

| $2990: 150$ | Blueprint Reeding | 2 |
| :--- | :--- | :--- |
| $2990: 231$ | Building Construction | 2 |
| $2990: 245$ | Construction Estimating | 3 |
| $2990: 310$ | Residential Building Construction | 3 |
| $2990: 356$ | Safety in Construction | 2 |
| $2990: \times x x$ | Technical elective | 3 |

Because some of the required courses have prerequisites, students should consult with the program director of the Construction Engineering Technology program for a contract before beginning coursework. For further information, contact:

[^58]
## Certificate Program in Residential Inspection

| Requirements |  |  |
| :---: | :---: | :---: |
| A minimum of 18 hours is required. |  |  |
| The certificate program in Residential Inspection is open to undergraduates or graduates who have been admitted to The University of Akron. This program is aimed at developing technical knowledge and skills necessary to conduct residential inspection. This certificate may be earned independently of earning a degree but all coursework can be applied to the B.S. degree in Construction Engineering Technology. |  |  |
| The follow | urses are required: | Credits |
| 2990:150 | Blueprint Raading | - 2 |
| 2990:131 | Building Construction | 2 |
| 2990:310 | Residential Building Construction | 3 |
| 2990:462 | Mecherical Service Systoms | 3 |
| 2990:463 | Electrical Service Systems | 3 |
| 2990:489 | ST: Residential Inspection | 2 |
| 2990:498 | IS: Field Inspection** | 3 |

Because some of the required courses have prerequisites, students should consult with the program director of the Construction Engineering Technology program for a contract before beginning coursework.

For further information, contact:
Construction Engineering Technology Program Director Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-2055

## CRIMINAL JUSTICE

## Requirements

The program specified is designed to provide background, proficiency and updating in the criminal justice area and the private security industry. While many professionals have completed a degree, many more would benefit by this type of approach. The designed program would provide a measure of recognition for those students enrolled and completing the program. The program would be continually monitored and has been included in many localities as an incentive for promotion, pay increases and lateral movement within the police or security agency. This certificate may be obtained independent of a degree.

## Criminal Justice/General <br> 2220:100 Introduction to Criminal Justice <br> 2220:102 Principles of Criminal Law <br> 2220:104 Evidence and Criminal Legal Process <br> Criminal Case Management <br> Critical Incident Intervention for Criminal Justice <br> Introduction to Sociology

## Criminal Justice/Security

2220:101
2220:120
2220.296

2230:204
2230:250
2230:257
introduction to Security Administration Technology Crime Prevention: Theory Practice and Management Current Topics in Criminal Justice
Fire and Life Safety. Education
Hazardous Materials
Fire and Safety Issues for Business and Industry

## Criminal Justice/Corrections

This certificate introduces the student to a variety of current issues in corrections.

| $2220: 100$ | Introduction to Criminal Justice | 3 |
| :--- | :--- | :--- |
| $2220: 103$ | Introduction to Corrections | 3 |
| $2220: 270$ | Community Corrections | 3 |
| $2220: 275$ | Legal Aspects of Corrections | 3 |
| $2260: 255$ | Effective Workplace Relationships | 3 |
| $2260: 269$ | Criminal Jistice and Addiction | 3 |
| $3850: 100$ | Introduction to Sociology | 4 |

## Criminal Justice/Forensic Study of Behaviors

This certificate prograrn is intended for individuals who wish to enhance their knowledge of behavioral sciences in criminal justice settings. This certificate is independent of a degree and is designed for individuals in one of the following categories:

1) Criminal Justice majors who wish to specialize in the study of behaviors within the criminal justice field
2) Non-criminal justice majors who want an introduction to the discipline of criminal justice.
3) Professional employed in the field who would like to further deyelop their expertise in this area.

| $2220: 100$ | Introduction to Criminal Justice | 3 |
| :--- | :--- | :--- |
| $2220: 255$ | Introduction to Forensic Investigation | 3 |
| $2220: 260$ | Critical Incident Interventions for Criminal Justice | 3 |
| $2220: 224$ | Profiling Senial Killers | 3 |
| $2220: 226$ | Interviews, Interrogations, and Hostage Negotiations | 3 |
| $2220: 262$ | Victimology and the Criminal Justice System | 3 |

## DIGITAL ELECTRONICS AND MICROPROCESSORS

## Requirements

The certificate program in Digital Electronics and Microprocessors is designed for students who desire a formal, structured program in a specific area in the field of electronics, but, because of time or work constraints, are unable to pursue a com plete associate or baccalaureate degree program.

The following 27 semester hours are required:
2030:152 Technical Mathematics II 2
2030:153 Technical Mathematics III 2
2030:154 Technical Mathematics IV 3
2860:120 Circuit Fundamenta
2860:127 Introduction to Electronics and Computers
2860:123 Electronic Devices
2860:136 Digital Fundamentals
2860:237 Digital Circuits
2860:238 Microprocessor Applications
All courses taken may be applied toward the Associate Degree in Electronic Engineering Technology.
For further information contact:
Electronic Engineering Technology Program Director
Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-7054
httpi//sc.uakron,edu
***Feld inspection Independent Study may inchude work that includes residential inspection, repair evaluation and other fieks. Program Director will outtine requirements for this course on an individualized basis.

## DRAFTING AND COMPUTER DRAFTING TECHNOLOGY

## Requirements

The certificate program in Drafting and Computer Drafting Technology is intended for individuals who wish to enhance or update their drafting skills. The program has been designed so that an individual can emphasize a specific area of drafting. A minimum of 18 credits is required. All courses taken may be applied toward an associate degree in Drafting and Computer Drafting Technology. This certificate may be earned independent of any degree program.

| The following 9 semester hours are required: |  | Credits |
| :---: | :---: | :---: |
| 2940:121 | Technical Drawing I | 3 |
| 2940:122 | Technical Drawing II | 3 |
| 2940:210 | Computer Aided Drawing I | 3 |
| A minimum of 9 semester hours selected from the following: |  |  |
| 2940:170 | Surveying Drafting | 3 |
| 2940:200 | Advanced Dratting | 3 |
| 2940:219 | Computer Aided Drawing II | 3 |
| 2940:230 | Mechanical Systerns Drafting | 3 |
| 2940:240 | Electrical \& Electronic Draftuing | 3 |
| 2940:250 | Architectural Drafting | 3 |
| 2980:223 | Fundamentals of Map Production | 3 |
| 2990:250 | Structural Dratting | 2 |

All courses taken may be applied toward the Associate Degree in Drafting and Computer Dratting Technology.

## EMERGENCY MANAGEMENT

The discipline of emergency management continues to evolve as disasters and major emergencies become more frequent. Emergency management is becoming more complex and there is a demand for well-oducated individuals in both the private and public sectors.
These courses provide emergency management foundations which can be applied to many careers included but not limited to: crisis management, business continuity, health services, public administration, political science, geography, homeland security, communications, and computer information systems or related areas. The courses offered will provide emergency management skills useful in many careers whether as a student or a practitioner looking to expand their knowledge. The granting of this certificate does not require completion of a degree.

- Completion of 21 hours of Emergency Management courses as follows:
- Required classes

2235:305 Principles of Emergency Management 3
2235:350 Emergency Response, Preparedness, and Planning 3
2235:370 Hazard Processes for Emergency Management 3
2235:xxx Emergency Management Electives 12

- Electives

2235:320
2235:355
2235:360
2235:380
2235:385
2235:405.
2235:410
2235:490
Emergency Management Business3
Emergency Management Research Methods and Appications

Introduction to Terrorism
Disaster Victims: Casualties and Recoveries
Disasters in Film and Media
Hazard Prevention and Mitigation
Disaster Relief and Recovery
Current Topics in Emergency Management

## ENTREPRENEURSHIP

All students at the University can eam a Certificate in Entrepreneurship where they will learn skills related to creativity, innovation, and entrepreneurship. The applied program focuses on the individual needs of the student whether it is creating a new enterprise, buying or growing an existing enterprise, franchising, family business, and corporate or social entrepreneurship. Numerous enterprises have been created and built through this nationally recognized program.

## Requirements

A total of 15 credit hours is required for the certificate program. Students must complete 12 credit hours of required courses. In addition, a 3 credit hour course must be selected from a list of electives.

## Program:



## ENVIRONMENTAL STUDIES

Ira D. Sasowsky, Ph.D., Director

## Requirements

To qualify for the certificate program, students must request admission to the program by completing the certificate application form. If currently enrolled in a degree program, they must be in good academic standing with their major department. A plan of study will be developed in consultation with the director of the Center for Environmental Studies, and must be approved by the director. To satisfy the requirements a student must complete the core courses and 11 credits from the list of elective courses or other courses identified as acceptable by the director. Elective courses will be selected from outside ones academic major.
The awarding of this certificate is not contingent on enrollment in, or completion of, a degree program.
$\begin{array}{cc}\text { Core (required) } & \text { Credits } \\ 3010: 201 & \text { Introduction to Environmental Science }\end{array}$
3010:401 Seminar in Environmental Studies

## Electives (minimum of 11 credits)

| 2230:250 | Hazardous Materials | 4 |
| :---: | :---: | :---: |
| 3010:401 | Seminar in Environmental Studies (may be repeated as an elective) | 2 |
| 3010:49 | Workshop in Environmental Studies | -4 |
| 3100:217 | General Ecology | 3 |
| 3100:342 | Flore and Taxonomy | 3 |
| 3100:421 | Tropical Field Biology | 4 |
| 3100:425 | Freshwater Ecology Field \& Laboratory Studies | 3 |
| 3100:426 | Wetand Ecology | 4 |
| 3150:100 | Chemistry and Society | 3 |
| 3250:385 | Economics of Natural Resources and the Environment | 3 |
| 3350:310 | Physical and Environmental Geography | 3 |
| 3350:351 | Ohio Environment and Society | 3 |
| 3350:405 | Geographic Information Systems | 3 |
| 3350:407 | Advanced Geographic Information Systems | 3 |
| 3350:447 | Remote Sensing | 3 |
| 3350:449 | Advanced Remote Sensing | 3 |
| 3350:495 | Soil and Water Field Studias | 3 |
| 3370:125, 126,1 | 9,130,131,133,134,135, 136 Concepts in Geology | 1 |
| 3370:200 | Environmental Geology | 3 |
| 3370:201, 203 | Exercises in Environmental Geology 1, II | 1 |
| 3370:301 | Engineering Geology | 3 |
| 3370:371 | Oceanography | 4 |
| 3370:470 | Geochemistry | 3 |
| 3370:474 | Groundwater Hydrology | 3 |
| 3400:471 | American Environmental History | 3 |
| 3850:321 | Population | 3 |
| 4100:203 | Envirormental Science \& Engineering | 3 |
| 4200:463/563 | Pollution Control | 3 |
| 4300:321 | Introduction to Environmental Engineering | 3 |
| 4300:323 | Watar Supply and Pollution Control | 3 |
| 4300:423/523 | Chemistry for Environmental Engineers | 3 |
| 4300:424 | Water-Wastewater Laboratory | 1 |
| 4300:426/526 | Emvironmental Engineering Dasign | 3 |
| 4300:427/527 | Water Quality Modeling and Management | 3 |
| 4300:428/528 | Hazardous and Solid Waste | 3 |

## FIELD ARCHAEOLOGY

The Certificate in Field Archaeology is designed for students interested in field archaeology as a career choice. Cultural resource management (CRM or "contract archaeology") is the fastest-growing area of archaeology in the United States due to federal legislation which requires an archaeological assessment of the impact of federally-funded activities on prehistoric and historic cultural remains. This legislation has greatly increased the demand nationally for trained field archaeologists. The Certificate in Field Archaeology trains students to work in CRM by promoting a solid understanding of the principles and theories of archaeology as well as providing training in basic field methods and cutting-edge technology. The Certificate in Fieid Archaeology is multidisciplinary and students have the option of taking electives in Geology, Geography and Survey and Construction Engineering Technology.
The Certificate in Field Archaeology requires students to successfully pass three required courses and three elective courses, each worth 3 credits for a total of 18 credits.

| Requirements |  | Credits |
| :---: | :---: | :---: |
| 3240:400 | Archeoological Theory | 3 |
| 3240:440 | Archeeological Laboratory Methods | 3 |
| 3240:450 | Archeoological Field School | 3 |
| - Electives: |  |  |
| 2980:122 | Elementary Surveying | 3 |
| 3240:410 | Archeeogeophysical Survey | 3 |
| 3240:420 | Archaeology of Ohio | 3 |
| 3350:405 | Geographic Information Systems | 3 |
| 3370:405 | Archaeological Geology | 3 |

## Notes:

(1) Only three credits of 3240:450 Archaeological Field School may be counted towards the Certificate in Field Archaeology.
(2) The Certificate in Field Archaeology may be eamed independently of a degree.

Total credits required for the Certificate in Field Archaeology: 18.

## FINANCIAL PLANNING

The 24-credit certificate in Financial Planning will permit students to acquire the educational foundation for a career in financial planning and will qualify them to sit for the Certified Financial Planner Certification Examination.

| $6200: 410$ | Taxation for Financial Planning | 3 |
| :--- | :--- | ---: |
| $6200: 430$ | Taxation I | 3 |
| $6400: 200$ | Foundations in Personal Finance | 3 |
| $6400: 301$ | Corporate Finance | 3 |
|  | or |  |
| $6140: 300$ | Introduction to Finance (non-business students only) | 3 |
| $6400: 343$ | Investments | 3 |
| $6400: 415$ | Risk Management: Life and Health Insurance |  |
| $6400: 417$ | Retirement Planning | 3 |
| $6400: 432$ | Seminar in Personal Financial Planning | 3 |
| Total credits required |  | 3 |

## FIRE PROTECTION TECHNOLOGY

## Requirements

Fire continues to be a problem in the United States even though the loss of lives is declining due to new, innovative public education programs, rigorous enforcement of building and fire code enforcement and the application of advanced technology related to fire detection and suppression systems. However, with the loss of civilian lives ranging from 4,050 to 4,440 each year and property loss continuing to escalate, the need for welleducated fire fighters becomes more important as community resources are reallocated.

The Fire Protection Technology certificate will assist the student in acquiring the knowledge and skills necessary to function effectively as a fire protection specialist.

| 2230:100 | Introduction to Fire Protection | 4 |
| :--- | :--- | ---: |
| 2230:102 | Fire Safety in Building Design and Construction | 3 |
| 2230:104 | Fire Investigation Methods | 4 |
| 2230:202 | Incident Management for Emergency Responders | 4 |
| 2230:204 | Fire and Life Sefety Education | 3 |
| 2230:205 | Fire Detection and Suppression Systerns | 3 |
| 2230:250 | Hazardous Materials | 4 |
| Total crectits required | $\mathbf{2 5}$ |  |

## FORENSIC STUDY OF BEHAVIORS

This certificate program is intended for individuals who wish to enhance their knowledge of behavioral sciences in criminal justice settings. This certificate is independent of a degree and is designed for individuals in one of the following categories:
(1) criminal justice majors who wish to specialize in the study of behaviors within the criminal justice field.
(2) non-criminal justice majors who want an introduction to the discipline of criminal justice.
(3) professionals employed in the field who would like to further develop their expertise in this area. Credits

| 2220:100 | Introduction to Criminal Justice | $\mathbf{3}$ |
| :--- | :--- | :--- |
| 2220:255 | Introduction to Forensic Investigation | $\mathbf{3}$ |
| 2220:260 | Critical Incident Interventions for Criminal Justice | $\mathbf{3}$ |
| 2220:224 | Profiling Serial Killers | 3 |
| 2220:226 | Interviews, Interrogations, and Hostage Negotiations | 3 |
| 3850:428 | The Victim and Society | 3 |

## GENDER CONFLICT

## Center for Conflict Management <br> muw,uakron.educenters/confict <br> Requirements <br> This is an 18-credit certificate providing students with an opportunity to conduct a rigorous, scholarly, and interdisciplinary investigation into gender conflicts.

- Required

| 3700:422 | Understanding Racial and Gender Conflict | $\mathbf{3}$ |
| :--- | :--- | :--- |
| 3850:447547 | The Sociology of Sex and Gender | $\mathbf{3}$ |

- Chose from:
$\begin{array}{lll}\text { 3700:402 } & \text { Politics and the Media } & 3 \\ \text { 3700:334 } & \text { Law, Mediation, and Victence } & 3\end{array}$
- 3

3850:325 Sociology of Women in Global Society 3
3850:365 ST: Sociology of Peace and Victence 3
3850:365 - ST: Sociology of Sexuality 3
3850:441 Sociology of Law 3
3850:455 Farnily Violence 3
3230:416 Anthropology of Sex and Gender 3
3230:463 Social Anthropology 3
3300:489 Seminar in English: Subversive Wormen
3300:489 Seminar in English: British Women Writers 3
3400:340 ST:African-American Women's History 3
3400:350 US Women's History 3
3400:493 Special Studies: Women, Film and History 3
3400:325 Women in Modern Europe 3
Internship $\quad 3$ credits from Sociology, Political Science, Anthropology or History) 3

## GEOGRAPHIC AND LAND INFORMATION SYSTEMS

## REQUIREMENTS:

The certificate program in Geographic and Land Information Systems may be earned independently of any degree program. This certificate program has been designed to provide individuals with the basic entrytevel skills necessary for those seeking positions as GIS Technicians. All courses taken may be applied toward an A.A.S. degree in Surveying Engineering an A.A.S. degree in Geographic and Land Information Systems (GIS/IS), and/or the B.S. degree in Surveying and Mapping Technology (with some restrictions; see adviser). Students who do not have experience or formal training in basic drafting must complete coursework in this area first (see adviser).

- A minimum of 18 hours is required. Credits
- The following courses are required for completion of the certificate:

| 2980:100 | Introduction to Geormatics | 2 |
| :--- | :--- | :--- |
| 2985:101 | Introduction to Geographic \& Land Information Systems | 3 |
| 2985:201 | Intermediate Geographic \& Land Information Systems | 3 |
| 2985:205 | Buiding Geodatabases | 3 |

- The remaining seven credit hours may be selected from the list below.

| 2980:101 | Basic Survering I | 2 |
| :--- | :--- | :--- |
| 2980:102 | Basic Surveving II | 2 |
| 2980:228 | Boundary Survering | 3 |
| 2980:330 | Applied Photogrammetry | 3 |
| 2980:355 | Computer Applications in Surveying | 3 |
| 2980:445 | Applications in GIS using GPS | 3 |
| 2985:210 | Geographic \& Land Information Systems Project | 3 |
| 2985:280 | Topics in Professional Practice | 2 |
| 2985:291 | Gecgraphic and Land Information Systems internship | 3 |

## For further information, contact:

Surveying \& Mapping Program Director
Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-7059

# GEOGRAPHIC INFORMATION SCIENCES AND CARTOGRAPHY 

Contact Undergraduate Adviser, Department of Geography and Planning

## Requirements

The geographic information sciences (GISci) integrate concepts, methods, and tools for collecting, analyzing, and visualizing spatial data, including physical, environmental, social, and economic information. An education in this rapidly growing professional and scientific field leads to careers in the public and private sectors as Gl scientists, as geographic information systems (GIS) analysts, programmers, or technicians, or as cartographers or remote sensing analysts.
This baccalaureate certificate can be taken by degree-seeking students in geology, biology, business, engineering, computer science, emergency management, anthropology, political science, public administration, geography, and other related disciplines. It can also be taken as a freestanding certificate by non-degree seekers such as professionals who want to enhance their knowledge and skills as well as by anyone who wants to learn about this rapidly advancing scientific and practical field.

| - Geotechniques Requirements - 9 credits: |  | Credits |
| :---: | :---: | :---: |
| 3350:405 | Geographic Information Systerns | 3 |
| 3350:440 | Cartography | 3 |
| 3350:447 | Remote Sensing | 3 |
| - Geotechniques Electives -9 credits: |  |  |
| 3350:407 | Advanced Geographic Information Systems | 3 |
| 3350:441 | Global Positioning Systems (GPS) | 1 |
| 3350:442 | Cartographic Theory and Design | 3 |
| 3350:444 | Applications in Cartography and Geographic Information Systerns | 3 |
| 3350:445 | GIS Database Design | 3 |
| 3350:446 . | GIS Programming and Customization | 3 |
| 3350:449 | Advanced Remote Sensing | 3 |
| 3350:481 | Research Methods in Geography and Planning | 3 |
| 3350:483 | Spatial Analysis | 3 |
| 3350:496 | Field Research Methods | 3 |

## GERONTOLOGY

Harvey L. Sterns, Ph.D., Director

## Requiréments

This certificate program is a special course of study in gerontology that compliments undergraduate degree programs in various departments and colleges throughout the University. Individuals who aready hold an undergraduate degree may also pursue the certificate. The program represents a concentration involving current knowledge and research in gerontology. It adds another dimension to the knowledge and skills a student is able to offer in the many professions that are becoming specialized in research and service to adults and older adults. This course of study coordinates multidisciplinary training of personnel in adult development and aging and helps to meet the critical shortage of trained individuals in the field of gerontology.
The undergraduate curriculum committee of the Institute for Life-Span Development and Gerontology will oversee this certificate program and certify through the director of the institute that all requirements for the certificate have boen completed.
A sequence of study is available in Nursing Home Administration through the institute. The undergraduate certificate is included in the Ohio Board of Examiners of Nursing Home Administrators approved course of study in Nursing Home Administration which combines a Bachelor of Science degree in management (Human Resource Management Concentration) with a Certificate in Gerontology.
B.S./M.D. students may complete the Practicum/Internship and electives from courses available from the institute or the Office of Geriatric Medicine and Gerontology, NEOUCOM.

## Admission

To participate in the program, a student must:

- Obtain admittance to The University of Akron as an undergraduate or postbaccalaureate student.
- Submit an application to the program countersigned by the student's major academic adviser.
- Participate in an interview with the Director or a designated faculty member of the Institute for Life-Span Development and Gerontology.
- Consult with the Director or a designated faculty member to formulate a program of study.
- Receive written notification of admission from the Director of the Institute for Life-Span Development and Gerontology.


## Program

Minimum: 20 credits.

## Core

|  |  | Credits |
| :--- | :--- | :---: |
| 3006:450 | Interdisciplinary Seminar in Gerontology | 2 |
| 3006:495 | PracticumVlnternship (within Institute or in individual departments) | 3 |
| 3100:392 | Biology of Aging | 3 |
| 3750:475 | Psychotogy of Adulthood and Aging | 4 |
| 3850:343 | The Sociology of Aging | 3 |

Electives (must be outside of student's major degree department)

| 3006:486 | Retirement Specialist | 2 |
| :---: | :---: | :---: |
| 3006:490 | Workshop Women: Middle and Lster Years | 2 |
| 3006:490 | Workshop Aging: Process and Intervention | 2 |
| 3006:485-001 | Special Topics Long Term Care: Case Manegement/Patient Services | 3 |
| 3006:485-003 | Special Topics Long Term Care: Health and Nutrition | 3 |
| 2040:244/344 | Death and Dying | 2 |
| 3850:365 | Special Topics in Sociology: Death and Dying | 3 |
| 5400:400 | Post Secondary Learner | 3 |
| 6500:480 | Introduction to Heath Care Management | 3 |
| 7400:441 | Family Relationships in Middle and Later Years | 3 |
| 7700:110 | Introduction to Disorders of Communication | 3 |
| 7750:450 | Social Needs and Servicas: Aging | 3 |

For students in course sequence for Nursing Home Administration, the following courses are required:

| 3006:485 | ST: Long Term Care Administration | 3 |
| :--- | :--- | :--- |
| 3006:485 | ST: Long Term Care Case Management and Patient Services | 3 |
| 3006:485 | ST: Long Term Care Health and Nutrition | 3 |
| 3006:485 | ST: Long Term Care Administrator-in-Training Experience | 3 |

Many courses have prerequisites; contact your adviser or the Institute director.

## HEALTH CARE SELLING

Jon M. Hawes, Ph.D., Coordinator

This program provides the student an opportunity to develop and document an understanding of selling within the health care industry, an important economic sector accounting for approximately 10 percent of the economic activity in the U.S. This certificate is designed to serve the needs of students preparing for careers in selling pharmaceutical products, medical supplies and equipment, or other health care products and services.
A total of 15 credits is required for the certificate program. The student must complete 6 credit hours of required courses and 9 credit hours must be selected from a list of electives. To be granted the certificate, the student must take at least 6 credit hours in addition to any other major, minor, or certificate that has been earned.

## Requirements

| Required: | Complete all 6 credits | Creaits |
| :---: | :---: | :---: |
| $6600: 275$ | Professional Selling | 3 |
| $6600: 300$ | Marketing Principles | 3 |



## HOME-BASED INTERVENTION

Patricia Parr, Ph.D., Coordinator
This certificate program is a special course of study along with the undergraduate degree programs in various departments and colleges throughout the University. Undergraduate students will earn the certificate upon their graduation in their degree program. Individuals who already hold an undergraduate degree may pursue the certificate in the postbaccalaureate program. The program represents a concentration in current theoretical knowledge and practice in home-based intervention. It adds another dimension to the knowledge and skills a student is able to offer in the many professions that relate to services to at-risk children and their families. This course of study coordinates multidisciplinary training of personnel in home-based intervention and helps to meet the need for trained professionals in home-based intervention

The undergraduate curriculum committee of the Center for Family Studies will oversee the certificate program and certify through the certificate program director that all requirements for the certificate have been completed.

## Admission

To participate in the program the student should:

- Be formally admitted to The University of Akron as an undergraduate or postbaccalaureate student.
- Make written application to the program countersigned by the student's major adviser (if applicable).
- Have an interview with the director of the certificate program in Home-based Intervention.
- Consult with the director to formulate a program of study.
- Receive written notification from the director of admission to the program.


## Program

All students enrolled in the home-based certificate program will enroll in the core courses in Home-based Intervention. Students will complete 18 credits in core and elective coursework.

\section*{Core (9-11 credits) <br> | 1820:403 | Homebased Intervention Theory | 3 |
| :--- | :--- | ---: |
| 1820:404 | Homebosed Intervention Techniques and Practice | 3 |
| 1820:405 | Home-based Intervention Internship | $3-5$ |}

## Eligibility courses (9 credits)

Students must have completed at least nine undergraduate credits in theoretical frameworks from their discipline or in related areas as follows:
Students will select at least one course from each area or document the same or an equivalent course from transcripts.

| Psychology |  |  |
| :---: | :---: | :---: |
| 3750:100 | Introduction to Psychology | 3 |
| 3750:230 | Developmental Psychology | 4 |
| 3750:335 | Dymamics of Personality | 4 |
| Family and Consumer Sciences |  |  |
| 7400:265 | Child Development | 3 |
| 7400:360 | Parent-Child Relations | 3 |
| 7400:362 | Family Life Management | 3 |
| Sociology/Social Work |  |  |
| 7750:276 | Introduction to Social Wellare | 4 |
| 7750:455 | Black Family Issues | 3 |
| 3850:100 | Introduction to Sociology | 4 |
| 3850:340 | The Family | 3 |

## Electives (9 credits)

Select one course from three different disciplines. (Must be outside student's major degree area.)

Family and Consumer Sciences
7400:401 American Families in Poverty 3

7400:404 Middle Childhood and Adolescence 3
7400:440 Family Crisis 3
7400:442 Human Sexuality 3
$\begin{aligned} & \text { Sociology } \\ & 3850: 410 \text { Social Structures and Personality }\end{aligned}$
3850:412 Socialization: Child to Adult 3
3850:430 Juvenile Delinquency 3
3850:450 Socialogy of Mental lliness 3
Psychology
3750:400
$\begin{array}{lll}\text { 3750:420 Abnormal Psychology } & 4 \\ 3750: 40 & 4\end{array}$
3750:430 Psychological Disorders of Chilltren 4
Social Work
7750:451 Social Work and Child Welfare . 3
7750:452 Social Work and Mental Heath 3
7750:454 Social Work in Juvenile Justice 3
Special Education

| $5610: 440$ | Developmental Characteristics of Exceptional individuais | 3 |
| :--- | :--- | :--- |
| $5610: 445$ | aver |  |

Developmental Characteristics of Behaviorally Disordered Individuals
5610:459 Collaboration and Consultation in Schools and Community 3
5610:468 Advanced Behavioral Management 3

## HOSPITALITY MANAGEMENT

## Program

The Hospitality Management certificates in Culinary Arts, Hotel/Motel Management, and Restaurant Management are intended to meet the need of persons who are active or wish to become active in the hospitality industry and are seeking to acquire specific knowledge which will be of immediate use in their careers. The certificates are also of use to non-hospitality majors who wish to broaden their skills and employability by completing the required 32 credits of class and laboratory credits.

NOTE: The award of these certificates are not contingent upon completion of a degree program. All courses taken may be applied toward an associate degree in hospitality management.

| Culinary |  |
| :---: | :---: |
| 2280:101 | Introduction to Hospitaity |
| 2280:120 | Sefety and Sanitation |
| 2280:121,2 | Fundamentrals of Food Preparation 1, II |
| 2280:230 | Advanced Food Preparation |
| 2280:233 | Restaurant Operation and Management |
| 2280:245 | Menu, Purchesing and Cost Control |
| 2280:261 | Baking and Classical Desserrs |

## Hotel/Lodging Management Option

| 2280:101 | Introduction to Hospitality |
| :--- | :--- |
| 2280:120 | Safety and Senitation |
| 2280:121 | Fundementals of Food Preperation I |
| 2280:232 | Dining Room Service and Training |
| 2280:240 | Supervision in the Hospitality Industry |
| 2280:250 | Front Office Operations |
| 2280:256 | Hospitality Low |
| 2280:268 | Revenue Centers |
| $2280: 278$ | Hospitality Industry Marketing |3

2280:120 Safety and Senitation 2
2280:121 Fundementals of Food Preperation I
inng Room Service and Training

2280:250 Front Office Operations
2280:268 Revenue Centers
2280:278 Hospitality Industry Marketing
Hotel Marketing and Sales Option
2280:101 Introduction to Hospitality 3

2280:232 Dining Room Service and Training 3
2280:250 Front Office Operations 3
2280:269
Revenue Conters
2280:278 Hospitality Industry Marketing
2280:280 Special Events Management 3
$\begin{array}{ll}\mathbf{2 5 2 0 : 2 1 2} & \text { Principles of Sales } \\ \mathbf{2 5 4 0 : 2 7 0} & \text { Business Software Applications }\end{array}$
2540:273 Microsolt PowerPoint

## Restaurant Management Option

2280:101 Introcuction to Hospitality . 3

2280:120 Safety and Sanitation 2
2280:121 Fundamentals of Food Preparation I
2280:122 Fundamentals of Food Preparation II
2280:160 Withe and Beverage Service
2280:232 Dining Room Service and Training
2280:233 Restaurant Operation and Management
2280:240 Supervision in the Hospitality Industry
2280:245 Menu, Purchasing and Cost Control
2280:256 Hospitality Law

## INTERNATIONAL BUSINESS

This cerificate program provides students with the opportunity to enhance their appeal on the job market by providing basic knowledge in intemational business. It is also a valuable means for post baccalaureate students to learn about international business.

## Requirements:



## INTERNATIONAL DEVELOPMENT

For information, contact Dr. Elizabeth Erickson Department of Economics at (330) 972-7546.
The primary goal of the International Development Certificate is to broaden the understanding and strengthen the skills of students who plan careers that involve work in less developed parts of the world. It provides a multidisciplinary backgrounds for students who plan more advanced study leading to positions in the government or non-govemmental sectors. It also provides a broad but focused background background for students planning to participate in the economies of developing countries through international business.
The program is open to students in good academic standing. Full-time, special or nondegree students may participate in the IDC program.

## Requirements

The curriculum has five aspects: foundational knowledge, area focus, skills, language ability and an independent project. There are a total of 24 credits in the Certificate: Six from required courses (3004:201 Introduction to International Development and 3004:401 International Development Project) and 18 from electives. In choosing electives, it is the responsibility of the student to determine whether they have the appropriate prerequisites.

## Program

Minimum 24 credits

## Core ( $\mathbf{6}$ credits)

| $3004: 201$ | Introduction to International Development | 3 |
| :--- | :--- | :--- |
| 3004:401 | Intemational Development Project | 3 |
| Electives (6 credits) |  |  |

3250:450 Comparative Economic Systems 3

3250:460 Economic Development \& Planning for LDCs 3
3250:461 Principles of International Economics 3
3350:450 Development Planning 3
3700:311 Developing States in World Politics
3700:326 Politics of Developing Nations
3700:363 Crime, Punishment and Politics: Comparative Perspectives
3700:392 Selected Topics in Political Science: Tourism \& Development
3850:321 Population
3870:370 Cultures of the World
3870:463 Social Anthropology
3870:472 Special Topics: International Business
6800:305 International Business
6800:421 Intemational Business Practices

## Global, Region and Area Focus ( $\mathbf{6}$ credits)

3350:353 Latin America 3
3350:360 Asia 3

3350:363 Africs South of the Sahara 3
3400:301 ModemChina
Modem China
Modem India
Latin America: 20th Century
3400:476 Central America \& the Caribbean
Polltics of the Middie East
3

3400:301
3400:416
3400:473
Skills (6 credits)
Students are expected to acquire a broad set of functional skills that will allow them to read and critically evaluate quantitative and qualitative report materials relevant to their chosen area and interest. Students should chose skill courses in more than one disciplinary area.

| $3250: 426$ | Econometrics | 3 |
| :--- | :--- | :--- |
| $3350: 405$ | Geographic Information Systerns | 3 |
| $3700: 395$ | Intemship in Government \& Politics* | 3 |
| $3700: 440$ | Survey Research Methods | 3 |
| $3850: 301$ | Methods of Social Research I or II | 4 |
| $3870: 460$ | Qualitative Methods: Basis of Anthropological Research | 3 |
| $6500: 222$ | Quantitative Business Analysis I or II | 3 |

## Language Ability

It is the expectation that students will have or will obtain knowledge to the intermediate level of a foreign language appropriate to their area of interest. Each student should consult with the Director of the program to determine what language skills are needed in his or her specific case.

## Project

Students seeking the Intemational Development Certificate will develop their abilities to function in a foreign culture and to carry out a project by spending time abroad. Students are required to arrange an internship or other international experience with an institution, agency or firm through channels outside the certificate program, though the Director will provide advice if needed. They must consult with the Director to determine an appropriate period for their time abroad and provide a letter of affiliation from the institution, agency or firm to whom they are attached. Duning their time abroad, certificate candidates will complete a research project designed in conjunction with the Director of International Development Certificate Program. The successful report from this project constitutes the final requirement for the receipt of the ID certificate.

## LATIN AMERICAN STUDIES

For information, contact Dr. Robert B. Kent, Department of Geography and Planning, at (330) 972-7622.

The Latin American Studies certificate provides a valuable background to students interested in increasing their understanding of Latin American culture. This is the culture of the fastest growing ethnic group in the U.S. as well as that of the vast majority of our neighbors in the Caribbean, Mexico, and Central and South America. A knowledge of Latin American culture and language is important to any U.S. student in the 21st century, when many aspects of our lives leg. the economy, the environment, music, food, literature, art, education) are increasingly being affected by Hispanic and Brazilian influences. Latin American Studies also provides an indispensable cultural foundation for those involved in business directly or indirectly with Latin America and with the Spanish-speaking population of the United States.

## Requirements

The student in the Latin American Studies Certificate Program will major in the respective disciplines: classical studies, anthropology and archaeology, economics, geography, history, intemational business, sociology and Spanish.

## Core

Three years of Spanish or the equivalent of the following: Credits

| $3400: 391$ | Worid Civilizations: Latin America | 2 |
| :--- | :--- | :--- |
| $3580: 101$ | Elementary Spanish 1 |  |
| $3580: 102$ | Elementary Spanish \||** | 4 |

In addition, the student will take 12 credits in the three separate disciplines chosen from the following list:\#
Classical Studies, Anthropology and Archaeology
$3230: 355 \quad$ Indians of South America 3
Economics
3250:460 Economics of Developing Countries 3
History
3400:415 Latin America: National Origins 3
3400:416 Latin America: 20th Century 3
3400:417 United States, Latin America and Imperialism 3
3400:418 Mexico 3
3400:419 Central America and the Caribpean 3
3400:472 Latin America: Origins of Nationality 3
3400:473 Latin America: The 20th Century 3
3400:476 Central America and the Caribbean 3
International Business
6800:421 Intemational Business Practices 3
Geography
3350:353 Latin America 3
Spanish
3580:350 The Literature of Spanish -America in Translation 3
3850:432 Hispanic Culture: South America 4
3850:433 Hispanic Culture: Mexico and Central America 4
The student is also required to study three years of Spanish or the equivalent.

[^59][^60]
## LINGUISTIC STUDIES

Arthur Palacas, Ph.D., Director

## Requirements

Completion of six linguistically oriented courses as follows: the foundation course, two core courses and at least three elective courses. Three or more of the courses must be at the 300/400 level. (Subject to approval by the program director, other theoretically oriented linguistics courses may substitute for core courses.)

To obtain the certificate, the student must have at least two semesters of language. A student entering the program should discuss plans with the director.

## Foundation (Required) <br> 3300:371 Introduction to Linguistics <br> Crodits

## Core (Minimum of two of the following)

| $3230: 461$ | Language and Cutture |
| :---: | :--- |
| $3300: 472$ | Syntax |
| $3600: 481$ | Philosophy of Language |
| $7700: 230$ | Language Science and Acquisition |
| $7700: 430$ | or |
|  | Aspects of Normal Language Development |

## Electives

| $3300: 400$ | Anglo Saxon |
| :--- | :--- |
| $3300: 470$ | History of the English Language |
| $3300: 471$ | U.S. Dialects: Black and White |
| $3300: 473$ | ST: Teaching ESL: Theory and Method |
| $3300: 489$ | ST: Sociolinguistics |
| $3460: 460$ | Artificial Intelligence and Heuristics Programming |
| $3460: 470$ | Automata, Computability and Formal Language |
| $3580: 405,6$ | Spanish Linguistics |
| $3600: 170$ | Introduction to Logic |
| $3600: 374$ | Symbolic Logic |
| $3600: 418$ | 20th Century Analytic Philosophy |
| $3600: 471$ | Metaphysics |
| $5200: 335$ | Teaching of Language Arts |
| $7600: 325$ | Interculturai Communication |
| $7700: 210$ | Introduction to Clinical Phonetics |
| $7700: 101$ | American Sign Language I |

## MANUAL COMMUNICATION

Mona S. Klingler, M.A., Coordinator
This certificate, designed for those who use American Sign Language to commut nicate with the hearing impaired population, is open to undergraduate majors in any discipline as well as persons with a baccalaureate degree from the University or any other accredited institution. This certificate may also be eamed independent of earning a degree.

| 7700:101 | American Sign Language I | 3 |
| :---: | :---: | :---: |
| 7700:102 | American Sign Language II | 3 |
| 7700:120 | Introduction to Audiology/Aural Rehabilitation | 4 |
| 7700:121 | Aspects of American Sign Language | 2 |
| 7700:201 | American Sign Language III | 3 |
| 7700:202 | American Sign Language iv | 3 |
| 7700:222 | Survev of Degf Cuture in America | 2 |

Note: For students majoring in Speech-Language Pathology and Audiology. 7700:140 and 7700:240 (departmental required courses) will be substituted for 7700:120.

## MARKETING AND SALES TECHNOLOGY

This program is designed for students who desire a formal, structured program in the field of Marketing and Saies but do not wish to pursue an associate or baccalaureate degree. In addition, students may have already received an associate or baccalaureate degree in another area and be interested in receiving formal training in the marketing segment of their career field.

## Requirements

|  | Credits |  |
| :--- | :--- | :---: |
| $\mathbf{2 4 2 0 : 2 1 1}$ | Basic Accounting I | 3 |
| $\mathbf{2 5 2 0 : 1 0 1}$ | Essentials of Marketing Technology | 3 |
| $\mathbf{2 5 2 0 : 2 0 3}$ | Principles of Advertising | 3 |
| $\mathbf{2 5 2 0 : 2 0 4}$ | Services Marketing | 3 |
| $2520: 206$ | Retail Promotion and Advertising | 3 |
| $2520: 212$ | Principles of Sales | 3 |
| $\mathbf{2 5 2 0 : 2 5 4}$ | Sales Management Technology | 3 |

## MARKETING AND SALES TECHNOLOGY: ADVERTISING

This program is designed for students who desire a formal, structured program in the field of Advertising but do not wish to pursue an associate or baccalaureate degree. In addition, students may have already received an associate or baccalaureate degree in a different area and be interested in receiving formalized training in advertising due to the pervasiveness of the field in virtually all areas of commerce.

## Requirements

| $2020: 224$ | Writing for Advertising |  | 4 |
| :--- | :--- | :--- | :--- |
| $2520: 101$ | Essentials of Marketing |  | 3 |
| $2520: 203$ | Principles of Advertising |  | 3 |
| $2520: 204$ | Services Marketing |  | 3 |
| $2520: 221$ | Advertising Campaign |  | 3 |

## MARKETING AND SALES TECHNOLOGY: WEB SITE DEVELOPMENT

Students are provided with the basic writing, Internet development and marketing skills necessary to create and maintain effective Web sites.

## Requirements

| $2040: 227$ | Writing for the Worid Wide Web | 3 |
| ---: | :--- | :--- |
| $2240: 140$ | Internet Tools | 3 |
| $-2440: 212$ | Multimedia \& Interactive Web Elements | 3 |
| $2520: 290$ | Web Marketing | 3 |

## MATERIALS TESTING TECHNOLOGY

## Requirements:

A minimum of 16 hours is required.
The purpose of the certificate program in Materials Testing is to train individuals in the processes and procedures involved in standardized laboratory testing of construction related materials. The certificate program requirements may be completed without completing other degree requirements. Students working toward an A.A.S. degree in Construction Engineering Technology or a B.S. degree in Construction Engineering Technology may complete the necessary coursework to complete the certificate requirements. Courses completed for the certificate in addition to the initial degree requirements may count as technical electives for the chosen degree.
The following courses are required: Credits

| 2990:125 | Statics |
| :--- | :--- |
| 2990:237 | Materias Testing I |
| 2990:238 | Materiads Testing II |
| 2990:241 | Strength of Materials |
| 2990:320 | Advanced Materials Testing |
| 2990:355 | Computer Applications in Construction |

3
2990:237 Materials Testing I
2990:238 Materiaks Testing II
2
2990:320 Advanced Materials Testing
2990:355 Computer Applications in Construction
For further information, contact:
Construction Engineering Program Director
Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-2055

## MEDICAL BILLING

The Medical Billing certificate is designed to prepare entry-level personnel for the medical billing office, physician's offices, peer review organizations, clinics, consulting firms, and/or insurance companies.
This certificate covers topics such as ICD-9-M coding, CPT coding, and other various information related to medical insurance claims.

| 2740:120 | Medical Terminology | 3 |
| :---: | :---: | :---: |
| 2740:127 | Administrative Medical Assisting Il | 4 |
| 2780:106 | Anatomy \& Physiology for Allied Health I | 3 |
| 2740:128 | Besic Procedural Coding | 3 |
| 2740:129 | Basic Diegnostic Coding | 3 |
| 2740:121 | Study of Disease Processes | 3 |
| 2740:230 | Basic Pharmacology | 3 |
| 2780:107 | Anatorny \& Physiology for Allied Health II | 3 |
| 2740:228 | Medical Insurance | 3 |
| 2740:245 | Medical Extemship | 4 |

## MOTION AND CONTROL SPECIALIZATION

The primary purpose of the motion and control certificate program is to provide the graduating engineers with a focused expertise in motion and control and to fumish the necessary tools in order to enable them to follow the changes in technology after graduation. In addition, the program will also serve the practicing engineers and life-long learners to come back to school and refresh their skills using the certificate program proposed here. Mechanical engineering students who may choose this certificate program with special emphasis in motion and control will take all mechanical engineering electives in motion and control

## Requirements:

| 4600:444/544 | Robot, Design, Control and Application | 3 |
| :--- | :--- | :--- |
| 4600:442/542 | Industrial Automatic Controi | 3 |
| $4600: 670$ | Integrated Flexible Manufacturing Systems* | 3 |

[^61]
## OFFICE ADMINISTRATION GENERAL OFFICE ASSISTANT

Designed for students who possess beginning keyboarding skills and want to obtain entry-level office skills in two semesters. All credits apply to an associate degree in Office Administration.

|  |  | Credits |
| :--- | :--- | :---: |
| $2440: 105$ | Introduction to Computers \& Application Software | 3 |
| $2540: 119$ | Business English | 3 |
| $2040: 240$ | Human Relations |  |
|  | or |  |
| $2040: 251$ | Human Behavior at Work | 3 |
| $2540: 129$ | Information/Records Management | 3 |
| $2420: 170$ | Applied Mathematics for Business | 3 |
| $2540: 143$ | Microsoft Word Beginning | 2 |
| $2540: 151$ | Intermediate Word Processing | 3 |
| $2540: 270$ | Business Sottwarg Applications | 4 |
| $2540: 281$ | Editing, Proofreading, \& Transcription | 3 |
| $2540: 121$ | Introduction to Office Procedures | 3 |

## OFFICE SOFTWARE SPECIALIST, OFFICE ADMINISTRATION

This certificate will instruct students to use the most popular software packages used in today's modem offices. Also, students will gain valuable written and oral communications skills required by employers. All credits are applicable to an Associate Degree in Office Administration.

| First Semester: |  |  |
| :---: | :---: | :---: |
| 2440:105 | Introduction to Computers \& Application Software | 3 |
| 2540:119 | Business English | 3 |
| 2540:121 | Introduction to Office Procedures | 3 |
| 2540:151 | Intermediate Word Processing or | 3 |
| 2540:253 | Advanced Word Processing | 3 |
| 2540:129 | Information/Records Management | 3 |
| Total Credit Hours: 15 |  |  |
| Second Semester: |  |  |
| 2540:263 | Professional Communications and Presentations | 3 |
| 2540:271 | Desktop Publishing | 3 |
| 2540:270 | Business Software Applications | 4 |
| 2540:273 | Microsof PowerPoint | 2 |
| Total Credit Hours: |  | 12 |
| Grand Totel Credit Hours: |  | 27 |
| Prerequisites: |  | 1 |

Students must pass department placement exam or complete bridge courses (as needed as a result of the department placement exam) prior to enrolling in Office Administration course (2540).

## Required bridge course:

## OFFICE SUPERVISION

This one-year certificate for persons with previous college training and/or extensive office experience can add supervisory skills to enhance career opportunities. A student will take 18 credit hours of core courses and an additional 14 prescribed elective credits. Students will learn management skills, refine speaking and writing abilities, and focus on understanding and developing the human resources of an organization.

| Requirements |  | Credits |
| :---: | :---: | :---: |
| 2040:251 | Human Behovior at Work | 3 |
| 2420:103 | Essentials of Management Technotogy | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2540:129 | Information/Records Management | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
|  | Software Elective | 3 |
|  | Electives | 14 |
| Electives: |  |  |
| 2040:240 | Humen Relations | 3 |
| 2420:104 | Introduction to Business | 3 |
| 2420:219 | Besic Accounting 1 | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2540:119 | Business English | 3 |
| 2540:121 | introduction to Office Procedures. | 3 |
| 2540:265 | Wornen in Management | 3 |
| 2540:289 | Career Development for Business Professionals | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |

## PAN-AFRICAN STUDIES

For information, contact the Pan-African Studies Office, (330) 972-8427.

## Requirements

To satisfy the requirements for the certificate, a student must complete at least 15 semester credits and five courses with a minimum 2.30 GPA from the list of elective courses or other courses identified as acceptable by the director. The requirements are as follows:

| Required courses (6 credits): |  |  |
| :---: | :---: | :---: |
| 3002:201 | Introduction to Pan-Afican Studies | 3 |
| 3400:361 | African American History 1492-1877 or | 3 |
| 3400:362 | African-American History 1877-present | 3 |
| Elective Courses (9 credits) |  |  |
| 2040:254 | The Black Experience from 1619 to 1877 | 2 |
| 2040:257 | The Black Experience 1877 to 1954 | 2 |
| 3002:301 | The Civil Rights Movement in America 1945-1974 | 3 |
| 3002:401 | General Seminar in Pan-Aftican Studies | 3 |
| 3002:420 | Special Topics in Pan-African Studies | 1.3 |
| 3002:498 | Independent Study | 13 |
| 3300:350 | Black American Literature | 3 |
| 3300:389 | Special Topics: Atican-American Noval | 3 |
| 3300:389 | Special Topics: African-American Drama | 3 |
| 3300:471 | United States Dielects: Black and Whits | 3 |
| 3300:689 | Special Topics: Seminar Wrigh/EHisor/Baldwin | 3 |
| 3350:363 | Africa South of the Sahera | 3 |
| 3400:390 | Word Civilizations: Africa | 2 |
| 3400:340 | Special Topics: Atrican Experiences in Latin America | 3 |
| 3400:468 | Atrican-American Social and Intellectual History | 3 |
| 3850:421 | Racial and Ethic Relations | 3 |
| 7550:270 | Poverty and Minority Issues | 3 |
| 750:276 | Introduction to Social Weftare | 4 |
| 7750:455 | Black Forrily Issues | 3 |

A student undertaking the Pan-African Studies Certificate Program must have prior consultation with the director of Pan-African Studies.
Only students entering the certificate program after Fall 1996 will receive a certif; cate entitled Par-African Studies. Students entering the program prior to Fall 1996 will receive a certificate entitled African-American Studies.

## PARALEGAL STUDIES

## Admission Requirements:

Students interested in the certificate program must meet one of the following criteria in order to be admitted:

- Bachelor's degree or beyond;
- Associate degree;


## Graduation Requirements:

- 2.0 GPA in major;
- Minimurn of 32 credits as set forth in curriculum guide;
- No grade below a C in major.
- Required coursework includes Credits
2290:101 Introduction to Legal Assisting 3

2290:104 Basic Legal Research and Writing 3
2290:106 Business Associations 3
2290:108 Real Estate Transactions 3
2290:118 Probate Adminisistration
2290:220 Legal Assisting Internship
.

- Students are required to take 12 hours from the following courses

2220:290 Special Topics - Legal Assisting $3-5$
2290:110 Tor Law 3-5

2290:112 Farnily Law
2290:204 Advanced Legal Research
2290:214 Civil Procedures
2290:216 Debtor-Creditor Relations
$\square \quad 3$
2290:218 Advanced Probate Administration . 3
Students interested in a Probate emphasis should take 2290:204, 2290:218, 2290:220, and two other courses Spring Semester.
Students interested in a Civil Litigation emphasis should take 2290:204, 2290:214 and 2290:220 and two other courses of their choice during the Spring Semester.

## PARENT AND FAMILY EDUCATION

Susan D. Witt, Ph.D., Coordinator

## Requirements

This certificate is intended for individuals who wish to enhance their knowledge of parenting and family life, study issues relevant to parenting and family life and develop skills useful in working with parents and families. The certificate may be added to any undergraduate degree program; it may also be completed by nonfamily or non-child development majors.

## Program

## Core

Complete the following:

| $7400: 265$ | Child Development | 3 |
| :--- | :--- | :--- |
| $7400: 360$ | Parent-Child Relations |  |
| $7400: 496$ | Parent Education | 3 |

## Electives

Students must successfully complete six credits of coursework selected from the various departmental courses listed below. These credits shall be chosen from departments outside the student's discipline.

| Family and Consumer Sciences: | Credits |
| :---: | :---: |
| 7400:201 Courtship, Marriage and Family Relations | 3 |
| 7400:255 Fatherhood: The Parent Role | 3 |
| 7400:362 Family Lite Management | 3 |
| 7400:401 American Families in Poverty | 3 |
| 7400:404 Middle Childhood and Adolescence | 3 |
| 7400:440 Family Crisis | 3 |
| 7400:442 Human Sexuality | 3 |
| 7400:441 Family Relations: Middle and Later Years | 3 |
| 7400:446 Cuture, Ettricity and the Family | 3 |
| Social Work: |  |
| 7750:270 Poverty and Minority Issues | 3 |
| 7750:276 Intro to Social Weffare | 4 |
| 7750:455 Black Family Issues | 3 |
| Psychology: |  |
| 3750:230 Developmental Psychology | 4 |
| 3750:335 Dymamics of Personality | 4 |
| 3750:430 Psychological Disorders of Children | 4 |
| Sociology: |  |
| 3850:340 The Family | 3 |
| 3850:412 Socialization: Child to Adult | 3 |
| Anthropology: |  |
| 3230:251 Human Diversity | 3 |
| Special Education: |  |
| 5610:460 Family Dymamics \& Communication in Education | 3 |

## PIANO PEDAGOGY

## Requirements

This cerrificate program in Piano Pedagogy is designed for students who wish to expand or update their skills with exposure to new methods and materials. The program can be completed in one year of full time enrollment or two years of part time enrollment. This certificate can also be completed independent of a degree program. Students must pass music placement tests and play a piano audition for admission into the program.

## Program

| Complete the following: |  |  |
| :---: | :--- | :--- |
| 7500:121 | Theory \& Musicianship ! |  |
| $7500: 122$ | Theory \& Musicianship II | 4 |
| $7500: 154$ | Music Literature ! | 4 |
| $7500: 155$ | Music Literature II | 2 |
| $7500: 271$ | Piano Pedagogy I | 2 |
| $7500: 272$ | Piano Pedagogy II | 2 |
| $7500: 497$ | Independent Study | 2 |
| $7520: 125$ | Applied Piano | 2 |
|  |  | 8 |

## POLITICAL CONFLICT

## Center for Conflict Management <br> unuv.uakron.edu/centers/conflict

## Requirements (18 credits)

| Core Courses ( 3 credits) | dits |
| :---: | :---: |
| 3700:34 Law, Mediaion, and Volenes | 3 |

## Electives (12 credits)

Choose one course from each of the foliowing four clusters:

| Institutional Conflicts |  |  |
| :---: | :---: | :---: |
| 3700:341 | The American Congress | 3 |
| 3700:350 | The American Presidency | 3 |
| 3700:360 | The Judicial Process | 3 |
| 3700:380 | Urban Politics and Policies | 4 |
| 3700:441 | The Policy Process | 3 |
| Linkage Conflicts |  |  |
| 3700:402 | Politics and the Media | 3 |
| 3700:470 | Campaign Management | 3 |
| 3700:475 | American Interest Groups | 3 |
| 3700:476 | American Political Parties | 3 |
| Global Conflicts |  |  |
| 3700:310 | International Politics and Institutions | 4 |
| 3700:328 | American Foreign Policy Process | 3 |
| 3700:410 | International Defense Policy | 3 |
| Law and Justice Conflicts |  |  |
| 3700:335 | Law \& Society | 3 |
| 3700:363 | Crime, Punishment, and Politics: A Comparative Perspective | 3 |
| 3700:481 | Challenges of Police Work | 3 |
| 3700:483 | Constitutional Problems in Criminal Justice | 3 |

Internship (3 credits)

## POLYMER ENGINEERING SPECIALIZATION

The College of Engineering and the College of Polymer Science and Polymer Engineering alliow for a specialization for the mechanical engineering student. Students may eam a Polymer Engineering Specialization Certificate by satisfying the following requirements


# POSTSECONDARY TEACHING 

Susan J. Olson, Ph.D., Program Coordinator solson@uakron.edu

## Requirements

This certificate program in postsecondary teaching is a special course of study within the College of Education to serve practicing or prospective postsecondary instructors in a variety of postsecondary institutions. Persons are eligible for admission to the Certificate in Postsecondary Teaching if they have been fully admitted to The University of Akron to study as an undergraduate or as a postbaccalaureate student. Individuals who already hold undergraduate or graduate degrees may also pursue this certificate.

Students shall soek admission to this program by filling out an application with the Graduate School. Once admitted, students will meet with the program coordinator to plan their programs of study. All accepted coursework must be no older than six years at the time of completion of the certificate. Only undergraduate credit may be used for the undergraduate certificate. Any course substitutions must be made with the adviser's prior written approval. Students must eam a "B" or better in all certificate coursework to receive this certificate. Students must have an undergraduate GPA of 2.75 or higher to be accepted. Enrollment will be limited to space available. All coursework must be completed within six years.

## Program

- Minimum 21 credits
$5400 \cdot 400$ Predits
5400:401 Learning with Technology
3
5400:405 Work force Education for Youth and Adults
5400:420 Postsecondary Instructional Technology
5400:430 Svstematic Curriculum Design for Postsecondary Instruction
5400:435 Systematic Instructional Design in Postsecondery Education 5400:475 Instructional Practice Seminar


## PROFESSIONAL COMMUNICATION

Joseph F. Ceccio, Ph.D.; Dudley Turner, Ph.D., Co-directors

## Requirements

The program will help meet our technological society's growing need for educated people who can develop sophisticated strategies for effective communication of business and technical information. People in the business community increasingly depend on communication to solve complex management, sales and information processing problems. The communication demands of business and industry are significant, and in many ways, different from those dealt with in traditional courses and majors. Undergraduates in various fields and those who already possess a baccalaureate degree will wish to study specifically to meet communication demands. A formal certificate will recognize their preparation for handing the communication needs of business and industry. This certificate must be eamed concurrently with an undergraduate (associate or bachelor's) degree. A student who already possesses an undergraduate degree may directly pursue this certificate.

## Program

| $3300: 390$ | Professional Writing I | 3 |
| :--- | :--- | :--- |
| $3300: 391$ | Professional Writing il | 3 |
| $7600: 309$ | Public Relations Publications | 3 |
| $7600: 345$ | Business and Professional Speaking | 3 |

Because all four courses have prerequisites, students should consult course descriptions in Section 8 for each course description.

PROFESSIONAL SELLING
Jon M. Hawes, Ph.D., Coordinator

| Program |  |  |
| :---: | :---: | :---: |
| Required: Complete all 9 credits |  | Creaits |
| 8600:275 | Protessional Seling | 3 |
| ¢680:300 | Marieting Principles | ${ }^{3}$ |
| 6800:475 | Business Negotiaiors | 3 |
| Elective: Complete any 6 credits |  |  |
| 6500:390 | Principes of Supply Chain Mangegment | 3 |
| 6600:350 | Integrated Markeing Communications | ${ }^{3}$ |
| 6600:480 | Sales Management |  |
| $7600 \cdot 235$ | Intereassonal Communication | 3 |
| 7600:252 | Persuasion | 3 |
| Total crodut requred |  | 15 |

## QUALITY ASSURANCE

## Requirements:

A minimum of 15 hours is required.
The need for trained quality technicians continues to grow as manufacturing increases its focus on quality as an absolute requirement in the very competitive world-wide environment. The certificate program will provide entry-level qualificetions for non-degreed individuals while also offering the opportunity for career manufacturing personnel to obtain formal quality training. All courses taken may be applied toward the AAS or BS degree in Manufacturing Engineering Technology.
The following courses are required:

| 2820:131 | Software Applications for Technology |  | 1 |
| :--- | :--- | :--- | :--- |
| 2870:441 | Advanced Quality Practices | 3 |  |
| 2880:100 | Basic Principles of Manufacturing Management |  | 4 |
| 2880:241 | Introduction to Quality Assurance | 3 |  |
| 3470:261 | Introductory Statistics I | 2 |  |
| 3470:262 | Introductory Statistics II | 2 |  |

For further information, contact:
Engineering \& Science Technology Department
Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-7052

## RACIAL CONFLICT

## Center for Conflict Management <br> umw.uakron.educenters/conflict

## Requirements

This is an 18-credit undergraduate certificate that is an intensive and interdisciplinary examination of racial conflict.

| Required: |  |  |
| :--- | :--- | :--- |
| $3850: 421$ | Racial and Ethnic Relations |  |
| $3700: 422$ | Understanding Racial and Gender Conflict | 3 |
|  |  |  |
| Choose from: |  |  |
| $3700: 334$ | Law, Mediation, and Violence | 3 |
| $3700: 402$ | Politics and the Meidia | 3 |
| $3700: 430$ | Management of Probation and Parole | 3 |
| $3700: 462$ | Supreme Court and Civil Liberties | 3 |
| $3850: 310$ | Social Problems | 3 |
| $3850: 320$ | Social Inequalities | 3 |
| $3850: 365$ | ST: Sociology of Peace and Violence | 3 |
| $3850: 441$ | Socielogy of Law | 3 |
| $3230: 410$ | Evolution and Human Behavior | 3 |
| $3230: 463$ | Social Anthropology | 3 |
| $3400: 340$ | African-American Women's History | 3 |
| $3400: 438$ | Nazi Germany | 3 |
| $3400: 454$ | The Civil War and Reconstruction, 1850-1877 | 4 |

## REAL ESTATE

## Requirements

## Pre-licensing Courses - Real Estate Sales

Successful completion of the four (4) state required prelicensing courses prepares and permits students to sit for the Division of Real Estate state licensing exam in real estate sales.

## Certificate Program and Prelicensing - Real Estate Broker

The certificate program is designed to serve the needs of the practicing real estate professional and prospective real estate broker. Course offerings are designed to allow a student to earn a Certificate in Real Estate and/or complete the course educational requirements to become licensed as a real estate broker. To receive the certificate, the student must complete the required courses with a minimum 2.00 grade-point average. A minimum of 12 credit hours must be earned in the University's Real Estate Program.

## Admission

All pre-licensing and certificate applicants must apply to the University and meet its admission requirements. The person wishing to pursue a certificate must sign a contract with Summit College which will indicate the required course of study and such work that may be transferred from real estate programs outside the University.

## Program

| Pre-licensing - Sales |  | Credits |
| :---: | :---: | :---: |
| 2430:105 | Real Estate Principles | 3 |
| 2430:185 | Real Estate Law | 3 |
| 2430:245 | Real Estate Finance | 2 |
| 2430:255 | Valuation of Residential Property | 2 |
| Certificate and Pre-Licensing - Broker |  |  |
| 2430:105 | Real Estate Principles | 3 |
| 2430:185 | Real Estate Law | 3 |
| 2430:245 | Real Estate Finance | 2 |
| 2430:255 | Valuation of Residential Property | 2 |
| 2430:265 | Real Estate Brokerage | 2 |
| 2430:275 | Real Estate Projects | 2 |
| 2520:212 | Principles of Sales | 3 |
| Electives Minimum of one course |  |  |
| 2040:242 | American Urban Society | 3 |
| 2420:170 | Applied Mathematics for Business | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2440:105 | Introduction to Computer and Application Software | 3 |
| 2520:203 | Principles of Advertising | 3 |

## RETAIL MARKETING

Dale M. Lewison, Ph. D., Coordinator

This certificate program provides students with the opportunity: (1) to learn the basic concepts, processes, and practices of retail marketing, (2) to develop the foundation skills needed to operate a retail business, and (3) to understand the workplace competencies needed to be successful in the retailing industry. This certificate is especially appropriate for students pursuing a non-business degree with an interest in working within the retailing industry.

## Program

- Required: Complete all 9 credits

| 2520:202 | Retaling Fundamentals | 3 |
| :--- | :--- | ---: |
| 6600:300 | Marketing Principles | 3 |
| 6600:450 | Strategic Retail Management | 3 |
| Electives: | Complete two Courses -6 credits |  |
| 2520:206 | Retail Promotion and Adverising | 3 |
| 6600:350 | Integrated Marketing Communications | 3 |
| 6600:355 | Buyer Behavior | 3 |
| 6600:440 | Product and Brand Management | 3 |
| Total credits required | $\mathbf{1 5}$ |  |

Total crecits required

## RUSSIAN AREA STUDIES

For information, contact the Department of History, (330) 972-7006.

## Requirements

To obtain a certificate in Russian Area Studies, the undergraduate will satisfy the requirements for a baccalaureate major in the field of study of his or her choice. In addition the student will complete two years of Russian language(14 credits) and will also complete 12 additional credits in courses dealing with the study of Russia. These courses may be selected from the following list:

| Geography |  |
| :---: | :---: |
| $3350: 358$ | U.S.S.R. |$\quad$ Credits

History
3400:458 Russia to 1801 3
3400:459 Russia since 1801
3

## Political Science

3700:300 Comparative Politics 4

## SMALL BUSINESS MANAGEMENT

This program is designed to address the expressed needs of small business students, many of whom are presently, or soon will be, small business owners and are interested in acquiring specific knowledge that will help them in their business immediately. This program would be valuable for many non-business majors who could benefit by this exposure to business concepts. The emphasis is on serving the objectives of those students seeking autonomy in exercising their initiative and ambition, including both traditional and non-traditional students.
The awarding of this certificate is not contingent upon completion of a degree program.

| $2420: 117$ | Small Business Development | 3 |
| :--- | :--- | :--- |
| $2420: 118$ | Financial Management and Planning for the Small Business | 4 |
| $2420: 170$ | Applied Mathematics for Business | 3 |
| $2420: 211$ | Basic Accounting I | 3 |
| $2420: 227$ | Entrepreneurship Projects | 3 |
| $2420: 280$ | Essentials of Business Law | 3 |
| $2440: 103$ | Software Fundamentals | 2 |
| $2540: 119$ | Business English | 3 |

## SUPERVISION AND MANAGEMENT

The Supervision and Management Certificate Program is aimed at providing knowledge and skilis to the new and existing supervisor as well as to the individual who aspires to a supervisory position. The certificate program has been carefully designed to be flexible in order to meet the needs of various organizations and individuals. This program is in response to what many employers in the area have identified as a need that Summit College could help them meet. This certifi cate may be earned independent of earning a degree.
A minimum of 21 semester hours is required as follows: creats
Interpersonal Skills

| 2040:240 | Human Relations | 3 |
| :---: | :--- | :--- |
| 2040:251 | Human Behavior at Work | 3 |
| One course | must be taken from each of the following three categories: |  |

One course must be taken from each of the following three categories:

| Management Theory and Skills |  |
| :--- | :--- |
| $2420: 103$ | Essentials of Management Technology |
| 2890:100 | Basic Principles of Manufacturing Management |
| Communication Skills | 3 |
| $2020: 121$ | English |
| $2020: 222$ | Technical Report Writing |
| $2540: 263$ | Professional Communications and Presentations |
| Math |  |
| $2030: 151$ | Technical Mathematics I |
| $2030: 152$ | Technical Mathematics II |
| $2420: 170$ | Applied Mathematics for Business |

In addition to the above courses, a minimum of 6 credits must be completed from the following:

| $2040: 247$ | Survey of Basic Econornics | 3 |
| :--- | :--- | :--- |
| $2420: 202$ | Elements of Human Resource Management | 3 |
| $2420: 211$ | Basic Accounting i | 3 |
| $2440: 103$ | Software Fundamentals | 2 |
| $2540: 265$ | Women in Management | 3 |
| $2880: 210$ | Controlling and Scheduling Production | 2 |
| $2880: 232$ | Labor Management Relations | 3 |
| $2880: 241$ | Introduction to Quality Assurance | 3 |

## SURVEYING TECHNOLOGY

## A minimum of 18 hours is required.

The certificate program in Surveying Technology may be earned independent of any degree program. This program has been, designed so that BSCE majors or graduates can meet the minimum education requirements in surveying coursework for registra tion as a Professional Surveyor. It is also designed to meet the education requirements for Technical Certification through the American Congress on Surveying and Mapping, National Society of Professional Surveyors. A minimum of 18 credits are required. All courses taken may be applied toward an A.A.S. degree in Surveying Engineering Technology and/or B.S. degree in Surveying and Mapping Technology.
The following 9 semester hours are required.

| $2980: 101$ | Besic Surveving I | 2 |
| :--- | :--- | :--- |
| $2980: 102$ | Basic Surveying II (or equivalent) | 2 |
| $2980: 228$ | Boundary Surveying | 3 |
| $2980: 310$ | Survey Computations and Adjustments | 2 |

A minimum of 9 semester hours selected from the following (BSCE majors should consult with the Surveying Program Director to ensure that all State Board of Registration requirements are met).

| $2980: 123$ | Surveying Field Practice |
| :--- | :--- |
| $2980: 222$ | Construction Surveying |
| $2980: 225$ | Advanced Surveying |
| $2980: 315$ | Boundary Control \& Legal Principles |
| $2980: 415$ | Legal Aspects of Surveying |
| $2980: 421$ | Subdivision Design |
| $2980: 422$ | GPS Surveying |
| $2980: 426$ | History of Surveying |
| $2980: x 0 x$ | Survay Elective |

For further information, contact:
Surveying \& Mapping Program Director, Summit Coilege, The University of Akron, Akron, OH 44325-6104; (330) 972-7059.

## SURVEYING AND MAPPING TECHNOLOGY

## Geographic and Land Information Systems

## Requirements

A minimum of 18 hours is required.
The certificate program in Geographic and Land Information Systems may be earned independently of any degree program. This certificate program has been designed to provide individuals with the basic entry-level skills necessary for those seeking positions as GIS Technicians. All courses taken may be applied toward an A.A.S. degree in Surveying Engineering Technology and/or the B.S. degree in Surveying and Mapping Technology. Students who do not have experi ence or formal training in basic drafting and computer aided drawing must complete coursework in these areas first (see adviser).
The following courses are required: Credits

| 2940:170 | Surveying Drafting |
| :--- | :--- |
| 2980:223 | Fundamentais of Map Production |
| 2980:422 | GP'S Surveying |
| 2980:445 | Application in GIS with GPS |
| 2980:498 | Independent Study |
| 2985:101 | Introduction to Geographic and Land Information Systems |
| 3350:405 | Geographic Information Systems |

2980:223 Fundamentals of Map Production 3
2980:422 GP'S Surveying 2
2980:445 Application in GIS with GPS

2985:101 Introduction to Geographic and Land Information Systems Gecgraphic Information Systems

3

For further information, contact:
Surveying \& Construction Program Director
Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-7059

## TEACHING ENGLISH AS A SECOND LANGUAGEt

Kenneth J. Pakenham, Ph.D., Director

## Requirements

This program is intended for those who seek training in the teaching of English as a second language (ESL) at the elementary or high school level or who wish to obtain an initial qualification in teaching ESL in order to teach in settings other than the Ohio public school system. For Ohio certification in teaching ESL, see TESOL Validation requirements in Section 4 of this Builetin under the College of Education.
The program is designed to introduce the student to the central issues in the theory and practice of teaching English to nor-native speakers through courses in modern and applied linguistics, in second language pedagogy and in related disciplines.
Students who do not have English as a native language must demonstrate adoquate proficiency in English with a valid TOEFL score of at least 550 .

## Program

This certificate requires the completion of four core courses and two elective courses for a minimum of 18 credits.

## Core

3300:473 Special Topics: Teaching ESL: Theory and Method 3
3300:489 Speciai Topics: Grammatical Stuctures of English 3
5500:481 Multicultural Education in the U.S.** 3
3300:489 Special Topics: Sociolinguistics**
$\begin{array}{ll}\text { 5500:487 } & \begin{array}{l}\text { Techniques for Teaching English as a Second Language } \\ \text { in the Bilingual Classroom }\end{array}\end{array}$

[^62]| Electives |  | Credits |
| :---: | :--- | :---: |
| 3300:371 | Introduction to Linguistics | 3 |
| 3300:470 | History of the English Language | 3 |
| 3300:472 | Syntax | 3 |
| 3300:489 | Special Topics: Sociolinguistics $\ddagger$ | 3 |
| 3580:405 | Spanish Linguistics | 4 |
| 5500:485 | Teaching Language Literacy to Second Language Learners | 4 |
| 7600:325 | Intercultural Communication | 3 |
| 7700:230 | Language Science and Acquisition | 3 |
| $7700: 430$ | Aspects of Normal Language Development | 3 |

## TECHNICAL AND SKILLS TRAINING

Contact Dr. Qetler Jensrud, Coordinator, (QetlerQuakron.edu) for more
information
This certificate program in technical and skills training is a special course of study
within the College of Education to serve the practicing or prospective business
and/or industrial-technical trianer. Persons are eligibibe for admission to the
Certificate in Technical and Skills Training if they have been fully admitted to The
University of Akron to study as an undergraduate student. Individuals who hold
undergraduate or graduate degrees may also pursue this certificate. All course
work must be completed in six years.

## Requirements

| Minimum: | 21 Credits |
| :--- | :--- |
| 5400:400 | Postsecondary Learner |
| 5400:401 | Learning with Technology |
| 5400:445 | Training in Business and Industry |
| 5400:420 | Postsecondary Instructional Technology |
| 5400:430 | Systematic Curriculum Design for Postsecondary instruction |
| 540:435 | Systematic Instuctional Design in Postsecondary Education |
| 5400:475 | Instructional Practica Seminar |

NOTES: 5400:401 is required before (or with) first courses in any postsecondary technical education (5400). The Instructional Applications Seminar is the last course taken.

## All 5400 courses are available online or face-to-face.

## TRANSPORTATION PLANNING

Contact Undergraduate Adviser, Department of Geography and Planning.
Transportation Planning issues are increasingly important for our region and the nation as a whole. With increases in vehicular traffic and the attendant traffic congestion, the need for proper and effective planning cannot be overemphasized.
A cerrificate enables students from a variety of fields ranging from geography to engineering and business to acquire key analytical skills that would prepare them for careers in transportation planning and management.
The program is open to all students in good standing. Full-time, special or nondegree students may participate in the program.

| Core Requirements (9 credits) |  |  |
| :---: | :---: | :---: |
| 3350:422 | Transportation Systems Planning | 3 |
| 4300:361 | Transportation Engineering | 3 |
| 4300:463 | Transportation Pianning | 3 |
| Electives (9 credits) |  |  |
| 3350:420 | Uitan Geography | 3 |
| 3350:432 | Land Use Planning Law | 3 |
| 3350:433 | Practical Approaches to Planning | 3 |
| 3350:437 | Planning Analysis and Projection Methods | 3 |
| 3350:438 | Land Use Planning Methods | 3 |
| 4300:466 | Traffic Engineering | 3 |

## URBAN AND REGIONAL PLANNING

Contact Undergraduate Adviser, Department of Geography and Planning

## Program

This baccalaureate certificate is designed to provide students with an understand ing of basic concepts, methods, and tools used in urban and regional planning. The certificate can be taken by undergraduates majoring in geography, geology, political science, management, engineering, and related disciplines. It can also be taken as a freestanding certificate by non-degree seekers from:

- planning agencies, planning commissions, zoning commissions
- private firms dealing with environmental design, landscape design, architecture, real estate, and construction
- nongovernmental or advocacy organizations such as those in preservation and environmentai planning
- ordinary citizens who want to learn more about their surroundings and how they are planned

| Planning A | rements - 6 credits: | Credits |
| :---: | :---: | :---: |
| 3350:433 | Practical Approaches to Planning | 3 |
| 3350:405 | Geographic Information Systems | 3 |

## Planning Electives - 9 credits:

3350:415 Environmental Planning 3
3350:422 Transportation Systems Plarning 3
3350:432 Land Use Planning Law
3350.432

3350:437
3350:438
History of Urban Design and Planning
Geotechniques Electives - 3 credits:

| $3350: 440$ | Cartography |
| :--- | :--- |
| 3350:447 | Remote Sensing |
| $3350: 483$ | Spatial Analysis |
| 3350:496 | Field Research Methods |

## VICTIM STUDIES

The Department of Sociology and the School of Social Work offer a joint certificate program in Victim Studies. The program prepares students in sociology, social work, and other disciplines who would like to develop a specialization in victimology/victim studies in their degree program and future work.

| Core Required Courses (12 credit hours) |  | Cradits |
| :---: | :---: | :---: |
| 3850: 428 | The Victim in Society | 3 |
| 3850: 455 | Family Violence | 3 |
| 7750:480 | Special Topiss: Crisis Intervention | 3 |
| 7750: 445 | Social Policy Analysis for Social Workers | 3 |
| Elective Courses ( 9 credit hours): select one course from each area. |  |  |
| Treatment and Intervention |  |  |
| 7750:480 | Special Topics: Disaster Intervention | 3 |
| 7750:465 | Administration and Supervision in Social Work | 3 |
| 7750:475 | Substance Abuse and Social Work Practice | 3 |
| 3850: 431 | Corrections | 3 |
| 3850:350 | Dugs in Society | 3 |
| Status Groups |  |  |
| 7750: 411 | Women's Issues in Social Work Practice | 3 |
| 3850:343 | The Sociology of Aging | 3 |
| 3850: 344 | Sociology of Gender | 3 |
| 3850: 421 | Racial and Ettnic Relations | 3 |
| 3850: 423 | Sociology of Women | 3 |
| 7750:480 | Special Topics: Foster Care and Adoption | 3 |
| 7750:450 | Social Needs and Services: Aging | 3 |
| 7750:451 | Social Work in Child Wellare | 3 |
| Policy and Law |  |  |
| 3850:433 | Sociology of Deviant Behavior | 3 |
| 3850: 441 | Sociology of Law | 3 |
| 3850: 341 | Political Sociology | 3 |
| 3850: 324 | Social Movements | 3 |
| 7750: 425 | Social Work Ethics | 3 |
| 7750: 454 | Social Work in Juvenile Justice | 3 |
| 7750:470 | Law for Social Workers | 3 |

NOTE: Prerequisite courses for the Social Work courses will be waived for Sociology majors.

## WOMEN'S STUDIES

For information, contact the Women's Studies Office, (330) 972-7008.
Interdisciplinary and personalized, the Women's Studies certificate fosters a critical approach to knowledge about women; at the core of its intellectual agenda is diversity. By focusing on cultural practices that have largely excluded and devalued differences in gender, sexual orientation, ethnicity, race, and class, Women's Studies prepares students to appreciate and act in a pluralistic world. The Women's Studies certificate integrates scholarship and research on women and gender from literature, psychology, history, sociology, and communication. Students are challenged to debate assumptions, explore divergent viewpoints, and discover the partial and often seff-interested emphases of our society's most powerful institutions - family, church, academia, business, and govemment.
The Women's Studies Program helps students to evaluate what they have been taught and, most importantly, it empowers them to claim their educations - ones not readily available in the traditional university curricula - and to work for social justice after their educations. Students find their own voices and develop the esteem necessary to articulate their own views. Out of such opportunities, a student culture of respect and tolerance emerges to support lasting communities that value and promote individual worth, collective action, and intellectual courage.
Students may enroll in any Women's Studies courses and/or make an appointment with the director to discuss a plan of study. Students need not be enrolled in the certificate program to take Women's Studies courses. This certificate may be earned independently of a degree.

## Admission

To participate in the program, the student must:

- Be formally admitted to The University of Akron as 1) an undergraduate seeking a baccalaureate degree; 2) a postbaccalaureate student; or 3) by special admission for a free-standing certificate.
- Make written application to the program countersigned by the student's major academic adviser.
- Receive written notification of admission from the Director of the Women's Studies Program.
- Consult with the Director of the Women's Studies Program to formulate a program of study.


## Program

| Requirements | Credits |
| :--- | :---: |
| Total Credits Required: | 19 |
| Core: |  |
| $1840: 300$ Introduction to Women's Studies <br> $1840: 490$ Women's Studies Lecture Series* <br> 1840:480 Feminist Theory* <br>  or <br> $1840: 493$ Indindual Studies on Women* |  |

## Electives: $\mathbf{1 2}$ credits (two courses 300-400 level).

- One course from each of the following three areas: humanities, social sciences, fine and applied arts, plus an additional women's studies or cross-listed course from any area.


## Humanities

1840:493 Individual Studies on Women* 1.3
3230:472 Women in Antiquity
3300:386 Women in Modem Novels
3
3300:389 Popular Culture: Writing about Race and Gender
3300:453 American Women's Poet 3
3300:489 20th Century Women Writers* 3
3600:355 Philosophy of Feminism 3

## Social Sciences

3230:472 The Anthropology of Sex and Gender 3

3400:325 Women in Modem Europe 3
3400:340 African-American Women's History 3
3400:350 U.S. Women's History
3
3400:400 Gender and Culture in China*
3400:493 Special Topics: Popular Culture, Cultural Theory and Historical Change* 3
3700:392 Special Topics: Women in Politics
3750:474 Psychology of Women*
3850:325 Sociology of Women in Global Society*
3850:447/547 The Sociology of Sex and Gender
3850:455 Family Violence
Fine and Applied Arts
7100:401 Women in Art* 3

7400:201 Courtship, Marriage and the Family 3
7400:219 Dress and Culture 3
7400:265 Child Development 3
7400:442 Human Sexuality
7400:485 Women and Food
7600:408 Women, Minorities and News*
7750:411 Women's issues in Social Work Practice*
7750:480 Special Topics: Gay and Lesbian Issues*

## Electives in Education, Institute for Life-Span Development, Summit

 College, and Women's Studies Workshops2450:265 Women in Management 3

1840:485 Special Topics: Boys to Men: Masculinity in Comemporary Society* 3
1840:485 Special Topics: Women, Poverty and Weffare* 3
1840:485 Special Topics: Women, Minorities and Media*
Special Topics: Women, Minorities and Media* 3
Individual Studies in Women*
Intemship in Women's Studies* $\quad 1.4$
Women and Addiction 3

# Research Centers and Institutes 

## University Research Council

The University Research Council is responsible for encouraging, supporting, and making recommendations pertaining to sponsored and contractual research carried out at the University's departments, schools, centers, and institutes. The council consists of the Vice President for Research and Dean, Graduate School, the Director of Research Services and Sponsored Programs, representatives of the Faculty Senate, various college deans and institute directors, and General Counsel. Sponsored research activities on campus are coordinated by the Vice President for Research and Dean, Graduate School and the Director of Research Services and Sponsored Programs.

## Akron Global Polymer Academy

Katharine Owens, Ed.D., Associate Director of Operations
The Akron Global Polymer Academy at The University of Akron assists the College of Polymer Science and Polymer Engineering in creating and disseminating knowledge about polymer science, polymer engineering, and Science, Technology, Engineering, and Mathematics (STEM) education by supporting initiatives in P-16 education and other distributive education ventures. Providing consulting and trairing services to the polymer industry world wide, the Akron Polymer Training Center is the Workforce Development division of the Akron Global Polymer Academy.

## Ray C. Bliss Institute of Applied Politics

John C. Green, Ph.D., Director

The Ray C. Bliss Institute of Applied Politics is a public education and research adjunct of Buchtel College of Arts and Sciences. The broad purposes of the institute, in keeping with the career of its namesake, Ray C. Bliss, are: to give all citizens, and particularly students, an opportunity to learn how to become active and competent in political life; to help maintain a tradition of ethical public service in politics; to foster useful relationships between applied politics and political science; to promote public comprehension of political organizations and the requirements for their effectiveness; and to improve understanding of continuity and change in American political institutions.

## Institute for Biomedical Engineering Research

Daniel B. Sheffer, Ph.D., Director
This institute was established in 1979 to promote interdisciplinary studies in the rapidly growing areas of knowledge which overlap the fields of biology and medicine, on the one hand, and engineering and the physical sciences, on the other. It conducts seminars, courses and degree programs in biomedical engineering in association with the College of Engineering and individual departments.

In addition to its research and educational functions, the institute provides a research service to local hospitals and industry, as well as to private and government agencies. The premise for this program is that the combined resources of the University, Northeastern Ohio Universities College of Medicine and affiliated organizations will often permit more cost-effective solutions than would be possible by an individual or group doing the research independently.

The work of the institute is carried out by faculty of the Department of Biomedical Engineering in association with "members" selected from the faculties of The University of Akron and Northeastern Ohio Universities College of Medicine, as well as from the ranks of area physicians, engineers and scientists. The institute and the department occupy the third floor of the Olson Research Center on the north edge of the campus.

## Center for Advanced Vehicles and Energy Systems (CAVES)

The Center for Advanced Vehicles and Energy Systems (CAVES), in operation since 2002 and officially established in 2005, focuses on the research, development, and dissemination of advanced automotive technology and alternative energy systems and their enabling technologies. CAVES participants include 40 undergraduate and graduate students all of whom are currently involved in hybrid vehicle technology and related areas. CAVES activities are housed within a number of facilities comprising approximately 4,000 square feet. These facilities include the Power Electronics Research Laboratory, the Battery Research Facility, the Challenge X HEV Facility, and the Pervasive Automation Laboratory. Approximately 12 master's and doctoral students have graduated over the last five years in CAVES related fields.

## Center for Applied Polymer Research

## Robert H. Seiple, M.S., Manager

Operating under the Institute of Polymer Science, the Applied Polymer Research Center (APRC) provides technical services to thousands of companies. Industrial clients of all sizes gain access to top researchers, knowledge bases, and advanced equipment. With a full-time professional staff, the APRC is dedicated to providing timely and reliable contractual technical services for industrial and government clients. Key areas of technical service include: polymer characterization, additive identification, defect analysis, thermal analysis, dynamic mechanical thermal analysis (RPA, DMTA), electron microscopy (STEM, TEM, SEM, AFM), chromatography and spectroscopy.

## Center for Collaboration and Inquiry

Operated jointly by the Buchtel College of Arts and Sciences and the College of Education, the Center for Collaboration and inquiry was created in 2002 to promote the practice, research and dissemination of inquiry-based teaching and learning. The Center supplies the resources and assistance necessary for P-16 teachers to create effective learning environments and fosters collaborative research efforts between experts of both content and educational methods.

## Center for Conflict Management

William T. Lyons, Jr., Ph.D., Director
The University of Akron has a long and proud history of the interdisciplinary study of conflict because understanding the nature of conflict is the first step toward reducing conflict and violence at home, in our communities, workplaces, and schools. The Center for Conflict Management, jointly administered by the departments of Political Science and Sociology, seeks to build on that tradition by combining courses in several departments to enhance the capacity of students to effectively work toward reducing the harms associated with conflict and violence from interpersonal to international.
For more information, contact the office, 202 Olin Hall, (330) 972-5855, wtlyons@uakron.edu or mww.uakron, edu/centers/conflict

## H. Kenneth Barker Center for Economic Education

Fred M. Carr, Ph.D., Director

The center exists to improve the economic literacy of individuals to help them function competently as citizens, producers and consumers.
The center conducts workshops, seminars and economic programs for teachers, students and interested groups. It provides consulting services in the area of economic education and acts as a clearinghouse for the gathering and dissemination of economic education materials and programs. It also tosters an understanding and appreciation of the American economic system.

## Center for Emergency Management and Homeland Security Policy Research

Nancy K. Grant, Ph.D., Director

The intent and primary charge of the Center for Emergency Management and Homeland Security Policy Research (CEMHSPR) is the improvement of the practice of emergency management. The Center focuses on policy and its interaction with the function of emergency management. This policy analysis and research relates to contemporary Emergency Management questions/issues in the State of Ohio and Nationally. Project areas include terrorism preparedness, business and industry continuity, disaster response, and recovery assessment as well as management practices relating to crisis and disasters.

## Center for Environmental Studies

Ira D. Sasowsky, Ph.D., Director

The Center for Environmental Studies matches the expertise of about 100 faculty in 33 disciplines with the needs of students seeking study and research opportunities related to the environment. Since its founding in 1970, the center has sponsored, or in other ways supported, activities appropriate to understanding the Earth system and maintaining a quality environment for humanity.
The center offers both undergraduate and graduate certificate programs. By enrolling in selected courses outside of their major field of study, students receive the broad training required to address environmental concerns. The center also coordinates special forums, workshops, and seminars that address major issues. Examples include the National Energy Forum, the World Food Forum, and Evaluation of Environmental Data. Workshops on environmental studies in England, energy, and natural history exemplity the interdisciplinary approach to the understanding of issues.

## Center for Family Studies

Richard Glozzer, Ph.D., Director
The Center for Family Studies, established in 1979, was designed to stimulate and encourage the interdisciplinary study of the family. It serves both the University and the community by fostering collaboration between faculty, students, practitioners and community leaders on curriculum development, educational conferences and seminars, research and training, and public policy relevant to important family issues.

The Center is represented by faculty from five colleges and over 15 disciplines. It also includes leaders from various community systems, such as schools, hospitals, courts, churches, mental health, social and health care agencies. In addition, the Center has a fellows program in which outstanding faculty and community leaders are named as either fellows, adjunct fellows or senior fellows.
The Center offers certificates in the following specialty areas: Divorce Mediation and Home-Based Intervention. For more information, please refer to the descriptions of Interdisciplinary and Certificate Programs in Section 6 of this Bulletin.
Any student, faculty member or community person interested in family issues is invited to call the director to learn how they can participate or learn more about the Center's activities.

## Center for Gerontological Health Nursing and Advocacy

The mission of the Center for Gerontological Health Nursing and Advocacy is to advance knowledge about appropriate and effective health promotion/interventions for elders. The Center has a tripartite focus of education, research, and service to improve the health care and quality of life for eiders. Activities of the Center include interdisciplinary research within the university and health care communities, best practices development for care of older adults in institutional and community settings, and education initiatives to prepare health care professionals in the delivery of elder care. The Gerontology is part of the University of Akron's College of Nursing.

## Center for Literacy

Evangeline Newton, Ph.D., Director

The Center for Literacy furthers the mission of both the University of Akron and its College of Education through a variety of programs that support development of expertise and dissemination of knowledge about language learning. The Center brings preservice, inservice, and university teachers together with children and families in the greater Akron area through a wide range of literacy related projects. Additional information can be found at http://muw.uakron.edu/codleges/educ/it/index.php.

## Center for Nursing

## Annette Mizzel, MSN, RN, Director

The Center for Nursing is a part of The University of Akron's College of Nursing. It is an education and practice center for College of Nursing faculty and students as well as faculty and students from other health care disciplines on campus.

The Center for Nursing opened in 1982 as one of the first academic nurse managed centers in the United States. College of Nursing faculty and students provide non-emergency, episodic health care and health education to community residents who do not have health insurance.

## Center for Organizational Development

James J. Divoky, Ph.D., Interim Director

The Center for Organizational Development in the College of Business Administration was established to meet the training and development needs of the business community. The Center offers management development seminars, programs, conferences, and consulting services designed to enhance the skills of individuals and improve company productivity in a rapidly changing world. The Center specializes in offering dedicated leadership training and management development programs that are custom designed to meet the specific needs of companies. For information, call (330) 972-8228.

## Center for Organizational Research

## Dennis Doverspike, Ph.D., Director

The Center for Organizational Research is a business research and consulting center managed by the Industrial/Organizational Psychology Department at the University of Akron. The industrial/Organizational Psychology Department at the University of Akron consistently ranks as one of the top ten programs in the nation (according to U.S. News \& World Report).
The COR's mission is to provide top quality consultation and research-based interventions to the business community. The COR also serves the purpose of providing professional training and research opportunities for graduate and undergraduate students. The COR is able to provide a tailored approach to the client's needs because of its smaller client base and research orientation. COR offers larger organizations access to solutions based on cutting-edge research from a nationally regarded academic program.

## Center for Policy Studies

Karl Kaltenthaler, Ph.D., Director

The Center for Policy Studies is a multidisciplinary group of faculty and staff who specialize in studies of public opinion and public policy. Center researchers seek to understand the nature and sources of mass attitudes toward policy issues. Center research also focuses on the causes and consequences of policy decisions. The faculty members who make up the Center study these issues from a domestic and international perspective. The Center also offers its expertise to the public for those who wish to commission studies of public opinion or policy issues relevant to the research specialties of the fellows of the Center.

# Center for Public Service Research and Training 

Peter J. Leahy, Ph.D., Director

The Center for Public Service Research and Training (CPSRT), established in 2002, is a division of the Institute for Health and Social Policy (IHSP), a multi-purpose research institute of The University of Akron. CPSRT evolved from the Center for Untan Studies, established at The University of Akron in 1967. CPSRT's mission is to assist the local, regional and state community in the identification, evaluation and remediation of broadly defined social and economic problems in the community. CPSRT offers its services to govemments of all levels, to community foundations, to human service agencies and to community organizations. Particular expertise is available in the following areas: program evaluation and program improvement strategies, strategic program planning, strategic management, community needs assessment, community planning and the conceptualization and design of research projects.
CPSRT draws upon the full range of senior research associates, professional staff and related research centers available at IHSP, as well as faculty and doctoral students from the Department of Public Administration and Utban Studies. In tandem with the Center for Policy Studies (CPS), another division of IHSP, CPSRT also offers clients a state-of-the-art computer-assisted telephone interviewing (CAT) facility, a state-of-the-art focus group room and GIS mapping services.

## Center for Statistical Consulting

Chand Midha, Ph.D., Director

The mission of the Center for Statistical Consulting in the Department of Statistics is to provide the university community and the community at large with professional assistance in the design and analysis of statistical problems for theses, disserta tions, and research. The office is located in the College of Arts and Sciences Building, Room 118A. When requesting statistical consulting refer to the Center's Web site at htta:/hwn3. uakronedu/stat/consulting, html fill out the Request for Statistical Consulting form and $\theta$-mail it to the department on the available link. The department will contact you for an appointment.

## Center for Urban and Higher Education

Bridgie Ford, Ph.D., Director

The Center for Untan and Higher Education is a public education and research unit within the College of Education with the broad purpose of improving student achievement pre-K through higher education. It serves both the University and community by fostering collaboration among faculty, students, practitioners, and community leaders in educational conferences and seminars, research, evaluation and training.

## English Language Institute

Debra Deane, M.A., Director

Established in 1979, the English Language Institute (ELI), part of the Buchtel College of Arts and Sciences, offers two programs in English as a Second Language (ESL) instruction. The English for Academic Purposes Program provides non-credit ESL courses to international students and nonnative residents who plan to pursue an undergraduate or graduate degree at The University of Akron or another U.S. university. The intensive, 20 hour per week program also serves indjviduals who wish to improve their English to meet their own professional and/or personal goals.
ELI courses at four levels of English proficiency target language and academic skills needed for successful study at a U.S. university: reading efficiently, writing clearly, taking lecture notes, and communicating effectively in English. Students also study grammar and vocabulary and prepare for language proficiency tests to meet the University's English requirement. (The TOEFL, Test of English as a Foreign Language, or the ELH-ASSET, Academic Study Skills and English Test, along with ELI course grades may be used to successfully complete the ELI and begin academic coursework.) In addition, students receive a wide variety of support services to facilitate their transition to life and study in the United States.
The Community and Corporate ESL Program, designed specifically for nonnative English speakers living and working in Northeast Ohio, offers a variety of services including private tutoring and consulting (e.g., editing of documents, lariguage assessment).
In addition to these instructional programs, the ELI administers the University of Akron Developed English Proficiency Test (the U-ADEPT), which assesses the speaking ability of prospective international teaching assistants at UA and determines their readiness to provide classroom-related services in their graduate departments.
The ELI serves as a resource on issues relating to language proficiency for University faculty, staff and students as well as for members of the local community. For more information, visit the ELI Web site at wuw, uakron.edweli, email yaeliquakron.edu, or call (330) 972-7544.

## Fisher Institute for Professional Selling

Jon M. Hawes, Ph.D., Director

The Fisher Institute for Professional Selling was founded in 1994. Its mission is to enhance the image of the sales profession, to promote professional selling and sales management as rewarding lifetime careers, to provide high quality sales training and learning experiences, and to advance the knowledge of professional selling through the support of applied research. For more information, call (330) 972-8466 or visit the Fisher Institute Web site at www. uakron.edu/colleges/cba/institutes/fisher/index.php.

## William T. and Rita Fitzgerald Institute for Entrepreneurial Studies

Steven R. Ash, Ph.D., Interim Director
In 1995, a generous gift from William and Rita Fitzgerald created the Fitzgerald Institute for Entrepreneurial Studies in the College of Business Administration. The Institute was established to promote the principles of free enterprise and encourage entrepreneurial spirit and practices both within the University's curriculum and throughout the business community.
The Fitzgerald Institute focuses on the development of curriculum appropriate for both new ventures and the entrepreneurial development and growth of existing businesses. The Institute provides the needed link between the University and the community of entrepreneurs critical to business development in the future.
For information, contact the Institute, CBA 409, (330) 972-8479.

## Institute for Global Business

II-Woon Kim. Ph.D., Associate Director
The University of Akron received special funding from the State of Ohio to expand its offerings of undergraduate and graduate degree programming in intemational business. Thus, the College of Business Administration (CBA) created the Institute for Global Business, which coordinates both credit and noncredit programming in international business. The institute also develops short courses and seminars designed to help improve the international competitiveness of area business. For more information, call (330) 972-5892.

## Institute for Health and Social Policy

Sonia Alemagno, Ph.D., Director

The Center for Health and Social Policy was established in February 1999 for the study and delivery of effective heath and social services. In November 1999, the Center for Health and Social Service was renamed the Institute for Health and Social Policy with the Center for Policy Studies as a focused subunit by the Board of Trustees.

## Mission

To improve the quality of services to specific target groups most at risk of health and social consequences in order to decrease morbidity and mortality and the burden of health and social problems on the community and individuals.

## Research Continuum

- Epidemiology
- Intervention Development
- Service delivery
- Policy \& Program Evaluation
- Service deivery Survey Research Support
- Technology transfer - Geographical information Systems Support

Most of the work conducted by the Institute is on behalf of government or non-profit agencies. Faculty and students have the opportunity to collaborate on research and evaluation projects of national significance.
The Institute also serves as an educational resource for students and the community for the most up-to-date social and health services research available and the latest advances in behavioral and social science research technologies.
Since its inception, IHSP has conducted more than 75 projects across the research continuum. It currently has more than 48 active projects. In 2001, the Institute received a $\$ 13.7$ million grant for a national longitudinal evaluation of a new substance abuse prevention curricula for middle and high school students from the Robert Wood Johnson Foundation, the largest grant in the history of The University of Akron.

Three centers operate within the Institute for Health and Social Policy - Center for Policy Studies, Center for Gerontological Health Nursing and Advocacy, and Center for Public Service Research and Training.
Through the Barbara J. Stephens Foundation, the Institute provides monetary awards to those colleges and departments that work with the Institute on research projects.

## Institute for Life-Span Development and Gerontology

Harvey L. Sterns, Ph.D., Director
The Institute for Life-Span Development and Gerontology, founded in 1976, coordinates multidisciplinary credit certificate programs in gerontology at the undergraduate and graduate levels. In addition, this certificate is included in the Ohio Board of Examiners of Nursing Home Administrators approved course of study in Nursing Home Administration which combines a Bachelor of Science degree in management (Human Resource Management Concentration) with a Certificate in Gerontology.
The Institute of Life-Span Development and Gerontology has grown into a campuswide program involving more than 63 faculty in mire than 20 different departments, representing six colleges. Students in the certificate programs carry out field placements at numerous community service settings. There are more than 40 courses at the undergraduate and graduate levels. Research, education, training and service support has been received from the U.S. Administration on Aging, National Institute on Aging, U.S. Department of Education, Office of Special Education and Rehabilitation Services, National Institute on Disability and Rehabilitation Research, AARP Andrus Foundation, Ohio Department of Aging, and Area Agency on Aging 10B. The Institute also served as a major site for the Rehabilitation Research and Training Center Consortium on Aging and Developmental Disabilities involving seven universities in six states.
Examples of outreach activities include the Elderhostel program, offered each summer for older adults who participate in a weekłong residential learning experience.
The institute is a member of the Northeastern Ohio Consortium on Geriatric Medicine and Gerontology, joining together with the Office of Geriatric Medicine and Gerontology, Northeastem Ohio Universities Colloge of Medicine; Gerontology Center, Kent State University; and Gerontology Committee, Youngstown State University.

## Institute for Teaching and Learning

Helen Cammar, Ph.D., Director

## Mission

The Institute for Teaching and Leaming at The University of Akron coordinates, promotes, and supports efforts to improve the success of our students both inside and outside the classroom, and to advance and disseminate scholarly investigations into the teaching and leaming process as weil as discipline-specific research activities involving students.

## The IL's Responsibilities

- Consulting with colleges, departments, and individual faculty on teaching, leaming, evaluation, and assessment issues
- Developing and providing targeted professional development activities, informa tion-gathering and sharing
- Documenting, publicizing, and celebrating teaching and learning innovation and excellence
- Providing information, advice, and leadership on teaching and leaming matters
- Providing leadership and support for research on the scholarship of teaching and leaming, service learning, pedagogy, and inclusive excellence.
For more information, visit the ITL Web site at www, uakron.edulitl or contact The Institute at (330) 972-2574.


## Institute of Polymer Engineering <br> Roderic P. Quirk, Ph.D., Interim Director

The Institute of Polymer Engineering carries out basic and applied research in polymer processing, composite performance, and materials characterization. The Institute, founded in 1983, is a major intellectual and research resource in Northeast Ohio. The Institute maintains traditional and futuristic processing and characterization laboratories, with continued interest in investigation of new process technology and new materials. The Institute serves the polymer industry as a source of technical assistance with processing trials and materials characterization. The Institute provides research support and technical service to the Department of Polymer Engineering.

## Intellectual Property Law and Technology Center

Jeffrey M. Samuels, J.D., Director
The intellectual Property Law and Technology Center in the School of Law is one of approximately 14 such centers in the nation. The center exposes the community to critical thinking in the intellectual property law field, coordinates and implements the Law School intellectual property law curriculum, and hosts an annual Conference on Intellectual Property Law and Policy. The Center works with other schools within the University in the design and implementation of interdisciplinary courses relating to intellectual property law. Commencing the fall of 2005, the Center implemented a new Master of Laws in Intellectual Property Law Program.

## The Maurice Morton Institute of Polymer Science

Roderic P. Quirk, Ph.D., Interim Director
The institute is concerned with basic and applied research in polymers. It was established in 1956 as the Institute of Rubber Research and in 1964 became the Interdisciplinary Institute of Polymer Science. The University's first Ph.D. program in polymer chemistry was started in 1956 and was administered by the Institute until a separate Department of Polymer Science was established in 1967. The Institute maintains extensive laboratory facilities and the Applied Polymer Research Laboratory. It is the principal organization responsible for external funding of research projects and graduate fellowships in polymer science. The Institute provides research support and technical service to the Department of Polymer Science.

## Microscale Physiochemical Engineering Center (MPEC)

George G. Chase, Ph.D., Director

The Microscale Physiochemical Engineering Center (MPEC) was established in 1996 by faculty with a common research interest in materials composed of very small particles. These small particles occur, for example, in heterogeneous catalysts, fluid/solid separations, paper-pulp processing, soil remediation, waste water decontamination, and solid transport.

The unique feature of MPEC is the ability to form multi-disciplinary teams of faculty and graduate students to solve specific industrial problems.
The Center hosts an annual conference, promotes networking, provides a forum for industriaHuniversity cooperation, and is a consortium of industrial sponsors for fundamental and applied research in microscale physiochemical engineering.

## Nutrition Center

The University of Akron Nutrition Center is a comprehensive regional center for the study and delivery of effective nutrition interventions. It provides the needed link between UA nutrition expertise and the extensive preventative health care needs of carnpus and our surrounding community. The Center serves as an educational resource for students and the community, provides nutrition services and conducts research in sports nutrition, chronic disease treatment, wellness and disease prevention, nutrition information technology, food safety and sanitation, and community nutrition.

## Gary L. and Karen S. Taylor Institute for Direct Marketing

Dale M. Lewison, Ph.D., Director

The Gary L. and Karen S. Taylor Institute for Direct Marketing was founded in 2004. Its mission is to develop and advance the direct marketing industry, as well as support and promote the direct marketing profession on the local, regional and national levels. For more information, call (330) 972-8228.

## Training Center for Fire and Hazardous Materials

Capt. Philip W. McLean, Director of Training

The Training Center for Fire and Hazardous Materials brings the University, government and industry together into one comprehensive regional center to integrate educational programs, fire and hazardous materials training and other applications of fire and safety technology. The center coordinates seminars and workshops presented by the Federal Emergency Management Agency (FEMA), the Division of State Fire Marshal and other related organizations. Training in all phases of hazardous materials containment and fire prevention and control is provided under contract to various municipalities, industries and agencies. The programs are supported by the faculty of the Fire Protection Technology degree program in association with other state and nationally recognized professionals.

## Training Center for Law Enforcement and Criminal Justice

Michael Jalbert, Interim Director
The Training Center for Fire and Hazardous Materials brings the University, government and industry together into one comprehensive regional center to integrate educational programs, fire and hazardous materials training and other applications of fire and safety technology. The center is chartered from the Division of EMS and offers all State Certified Classes for firefighter certification. The Center employs 190 certified Emergency Services Instructors to fill any training requirement for municipal and business and industry. The center coordinates seminars and workshops presented by the Federal Emergency Management Agency (FEMA), the National Fire Academy, the Division of State Fire Marshal, and other related organi zations. Training in all phases of hazardous materials containment and fire prevention and control is provided under contract to various municipalities, industries and agencies. The programs are supported by the faculty of the Fire Protection Technology degree program and the Emergency Management degree program in association with other state and nationally recognized professionals.

## Workforce Development and Continuing Education

Daniel L. Hickey, Director
The mission of Workforce Development and Continuing Education is to serve the people of Northeastern Ohio by offering courses and programs that increase access to The University of Akron, linking it with community, business and industrial workforce needs.
Workforce Development and Continuing Education at The University of Akron provides a wide range of educational, technical, and research services that enhance the effectiveness and quality of workforce learning. In addition, Workforce Development and Continuing Education provides services that require the special expertise of the faculty and staff to better serve the economic and social development of Northeastem Ohio. Grant monies may be available to help with costs.

## Course Numbering System

## INDEX

## University College

1100 University College

## Army ROTC

1600 Military Science

## Interdisciplinary Programs

1800 Divorce Mediation
1820 Home-Based Intervention Therapy
1840 Women's Studies
1870 Honors College
1880 Medical Studies
Summit College
2000 Cooperative Education
2010 Developmental Programs
2020 Associate Studies English
2030 Associate Studies Mathematics
2040 Associate Studies Social Sciences
2100 Individualized Study
2200 Early Childhood Development
2220 Criminal Justice Technology
2230 Fire Protection Technology
2235 Emergency Management
2260 Community Services Technology
2280 Hospitality Management
2290 Paralegal Studies
2420 Business Management Technology
2430 Real Estate
2440 Computer Information Systems
2520 Marketing and Sales Technology
2540 Office Administration
2740 Medical Assisting
2760 Radiologic Technology
2770 Surgical Technology
2780 Allied Health
2790 Respiratory Care
2820 General Technology
2830 Electromechanical Service Technology (Inactive)
2840 Polymer Technology (Inactive)
2860 Electronic Engineering Technology
2870 Automated Manufacturing Engineering Technology
2880 Manufacturing Engineering Technology
2920 Mechanical Engineering Technology
2940 Drafting and Computer Drafting Technology
2980 Surveying and Mapping Engineering Technology
2985 Geographic and Land Information Systems
2990 Construction Engineering Technology

Buchtel College of Arts and Sciences

| 3000 | Cooperative Education | 3460 | Computer Science |
| :--- | :--- | :--- | :--- |
| 3002 | Pan-African Studies | 3470 | Statistics |
| 3004 | International Development | 3480 | General Mathematical Sciences |
| 3006 | Institute for Lifespan | 3490 | Engineering Applied |
|  | Development and Gerontology | 3006 | Mathematics** |
| 3010 | Environmental Studies | 3500 | Modern Languages |
| 3030 | English Language Institute | 3510 | Latin |
| 3100 | Biology | 3520 | French |
| 3110 | Biology/N.E.O.U.C.O.M.** | 3530 | German |
| 3150 | Chemistry | 3550 | Italian |
| 3200 | Classics | 3560 | Japanese |
| 3210 | Greek | 3570 | Russian |
| 3230 | Anthropology | 3580 | Spanish |
| 3240 | Archeology | 3600 | Philosophy |
| 3250 | Economics | 3650 | Physics |
| 3300 | English | 3700 | Political Science |
| 3350 | Geography and Planning | 3750 | Psychology |
| 3370 | Geology and Environmental Science | 3850 | Sociology |
| 3400 | History | 3980 | Public Administration and |
| 3450 | Mathematics |  | Urban Studies* * |
| College of Engineering |  |  |  |
| 4100 | General Engineering | 4450 | Computer Engineering |
| 4200 | Chemical and Biomolecular | 4600 | Mechanical Engineering |
|  | Engineering | 4700 | Mechanical Polymer |
| 4300 | Civil Engineering |  | Engineering |
| 4400 | Electrical Engineering | 4800 | Biomedical Engineering |
| College of Education |  |  |  |
| 5000 | Cooperative Education | 5500 | Curriculum \& Instruction |
| 5100 | Educational Foundations | 5550 | Physical Education |
| 5170 | Educational Administration (K-12) | 5560 | Outdoor Education |
| 5190 | Educational Administration | 5570 | Health Education |
|  | (Higher Education) | 5600 | Educational Guidance |
| 5200 | Early Childhood Education |  | and Counseling |
| 5250 | Middle Level Education | 5610 | Special Education |
| 5300 | Secondary Education | 5620 | School Psychology |
| 5400 | Postsecondary Technical Education | 5800 | Special Educational Programs |
| 5540 | General Education | 5850 | Educational Technology |


| College of Business Administration |  |  |  |
| :---: | :---: | :---: | :---: |
| 6000 | Cooperative Education | 6400 | Finance |
| 6100 | General Business | 6500 | Management |
| 6140 | Finance for Non-Business | 6600 | Marketing |
|  | Students | 6700 | Professiona\|** |
| 6200 | Accountancy | 6800 | International Business |
| 6300 | Entrepreneurship |  |  |
| College of Fine and Applied Arts |  |  |  |
| 7000 | Cooperative Education | 7750 | Social Work |
| 7100 | Art | 7800 | Theatre |
| 7400 | Family and Consumer Science | 7810 | Theatre Organizations |
| 7500 | Music | 7900 | Dance |
| 7510 | Musical Organizations | 7910 | Dance Organizations |
| 7520 | Applied Music | 7915 | Dance Somatics and |
| 7600 | Communication |  | World Dance |
| 7700 | Speech-Language Pathology and Audiology | 7920 | Dance Pefformance |
| College of Nursing |  |  |  |

College of Polymer Science and Polymer Engineering
9821 Polymer Science and
9841 Polymer Engineering 9871 Polymer Science

## School of Law

9200 Law

## University College

## GENERAL EDUCATION

1100:
100 UA STUDY ABROAD
0 credits
Acadernic study at an affiliated institution outside the continental United States.
101 STUDENT SUCCESS SEMINAR
2 credits Acquisition of the skills, techniques, information, and strategies necessary to aid new students in their transition from high school or work to the college environment.
102 TUTOR TRANNGGI
1 credit
Pterequisite: Permission from coordinator of tutorial programs based on GPA, letter or recommendation, and intervew. Corequisite: Tutoring practicum of 25 houts. Training of peer tutors in several academic areas with topics to meet requirements of the College Reading and Leaming Association.

103 TUTOR TRANNING II 1 crodit Prerequisite: 102. Advanced training of peer tutors, including student motivation, leaming, and study strategies; assessing student learning difficulties; and referral skills.

104 TUTOR TRANNING III 1 crodit Prerequisite: 102. Summative training of peer tutors emphasizing assertiveness training, leadership skills, administering and interpreting a leaming styles inventory and structuring a leaming experience.
110 INFORMATION TOOLS FOR ACADEMIC SUCCESS Information Tools for Academic Success will allow a student to bring a real world problem or academic assignment to class to use as the framework upon which to build a repertoire of information skills. This class is a project-oriented, process-based course in which the students will: Identify and articulate an information need as it relates to a problem or assignment; effectively and efficiently access appropriate information using a variety of resources; critically evaluate the information; incorporate the information into their existing knowledge base; use the information appropriately and effectively to accomplish an explicit purpose; understand the legal, social and economic aspects of information ultimately accessing and using information in an ethical manner.
117 CAREER PLANNNG
2 credits Web-version/seff-paced class providing learners with skills necessary to make effective educotional/career decisions. Emphasizing self-understanding, career exploration, career planning, and decision making.
150 RESIDENT ASSISTANT SKILLS
2 credits This course is designated for Resident Assistants upon their hire to the Department of Residence Life and Housing. Leadership development and management skills are the core material.
191 SPECYAL TOPYCS: GENERAL EDUCATION
1-4 credits

## Army ROTC

## MILITARY SCIENCE

## 1600:

100 INTRODUCTION TO MHLTARY SCHENCEI
2 credits
Study of the mission of the Amy, the principles of basic military leadership and management, land navigation, and opportunities in the Army. A geographical and cultural exarnination of the countries where U.S. soldiers are located. Leadership laboratory required. No military obligation incurred.
101 INTRODUCTION TO MHITARY SCEENCE A
2 credits
Study of the principles and techniques of military leadership and human resource management. Introduction to drill and ceremony, small unit tactics, brieting techniques, and public speaking. Leadership laboratory required. No military obligation incurred.

## 200 BASIC MILTARY LEADERSHIP

2 credits
Study of the principles of war and the art of leadership. Basic military skills taught through practical applications in marksmanship, map reading, first aid, and drill and ceremony. Leadership laboratory required. No military obligation incurred.

201 SMAL UNT OPERATIONS 2 credits
Study and application of the Leadership Development Program (LDP). Introduction to tactics, patrolling, and basic military skills. Leadership laboratory required. No military obligation incurred.

300 ADVANCED LEADERSHIP I
3 credits
Prerequisites: $100,101,200,201$ and/or permission. Study in the application of military tactics, military history, military briefing techniques and equipment. Practical work with operations orders and planning, organizing, and executing training. Leadership laboratory required.
301 ADVANCED LEADERSHP H
3 credits
Prerequisite: 300 or permission. Study of leadership, leadership counseling and tactics at the smallunit level. Practical work with land navigation, marksmanship training, squad and platoon movernent, and battlefield survival. Leadership laboratory required.
305 LEADERSHP TECHNOUES AND PRINCIPLES: A MHLTARY PERSPECTIVE
3 credits This course is about leadership and about being a teader. Students will leam leadership principles through practical exercise and application of leadership techniques in order to develop effective leadership skills and abilities.

400 MULTARY MANAGEMENT I 3 crodits
Prerequisites: 300, 301, or permission. Intensive investigation of the leadership process to include applicatory work emphasizing officer ethics, duties, and responsibilities. Manegement and supervisory skills. Practical experience with the Leadership Development Program (LDP). Leadership laboratory required.

## 01 MLTTARY MANAGEMENT II

Prerequisites: 300, 301, or permission. Study of officer leadership and managerial responsibilities. Study of Army command organization and procedures, training management, personnel system, Uniform Code of Military Justice, and continued emphasis on counseling and human relations. Leadership laboratory required.
400 SPECLAL TOPICS IN MIUTARY SCIENCE
1.3 credits (May be repeated for a maximum of six credits) Prerequisite: permission. Content varies with special topics. Texts to be selected according to topic and witl use relevant library periodicals and joumals. Existing library resources are adequate to support the course. Basic Camp, Advanced Camp, Airborne, and other specialty schools qualify for course credit.

## Interdisciplinary Programs

## HOME-BASED <br> INTERVENTION THERAPY

## 1820:

403 HOME-BASED INTERVENTION THEORY
3 credits
Prerequisite: Admission to the Cerificate Program. Overview of home based intervention to include philosophy and description of this programming as well as assessment of family, their home and community environment.
404 HOME-BASED INTERVENTION TECHNOUES AND PRACTICE
3 credits Prerequisite: 403. Provides intervention techniques and skill areas required for homebased intervention and leaming opportunities for matching techniques with specific farmily problems.
$\mathbf{0 5}$ HOME-BASED INTERVENTION INTERNSHIP
$3-5$ credits
Prerequisite: 404. Gives students the opportunity to apply knowledge of home-based intervention in actual delivery process working with families in their homes under direct supervision of trained, expenenced home based intervention therapists.

## WOMEN'S STUDIES

## 1840:

## 300 INTRODUCTION TO WOMENS STUDIES

3 credits
Introduction to the interdisciplinary program in Women's Stucies. Explores current scholarship in women's issues and experiences from perspectives of psychology, history, sociology, anthropology, and literary criticism. Feminist orientation and methodology.

480/580 FEMINIST THEORY
3 credits
Prerequisite: 300. A summary of feminist theory to familiarize students with the main currents in contemporary feminist theory and the origins and evolution of that thought.

## 485/585 SPECIAL TOPICS IN WOMEN'S STUDEES

1.3 credits
(May not be repeated). Special topics and current issues in Women's Studies. Covers comtent not currently addressed in other courses. Fosters a critical approach to knowledge about women.
1.4 credits

Prerequisite: 300, permission of Director of Women's Studies. This class provides supervised experience and on-thejob training in an organization, agency, corporation or group dealing with women's issues.

490/590 WOMEN'S STUDIES LECTURE SERIES
1 credit
Various topics focused on women. Themes and course materials vary each semester. Lecture and discussion.
493 INDMDUAL STUDES ON WOMEN
$1-3$ credits
Prerequisite: 300 , and approval of Director of Women's Studies. Directed study of selected topics related to women. Projects are chosen by student in consultation with instructor.

## HONORS COLLEGE

## 1870:

## 250 HONORS COLLOQUIUM: HUMANTIES

2 credits
Pterequisite: admission to Honors College. Interdisciplinary colloquium on important issues in humanities.

360 HONORS COLLOOUIUM: SOCIAL SCHENCES 2 crodits
Pterequisite: admission to Honors College. interdisciplinary colloquium on important issues in social sciences.
470 HONORS COLIOQUIUM: NATURAL SCAENCES 2 credits
Prerequisite: admission to Honors College. Interdisciplinary colloquium on important issues in natural sciences.

## MEDICAL STUDIES

## 1880:

201 MEDICAL SEMINAR AND PRACTICUM I
3 credits
Prerequisites: $3100: 191$. Provides field experiences in health-care delivery in geographic area served by Northeastern Ohio Universities College of Medicine and The University of Akron. Student directed in supervised roles of professional and paraprofessionat in meeting health-care needs of community. Open to first-year student in Phase 1 of B.S.M.D. program.

310 MEDICANE AND THE HUMANTTES
3 credits
Medical history, literature, and ethics from the perspective of the Humanities, with readings from original sources and literary works on medical subjects.

# Summit College 

## COOPERATIVE EDUCATION

## 2000:

201,301 COOPERATIVE EDUCATION
0 credits
(May be repeated) Prerequisite: cooperative education students onty. Work experience in business, industry or governmental agency. Comprehensive performance evaluation and written report required.

## DEVELOPMENTAL <br> PROGRAMS (non-degree)

## 2010:

042 BASIC WRITING
4 laad hours**
Provides intensive practice in the process of writing, in sentence structure and punctuation, and in correct written expression. Upon successful completion of Basic Writing, the student should be prepared to enter English (2020:121), or English Composition I (3300:111). Writing Lab hours are required.
050 BASIC MATHEMATICS I
4 load hours" *
Prerequisite: Placement. An intensive review of arithmetic and an introduction to the concepts of elementary algebra. Emphasis is placed on developing leaming strategies and controlling anxieties. Upon successful completion of Basic Mathematics I, the student should be prepared to enter Basic Mathematics II.
052 BASIC MATHEMATICS II 4 load hours ** Prerequisite: Basic Mathematics I (2010:050), or Placement. A brief review of arithmetic and intensive instruction in elementary algebra. Emphasis is placed on developing learning strategies and controlling anxieties. Upon successful completion of Basic Mathematics II, the student should be prepared to enter Intermediate Algebra (3450:100), Mathematics for Allied Health (2030:130), Technical Mathematics : (2030:151), Statistics for Everyday Life (3470:250) Applied Mathematics for Business (2420:170).

## 054 BASIC MATHEMATICS II SUPPORTED

8 load hours**
Prerequisites: 050; recommendation by instructor, adviser, and/or Office of Accessibility. See Basic Mathematics II (2010:052). Double length class period allows supplemental instruction and assistance in beginning algebra. Emphasis on developing learning strategies and controlling anxieties.

O56 BASKC MATHEMATICS II EXTENDED - PART A
4 load hours** Prerequisites: 050; recommendation by instructor, adviser, and/or Office of Accessibility. First half of a slower paced two-semester version of Basic Mathematics II (2010:052). Introduces elementary algebra, linear equations, polynomials, graphing, slope.
057 BASKC MATHEMATICS II EXTENDED —PART B 4 load hours** Prerequisite: Successful completion of Part A (2010:056). Second half of a slower paced twosemester version of Basic Mathematics II (2010:052) covering factoring, rational expressions, radicals and quadratic equations.
060 COLLEGE READANG
4 load hours**
Prerequisite: Placement. Designed to strengthen the basic comprehension skills needed for academic work, including recognition of main points and key supporting ideas, inferencing, summanzing, and vocabulary development. Upon satisfactory completion of College Reading, the student should be prepared to enter College Reading and Study Skills (1020:062). Lab hours are required.

062 COLLEGE READING AND STUDY SKILLS
4 load hours**
Prerequisite: College Reading (1020:060) or placement. Continued practice of comprehension strategies with emphasis on tertbook reading, and implementation of effective study strategies such as notetaking, test-taking, and memory techniques. Upon successful completion of College Reading and Study Skills, the student should be prepared to apply reading and study strategies in college classes. Lab hours are required.
004 APPLIED STUDY STRATEGES
2 load hours** Corequisite: Selected General Education Courses taken concurrently. Designed to help students apply various study strategies to a specific course, such as psychology, sociology and others. Includes lecture and textbook analysis, memory techniques, and test-taking strategies. Lab hours are required.
071 DEVELOPMENTAL CHEMISTRY
4 load hours**
Prerequisite: Sasic Mathematics II (1020:052) or equivalent. A mathematics review applied to chemistry and intensive instruction in principles of general chemistry. Emphasis is placed on developing learning strategies and controlling anxieties.
299/300/301 SPECIAL TOPICS
1-4 load hours** Instruction in one or more of the following basic skills: writing, reading, mathematics, and study skills. A combination of these skills may be presented with an overali theme such as "writing, reeding and technology." See the current Schedule of Classes for course offerings.

## ASSOCIATE STUDIES ENGLISH

## 2020:

121 ENGLISH
4 credits
English composition focused on inventive writing, essay structure, process, consideration of strength, source of evidence, and citation; and development options leading to persuasion and argument.

222 TECHNLCAL REPORT WRITNG 3 credits
Prerequisite: 121, $3300: 111$ or equivalent. Prepares student to write the types of reports most often required of technicians, engineers, and scientists. Includes types of reports, memorande, and letters; techniques of research, documentation and oral presentations.

224 WRITING FOR ADVERTISING
4 credits
Prerequisite: $121,3300: 111$ or equivalent. Introduction to the copywriter's role in print, broadcast and Web advertising. Study of advertising language; practice in witting advertisements and producing collateral copywriting materials.
226 ELECTRONIC REFERENCE RESOURCES IN THE COMPUTER AGE 3 credits Prerequisites: 2020:121 or $3300: 111$. Designed for individuals to broaden their scope and understanding of various electronic research techniques. Study, evaluation, and use of current and emerging technologies will be examined.
227 WRITWG FOR THE WORLD WHDE WEB
3 credits
Prerequisites: 121 or equivalent, familiarity with Internet (or attend Computer Center training seminar) knowledge of word processing software. introductory course examines spoken and written contexts merging into one "writing space"; provides writing theory and practice for effective e-mail, newsgroup, chat, and Web site writing.
290 SPECIAL TOPICS: ASSOCIATE STUDIES $1-4$ credits
(May be repeated with a change in topic) Prerequisite: permission. Selected topics on subject areas of interest in associate studies.

## ASSOCIATE STUDIES MATHEMATICS

## 2030:

## 130 MATHEMATICS FOR ALUED HEALTH

3 credits
Prerequisites: placement test. The reai number system, systems of measurement, conversions, linear equations, factoring, quadratic equations, graphing, linear systems, organizing data, averages, standard deviation, the normal distribution.
151 TECHNICAL MATHEMATICS I
2 credits
Preeequisites: placement test. Fundamental concepts and operations, functions, graphs, factoring and aigebraic fractions, variation, and quadratic equations.
152 TECHNICAL MATHEMATICS II 2 crodits
Prerequisite: 151 with a grade of C - or better, or placement test. Variation, equations of lines, Cramer's rule, right triangle trigonometry, oblique triangles, complex numbers.
153 TECHNICAL MATHEMATICS ill 2 credits
Prerequisite: 152 or equivalent with a grade of C - or better, or placement test. Factoring, algebra ic fractions, exponents and radicals, equations with radicals, equations in quadratic form, exponential and logarithmic functions, radian measures, matrices.
154 TECHNICAL MATHEMATICS IV
3 crodits
Prerequisite: 153 or equivalent with a grade of C - or better, or placement test. Functions and their graphs, polynomial and rational functions, polynomial equations, graphs of trigonometric functions, trigonometric identities and equations, analytic geometry, complex numbers in polar form.
161 MATHEMATICS FOR MODERN TECHNOLOGY
4 crodits
Prerequisite: 151 or placement by adviser. Lines, linear regression, sets, counting, basic probsbility, basic statistics, binomial and normal distributions, mathematics of finance, symbolic logic, arguments, logic circuits
255 TECHNICAL CALCULUS I
3 credits
Prerequisite: 154 or equivalent with a grade of C - or better, or placement. The derivative, applications of the derivative, derivatives of the trigonometric, loganthmic, and exponential functions. integration by antidifferentiation.
$\mathbf{2 9 0}$ SPECLAL TOPICS: ASSOCIATE STUDIES MATHEMATICS
$1-4$ credits
(May be repeated with a change in topic) Prerequisite: permission. Selected topics on subject areas of interest in associate studies.
345 TECHNICAL DATA ANALYSIS
2 crodits
Prerequisite: 154 or equivalent with a grade of C - or better, or placement test. Data summarization including graphic presentation, numerical measures, introduction to probability, confidence intervals and hypothesis testing.

Prerequisite: $\mathbf{2 5 5}$ or equivalent with a grade of C - or better, or placement test. Methods and applications of integration, first and second order differential equations, series expansion, Laplace transforms, partial derivatives, and double integrals.

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## ASSOCIATE STUDIES SOCIAL SCIENCES

## 2040:

230 TECHNICAL CAREER SEARCH SKILLS
1 credit
Students will develop specific skills in resume writing, interviewing, self-directed job search, networking, researching employers, as well as learning the fundamentals of the job market.
240 HUMAN RELATIONS
3 credits
Examination of principles and methods which aid in understanding the individual's response to society and the relationship between society and individuals.
241 TECHNOLOGY AND HUMAN VALUES
2 credits
Examination of impact of scientific and technical change upon people, their values and institu-
tional arrangements. Topics include biomedical technology, automation, economic growth, nattional arrangements. Topics include biomedical tect

242 AMERICAN URBAN SOCIETY
3 credits
Multidisciplinary treatment of urban processes and probiems. Concerns historical, political, social, economic and other environmental forces which impact the individual in an uban setting.
243 CONTEMPORARY GLOBAL ISSUES
3 crodits
Multidisciplinary approach to global social problems. Examines cultural, political, and economic issues in developed and developing nations. Emphasizes technology's impact and global interrelationships
244/344 DEATH AND DYING
2 credits
Examination of a wide range of topics related to death and dying. Emphasis is placed on understanding and coping with death and dying.
247 SURVEY OF BASIC ECONOMICS
3 credits
introduction to economic analysis and issues designed for the student taking only one course in economics. Coverage includes economic systems, exchange, money and banking, national income, employment, fiscal policy and current domestic economic problems.
251 HUMAN BEHAVIOR AT WORK
3 credits
Examination of relationship between human behavior and the work organization. Emphasis on how contemporary organizations are changing and what makes individuals within their organizations more effective.
254 THE BLACK EXPERIENCE FROM 1619 TO 1877
2 credits
Prerequisite: 2020:121 or $3300: 112$. Examination of the black American including origins, historiCal achievements and striving to achieve first-class citizenship in America from 1619 to 1877.

256 DNERSITY IN AMERICAN SOCIETY
2 credits
Prerequisites: 121, or $3300: 112$ or equivalent. Survey course covering demographic, social, eco nomic, political, and educational realities of diversity in 21 st Century. Focus on diversity and unity, historical overview.

257 THE BLACK EXPERENCE 1877-1954 2 credits Prerequisites: 121 or $3300: 112$. Examines the experiences of Blacks following Reconstruction. Topics include Separate but Equal doctrine, segregation, integration, and achievements of Blacks in American sociaty.
258 THE BLACK EXPERIENCE 1954 - PRESENT
2 credits
Prerequisites: 2020:121, 3300:112. Examines the relationship of the civil rights movement, Black nationalism, integration, segregation, and desegregation as strategies to ameliorate discrimination and achieve equal opportunity.
290 SPECLAL TOPICS: ASSOCIATE STUDIES SOCIAL SCIENCES
$1-4$ credits
(May be repeated with a change in topic) Prerequisite: permission. Selected topics on subject areas of interest in the social sciences.

## INDIVIDUALIZED STUDY

## 2100:

190 INDIVIDUALLZED STUDY EVALUATION
1 credit
Prerequisite: admission to program. A continuing assessment of the student's progress and program. Enroliment required during first semester in the Individualized Study Program.

## EARLY CHILDHOOD DEVELOPMENT

## 2200:

110 FOUNDATIONS IN EARLY CHIDHOOD EDUCATION
3 crodits
Provides students with a comprehensive overview of model early childhood programs and piaces emphasis on interactions between home and school that impact children's development.
245 INFANT/TODDLER DAY-CARE PROGRAMS
3 credits Survey of infant/todidler development. Principles of infant/toddler caregiving. Design of environment and curriculum based on child's needs. Includes observation of children. ( 20 field hours required)
246 MULTCULTURAL ISSUES IN CHILD CARE
3 credits
The study of cultural differences in child care and preschool sertings to improve caregiving prac tices and enhance communication between caregivers and families.
247 DIVERSTIY IN EARLY CHILHOOD LITERACY
3 credits
Examination and analysis of children's books and materials on diversity reflecting differences and similarities of groups of people that make up our society.

250 OBSERVING AND RECORDING CHILDREN'S BEHAVIOR
3 credits
Prerequisite: 7400:265 or permission. Develops observing and recording skills using different
types of records to assess children's development and behavior. ( 10 field hours required)
290 SPECIAL TOPICS: EARLY CHIDHOOD DEVELOPMENT
$1-3$ credits Selected topics on subject areas of interest in early chilchocod development.
255 EARLY CHILDHOOD PRACTICUM
5 credits
Prerequisites: 245 and $5200: 360,370$ and $7400: 265,270,280$. Supervised practicum in an early childhood/preschool educational setting designed for Early Childhood Development students only.
297 INDEPENDENT STUDY
1.3 credits
(May be repeated for a total of six credits) Prerequisite: permission. Selected topics and special areas of study under supervision and evaluation of selected faculty member with whom specific arrangements hove been made.

## CRIMINAL JUSTICE TECHNOLOGY

## 2220:

100 NITODUCTION TO CRIMNAL UUSTCE
3 credits Overview of criminal justice system, its history, development and evolution within the United States including subsystems of police, courts, corrections. Constitutional limitations, current criminal justice practices human relations, professionalization, prevention.
101 NIRODUCTION TO SECURITY ADNM USTRATION TECHNOLOGY
3 credits Introctucas fundamentals such as equipment, technology, design theories, management practices, trends, concerns, and issues in security administration.
102 PFINCPIES OF CRIMINAL LAW
3 credits
Prerequisite: 2220:100. This course examines the central principles of criminal iaw, including its histo$r$, philoscphy, the elements of major crime and criminal defenses.
103 INTRODUCTION TO CORRECTIONS 3 credits Prerequisite: 100 . Introduction to history and goals of institutional and community corrections.
104 EVDENCE AND CPAMNAL LEGAL PROCESS
3 credits
Prerequisite: 2220:100. Study of evidence law, constintional perspectives and law enforcarnent officer's relationstip thereto. Court procedures from arrest to incarceration.
106 UVENMLE HUSTICE PROCESS
3 credits
Prerequisite: 2220:100. Examination of juvenile justice system, functions of its various components; adolescent subculture, legislation, causative factors, prevention and treatment methodologies and programs.
120 CRINE PREVENTION: THEORY, PRACTICE, AND MANAGEMENT 3 crodits Examines contemporary crime prevention and secunity strategies used in target hardening. Central theme is the use of community resources to prevent crime.

224 PROFING SERUAL KRLERS
3 credits
Prerequisite: 100 . Introduction to the theories, analyses, and methodology used in profiling serial killers. Actual serial profies and paradigms of crime scene anathses also examined.
225 THE POLCE EXPERTENCE 3 credits
Prerequisite: 100. Academic refresher course of basic police academy. Completion (C or better) and 2220:100 qualifies a commissioned police officer to test out of cartain courses (see adviser).
226 NIERVIEWS, NIERROGATIONS, AND HOSTAGE NEGOTIATIONS
3 crodits Prerequisite: 100. An overview of the legal, theoretica, and applied aspects of conducting interviews, interrogations, and hostage negotiations within the field of law enforcement.
230 COPRPORATE AND MDUSTRIAL FACMITY NTEGRIY 3 credits Prerequisites: 101, 120. Examines security and crime prevention strategies in the private sector. Particular focus related to how target hardening can protect life and property.
231 PHYSICAL SECURITY: SYSTEMS, DESIGN, AND CONIROL
3 credts Prerequisite: 101. Topics inctude controlling and monitoring the accoss of persons and vehiches, prevention and detection of unauthorized intrusions and surveillance, and safeguarding key assets.
232 LEGAL SSUES N SECURTY ADIMNSTRATION
3 creatis Prerequisite: 101. Survey of laws applicable to the security administration function including tort, labor, employment, unemployment, workers' compensation, contract, insurance, cyber, criminal and constitutional law.
233 SECURTY NVESTIGATONS: PRINCPIES AND PRACTICE
3 credits
Prerequisite: 101. Overview of investigative methods employed by the security manager. Students will examine legal and ethical duties and issues retated to investigation.
234 COMPUTER AND NFORMATION SECUPITY
3 credits
Prerequisite: 101. Examines practical applications of effective information security meesures and legal, ethical and privacy issues concerning the storage and use of information in society.
235 SCHOOL CRIME AND VOLENCE PREVENTION
3 credits
Prerequisites: 107, 120. Examines the neture and extent of crime and devience in American schools. Particular focus is on the use of a systems approach to prevent crime.
240 VCE AND ORGANZED CPINE
3 credits
Prerequisites: 100 and permission. An overview of organizations operating nationally and international ly in a variety of criminal activities with a parjicular emphasis on narcotics trafficking.
245 HONELAND SECURITY: PRINCPPLES AND PRACTICE
3 crediss
Prerequisite: 101. Overview of fundamental homeland security concepts and issues such as: intelligence, critical infrastructure protection, hazards, strategy, policy, risk, organizational design and leadership.

250 CRININAL CASE MANAGEMENT
6 credits
Prerequisites: 100, 2820:105 and permission. Reconstuction of chronological sequence of a crime including searching, collection, preserving and evaluation of physical and oral evidence. Scientific approach to criminal investigation.

255 INIRODUCTION TO FORENSIC NVESTGATION
3 credits
Prerequisit: 100 . This course is designed to introduce the student to the field of forensic science. The emphasis will be on skills and tectrniques of evidence evaluation.
280 CRITCAL MCIDENT INTERVENTIONS FOR CPRMNAL JUSTICE 3 credits Prerequisit: 100 . This course is designed to introduce the student to the stressors and emotions of dealing with people and workers imvolved in crisis situations.

262 VICTMOLOGY AND THE CREMINAL JSTICE SYSTEM 3 credits
Prerequisite: 100. An introcuction to the study of crime victims and their rode in the vidence in today's society.

270 COMMMNTY CORPECTIONS 3 cradits
Frerequisite: 100 . Examines the corrections component of the criminal justice system. Special focus on the developmert and use of probetion, parole and other alternative forms of sertencing.

275 LEGAL ASPECTS OF CORRECTIONS
3 credits
Examination of the influence of the legal system on corrections, espocially United States Supreme Court decisions.

260 CYBERCREME 3 credits
Exarnines crime and deviance in cyberspace. Particular focus is on the prevertion of computer intursion in the workplace.
290 SPECIAL TOPICS:CRMMNAL JUSTICE 14 credits
(May be repested for a total of six credits) Prerequisite: permission. Workshops and special programs in selected arees of criminel justice such as community relations, crime statistics, ethics, survival.
296 CURRENT TOPICS N CPIMMNAL JUSTCE
$1-3$ crodits
PTerequisite: 100. A variety of course topics on current subiects reiative to law enforcement and the Criminal Justice System. May be repeated for up to 12 credts.
297 RDEPENDENT STUDY: CRAMNAL JUSTICE 1.3 credits Prerequisite: 100 and permission. Selected topics and special areas of study in Criminal Justice Tectrology under the supenision of a selected faculty member with whom specific arrangements have been made.
238 APPLED ETHCS NCRMMNAL USTICE
3 credits
Prerequisite: 100 . This course deals with ethical considerations which confront justice practitioners and the legal ramifications of misconduct.

## FIRE PROTECTION <br> TECHNOLOGY

## 2230:

100 INTRODUCTION TO FNRE PROTECTION 4 credits History and philosophy of fire protection; introduction to agencies involved; discussion of current related problems, expanding future of fire protection and career orientation.
102 FRE SAFETY IN BUHLDING DESIGN AND CONSTRUCTION 3 credits Exploration of building construction and design with emphasis on fire protection concerns; review of related statutory and suggested guidelines local, state and national scope.
104 FRE INVESTIGATION METHODS
4 credits
History of fire investigation; gathering of evidence and development of technical reports; funda mentals of arson investigation; processing of criminal evidence and procedures related to loca and state statutes.
202 INCIDENT MANAGEMENT FOR EMERGENCY RESPONDERS
4 credits
Efficient and effective use of human resources, equipment and systems. Emphasis on preplarning, incident management, problem solving related to emergency preparation and response.
204 FRE AND LIE SAFETY EDUCATION 3 credits Application and analysis necessary for the implementation of the Life Safety Code Handbook.
205 FRE DETECTION AND SUPPRESSION SYSTEMS
3 crodits
Design, installation, maintenance and utilization of portable fire exinguishing appliances and pre engineered automatic systems; fire detection and alarm signaling systems operational capabiir ties, requirements.
206 FRRE SPRINHCLER SVSTEM DESKGN
3 credits
Prerequisite: 205. Design, installation and operation of automatic fire suppression systems. includes sprinkler, foam, carbon dioxide, dyy chemical, halogenated agent systems.

250 HAZARDOUS MATERIALS
4 credits
Prerequisite: 100 . Study of chemical charactenistics and reactions related to storage, transportation and handing of hazardous materials. Emphasis on emergency situations, fire fighting and control.

254 FIRE PREVENTION 3 credits
Prerequisite: 104. Fire codes and standards relative to fire prevention, inspection and code enforcement.

257 ARE AND SAFETY ISSUES FOR BUSINESS AND INDUSTRY
3 credits
Industrial fire and safety issues related to specialized hazards, federal and state regulations. Emphasis on emergency response team preparedness, confined space entry and rescue.
230 FFRE SERVICE ADMHINSTRATION
4 credits
Prerequisites: 100 . Fire officer professional qualifications; federal, state regulations governing department operations-OSHA, EPA; emergency and non-emergency operations procedures-CS, IMS, Emergency Operations Center are presented.
290 SPECIAL TOPICS: FREE PROTECTION TECHNOLOGY
7-2 credits
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in fire protection technology
292 CURRENT TOPICS IN FRRE PROTECTION
14 credits
A variety of course topics on current subjects related to fire protection. May be repeated for up to 12 credits.

294 ADVANCED RRE INVESTIGATION METHODS
3 credits
Prerequisites: 100, 104, 205, 206. Designed to meet student and in service fire investigators need to understand new/updated technology and methodology in managing five investigations.
293 TECHNMCAL FRE TRANMNG/FELD EXPERIENCE
4 credits
Prerequisites: 30 credit hours of successfuily completed course work in the Fire Protection Technology program which includes 100, 102, 104, 204, 205, and 280. Technical trainingffield experience analysis by student and instruction of technical raining; potentially leading to state 240 hour fire fighter certification.

## EMERGENCY MANAGEMENT

2235:
305 PRiNCIPLES OF EMERGENCY MANAGEMENT
3 credits
An overview of the history and philosophy, terms and concepts, and local, state and federal roles in Emergency Management. Emphasis is orı man-made, natural and technological hazards.

350 ENERGENCY RESPONSE PREPAREDNESS AND PLANNNNG
3 credits
Legal requirement, planning formats, and response procedures are presented. Special focus community risk assessment: hazard analysis, vulnerability assessment, and community response capability assessment.

380 DISASTER VICTIMS: CASUALTIES AND RECOVERIES
3 credits
Prerequisites: 305 and 350 . Analysis of citizen actions before, during and following major disasters including review of contemporary research and developing theory.

405 HAZARD PFEVENTION AND MITIGATION
3 credits Prerequisite: 350. Examines various mitigation programs and ways in which communities can increase their levels of prevention and decrease their risk and impact of disasters and major emergencies.
410 DISASTER RELEFE AND RECOVERY
3 credits This course provides the foundation for disaster relief and recovery planning, stages of recovery, resources used, formation of public/private and the process of prioritizing vanious business and govemment and citizen needs for recovery action and resource allocation.
450 EMERGENCY MANAGEMENT RESEARCH METHOOS AND APPLCATIONS 4 credits Prerequisites: 305 and 350 . Introduction to current research conducted in the field of emergency management and various methods appropriate for analyzing current topics in the field.
490 CURRENT TOPICS IN EMERGENCY MANAGEMENT
$1-4$ cradits
Prerequisites: 305 and 350. A variety of course topics on current subjects related to emergency management and disaster preparedness. May be repeated for up to 12 credits.
495 NTERNSHP: EMERGENCY MANAGEMENT
4 credits
Prerequisite: 30 hours in program and permission from program director. Supenvised work expe rience in emergency management to increase student understanding of emergency management and disaster response.

## COMMUNITY SERVICES <br> TECHNOLOGY

## 2260:

100 INTRODUCTION TO COMMUNITY SERVICES
3 credits
introductory course to familiarize student with role of community services technician in service delivery. Use, history and rationale for paraprotessionals, programs, volunteer experiences, selfawareness, and interaction in community services.
121 SOCIAL SERVICE TECHNIOUES I
3 credits
Prerequisite: 171. Preparation to provide helping interventions as Social Work Assistants. Focuses on helping relationships, helping and probiem-solving processes, social work values, attending skilis and interview techniques.
122 SOCIAL SERVICE TECHNIOUES H
3 credits
Corequisite: 121. Focus on enhancing selfawareness. Provides basic knowledge about social group work and opportunities for students to practice beginning group work techniques by $\infty$ facilitating group discussions and experiential activities.
150 INIRODUCTION TO GERONTOLOGICAL SERVICES
3 crodits
Basic orientation to gerontology and role of community senvice technician in service delivery to aged. Topics include social, biological, economical, and psychotogical aspects of aging; national and state legislation; services and service provider.

171 CAREER ISSUES IN SOCTAL SERVICES I
1 credit
Corequisite: $7750: 276$. Orients students to human service education and introduces them to the knowledge, skills and attitudes essential for future educational and career success.

172 CAREER ISSUES HN SOCLAL SERYICES :
1 credit
Prerequisite: 171. Explores strategies to promote optimal effectiveness as a helper. Topics include time and stress management, burnout, self-care, professional development, ethical dilemmas, record-keeping and termination.

210 ADDICIION EDUCATION AND PREVENTION 3 credits Provides in-depth understanding of prevention and education programming, with an emphasis on evidenced-based projects. Logic models are used to design programs.
223 SOCIAL SERVICES TECHNBCUES III 3 credits Prerequisite: 122. Corequisites: 172 or 173. Provides knowledge base for working with individuals in crisis. Students apply crisis theory to developmental and situational crises and practice crisis intervention techniques.

230 COMMUNTY-BASED RESIDENTLAL SERVICES
Orientation to community-based residential services and role of community services technician
in delivery of services to mentally disabled. includes historical, social and legal forces in commu-nity-based services and practical aspects of operation of a residential facility.

240 DRUG USE AND ABUSE
3 credits
Introduction to pharmacology of drugs of misuse; physiological factors of alcohol/drug-using behavior: effect of psychoactive drugs on the brain; intervention and treatment measures.

255 EFFECTIVE WOFIKPLACE RELATIONSHIPS
3 credits
This course focuses on seff-evaluation and development of skills for successful interaction with clients/inmates, peers, supervisors, and colleagues in other public service systems.

260 INTRODUCTION TO ADDICTION
3 credits
An overview of the continuum of use abuse and dependency; theories of addiction; the impact of addiction on society; and the implications for professional practice.

261 ADDICTION TREATMENT 4 credits Prerequisite: 2260:260. Survey of treatment approaches used in treatment of persons with addictions. Special emphasis on MET, Solution-Focused Therapy, Twelve-Step Facilitation and Cognitive-Behavioral approaches. Critical ethicallegal issues will be covered.
262 BASIC HELPING SKILSS 4 credits Teaches micro skills through the use of didactic presentation, role play and videotaping; devel ops ability to give and receive feedback about effectiveness of helping others.
263 GROUP PRINCIPLES IN ADDICTIONS
3 cradits
Prerequisite: 260. Introduces group concepts and dynamics, explores issues in addiction that influence group treatment a nd provides experiential opportunity for students to understand roles in a group.
264 ADDICTION AND THE FAMILY
3 credits
Reviews theories and counseling techniques used in the assessment and treatment of the family system. Impact of addiction on child development, parenting, the marital relationship, and other significant relationships will be explored.
265 WOMEN AND ADDICTION 3 credits
Exploration of the social, psychological, physical and family aspects of addiction in women.
266 SOCLAL SERVICE TECHNIQUES WITH CHILDREN AND FAMILIES
3 credits
Prerequisite: 122. Preparation for working with children individually and in their families. Content includes child development in relation to environmental factors, social policy concems and helping interventions.
267 ADDICTION ASSESSMENT AND TREATMENT PLANNING 3 credits
Prerequisite: 260. Overview of screening, diagnosis and assessment procedures in the addiction field, including review of the most commonly used testing instruments. Implication for treatment planning is explored.

268 CO-OCCURRING DISORDERS 3 credits Key concepts and evidence-based practices in the provision of services to people suffering from substance abuse as well as mental illness and behavioral disorders.
269 CRIMINAL JUSTICE AND ADDICTION 3 credits An introduction to the problems that exist with the treatment of the alcohol/drug offenders and issues relating to their transition back to the community.
270 RELAPSE PREVENTION 3 credits A study of the concepts, evidence-based prectices and strategies for relapse prevention with addictive behaviors.
271 BEHAVIORAL ADDHCTIONS
3 credits Introduction to understanding human behaviors and physiological responses to compulsive behaviors other than dependencies on psychoactive chemicals. Several behavior addictions will be explored.
273 CAREER LSSUES IN SOCIAL SERVICES III
1 credit Prerequisite: 171. Prepares students for fieldwork and future employment. Topics include resume development, job interviews and search strategies, working in organizations, supervision, safety, professionalism and licensure requirements.
275 THERAPEUTIC ACTIVITES 3 credits
Prerequisite: 150. Preparation for planning, adapting and implementing individual and group therapeutic activities to meet diverse psychological needs. Emphasizes program planning, motiva tional techniques and group work skills.
278 PRACTICUM IN THERAPEUTIC ACTIVITES
1 credit
Prerequisite: 150. Corequisite: 275. Supervised 90-hour experience in long-term care facility observing, planning and providing therapeutic activities. Students practice program planning, documentation and group work skills.

277 CASE MANAGEMENT N COMMUNTY SERVICES 3 credits Case by case study of Social Service delivery in six primary areas of Human Services. Emphasis on case management skills, documentation and ethics.
278 TECHNIQUES OF COMMUNTY WORK
4 credits
Prerequisite: 2020:121. For those intending to work in community organizations in the United States and for others desiring an understanding of technical community service roles. Covers such topics as ethics, liability issues, communication and problem solving skills, values clarification, stress management systems theory, and assertive behavior.
279 TECHNICAL EXPERIENCE IN COMMUNITY AND SOCIAL SERYICES
5 credits Prerequisite: 278 and permission. Individual placement in selected community and social service agencies for educationally supervised experience in community end social services technician position. Does not substitute for 7750:421 or 495.
285 SOCLAL SERVICES PRACTICUM
1-2 credits
Prerequisites: 293 or permission. Corequisite: 294. Supervised fieldwork in a human service organization with a bi-weekly seminar. Students apply classroom learning to helping situations, test career interests, and gain practical. on-the job experience. May be repeated for up to 4 credits.

286 ADDICTION SERVICES INTERNSHE 2 credits Prerequisites: permission of instructor. Integrates counselor assistant experience with fundamental concepts and skills from academic studies. Students required to complete 200 hours of supervised field experience.
287 PRACTICUM IN THERAPEUTIC ACTNTIES AND LONG-TERM CARE 1-4 credits Prerequisites: 122, 275 and 293. Corequisite: 294. Supervised fieldwork in a long-term care facility that includes direct experience with one-on-one and group therapeutic activties, assessment, documentation, interdisciplinary care planning, and social services.
286 TECHNRUES OF COMMUNITY WORK II
4 credits
289 PRACTICUM IN GERONTOLOGICAL SOCIAL SERVICES
1 credit
Prerequisites: 122, 150 and 293. Corequisite: 294. Supervised field placement in a communitybased or institutional setting that focuses primarily on providing social services to ofder adults and their families.

290 SPECIAL TOPYCS: COMMUNTY SERVICES TECHNOLOGY
1.3 credits Selected topics or subject areas of interest in community services technology.
293 FIELDWORK ORIENTATION
1 credit
Prerequisite: 172. Corequisite: 122 and 273. Students complete a self-assessment and application process for their first practicum and practice job search strategies and workplace competencies to prepare for and arrange it.
294 FIELDWOAK EVALUATION
1-2 credits
Prerequisites: 273 and 293. Corequisites: 285 or 287 or 289 . Students complete assessments to demonstrate program competencies and evaluate their first practicum to assist in determining appropriate learning experiences for their second practicum.

297 NDEPENDENT STUDY
1-3 credits
Prerequisite: permission. Selected topics and special areas of study under the supervision and evaluation of a selected faculty member with whom specific arrangements have been made.

## HOSPITALITY MANAGEMENT

## 2280:

101 INTRODUCTION TO HOSPITALTY 3 credits
Explores the various segments of the hospitality industry and introduces the knowledge and skills required for success.

120 SAFETY AND SANTTATION 2 credits
Introduction to food service sanitation, safety practices pertinent to hospitality manager. Emphasis on sanitation laws, rules, food microbiology, safe food handling, storage practices, accident prevention.
121 FUNDAMENTALS OF FOOD PREPARATION I
4 credits Skills and basic knowledge of food preparation procedures in a laboratory situation.
122 FUNDAMENTALS OF FOOD PREPARATION II
4 credits
Prerequisites: 101, 120 and 121. Continuation of 121. Food preparation techniques presented in laboratory situations for public consumption in a restaurant setting.
160 WINE AND BEVERAGE SERVICE
3 credits
Intensive examination of wine as related to hospitality industry. Emphasis on business practices. History and development of viticulture, enology.
230 ADVANCED FOOD PREPARATION
4 credits
Prerequisites: 101 and 122. Lecture and demonstration followed by hands-on experience in the preparation of classical American dishes as well as cuisines and techniques from around the world.
232 DINING ROOM SERVICE AND TRAINING 3 credits In-depth study of the styles of dining service, development of job descriptions, importance of courtesy, customer relations. Application of service techniques in restaurant environment.
233 RESTAURANT OPERATIONS AND MANAGEMENT
4 credits
Prerequisite: 122, 232 and 245 for restaurant management option. Additional prerequisite: 261 for culinary arts majors. Introduction to large quantity food service procedures with emphasis on sound principles of food handling service and sanitation in large quantity operations. Gourmet meals served in simulated restaurent atmosphere.
237 INTERNSHP
2 credits
Prerequisite: permission. On/off campus observation/work experience integrated with academic instruction. Concepts applied to practical situations. May be repeated for a total of two credits.
240 SUPERVISION IN THE HOSPITALITY INDUSTRY
Prerequisite: 101 Identifies vanous components of the hotel and food service operedits the role of managing human resources efficiently and effectively.
243 FOOD EOUIPMENT AND PLANT OPERATIONS 3 credits
Prerequisite: 120. Available food service equipment, its selection, use and care. Field trips taken to wholesale outtets and food service establishments to see food service equipment demonstrated and in operation.
245 MENU, PURCHASING AND COST CONTROL
4 credits
Prerequisites: 101 and 2030:161. Menu design and merchandising integrated with purchasing principles, specifications and receiving, as well as financial controls and procedures within the hospitality environment.
250 FRONT OFFICE OPERATIONS
3 credits
Prerequisites: 121, 2030:161, 2420:211 and 2540:270. This course introduces the student to the
functioning of the Front Office of a Hotel and expands student's knowledge of Hotel Operations.
256 HOSPTALUTY LAW
3 credits
Prerequisite: 101. Introduction to hotel, restaurant, travel law. Fundamental constitutional, statutory, administrative rules, regulations applicable to hospitality industry. Case study, problem-solving approaches applied to legal problems confronting hospitality executives.

261 BAKING AND CLASSICAL DESSERTS
4 credits
Prerequisite: 122. Techniques and production of quick breads, yeast products, cakes, cookies, specialty desserts and pies. Emphasis on equipment, formulas, ingredient selection and product quality evaluation.
268 REVENUE CENTERS
3 credits
Prerequisite: 101. An in-depth examination of the sales producing divisions of the hotel organization. The rooms, banquet, food and beverage, and special departments as weil as their interconnections are studied.
278 HOSPTTALTY INDUSTRY MARKETING
3 credits
Prerequisite: 101. Introduces various concepts of marketing, their applications to the hospitality industry, and the key elements of a marketing plan.
280 SPECLAL EVENTS MANAGEMENT
3 credits
Prerequisites: 101, 232, 278. Defines scope and segmentation of convention and group business markets and develops related marketing strategies.
290 SPECLAL TOPICS: HOSPITALTTY MANAGEMENT
1-3 credits
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in food service management.

## PARALEGAL STUDIES

## 2290:

101 INTRODUCTION TO LEGAL ASSISTING 3 credits
Covers the basics of legal assisting emphasizing the fundamental concepts of the legal system. Includes overview of legal assistant career and ethical considerations relative thereto.
104 BASIC LEGAL RESEARCH AND WRTING 3 credits Prerequisite: 101. Will provide the student with basic research abilities necessary in law offices. Includes the use of law library tools (reporter systems, legal encyclopedias, codes, and computer).
106 BUSINESS ASSOCIATIONS
3 credits
Prerequisite: 101. Instructs students in different types of business entities, from sole proprietorships to corporations. Preparation of forms and necessary govemmental filings will be stressed.
108 REAL ESTATE TRANSACTIONS
3 credits
Prerequisite: 101. Acquaints students with basic real property law, including different types of deeds, ownerships, easements, and mortgages. Problems arising from sales agreements will be covered.
110 TORT LAW
3 credits
Prerequisite: 101. Covers the traditional civil wrongs, from the plaintiff's and defendant's standpoints. Actual cases will be briefed and discussed. Stresses importance of preparation prior to trial.
112 faMily Law
3 credits
Prerequisite: 101. Covers antenuptial agreements, mariage, divorce, dissolutions, annulments, adoptions, juvenile law, artificial insemination, and paternity.
118 PROBATE ADMHNUSTRATION
4 credits
Prerequisite: 101. Covers law necessary to draft and interpret wills, trusts. Includes administration of a typical estate within Probate Court. Touches on guardianship, commitment of mentally ill.
204 ADVANCED LEGAL RESEARCH
3 credits
Prerequisite: 101; 104. Continuation of 104 . Will especially stress importance of clear, concise legal writing. Students will write briefs, motions, and legal correspondence as part of their endeavor.

214 CVIL PROCEDURE
3 credits
Prerequisite: 101. Covers aspects of legal assisting in different types of civil litigation. Includes Ohio Rules of Civil Procedure, preparation of complaints, answers, motions, basic trial preparation.
216 DEBTOR-CREDTOR RELATIONS
3 credits
Prerequisite: 101. Covers bankruptcy primarily, as well as collection methods and state law remedies.
218 ADVANCED PROBATE ADMINHSTRATION
3 credits
Prerequisites: 101; 118. Covers guardianships, mariage licenses, living wills and advanced directives, adoptions, name changes, and the probate and tax issues of intestate and testate estates.
220 LEGAL ASSISTING INTERNSHIP
4 credits
Prerequisites: 101; 104. Must have completed first-year courses. Gives students experience in law-elated environment. Students work at placement and meet with course instructor.
290 SPECLAL TOPICS: LEGAL ASSISTING TECHNOLOGY
3-5 credits
(May be repeated for a maximum of six credits) Prerequisites: 101, 104 or permission. Selected topics on subject areas of interest in Legal Assisting Technology.
297 INDEPENDENT STUDY: LEGAL ASSISTING
3-5 credits
(May be repeated for a maximum of six credits) Prerequisite: 101. Selected topics and special areas of study in Legal Assisting Technology.

## BUSINESS MANAGEMENT <br> TECHNOLOGY <br> 2420:

103 ESSENTLALS OF MANAGEMENT TECHNOLOGY
3 credits
Survey of management principles for business and other organizations. Emphasizes the basic management functions including planning, organizing, staffing, influencing, and control.

104 INTRODUCTION TO BUSINESS IN THE GLOBAL ENYMONMENT 3 credits
Survey of business emphasizing the global nature of business and including entrepreneurship concepts, form, marketing, management, hurnan resources, financial resources and production.

## 110 PRINCIPLES OF TRANSPORTATION

3 credits
Analysis of role of transportation in nation's economic development. Survey of historical development and economic aspects of rail, highway, water, air, and pipeline.

111 PUBLC RELATIONS 2 credits
Study of philosophy, techniques and ethics of the management function known as public relations. Defines veriety of publics and methods of communication.

117 SMALL BUSINESS DEVELOPMENT
3 credts
Prerequisite: 211 or permission. Introduction to small business and entrepreneurship: opportunities and qualifications for establishing, financing, operating and developing managerial policies and procedures for small business

118 FINANCIAL MANAGEMENT AND PLANNING FOR SMALI BUSINESS 4 credits Prerequisite: 212 and 117. Study of finance as applied to small business, including planning, bucgeting, financing, financial accounting, and the use of financial software for small business.
125 ESSENTIALS OF PERSONAL FINANCE
3 credits
Consumer decision making including credit and budgets, time value of money, major purchases, insurance, investments, tax planning, retirement and estate planning.
170 APPLED MATHEMATCS FOR BUSINESS 3 credits Mathematics of business induding retail pricing, simple and compound interest, discounts, mortgages, payroll, amuities, depreciation, irventory, insurance, taxes, stock and bonds, and basic statistics.
202 ELEMENTS OF HUMAN RESOURCE MANAGEMENT
3 credits
Prerequisite: 103 or permission. Provides students with an overview of humen resource manege ment functions. Includes planning, EEO/AA selection, development, legal environment, compersation, labor relations, appraisal systerns and career planning.
211 BASIC ACCOUNTING I
3 credits
Accounting for sole proprietorships operating as service and merchandising concerns. Introduction to financial statements. Includes handling of cash, accounts receivable, inventories, plant/equipment, and payroll.

212 BASIC ACCOUNTING II 3 credits
Prerequisite: 211. Accounting as it applies to partnerships and corporations. includes stocks, bonds, cash flows, financial statement analysis, and speciaized accounting software.

213 ESSENTIALS OF MANAGEMENT ACCOUNTING
3 credits
Prerequisite: 211. Study of the interpretation and use of accourting date by management in decision making and the planning and controlling of business activities.
214 ESSENTIALS OF INTERMEDUATE ACCOUNTING 3 credits Prerequisite: 212. Study of development of financial accounting theory and its application to problems of financial statement generation, account valuation, analysis of working capital, and determination of net income.
215 COMPUTER APPLICATIONS FOR ACCOUNTNG CYCLES 3 credits
Prerequisites: 212, 213, 2540:270. Develops the skills of computer accounting as used in today's marketplace through hands on experience with general ledger accounting software.
216 SURVEY OF COST ACCOUNTING
3 credits
Prerequisite: 213. Provides student with conceptual understanding of how accounting information
is developed and used for product costing, decision making and managerial planning and control.
217 SURVEY OF TAXATION 4 credits
Survey course of basic tax concepts, research, planning, and preperation of returns for individuals, partnerships and corporations. Federal, state and locel taxes are discussed.
219 BUSINESS ACCOUNTNG PROAECTS 3 credits
Prerequisites: 212, 213, 216, 2540:270. Capstone course for accounting: involves advanced problem and critical thinking on topics in financial, managerial, cost and tax accounting.
220 APPLED ACCOUNTNG
3 credits
Prerequisites: 212, 213, 2540:270. An applied onentation focusing on all accounting finctions through adjusted trial balance and basic payroll skills. Emphasis on skills required for the Certified Bookkeeping designation.
227 ENTREPRENEURSHHP PROUECTS 3 credits
Prerequisite: 103, 104, 117, 212, 243 and 2540:270. Requires the student to research, design, and complete a comprehersive business plan which will become the blueprint for a new or existing business.

## 243 SURVEY IN RNANCE

3 credits
Prerequisites: 170 and 211. Survey of field including instruments, procedures, practices and institutions. Emphasis on basic principles.
245 BUSINESS MANAGEMENT ACCOUNTNG NTERNSH H
3 credits
Prerequisites: 212 and 213 or 215 and 216. An accounting fietd experience exposing the student to the actual accounting environment and generai workplace.
246 BUSINESS MANAGEMENT INTERNSHP 3 credits
Prerequisites: 32 credits completed, including 103, 104, 212, 280, 2040:240, 6300:201. A manage ment field experience exposing the student to the actual management environment and general workplace.
250 PROBLEMS $\operatorname{NN}$ BUSINESS MANAGEMENT
3 credits
Prerequisites: 103, 104, 212, 243, 2520:101 and 2540:270. Capstone course studies the dever opment of solutions and the formulation of policies to solve business problems, emphasizes case studies, group proiects, oral and written presentations.
280 ESSENTLALS OF BUSINESS LAW 3 credits
History of the law and the judicial system, torts and criminal law affecting business, contracts with emphasis on sales under the UCC, and commercial paper.
290 SPECLAL TOPICS: BUSINESS MANAGEMENT TECHNOLOGY 1.3 credits (May be repested for a total of four credits) Prerequisite: permission. Selected topics or subiect areas of interest in business management technology.

## REAL ESTATE

## 2430:

105 REAL ESTATE PRINCAPLES
3 credits
Introduction to real estate as a profession, process, product and measurement of its productivity The student is responsible for reading and discussions relative to real estate and the American system.
185 REAL ESTATE LAW
3 credits
Prerequisite: 105. Contents of contemporary real estate law. The student is responsible for readings covering units on estates, property rights, license laws, contracts, deeds, mortgages, civil rights, and zoning.

245 REAL ESTATE FINANCE
2 credits
Prerequisites: 105, 185. Study of contents of contemporary real estate finance. Units on reading and discussion include mortgage instruments, financial institutions, mortgage market, govem mental influence on finance, and risk analysis and mortgage lending.

255 VALUATION OF RESIDENTIAL PROPERTY
2 credits
Prerequisites: 105, 185. Methods used to estimate value in residential property including cost of reproduction, market data and income approach. Student prepares an appraisal on a residential property.

265 REAL ESTATE BROKERAGE
2 credits
Prerequisites: 105, 185 or permission. Application of management functions of planning, orga nizing, directing, controlling and staffing to real estate brokerage office. Student activities include reading, discussion and research.

275 SPECIAL PROJECT IN REAL ESTATE
2 credits
Prerequisites: 105, 185, 245, 255, and 265. Student demonstrates knowledge of real estate by preparing a written report covering brokerage process as it relates to a parcel of property.

COMPUTER INFORMATION
SYSTEMS

## 2440:

101 FUNDAMENTAL COMPUTER CONCEPTS
1 credit
Bridge course designed to provide a general introduction to and general overview of fundamental computer concepts that will be necessary for subsequent computer-oriented courses.

102 INTRODUCTION TO WNDOWS
1 credit
Bridge course includes instruction in Microsoft Windows operating system, as well as subdirectories, data transfer, and file management.

103 SOFTWARE FUNDAMENTALS 2 credits
Bridge course is an introduction to various microcomputer software packages. Hands-on work pro vides the skills and knowledge to create word processing documents, spreadsheets and databases.

105 INTRODUCTION TO COMPUTERS AND APPLLCATION SOFTWARE
3 credits
Overview of basic computer concepts, electronic mail and Intemet technologies. Introductorytevel instruction and handson experience in word processing, spreadsheet, database and presentation software.

121 WNTRODUCTION OF LOGIC/PROGRAMMING
3 credits
Prerequisite: 105 or pass placement test. An introduction to business problem solving using com-puter-based solutions. Topics include structured design, documentation and modularity. Includes a component of handson programming.
1\% SPREADSHEET SOFTWARE
2 credits
Prerequisite: 105 or pass placement test. Emphasizes mastery of spreadsheet applications using Excel.
140 INTERNET TOOLS
3 credits
Prerequisite: bridge course or placement exam. Students will learn to create Web pages using
HTML and enhance their documents by including hyperlinks, tables, forms, frames and irrages in their HTML code.
141 WEB STE ADMINSTRATION
3 crodits
Prerequisite: 105 or pass placement test. Provides step-by-step Web site administration guides such as selecting software and hardware, dealing with ISPs, domain name registration, structuring and updating content, analyzing security and legal issues, and implementing marketing strategies.

145 OPERATING SYSTEMS
3 credits
Prerequisite: 105 or pass placement exam (CISBR). This course explores the vital functions that an operating system performs. A multi-user operating system is studied from a functional and handson approach.

160 JAVA PROGRANAMHNG 3 credits
Prerequisite: 121. Course introduces the JAVA programming language. Programming techniques are demonstrated through the coding, testing and debugging of JAVA applications and applets.
170 VISUAL BASIC
3 credits
Prerequisites: 121. Course includes hands-on experience with Visual BASIC, design of Graphical User Interface (GUI) applications, event-driven programming, linking of windows, and accessing relational databases.
175 MICROCOMPUTER APPLICATION SUPPORT
3 credits
Prerequisite: 105 or pass placement test. This course is an continuation of Software Fundamentals. in-depth use of word processing and spreadsheet software packages.
180 DATABASE CONCEPTS
3 credis
Prerequisites: 121 and 145. Overview of models and functions of Database Management Systerms. Data definition and data manipulation in the relational model using SOL. Introduction to database design.
201 NETWORTKNG BASECS
3 credits
Prerequisites: Bnidge course or placement test. The introductory course in networking. It includes study of the common network protocols and structures, including the OSI reference model and the TCP/P protocol.

202 ROUTER AND ROUTING BASICS
3 crodits
Prerequisite: 201. The second course in networking. It covers basic router configuration as well as routed and routing protocols.

203 SWICHING BASICS AND WIERMEDATE ROUTMNG 3 crodts
Prerequisite: 202. The third of four courses leading to the CCNA certification. This course covers switching basics and additional routing protocols not covered in the previous course.

3credits
PTerequisite: 203. The fourth of four courses leading to the CCNA certification. Topics covered include advanced IP protocols and Wide Area Network theory and design.
210 CLENT/SERVER PPOCRANMENG 3 credits
Prerequisite: 180. Introduces student to client/server programming. Includes handson experience using a Rapid Application Development (RAD) tool to show integration of database and program development.
211 NTERACTIVE WEB PROGRAVINING
3 credits
Prerequisite: 121 and 140. Provides students with instruction on interactive Web programming using HTML, Common Gateway Interface (CGI) using Perl and JavaScript. Programming languages may change based on current industry practice.
212 MULTMEDA AND NIERACTIVE WEB ELEMENTS
3 credits
Prerequisite: 140. Reviews and demonstrates Web tools and techniques like RealAudio, Shockwave, QuickTime, video conferencing and other dymamic graphical elements to enhance Web-based communication. Multimedia softwere may change to refiect current technology.
234 BUSMESS PFOGRANMENG
3 credits
Prerequisite: 180 . Course emphasizes programming and documentation skills to solve business problems, Topics include business application programming, fie handling, and advanced data manipulation.

240 COMPUTER NFOPMATION SYSTEMS NTERNSHIP 3 credits
Prerequisites: 202. 247 OR 2600:242. Gives student experience in networking or computer maintenance in the workplace. Student with instuctor to discuss and examine experiences.

241 SYSTEMS ANALYSIS AND DESIGN
3 credits
Prerequisite: 170 and 180 . Covers all phases of business systerns analysis, design, development, and implementation. Such principles as system flowcharting and file and docurnert design emphasized.

245 INTRODUCTION TO DATABASES FOR MICROS
3 credits
Prerequisite: 105 or pass placement test. Explains fundamental data base concepts and provides hands-on experience using database software.

247 HARDWARE SUPPORT 3 credits
Prerequisites: Admission to program or permission of program director. This course introduces the student to the basic skills required to troubleshoot, maintain and repair computers.
248 SERVER HARDWARE SUPPORT 3 credits
Prerequisite: 247. This course introduces the student to server heroware and expands student knowedge of client hardware.
21 CSS PROVECTS
3 credits
Prerequisites: 241. Using a simulated work environment, project tearms are set up and required to analyze an unstructured problem, prepare altemative designs and implement a solution.
258 C++ PROGRAMMNG 3 credits
Prerequisite: 121. This course explores abject-oniented programming through $\mathrm{C}^{++}$program development.
267 MICRO DATABASE APPLICATIOAS 3 crodits
Prerequisite: 170 and 180 . Students receive hands-on experience using a database applications pack age. Topics include database creation, organization, updates, queries and generation of reports.
268 NETWORIK CONCEPTS
3 credits
Prerequisite: 105 or pass placement exam (CISBR). This course introduces network concepts and the terminology of network computing. Data communications, network components, the OSi reference model and communication protocols are explored.
290 SPECLAL TOPMCS: COMPUTER NFORMATION SYSTENS
13 crodits Prerequisite: permission. Selected topics or subject areas of interest in computer information systems.
301 ADVANCED ROUTING
4 crodits
Prerequisites: must have a current CCNA certification and be able to program a router to the CCNA standards (requires permission) or must have successfully completed all four Cisco Networking Acaderry CCNA courses from an accredited academy (201, 202, 203, 204). This course focuses on advanced routing protocols and features and complies with the content of the Cisco Academy Cisco Certified Network Profession ICCNPI Advanced Routing course.

302 REMOTE ACCESS
4 crodits
Prerequisites: must have a current CCNA certification and be able to program a router to the CCNA standards (requires permission) or must have successfully completed all four Cisco Networking Academy CCNA courses from an accredited acedemy (201, 202, 203, 204). This course focuses on remote access protocols, features, and configuration and complies with the content of the Cisco Acaderny Cisco Certified Network Profession (CCNP) Remote Access course.
310 WRELESS NETWORING 3 credits Prerequisite: 202. This course provides students with various wireless networking technologies.
358 SYSTEM ADMMNSTRATIONI
3 credits
Prerequisite: 145 . This course provides students with the necessary knowledge and skills to perform basic system administration tasks on a network operating systern.
388 SYSTEM ADNENSTRATION I
3 crodits
Prerequisite: 338 . This course provides students with the necossary knowledge and skills to perform advanced system administration tasks on a network operating system.
401 MULTILAYER SWITCHNG
4 credits
Prerequisites: must have a current CCNA certification and be able to program a router to the CCNA standards (requires permission) or must have successfully completed all four Cisco Networking Academy CCNA courses from an accredited academy (201, 202, 203, 204). This course focuses on switching protocols and features. This course complies with the content of the Cisco Acadermy Cisco Certified Network Profession (CCNP) Switching course.

402 NETWORK TROUBLESHOOTNG
4 credits
Prerequisites: 301, 302, 401. This course focuses on troubleshooting complex networks and comt plies with the content of the Cisco Academy Cisco Certified Network Profession (CCNP) Troubleshooting course.

## 470 NETWOPK AUTHENTCATION AND SECURTTY

3 credits
Prerequisite: 204. This course focuses on network security issues ralated to conducting business over the Internet, including authentication, authorization, and firewalls. Security issues have evolved from server-centric security to networktevel security. This course will allow students to discover the extent of the concerns and current solutions.
40 VOICE, DATA, AND VIDEO
3 credits
Prerequisite: 204. This course focuses on network issues related to the integration of voice, deta, and video over the same network mecia and equipment.
430 NETWORIK MONTORING AND MANAGENENT
3 credits
Prerequisite: 204. This course provides students the basic theory and practical application of network monitoring and management skills.
400 CURRENT TOPICS N COMPUTER RFORMATION SYSTEMS
3 credits
Prerequisite: permission. Seminar in topics of current interest in information technology or special incfvidual topics in intormation technology.

## MARKETING AND SALES TECHNOLOGY

## 2520:

101 ESSENTLALS OF MARKETING TECHNOLOGY
3 credits
Survey of marketing including its environment, buyer behavior, target market selection, product decision, distribution decisions, promotion decisions, pricing decisions and marketing management.

## 202 RETALLNG FUNDAMENTALS

3 credits
Presents basic principles and practices of retailing operations, including site selection, buying, pricing and promotion practices. Use is made of extensive projects and investigations and actual retail operations.

203 PRINCIPLES OF ADVERTISING
3 credits Prerequisite: 101 or 6600:300. Focuses on the principles and functions of advertising, creation and evaluation of advertisements, research of target market, message selection strategy and medie placement options.
204 SERVICES MARKETING
3 credits
Prerequisites: 203 and 212. Corequisites: 202. Focuses on quality customer service and its role in marketing. Evaluation of customers' needs and expectations, interpretation of customer data and creation of service strategies.
206 RETAL PROMOTION AND ADVERTISING
3 credits
Prerequisite: 202 or permission. Studio course in retail display and promotion techniques. Window, interior and point of purchase categories; principles of design as applied to commercial art: function in visual design, elements of design, color theory, lettering, printing process, layout to cameraready art.

211 MATHEMATICS OF RETAL DHSTRIBUTION
3 credits
Prerequisite: 2420:170. Basic course dealing with merchandising mathematics. Includes understanding markup types, retail method of inventory (sales and stock planning), and open-to-buy computations.

212 PRINCIPLES OF SALES
3 credits
Prerequisite: 101 or permission. Study of basic principles of salling, emphasizing individual demonstrations and sales projects. Includes review of sales function as integral part of marketing process.
221 ADVERTISING CAMPAIGN
3 credits
Prerequisite: 203. Student will prepare an advertising campaign for a product assigneo by the AAF. The campaign may be entered in the AAF national contest.
240 MARIKTING INTERNSHIP
3 credits
Prerequisite: 101, 203, 202 and 212. On-the-job work experience in a marketing environment in which students apply learned skills and concepts to practical business situations. Periodic reports and projects required as appropriate.
254 SALES MANAGEMENT TECHNOLOGY
3 credits
Prerequisite: 212 and 2030:151. Process relating to the formulation, implementation and control of a strategic sates program. Students will learn how to select, evaluate and motivate a sales force.

290 SPECAAL TOPMCS: MARKETING AND SALES
$1-3$ credits
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in sales and merchandising.

## MEDICAL CARE OFFICE MANAGEMENT

## 2530:

240 MEDICAL CODANG - DIAGNOSTIC
3 credits
Corequisite: 2740:120. Designed to instill the fundamental knowledge and practice needed to understand ICD-CM coding classification, the course helps develop essential basic-level diagnostic coding skills.
241 HEALTH WFOFAMATION AND RECORDS MANAGEMENT
3 credits This course provides a general understanding of health information management including the effective collection, analysis, and dissemination of quality data to support individual, organization and social decisions related to disease prevention and patient care.

242 MEDICAL OFFICE ADMINUSTRATION
3 credits Prerequisite: 2470:120. This course focuses on the health care workplace and emphasizes tools (including a computer-simulated office management program) to perform all front office resporn sibilities

243 MEDICAL CODNG II - PROCEDURAL
3 credits
Prerequisites: 240 and 2740:120. This course will cover the statistical classification systems used to describe medical procedures in the health care field including Current Procedural Terminology (CPT), Health Care Procedure Coding System (HCPCS) and International Classification of Disease (ICD).
257 HEALTH CARE OFFCE FNANCE
2 credits
Prerequisites: 243, 2420:217, and 2440:125. Helps students attain a level of understanding of the financial aspects of medical practice management. Basic accounting terminology, the revenue cycle, relative value units, budgeting and financial management and reporting.
284 MEDICAL OFFCE TECHNOUES
2 credits
Prerequisite: 2470:120. This course will guide the student through a variety of clinica-related skills performed in the physician office. The materials are designed to assist the student in meeting the competencies developed by four national organizations.

290 SPECIAL TOPICS: HEALTH CARE OFFICE MANAGEMENT
1-4 credits
(May be repeated for a total of six credits) Prerequisite: permission. Selected topics or subiect
areas of interest in health care office management.

## OFFICE ADMINISTRATION

## 2540:

118 EXPLORING THE INTERNET
2 credits
Prerequisite: 2440:101 or equivalent. Use of the intemet for conducting research and job searches, using email, accessing personal and business information, and setting up and maintaining a Web page.

## 119 BUSANESS ENGLISH

3 credits
Prerequisite: placement test. Fundamentals of English language with emphasis on grammatical correctness, acceptable usage, spelling and punctuation. Limited witing primanily involves choice of precise words and effective sentence structure with some attention to paragraph development.

121 INTHODUCTION TO OFFFE PROCEDURES 3 credits
Introduction to concepts regarding the role of the office worker, human relations, communica tions, productivity, reference materials, technological advances in processing information and employment opportunities.
123 MICROSOFT OUTLOOK
2 credits
Prerequisite: placement by adviser. An introduction to Microsoft Outlook softwere. Students will leam how to use Outlook for email, contacts, calendaring, making appointments and instant messaging.
129 INFORMATION/RECORDS MANAGEMENT
3 credits
Overview of records used in business. Includes filing procedures, equipment, supplies, classiffcation systems, alphabetic rules, electronic database systems, and management and control of records systems.
136 SPEECH RECOGNTION TECHNOLOGY
2 credits
Prerequisite: placement by adviser. Course will present the features of speech-recognition software to assist students to increase their productivity at computer tasks while improving their communication skills.
138 PROJECT MANAGEMENT
2 crodits
Prerequisite: placement by adviser. Introductory course that exarnines elements of projects and project management technology. Also provides an understanding of Microsoft Project software for managing and evaluating projects.

140 KEYBOARDNG FOR NONMANORS 2 crechs
Beginning keytoarding for the nor-secretarial student. Fundamentals in the operation of the keyboard; application emphasis on individual student needs such as resurnes, application letters and forms, term reports, abstracting, etc. Credit not applicable toward associate degree in Office Administration.
143 NWCROSOFT WORD, EEGNNMG 2 cradits
Introduction to word processing software for the non-office Administration major. Training on personal computers as a tool for personalbusiness communications using Microsoft Word software.
144 MICROSOFT WORD, ADVANCED
2 credits
Prerequisite: 143. Intermediate and advanced skills of Microsoft Word to include tables, importation
of spreadsheets, outlines, advanced file management, macros, merges, labels and graphics.
150 BEGINNNG KEYBOAFDNNG
3 cradits
For the beginning student or one who desires a review of fundamentals. Includes basic keyboard, let-
ters, tables and manuscripts. Minimum requirement: 30 wpm with a maximum of 5 errors for 5 mir utes. Wayne carmpus only)
151 INIERANEDLATE WORD PROCESSING
Prerequisite: 143 and basic typing skills. Further development of keyboarding skill. Advanced letter styles, forms, reports and tables. Minimum requirement: 40 wpm with a maxirnum of 5 errors for 5 minutes.

241 WFORMATION MANAGENENT 3credt's
Prerequisite: 150 or equivatent and basic typing skills. Study of creation, classification, encoding, transmission, storage, tetertion, transfer and cisposition of information. Emphasis on witten, orat and machine language communication media used in business information systems. Offered at Wayne campus only.
243 NIERNSHP 3 crodits
Pterequisites: 119; 121; 129; 253; 263; 270; and 281. Work experience in an office environment related to the student's degree major. Application of office adrministration skills and knowledge.

253 ADVANCED WORD PROCESSING 3 credits
PTerequisites: $\uparrow 51$. To increase student's ability to do officestyle documents on the computer with minimal supervision. Minimum requirement: 50 wpm with a maximum of 5 errors ior 5 minutes.
255 LEGAL OFFCE PROCEDURES I
3 credits
Prerequisite: 151. Concentration on ethics, responsibilities, and document production for the career legal secretary. Wayne campus only)
263 PROFESSIONAL COMMUNLCATIONS AND PRESENTATIONS 3 cradits Prerequisites: 2020:121 or 3300:111. Application of the principles of communication in speeches, business presentations, group discussions and business documents.
265 WOMEN IN MANAGEMENT
3 credits
Deals with gender-related needs and problems of women in management and supervision.
270 BUSNESS SOFTWARE APFLLCATIONS
4 credits
Prerequisite: 2440:105, 2540:140 or placement test or permission; Wayne College students 2440:125, 2540:241, 253. Use of business application software and critical thinking skills to solve business problems. Word processing, spreadsheets, database, presentation software, integration of applications, and the internet.

271 DESKTOP PUSELSHENG
3 credits
Prerequisites: 140 or permission. Desktop Publishing software used to create printed materials such as newsletters, brochures and forms. Course addresses designlayout decision and editing skills for the office worker.

273 MICROSOFT POWERPOINT
2 credits
Prerequisites:2540:140 or 2540:143 or permission. An introduction to the basic principles of
preparation, design, and organization necessary to produce exciting and effective PowerPoint presentations using Microsoft PowerPoint.

281 EDTTNG/PROOFREADNG/TRANSCRIPTION 3 credits
Prerequisites: 119,151 . Editing and proofreading skills emphasized on the transcription of taped dictation with emphasis on producing mailable documents on word processing software.

289 CAREER DEVELOPMENT FOR BUSINESS PROFESSIONALS 2 credits
Fundamentals of job search technique, professional image development and personal and interpersonal dynamics within the business environment.
290 SPECIAL TOPICS: OFFICE ADMINASTRATION
$1-3$ credits
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in office administration.

## MEDICAL ASSISTING

## 2740:

120 MEDICAL TERMINOLOGY
3 credits
Study of language used in medicine.
121 STUDY OF DISEASE PROCESSES
3 credits
Prerequisite: 120. A study of human disease, the disease process, and a review of medical terminology.

122 EMERGENCY RESPONDER I 1 credit
This course explores how the medical/professional responder should react to medical emergencies.

126 ADMINSTRATIVE MEDHCAL ASSISTING I
4 credits
Theory and practice in administrative competencies such as legal and ethical concepts, pro fessionalism, telephone skills, scheduling and managing appointments, organizing/filing the patient's medical record

127 ADMINISTRATIVE MEDICAL ASSISTING II
4 credits
Prerequisite: 126. Theory and practice in competencies including financial administration utilizing computerized billing software program. Posting, encounter forms, claims, statements, and aging of accounts will be generated.
128 BASIC PROCEDURAL CODING
3 credits
Students will learn how to convert medical procedure language into standard Curent Procedural
Terminology (CPT) and the Health Care Financing Administration Common Procedure Coding System (HCPCS) which are utlized for health care reimbursement.
129 BASIC DIAGNOSTIC CODNG
3 credits
This class focuses on converting the diagnostic language learned in Medical Terminology into industry standard character strings for purposes of reimbursement - ICD-9-CM codes.
135 CUNICAL MEDICAL ASSISTINGI
4 credits
Introduction to medical laboratory, theories and procedures essential for a medical assistant's career.

228 MEDICAL INSURANCE
3 credits
Prerequisites: 120, 128, and 129. Theory and practice in billing and collecting for medical services.

230 BASK PHARMACOLOGY 3 crodits
Overview of drugs used in a medical setting
235 CUNICAL MEDICAL ASSISTING II
4 credits
Prerequisites: 135. Advanced medical laboratory theories and practices essential for a medical assistant's career.
245 MEDICAL EXTERNSHIP
Prerequisites: permission from Medical Assisting Program Director and a 2.0 cumulative grade point average (GPA). A seminar course including 200 hours of practical experience in ambulatory medicine.

290 SPECLAL TOPICS: MEDICAL ASSISTING $1-2$ credits
Prerequisite: permission. Selected topics or workshops of interest in medical assisting technology.

## HEALTH INFORMATION TECHNOLOGY

## 2750:

220 DATABASE APPUCATIONS FOR HEALTHCARE
2 credits
Prerequisites: $2740: 127,128,129$. This course ties together medical documentation, coding, and general health information management into a discussion of the basic methodology of professional clinical data management. It reviews methods of medical documentation, maintaining a clinical triats database, and building a tumor registry.

225 HEALTHCARE STATLSTICS AND REGISTRIES
3 credits
Prerequisites: 2030:161, 2440:105. This course covars computations of routine healthcare institutional statistics, the presentation and interpretation of healthcare data, and the use of disease and procedural registries.

230 ADVANCED MEDICAL CODING
3 credits
Prerequisites: 2740:128. 129. This course covers complicated integration of procedure and diagnosis coding predominantly through case studies. Exercises will include prospective peyment methodology.

235 LEGAL CONCEPTS OF HEALTHCARE 2 credits Study of legal principles related to patient care and patient records including confidentiality, release of information, subpoenas for patient information, patient rights, and heathcare compliance.

## RADIOLOGIC TECHNOLOGY

## 2760:

161 PHYSICAL SCIENCE FOR RADHOLOGIC TECHNOLOGYI 2 credits Prerequisites: 2030:130 or 2030:151 and permission. Introduction to systems of measurement Matter, force, motion, work, power, energy, basic electricity, and magnetism.
165 RADIOGRAPHIC PRINCIPLES I 3 credits Sequential. Prerequisite: 161. Elementary principles of ionizing radiation and their application in medical setting. Radiographic accessories and chemical processing of exposed $x$-ray film.
261 PHYSICAL SCIENCE FOR RADIOLOGIC TECHNOLOGY II
3 credits Prerequisite: 161. Fundamentals of electricity and radiation physics. Principles of x-ray equipment and other radiation sources used in medical setting.

## SURGICAL TECHNOLOGY

## 2770:

100 INTRODUCTION TO SURGICAL ASSISTING TECHNOLOGY
4 credits
Prerequisite: admission to the program. Study of basic principles which underlie patient care in the operating room. Role of operating room technician and legal and ethical responsibilities defined.

## 221 SURGICAL ASSISTING PROCEDURES

4 credits
Prerequisite: Admission to the program. Corequisite: 100. Covers principles and practices of surgical asepsis, surgical patients, procedures, maintenance of equipment and materials, immediate postoperative responsibilities and emergency situations in the operating room.
222 SURGICAL ASSISTING PROCEDURES H 4 credits
Prerequisite: 121. Corequisite: 232. Principles of surgical asepsis, surgical patients, surgical procedures, maintenance of equipment and materials, immediate postoperative responsibilities and emergency situations in the operating room.

231 CLNNCAL APPLICATIONI
2 credits
Prerequisite: Formal admission to the Surgical Technology Program, Corequisites: 100 and 121 Student assigned to surgical service of affiliated hospitals. Emphasis on aseptic techniques and skills associated with their implementation.
232 CLINICAL APPLICATION II
5 credits
Prerequisite: 131; corequisite: 222. Student assigned to surgical service of affiliated hospitals. Emphasis on "scrubbing" on general surgery and gynecology procedures.
233 CUNICAL APPLICATION III 5 credits
Prerequisites: 232 and 222. Student assigned to surgical service of affiliated hospitals. Emphasis on "scrubbing" in the specialty areas.
248 SURGICAL ANATOMYI
3 credits
Prerequisites: 2780:107 and 120. Corequisite: 100. Emphasis on human anatomy and understanding the body in its three dimensions and the relationships of parts to one another in the various surgical specialties.
249 SURGICAL ANATOMY II
3 credits
Prerequisite: 148. Emphasis on human anatomy and understanding the body in its three-dimensioris and the relationships of parts to one another in the various surgical specialties.
290 SPECLAL TOPICS: SURGICAL ASSISTING
1-2 credits
Prerequisite: permission. Selected topics or workshops of interest in surgical assisting technology.

## ALLIED HEALTH

## 2780:

106, 107 ANATOMY AND PHYSIOLOGY FOR ALUED HEALTH I, II 3 credits each Prerequisite: permission. Introduction to the study of human structure and function. No laboratory.

290 SPECIAL TOPICS: ALUED HEALTH
1-2 credits
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in allied health.

## RESPIRATORY THERAPY

## 2790:

100 CONCEPTS IN RESPIRATORY THERAPY
3 credits
Prerequisite: 2030:161. Introductory concepts regarding the practice and application of the corcepts employed in respiratory therapy, including career information and equipment. flecture/discussion).
121 INTRODUCTION TO RESPIRATORY CARE
3 credits
Prerequisite: admission to program. Basic science and laws governing gases as well as appliances to administer and monitor oxygen. Covers equipment used to generate and give aerosol therapy. Lecture/aboratory.

122 RESPIRATORY PATIENT CARE
3 credits
Prerequisites: 2780:106 (or equivalent) 2790:121. Corequisite: 2780:107 (or equivalent). Covers basic hospital practices in stenile technique, suctioning and postural drainage. Lecture/aboratory.

123 MECHANICAL VENTILATOAS 3 credits Prerequisite: 122, 131, 141. Introduction to different brands of vertilators and their functions. Aiway and airway complications
131 CLINHCAL APPLICATIONS I
3 credits
Prerequisites: 121, 2780:106. Corequisite: 2780:107. Full admission to the program. (Implies the student has a clinical space. Students identified as Atternates do not have a clinical space.) Introduction to work in hospital and hands on experience on hospital equipment. Laboratory.
132 CLINICAL APPLICATIONS II
2 credits
Prerequisites: 122, 131, 141, 2780:107 (or equivalent). First of several rotations through hospitals. Mechanical ventilation is stressed.
133 CLINICAL APPLICATIONS III
5 credits
Prerequisites: 123, 132, 201. Semester is broken into three, five week rotations, one at each hospital to cover specialty area for that site. Laboratory.
134 CLNICAL APPLICATIONS IN
5 credits
Prerequisites: 133, 223, 242. Semester has three, five-week sessions. They will be spent at different clinical sites working on their specialty areas. Laboratory.
141 PHARMACOLOGY
2 credits
Corequisites: 2820:105 and 3100:130. Drugs administered by respiratory therapy and effect, route of action in the body. Lecture.
201 ANATOMY AND PHYSIOLOGY OF CARDIOPULMONARY SYSTEMS 3 credits Prerequisite: 2780:107 (or equivalent). Study of normal anatomy and physiology of heart and lungs. Lecture.

210 RESPIRATORY THERAPY PROCEDURES I 3 credits
Prerequisites: 100, 2740:120, 2780:106, 3100: 200, 201, admission to the program. Application of oxygen and serosol therapy equipment. Lecture/aboratory.

215 RESPIRATORY THERAPY PHARMACOLOGY
3 credits
Prerequisites: 100, 3150:110, 111. Pharmacologic actions and effects of medications delivered by respiratory therapists, and routes of administration.

223 ADVANCED RESPIRATORY CARE
3 credits
Prerequisites: 123, 201. Covers EKG, Pulmonary functions, research studies and radioactive pul monary function studies. Lecture/aboratory.

224 PULMONARY REHABALITATION AND THE RESPIRATORY
2 credits

## CARE DEPARTMENT

Prerequisites: 223, 242. Covers area of puimonary rehabilitation. Includes essentials of establishing a respiratory therapy department. Lecture/aboratory.
242 PATHOLOGY FOR RESPRRATORY CARE
3 credits
Prerequisites: 201, 3100:130. Discussion of disease processes, diseases of lung and heart, their effect on respiratory therapy.
290 SPECLAL TOPICS: RESPIRATORY CARE-
3 credits
(May be repeated for a maximum of three credits) Prerequisite: permission. Selected topics or subject areas of interest in respiratory therapy technology.
301 CARDIOPULMONARV ASSESSMENT TECHNHOUES
2 credits
Prerequisites: 2780:107 or 3100:202 and 3100:203. Overall patient assessment, with concentra tion on the cardiopulmonary systems. Overview of common illness and related clinical manifes tations. Lecture/aboratory.
302 CARDIOPULMONARY ANATOMY \& PHYSIOLOGY
3 credits
Prerequisites: 210, 2780:107 or 3100:202 and 3100:203. Corequisite: 301. Study of normal anatomy and physiology of cardiopulmonary systems.
303 CARDIOPULMONARY PATHOLOGY
4 credits
Prerequisites: 301, 302. Discussion of diseases of the heart and lungs, and their relationship to the role of the respiratory therapist.
311 RESPIRATORY THERAPY PROCEDURES I
3 credits
Prerequisites: 210, 2780:107,, 3100:202, 203. Airway Care and Lung Inflation Techniques. Lecture/aboratory.

312 DIAGNOSTICS I
3 credits
Prerequisite: 210. Corequisites: $301,302,311$. Bedside screening studies for the evaluation of cardiopulmonary diseases. Lecture/aboratory.
313 dIAGNOSTICS II
3 credits
Prerequisites: 311, 312. Corequisite: 303. Laboratory diegnostic studies for the evaluation of cardiopulmonary diseases. Lecture/aboratory.
315 ADVANCED PHARMACOLOGY IN RESPHRATORY THERAPY
2 credits Prerequisite: 215. Pharmacologic actions and effects of cardiopulmonary medications.
320 NEONATAL/PEDIATRIC RESPARATORY THERAPY I
3 cradits
Prerequisite: 301. In-depth coverage of neonatal and pediatric respiratory care concepts. Emphasis placed on anatomy and physiology, assessment and therapeutics.
325 MECHANICAL VENTLLATION
4 credits
Prerequisites: 303, 312, 315, 320,341. Introduction to mechanical ventilation and equipment. Lecture/ab.
340 APPLCATION IN CUNICAL CONCEPTS
2 credits
Prerequisite: 210. Corequisite: 301 . Introduction to basic respiratory therapy in a hospital setting, and hands-on practice with respiratory therapy equipment, including CPR for the professional. Lecture/clinical.

341 RT CLNICAL EXPERIENCE I 3 credits
Prerequisites: 215, 311,340. Application of clinical procedures in a hospital setting, with emphasis on basic therapeutic interventions. Clinical. 225 clinical hours.

342 RT CUNHCAL EXPERTENCE II
2 credits
Prerequisites: $315,325,341$. Application of clinical procedures in a hospital setting, with emphasis on mechanical ventilation techniques. 150 clinical hours

404 POLYSOMNOGRAPHYI
3 credits
Prerequisite: 302. Introduction to sleep disorders and the relatad diagnostic tests.
405 POLYSOMNOGRAPHY I
3 credits
Prerequisite: 404. Advanced concepts in sleep disorders, related diagnostic tests, and therapeutics, with practical application.
413 RESPIRATORY THERAPY IN ALTERNATE SETTINGS 3 credits
Prerequisite: 313. Pulmonary rehabilitation and home care, as well as care in other atternate settings. Lecture/ab.
420 NEONATAL/PEDIATRIC RESPIRATORY THERAPY II 3 credits
Prerequisite: 320. Detailed study of airway menagement, pathophysiology and treatment modalities as they relate to neonatal/pediatrics.
421 ACLS\& PALS
3 credits
Prerequisites: $303,315,320,340$ or permission. Advanced Cardiac Life Support and Pediatric Advanced Life Support, with mega codes and case studies.
430 PROBLEMS IN RESPIRATORY THERAPY 3 credits
Prerequisites: $313,420,443$. Capstone course, applies the concepts from clinical situations, using computer simulations and cases, and evaluates research in respiratory therapy.
443 RT CUNICAL EXPERIENCE III
3 credits
Prerequisite: 342 . Rotation to a vaniety of heath care facilities to practice specialty procedures in each institution. 225 clinical hours.
444 RT CUNICAL EXPERIENCE IV
3 credits
Prerequisite: 443 . Rotation to a variety of health care facilities to practice specialty procedures in each institution. 225 clinical hours.

## GENERAL TECHNOLOGY

## 2820:

100 INTRODUCTION TO ENGINEERING TECHNOLOGY
This introductory course stresses skills needed for academic success. Discussion of fields in engineering technology, job searches, calculators and data measurement and analysis are included.

105 BASIC CHEMISTRY 3 credits
Prarequisite: 1020:052 or one year of high school mathematics and placement test. Elementary treatment of facts and principles of chemistry emphasizing biological application. Elements and compounds important in everyday life, biological processes and medicine. Introduction to laboratory techniques. Primarily for medical assistant, criminal justice and allied health students. Laboratory.
111 INTRODUCTORY CHEMISTRY
3 credits
Corequisite: 2030:152. Facts and theories of general chemistry. Elements and compounds and
their uses. Elementary treatment of atomic structure, gaseous state, periodic table, water, solutions. Laboratory.
112 INTRODUCTORY AND ANALYTICAL CHEMISTRY
3 credits
Prerequisite: 111 or permission. Chemical equillbria, ionization, radioactivity. Properties of selected metals and nonmetals. Introduction to organic chemistry. Basic concepts of qualitative analysis. Identifications of cations and anions. Laboratory.
131 SOFTWARE APPLCATIONS FOR TECHNOLOGY
1 credit
Prerequisite: 2030:151. Word processing, spreadsheet database, and intemet applications in engineering technology. Computer basics also. Limited to students in Engineering \& Science Technology Department programs. Laboratory.

161 TECHNLCAL PHYSICS: MECHANICS I
2 credits
Corequisite: 2030:153. Principles of mechanics that include motion, vectors, forces, equilibrium; also, significant figures and unit conversions. Laboratory.
162 TECHNICAL PHYSHCS: MECHANICS :
Prerequisite: 161, 2030:153. Principles of mechanics that include work, power, conservation of energy, rotational motion, torque. Laboratory.

163 TECHNICAL PHYSICS: ELECTRICTY AND MAGNEITSM
2 credits
Prerequisites: 161; corequisite: 2030:153. Principles of electricity and magnetism. Electrostatics, basic direct current circuits, magnetism and electromagnetism, alternating currents, basic AC circuits. Laboratory.
164 TECHNICAL PHYSKCS: HEAT AND LGGTT
2 credits Prerequisites: 161 and 2030:153. Topics include thermel behavior of matter,thermodynamics, light, geometric and physical optics. Introduction to atomic and nuclear physics. Laboratory
290 SPECLAL TOPACS: GENERAL TECHNOLOGY
1-2 credits
(May be repeated for a total of four credits) Prerequisite: Permission. Selected topics of subject areas of interest in General Technology.
310 PROGRAMMING FOR TECHNOLOGISTS
2 credits Prerequisites: 131 and 2030:255. A study of a technical programming language with applications in engineering technology. Limited to students in Engineering and Science Technology Department programs.

## POLYMER TECHNOLOGY (inactive)

## 2840:

111 POLYMER TECHNOLOGY I
3 credits
introduction to chemical and physical structure, properties and applications of polymers. interaction between materials properties, product design and processing. CHaracterization of the major processes.

112 POLYMER TECHNOLOGY H
3 credits
Prerequisite: 111. This course emphasizes the processing of thermoplastics and thermosetting plastics. The laboratory introduces students to some of the major processes and equipment operation.

## 202 INSTRUNENTAL METHODS

4 credits
Prerequisites: 2820:111, 2840:111, 2860:110. instrumentation employed in qualitative and quantitative analysis. Theory and practice in chromatographic, spectrophotometric and other instrumental methods. Laboratory.

211 POLYMER TECHNOLOGY III
3 credits
Prerequisites: 2820:131, 2840:101, 112. This course emphasizes the testing and characterization of materials used in polymer product fabrication, and the testing and analysis of finished polymer products.
220 CASE STUDIES IN POLYMER DESIGN AND PROCESSING
2 credits
Prerequisite: 211. Combines study of potymer properties, processing, and design guidelines to analyze complete manufacturing, testing, and quality assurance programs. Examples of significant applications analyzed in detail.
260 COMPOUNDHNG METHODS
2 credits
Principles and methods of selecting and compounding rubber for specific end uses. The compounder's art. Processing and testing of basic elastomers and products. 'Laboratory.
281 POLYMER PROJECT
2 credits
Prerequisite: 211. Student teams, choosing their own projects, design a polymeric product, select materials, processes, and simulate design and development of the product. Individual final reports required.

290 SPECLAL TOPICS: POLYMER TECHNOLOGY
1-2 credits
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in polymer technology.

## ELECTRONIC ENGINEERING TECHNOLOGY

## 2860:

## 110 BASIC ELECTRICTTY AND ELECTRONICS

4 credits
Corequisite: 2030:151 or 2030:161. Principles of electronics: resistors, inductance, capacitance transistors, microprocessors, power sources, motors, generators, test equipment, circuit diagnosis, troubleshooting. Credit not applicable toward the A.A.S. in Electronic Technology.
120 CIRCUTT FUNDANENTALS
4 credits
Corequisite: 121; 2030:152, 153. SI units, current, voltage, resistance, Ohm's Law, circuit analy sis, network theorems, computer simulation, inducter, capacitor, RLC dc analysis, transients laboratory support of circuit concepts, ac introduction.
121 INTRODUCTION TO ELECTRONHCS AND COMPUTERS
2 credits
Prerequisite: 2030:151 or placement. Supporting 2860:120 Circuit Fundamentals, this course introduces students to computers and software, technical communications, laboratory practices. and to the electronics industry.
123 ELECTRONMC DEVICES
4 credits
Prerequisite: 120. Physical theory, characteristics and operational parameters of solid-state elec tronic devices. Analysis and design of electronic circuits incorporating these devices, utilizing characteristic curves and linear modeling.
138 DIGITAL FUNDAMENTALS
2 credits
Prerequisite: 110 or 120 . Corequisite: 2440:103 or 2860:121. Number systems, binary codes, two's complement representation of signed numbers, logic, logic circuits, Boolean algebra, Karnaugh maps, computer modeling of logic circuits.

206 PERSONAL COMPUTER MANTENANCE
4 credits
Corequisite: 217. Personal computer fundamentals, software diagnostics to isolation of hard ware faults. Set up, maintain, diagnose, repair, upgrade personal computers. Not applicable towards an EET degree

217 SURVEY OF DIGTAL ELECTRONICS
4 credits
Prerequisite: 136. Adders, flip-flops, data storage, counters, shift registers, memory. This course also includes an introduction to computer architecture and hardware. Credit not applicable toward the A.A.S. in Electronic Engineening Technology
225 APPLICATIONS OF ELECTRONHC DEVICES 4 credits Prerequisite: 123,2030:154. Frequency response, filter concepts, electronic amplifiers, power amplifiers, multistage amplifiers, differential amplifiers, operational amplifiers, voltage regulators, feedback and oscillators, special devices, computer simulation analysis.
231 CONTROL PRINCIPLES
3 credits
Prerequisites: 225, 2030:255. Principles and design for control of physical systems Mathematical and analog computer modeling of physical systems. Principles of closedHoop con trol systems. Design of simple servomechanisms.

## 237 DIGTAL CARCUITS

4 credits
Prerequisites: 123 and 136. Devices used in logic circuits, interfacing, combinational logic, arith metic circuits, encoders, multiplexers, programmable logic devices, flip-flops, counters, shift registers, computer modeling of digital circuits.

238 MICROPROCESSOR APPLICATIONS
4 credits
Prerequisite: 237. Programmable logic devices, computer modeling of digital circuits, memory circuits. Computer architecture, programming the microprocessor, microprocessor hardware microprocessor applications, parallel I/O and programmable timers.
242 MACHINERY AND CONTROLS
3 credits
Prerequisites: 120. 121 or 270 . Study of DC and AC motors and generators and their control. Fundamentais of power transformers. Three-phase distribution and motor control. Principles of industrial electronic devices.
251 ELECTRONIC COMMUNICATIONS
4 credits
Prerequisite: 225. Resonance, coupling, fitters, oscillators, mixers, power emplifiers, AM, FM, receivers.
255 ELECTRONIC DESIGN AND CONSTRUCTION
2 credits
Prerequisite: 123. Drafting fundamentals. Printed circuit board layout. Shop safety practices Tool care and use. Chassis and sheet metal layout and fabrication; metal finishing, packaging techniques.

260 ELECTRONIC PROJECT
2 credits
Prerequisites: final semester and 2940:210 or permission, Design, construction, and testing of an electronic circuit of choice. Progress reports, oral, and a formal written report required. Discussion of electronic design, fabrication, and troubleshooting techniques.

280 MICROPROCESSOR MANTENANCE PRACTICUM/SEMINAR 3 credits
Prerequisite: 206, 217. Setup, maintain, diagnose, repair, upgrade personal computers, peripher al devices. Include teamwork, assisting others and review alternative solutions. Not applicable towards an Electronic Engineering Technology degree.
290 ST: ELECTRONIC ENGINEERING TECHNOLOGY
$1-4$ credits
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor.
350 ADVANCED CARCUIT THEORY
3 credits
Prerequisite: 251. Corequisite: 2030:356. Nodal, mesh, Thevenin, and dependent sources in resistive circuits. Inductor and capacitor as time domain elements. First- and second-order circuit analysis. Phasor analysis. Operational amplifier analysis.
352 MICROCONTROLERS
4 credits
Prerequisite: 238; corequisite: 350. Using a typical microcontrolier, study its architecture, pro gram it, use subroutines and interrupts, use it in various applications, utilize various on-board modules, including analog-to-digital, and timers.
354 ADVANCED CIRCUIT APPLICATIONS
4 credits
Prerequisites: 350; 2030:356; 2440:170, 256, 160; 2820:310; 3460:126, 208, 209; 4450:208 Introduction to PSpice. Calculating electrical power. Series and parallel resonance. LaPlace transforms in operational circuit analysis. Transfer functions, impulse function, Bode diagrams, Fourier Series.

370 SURVEY OF ELECTRONICS I 3 credits
Prerequisite: 2820:163. Fundamentals of DC and AC electrical circuits and rotating machinery. For non-Electronic Engineering Technology majors.
371 SURVEY OF ELECTRONICS H
3 credits
Prerequisite: 370 . Survey of the most commonly used solid-state circuit components including typical applications. Introduction into digital circuits and microprocessor applications. For nonElectronic Engineering Technołogy majors.
400 COMPUTER SIMULATIONS IN TECHNOLOGY
3 credits
Prerequisites: 354, 2030:345. Introduces the use of software widely used in industry to simulate and study electrical circuits and signals. Methods of data sampling, management and presentation will be studied.
408 COMMUNICATHON SYSTEMS
3 credits
Prerequisites: 251 and 354 . Digital communications, transmission lines, waveguides, microwave devices and antennas.
420 BIOMEDICAL ELECTRONIC INSTRUMENTATION
3 credits
Prerequisite: 354 . Introduction to electrical signals from the body, transducers, recording devices, telemetry, microprocessor applications and electrical safety of medical equipment.
430 SENIOR TOPICS IN ELECTRONIC TECHNOLOGY
3 credits Prerequisites: 354, 400. Study of advanced topics in electronic technology
451 INDUSTRIAL ELECTRICAL SYSTEMS
3 credits
Prerequisites: 354. Electric power, industrial nameplates, power factor correction, mutual inductance, linear transformers, power transformers, polyphase systems, per-phase analysis, system grounding, protective device coordination computer-aided analysis.
453 CONTROL SYSTEMS
Prerequisites: 354 and $2870: 301$. Modeling and responses of closedHoop systems. LaPlace transforms, root-locus analysis. Stability, compensation, digital control, optimal control. Digital computer in system simulation and design

490 ST: ELECTRONHC ENGINEERANG TECHNOLOGY
$1-4$ credits
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor
497 SERMOR HONORS PROJECT: ELECTRONIC TECHNOLOGY 1.3 credits (May be repeated for a total of six credits) Prerequisites: senior standing in Honors College, per mission of department preceptor and major in electronic technology. Independent research lead ing to completion of Senior Honors Thesis or other onginal work.

## AUTOMATED <br> MANUFACTURING ENGINEERING TECHNOLOGY

## 2870:

301 COMPUTER CONTROL OF AUTOMATED SYSTEMS
3 credits
The development of computer based systems and computer programs using robotics and machine controllers as the solutions for automated manufacturing problems.
311 FACIUTIES PLANNING
3 crodits
Prerequisite: $2940: 180$ or $2940: 210$ or permission. An application based study of facilities analysis, design and layout utiizing software based solutions.
332 MANAGEMENT OF TECHNOLOGY BASED OPERATIONS
3 credits A study of the techniques and knowledge necessary to effectively manage technical personnel.
348 CNC PROGRAMMINGI
3 credits
Prerequisites: 2940:121, 2030:154; or permission. Introduction to numerical control ( $\mathrm{N} / \mathrm{C}$ ) of operation of machine tools and other processing machines. Includes programming, types of N/C systems, economic evaluation.
441 ADVANCED QUALTTY PRACTICES
3 credits
Prerequisites: 2880:241 or permission. Specific quality assurance procedures will be developed conceptually, proven mathematically, and then tested in lab exercises. Industry accepted SOC software will be used.

448 CNC PROGRAMMING II
3 credits
Prerequisite: 348 . Introduction to computer-assisted interactive part programming system. Writing of milling and drilling programs.

470 SLMULATION OF MANUFACTURING SYSTEMS
3 credits
Prerequisite: 2880:211. Computer simulation solutions applied to the traditional manufacturing problems of equipment justification production line balancing, and capacity planning.

480 AUTOMATED PAODUCTION
3 cradits
Prerequisites: 2880:211 or senior status. A study of the automated production system. The various systems studied thus far, CNC, robotics, automated machines via PLCs, and facilities design,are integrated and analyzed fromea production standpoint. The issues of line balance, reliability, queue sizing, and personnel matters are included.
490 MANUFACTURING PROJECT
2 credits
Prerequisite: Senior status. Advanced CADCAM topics are presented. A comprehensive projec is undertaken.
495 INDIVIDUAL INVESTIGATION IN MANUFACTURING
2 credits
ENGINEERING TECHNOLOGY
Selected topic(s) that provide for specific individual study in the area of manufacturing engineer ing technology under the direct supervision of a faculty member
496 SPECLAL TOPICS IN MANUFACTURING ENGINEERING TECHNOLOGY $1-3$ credits Prerequisite: permission. Selected topic(s) that provide for specific coursework in the area of manufacturing engineering technotogy offered once or only occasionally in areas where no formal course exists.

498 WORKSHOP IN MANUFACTURING ENGINEERNG TECHNOLOGY
1-3 credits Prerequisite: permission. Group studies of special topics in manufacturing engineering technology.

## MANUFACTURING ENGINEERING TECHNOLOGY

## 2880:

100 BASIC PRINCIPIES OF MANUFACTURING MANAGEMENT
4 credits
A survey of basic concepts of management and their interrelationships to a manufacturing environ ment. Includes production control, quality control, work measurement, and employee motivation.

## 110 MANUFACTURING PROCESSES

3 credits
Study of the machines, methods, and processes used in manufacturing.
130 WORK MEASUREMENT AND COST ESTIMATING
3 credits
Prerequisite: 100. Time and motion study. Development of accurate work methods and produc tion standards, and their relationship to manufacturing cost estimates.
151 INDUSTRIAL SAFETY AND ENVIRONAENTAL PROTECTION 2 credits A contemporary overview of the science and management of occupational heath and safety programs, policies, and procedures in an industria and business type environment.
201 ROBOTICS AND AUTOMATED MANUFACTURING
3 credits
Prerequisite: 100 or permission of instructor. Study of manufacturing eutomation and the com-puter-based products and processes available for this task. Robots, machine controllers, and machine/process interfaces are investigated.

11 COMPUTERITED MANUFACTURING CONTROL
3 credits
Prerequisite: 100 . Processing of production order by computer through requisitioning, plant loading, expediting, scheduling and shipping of product. Creation on computer of material requisitions, plant schedules, sent-to-stocks and shipping orders as by-products of processing production order.
232 LABOR MANAGEMENT RELATIONS
3 credits
Prerequisite: 100 . Study of historical background of labor movement, management viewpoints, legal framework for modem labor organizations and collective bargaining process.
241 INTRODUCTION TO OUALTTY ASSURANCE
3 credits
Prerequisite: 100 and 2030:152. Theory and practice of inspection and sampling techniques for measurement of quality, OC charts, sampling plans, mill specs, checking machine capabilities, and setting tolerances.
290 SPECLAL TOPICS: MANUFACTURING TECHNOLOGY
1-2 credits
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in industrial technology.

## MECHANICAL ENGINEERING TECHNOLOGY

## 2920:

100 SURVEY OF MECHANICAL ENGINEERING TECHNOLOGY
Overview of the Mechanical engineering Technology degree programs; pretesting; career opportunities; professional societies \& cerification; standards; and useful tools of the MET field.

101 INTRODUCTION TO NECHANICAL DESIGN
3 credits
Prerequisite: 2940:121; corequisite: 2030:154. Topics in engineering drawing: conventions, sections, dimensioning and tolerancing. Detail drawings, subassembly and assembly drawings. Manufacturing processes. Descriptive geometry. Drawing mechanical components.

130 INTRODUCTION TO HYDRAULICS AND PNEUMATICS
3 credits
Principles of hydrostatic forces, pressure, density, viscosity, incompressible and compressible fluids. Principles of hydraulic and preumatic devices and systems.

142 INTRODUCTION TO MATERIAL TECHNOLOGY 3 crodits Fundamental properties of materials. Material testing. Applications of methods to control material properties.
243 KINEMATICS 3 credits
Prerequisite: 2990:125. Study of rigid-body motions of simple linkages, carns, gears and gear trains. Vector solutions emphasized. Industrial applications presented and computers used to analyze mechanisms.
245 MECHANICAL DESIGN II
5 credits
Prerequisites: 2940:210; 2990:241. Corequisite: 142, 2920:243 Design of machine elements: springs, shafts, fasteners, walded joints. Combined stress and fatigue analysis. Design projects. Experimental stress analysis.
249 APPLED THERMAL ENERGY 1
2 credits
Prerequisites: 2030:255, 2820:164. Thermodynamic principles. Study of power cycles. Applications in I.C. engines, compressors, steam power cycles, refrigeration.
251 FLUID POWER
2 credits
Prerequisites: 2820:162, 164. Statics and dynamics of fluids. Viscosity, energy and momantum relationships. Fluid machinery and measurements.

252 THERMO-FLUIDS LABORATORY
1 crodit
Prerequisite: 251; corequisite: 249. Laboratory experiments in applied thermal energy and fluid power.
290 SPECLAL TOPHCS: MECHANHCAL ENGINEERING TECHNOLOGY
1-2 credits (May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in Mechanical Engineering Technology.
310 ECONOMICS OF TECHNOLOGY
3 credits
Prerequisite: 64 credits or permission. Economic principles as they pertain to technology. Equivalence, alternatives, costs, depreciation, valuation. Project studies.
344 DYNAMICS
3 credits
Prerequisites: 243; 2030:255; 2990:125. Introduces particle dynamics, displacement, velocity, and acceleration of constrained rigid bodies in plane motion. Kinetics of particles and rigid booies, work and energy, mechanical vibration.
346 MECHANICAL DESIGN III
4 credits
Prerequisites: 344, 245; 2820:310. Continuation of design of mechanical components: gears, bearings, brakes, and clutches. Special topics presented will be coordinated with assigned design projects.

347 PRODUCTION MACHINERY AND PROCESSES
3 credits
Prerequisites: 245 and 2030:255. Study of manufacturing processes lcasting, forging, welding, forming sheet metal), integrating material technology, mechanical design, and mechanics of materials.

365 APPLIED THERMAL ENERGY II
3 credits
Pierequisites: 249, 251; 2030:255. Review and application of basic thermodynamic principles used in designing automotive engines and refrigeration equipment. Introduction to heat transfer, ventilation and air conditioning.

370 PLASTICS DESIGN AND PFOCESSHNG 3 credits
Prerequisites: 142, 2820:111 (or permission), and 2990:241. Introduction to structure and properties of polymers, selection based on properties and cost, design of products and tools, basic principles of the major processes.

402 MECHANICAL PROJECTS
1 credit
Prerequisite: senior standing. Individual projects emphasizing creative technical design.

## 405 NNDUSTRIAL MACHINE CONTHOL

3 credits Prerequisite: 2860:270. Principles and design of industrial machine control systems. Application oriented study of typical control devices. Utilization of programmeble controllers as the system logic controliers.
470 PLASTICS PROCESSING AND TESTING 2 credits Prerequisites: 370 or permission. Use of besic polymer testing methods. Setup and operation of modem molding and extusion equipment. Basic troubleshooting procedures. Study of processing effects on final properties.
497 SENIOR HONORS PROIECT IN MECHANICAL ENGINEERING TECHNOLOGY $1-3$ credits (May be repeated for a total of six crodits) Prerequisites: senior standing in Honors College, permission of area honors preceptor and major in mechanical technology. Independent research leading to completion of senior honors thesis or other original work.
498 INDEPENDENT STUDY IN MECHANICAL ENGINEEERING TECHNOLOGY 1.4 credits (May be repeated for a total of six credits) Prerequisite: Department permission. Directed study in special fieid of interest chosen by the student in consultation with the instructor.

## DRAFTING AND COMPUTER DRAFTING TECHNOLOGY

## 2940:

121 TECHNHCAL DRAWINGI
3 credits
Lettering and proper use of drawing instruments; freehand sketching; geometric drawing; orthographic projection; auxiliary views, sections, pictorials; introduction to basic descriptive geometry.

122 TECHNICAL DRAWNG $H$
3 credits
Prerequisite: 121, 210. Covers dimensioning; allowances and tolerances; geometric toleranc ing; threads and fasteners; descriptive geometry; intersections; developments; and computer applications.

150 DRAFTING DESIGN PROBLEMS
2 credits
Prerequisite: 2030:152. Introductory course in basic concepts in engineering technology computations. A study of technical terminology and applied methematics.

170 SURVEYING DFAFTNG 3 credits
Corequisite: 2030:152 or permission. Drafting procedures, techniques and tools required tor the various phases of survey office work. Projects include topographic maps, plan and profile draw ings, and cross-section drawings.
180 INTRODUCTION TO COMPUTER AIDED DRAFTING
1 credit
Drafting techriques using AutoCAD. Topics include drawing, editing, dimensioring, plotting, layers and text. Credit not applicable toward the AAS in Drafting and Compuner Aided Drafting Technology.
200 ADVANCED DRAFTING
3 credits
Prerequisite: 122. Principles of descriptive geometry applied to practical problems pertaining to the civil and mechanical fields of technology.
210 COMPUTER ALDED DRAWNG I
3 credits
Dratting procedures and techniques used for creating drawings using AutoCAD software. Topics include basic components, drawing, editing, dimensioning, leyers, text, blocks, plotiting and hatch.
211 COMPUIER AIDED DRAWNG I
3 credits
Prerequisite: 2940:210. Continuation of 2940:210. This course covers advanced topics in the use of AutoCAD. Those topics include UCS, VPoint, DView, wire frames, Boolean functions, customization, and Autol.ISP.
230 MECHANUCAL SYSTEMS DRAFTING
3 credits
Prerequisite: 122. Drawing fundamentais and terminology of welding, gears, carms, piping, sheet metal, and fluid power drawings.
240 ELECTRICAL ANO ELECTRONNC DRAFTING
3 credits
Corequisite: 122. Drating fundamentals, terms, and symbols required for electrical, electronics, and instrumentation drawings. Included are interconnecting diagrams, PC boards, and architectural and industrial plans.

245 STRUCTURAL DRAFTING 2 credits
Prerequisites: 121, 210 or equivalent. Duties of structural dratisman in preparation of detailed working drawings for steei and concrete. Emphasis on portrayal, dimensions and notes on a working drawing.
250 ARCHITECTURAL DRAFING
3 credits
Prerequisite: 121. Drawing fundamentals, terminology, and symbols for developing a set of basic construction plans and details. Included also are presentation drawings and interior and exterior planning.
260 DRAFTANG TECHNOLOGY PROJECT
3 credits
Prerequisite: Completion of 20 credits of 2940 . Provides opportunity to research and develop a specific drating project within chosen field of interest.
290 SPECIAL TOPICS: DRAFTNGG TECHNOLOGY
1.3 credits
(May be repeated for a total of three credits) Prerequisite: permission. Selected topics on subject areas of interest in dratting technology.

## SURVEYING ENGINEERING TECHNOLOGY

## 2980:

100 INTRODUCTION TO GEOMATICS
2 credits
An introductory course into the fieid of surveying and mapping technology. Integrated topics include: types of surveys, cartography and geographic information systerns.

101 BASIC SURVEYING
2 credits
Corequisites: 2030:152. Care and use of basic surveying field instruments used in land surveying. Instruments include: Transit, Theodolite, Total Stations, Steel Tape, EDMs, and Levels. Field practice.

102 BASIC SURVEYNG II 2 credits
Prerequisites: 101 and 2030:153. The computation and adjustment of field survey measurements using both conventional and computer methods. Final product production in both tabulated and graphic representations stressed.
122 ELEMENTARY SURVEYING 3 credits Elementary surveying for non-surveying and construction majors. Basic tools and computations. Field practice.
123 SURVEY FELD PRACTICE
2 credits Prerequisite: 102 or equivalent. Practical experience in use of surveying equiprnent and methods of surveying. Provides student with responsibility for making decisions and planning and directing complete project.
222 CONSTRUCTION SURVEYING
3 credits
Prerequisite: 102 or equivalent. Methods and procedures for establishing line and grede for cor struction. Circular, spiral and parabolic curves. Cross-sectioning methods and earthwork. Fieit practice.
223 FUNDAMENTALS OF MAP PRODUCTION
3 credits
Introduction to the art and science of maps and map production. Course includes the history of mapping and an overview of the field of cartography.
225 ADVANCED SURVEYING
3 credits
Prerequisite: 228. Introduction to GPS, topographic mapping and ALTA surveys. Advanced topics in control surveys, State Plane Coordinates and surveys of public lands. Field practice.
228 BOUNDARY SURVEYING
3 credits
Prerequisites: 102 or equivalent, 2940:170 or equivalent, and 335 or equivalent. Analysis of evidence and procedures for boundary location establishing and/or locating points for boundary, mortgage location, topographic, site plans, and as-built surveys.

290 SPECIAL TOPICS: SURVEVING ENGINEERING TECHNOLOGY $1-6$ crodits Prerequisite: permission. Selected topics or subject areas of interest in surveying engineering technology.

310 SURVEYING COMPUTATIONS \& AD.JUSTMENTS 2 credits Prerequisite: 222, 223. Concepts relating to measurement error, probability, and reliability. Computation and adjustment of horizontal and vertical networks.
315 BOUNDARY CONTROL \& LEGAL. PRINCIPLES
3 credits Prerequisite: 12 credits in surveying courses or permission. Historical development of bound aries, rectangular system of public land surveys, systems to describe property, wording and interpretation of deed descriptions, surveyor's rights, duties and responsibilities.
330 APPLED PHOTOGRAMMETRY
2 credits
Prerequisite: 355. An introduction to metrical and quantitative photogrammetry using both hardand soft-copy systems. Laboratory.
325 OSHA SAFETY REQUIREMENTS FOR SURVEYORS 1 credit To provide OSHA safety training and certification required for surveying companies.
355 COMPUTER APPLCATIONS IN SURVEYING 3 credits Use of current surveying software to solve typical problems/projects in surveying technology.
415 LEGAL ASPECTS OF SURVEYING
3 crodits Prerequisite: 315. A study of statute and common law related to land surveying. Case studies related to legal precedent and the surveyor's role in the judicial process.
420 ROUTE SURVEYING
3 credits
Prerequisite: 225. Surveying for long but narrow strips of land such as highways, rairoads, and pipe lines. Course includes all requisite calculations and drawings.
422 GPS SURVEYING
2 credits
Prerequisite: 2980:102. Introduction to the Global Positioning System (GPS). Course includes the planning, data collection, and processing of GPS data.
421 SUBDIVISION DESIGN
3 credits
Prerequisite: 222, 315. Site anahysis, land use controls, and plotting procedures. Laboratory includes preparation of various type of projects leading to a complete subdivision.
425 LAND NAVIGATION
3 credits
Interpretation and use of topographic maps. Study of basic map elements with emphasis on identification of features and coordinate systems. Map use for land navigation.

## 428 HISTORY OF SURVEYING

2 creaits
Selective study of the history of land surveying. Emphasis on the development of survering procedures as they relate to math, science and technology.

427 OHIO LANDS
2 credits
Study of the history of the original Ohio land subdivisions.
430 SURVEYING PROJECT
3 credits
Prerequisite: senior standing and permission. Provides opportunity to research and develop a specific surveying project within chosen area of surveying. Oral, witten and graphical presentation of completed project(s).

445 APPLICATIONS IN GIS USING GPS 3 credits Prerequisite: 227 and 422. Advanced instruction in GIS applications using GPS as well as other surveying and mapping methods. Laboratory and field trips.

450 TOPICS IN PROFESSIONAL PRACTICE 2 credits Prerequisite: Junior standing. Topics in applicational areas of surveying from the point of view of the practitioner and the consumer of land-related data.
499 SPECIAL TOPICS IN SURVEYING $1-3$ credits
(May be repeated for a maximum of six credits) Prerequisite: permission. Special lecture/abora tory courses offered once or only occasionaliy in areas where no formal course exists.

490 WORKSHOP $\operatorname{IN}$ SURVEYNG
1.3 credits
(May be repeated for a maximum of six credits) Prerequisite: permission. Group study of special topics in surveying. May not be used to meet undergraduate major requirements in surveying. May be used for elective credit only.

495 INTERNSHIP: SURVEYING AND MAPPING
3 credits
Prerequisites: 64 credit hours in program and permission from the program director. Supervised work experience in surveying and mapping to increase student understanding of surveying and mapping technology.
498 RNDEPENDENT STUDY
13 crodits
(May be repeated for a total of six credits) Prerequisites: permission of instructor. Directed study in a special field of interest chosen by student in consultation with instructor.

## GEOGRAPHIC AND LAND INFORMATION SYSTEMS

## 2985:

101 INTRODUCTION TO GEOGRAPHIC AND LAND INFORMMATION SYSTEMS 3 credits Introduction to the principles and concepts of Geographic Lend Information Systems used in surveying and mapping application. Laboratory

201 INTERMEDLATE GEOGRAPHIC AND LAND MFORMATION SYSTEMS PRONECT 3 crodits Continued instruction in the hands-on technical applications of Geographic and Land Information Systems. Laboratory.

205 BUILDING GEODATABASES
3 credits
Prerequisite: 101 or equivalent. Introduction and application of spatial geodatabases. The student will create, use, and manage geodatabases. Geodatabases are used for storing spatial and attribute data. Laboratory.
210 GEOGRAPHIC AND LAND INFORMATION SYSTEMS PROJECT 3 credits Prerequisite: 101. Prectical application and presentation techniques using the principles and concepts of cariography and geographic information systems. Laboratory.
200 TOPICS IN PROFESSIONVL PRACTICE
2 credits
Topics in applicational areas of Geographic and Land Information Systems IGIS/IIS) from the point of view of the practitioner and the consumer.
290 SPECIAL TOPICS IN GEOGRAPHIC AND LAND INFORMATION SYSTEMS 1.6 credits Prerequisite: permission of instructor. Special lecture/aboratory courses offered once or only occasionally in areas where no tornal course exists.
291 GEOGRAPHIC ANO LAND INFORMATION SYSTEMS INTERNSHIP
3 cradits
Prerequisite: permission of program director. Supervised professional experience in GIS/LIS agencies or related setting.
295 WORKSHOP IN GEOGRAPHC AND LAND INFORMATION SYSTEMS 1.3 credits
Prerequisite: permission of instructor. Group studies of special topics in $\mathrm{GIS} / \mathrm{LIS}$. May be used for elective credit only to a maxirnum of three credits.
299 INDEPENDENT STUDY
13 credits
Prerequisite: permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instuctor.

## CONSTRUCTION ENGINEERING TECHNOLOGY

## 2990:

125 STATICS
3 credits
Prerequisites: 2820:162 and 2030:153. Forces, resultants and couphes. Equilibrium of force systems. Trusses, frames, first and second moment of areas, friction.

131 BUILDNG CONSTRUCTION 2 credits
Materials and methods used in construction. Encompasses buildings constructed with wood, steel, concrete or a combination of these materials.
150 BLUEPPINT READING 2 credits
Prerequisite: 131. The language of construction. Symbols, scales, plan views, elevation views, sections and details.
234 ELEMENTS OF STRUCTURES 3 crodits
Prerequisites: 125, 241. Principles of stress and structural analysis of members in steel, timber and concrete members.
237 MATERIALS TESTING : 2 credits Prerequisite: 2030:153. Laboratory testing of soils with emphasis on physical properties of soil. Laboratory and field procedures used for quality control.
238 MATERALLS TESTWGII
2 credits
Prerequisite: 2030:153. Mix design of concrete. Laboratory testing of concrete containing ordinary
Portand cemert and pozzolanic admixtures. Experiments demonstrate physical properties as retated to design and quality control.
241 STRENGTH OF MATERTALS
3 credits
Prerequisite: 125. Stress, strain and stress-strain relationships. Tension, compression, torsion, beams. Shear and morment diagrams. Combines stresses.
245 CONSTBUCTION ESTMMATING
3 credits
Prerequisites: 150 and 2030:153. Quantity take-off in construction to include mass excavations, foundation systems, structural steel, residential construction, and various commercial construction methods.

246 STE ENGINEERIMG
3 credits
Prerequisites: 131, 2980:101. Students learn fundamental design concepts for development of a site including excavation, soil treatment, heavy equipment requirements, storm water management systems, and other relevant topics.
310 RESFDENTIAL BUILDING CONSTRUCTION
3 credits
Introduction to building design, wood framing and mechanical systerns as commonly found in residential housing.
320 ADVANCED MATERIALS TESTING
3 credits
Prerequisite: 241. This course investigates the usage of precision strain gage applications used by technicians in determining stresses in structural elements and mechanical parts.
351 CONSTRUCTION OUALTY CONTROL
3 credits
Prerequisites: admission into the BCT program or permission of instructor. Overview of quality control concepts and techniques as related to the construction industry including the necessary statistical tools; exposes students to civil, mechanical and electrical inspection requirements.

352 FELD MANAGEMENT AND SCHEDUUNG
2 credits
Prerequisites: 245 or permission. Planning, scheduling and controlling of field work within time and cost constraints. Manual methods and computer software packages studied.

354 FOUNDATION CONSTRUCTION METHODS
3 crodits
Prerequisite: 234. Soil mechanics and soils exploration as related to construction. Foundation construction methods and practice in the interest of safety and suitable economy.

355 COMPUTER APPLLCATKONS IN CONSTRUCTION
3 credits
Prerequisite: admission into the BCT program or permission of instructor. Work includes visual basic programming, software packages for construction management, presentation software, and Web site development

356 SAFETY IN CONSTRUCTION 2 credits The purpose of this course is to explain what creates hazards and why, and to suggest where to anticipate trouble in each phase of the work as it progresses.
358 ADVANCED ESTMMATING 3 credits Prerequisite: 245 or permission of the instructor. This course focuses on estimating and bidding for public and private construction. Includes heavyhighway, residential and building construction with the use of computer software to facilitate bid price.
359 CONSTRUCTION COST CONTROL
3 credits
Prerequisite: 6200:2010r permission of instructor. Course develops a practical understanding of the latest managerial accounting principles and practices as they apply to the construction business.
361 CONSTRUCTION FORMWORK
3 credits
Prerequisite: 234 or permission. Introduction to design and construction of formwork and terrporary wood structures.
362 ADVANCED ELEMENTS OF STRUCTURES
3 credits
Prerequisite: 234. This course examines advanced topics in structural engineering and is an extension of Elements of Structure.
420 HYDROLOGY AND GROUNDWATER
3 credits
Prerequisite: 2030:154. The topics addressed include the impact of rainfall events on civil facilities and groundwater flow as it relates to the natural water supply.

453 LEGAL ASPECTS OF CONSTRUCTION
2 credits
Prerequisite: admission into the BCT program or permission of instructor. Study of business of contracting and subcontracting and legal problems therein such as breach, partial performance, payment, insolvency, subsurface. Review of standard contracts and construction industry rules of arbitration.
455 COMPUTERIZED PRECISION ESTIMATING 3 credits
Prerequisite: 245. Students will explore sophisticated software programs utilized by the corstruction industry to prepare estimates and bid packages.
462 MECHANICAL SERVICE SYSTEMS 3 credits
Introduction to materials and equipment used in mechanical heating, ventilating, air conditioning, water and waste systems.
463 ELECTRICAL SERVICE SYSTEMS
3 credits
Introduction to materials and equipment in electrical systems of buildings. Inciudes illumination. electrical sources, materials and distribution. Emphasis of fire safety.
465 HEAVY CONSTRUCTION METHODS 3 credits
Prerequisite: admission into the BCT program or permission of instructor. Management techniques in planning, estimating and directing heavy construction operations.
468 HYDRAULCS 3 credits
Prerequisite: 2030:255. Introduction to hydrology. Flow in closed conduits and open channels, distribution, systems, storage requirements and basic concepts of hydraulic structures. Basic concepts of seepage and working knowiedge of pumps.
468 CONSTRUCTION MANAGEMENT
3 credits
Prerequisites: 352, 358 and senior-levei standing. Construction Management takes established construction practices, current technological advances and latest management methods and makes them into an efficient, smooth working system.

489 SPECIAL TOPICS IN CONSTRUCTION 1.3 crodits
(May be repeated for up to six credits) Prerequisite: permission of instructor. Special lecture/laboratory courses offered once or only occasionally in areas where no formal courses exist.

490 WORIKSHOP IN CONSTRUCTION
1.3 credits
(May be repeated for up to six credits) Prerequisites: permission of instructor. Group studies of special topics in construction. May not be used to meet undergraduate major requirements in special topics in construction. May not be used to
construction. May be used for elective credit only.

498 INDEPENDENT STUDY IN CONSTRUCTION $1-3$ credits
(May be repeated for up to six credits) Prerequisite: permission of instructor. Directed study in a special field of interest chosen by student in consultation with instructor.

## Buchtel College of Arts and Sciences

## COOPERATIVE EDUCATION 3000:

200. JOB SEARCH STRATEGES FOR LBERAL ARTS AND SCYENCE MANORS

2 credits
Students engage in comprehensive career planning and develop job search strategies. Course topies incude navigating a search, creating resumes/cover letters, interviewing and portiolio development. No prerequisites required.
301 COOPERATIVE EDUCATION
0 credits
(May be repeated) For cooperative education students only. Work experience in business, industry, or govemmental agency. Comprehensive performance evaluation and written report required.

## PAN-AFRICAN STUDIES

## 3002:

201 INTHODUCTION TO PAN-AFRICAN STUDIES
3 credits
Prerequisites: 3300:112 or 2020:121. An interdisciplinary study from an Afrocentric perspective of African and African diaspora experiences. The course will focus on central issues related to the discipline.
301 THE CIVIL RIGHTS MOVEMENT IN AMERICA: 1945-1974
3 credits
Social and political actions, events and environment which produces civil rights movement in America. Legal, political and organizational strategies; philosophical arguments; prominent civil rights activists.
401 GENERAL SEMINAR IN PAN-AFRICAN STUDIES
3 credits
Prerequisite: $3400: 260$ or permission. Exploration and intensive examination of vaniety of issues related to role and minority group relations which normally stand outside the compass of any one subject metter area.
420 SPECLAL TOPICS IN PAN-AFRICAN STUDIES
1.3 credits
(May be repeated for a maximum of three semester credits). Prerequisite: permission of instructor.
488 INDEPENDENT STUDY
1.3 credits
(May be repeated for a maximum of three semester credits). Prerequisites: 3002:201 and 3400:260 or $3400: 261$ and permission of director. Directed study in a special field of interest chosen by student in consultation with instructor.

## INTERDISCIPLNARY PROGRAM

international
DEVELOPMENT

## 3004:

201 INTRODUCTION TO INTERNATIONAL DEVELOPMENT
3 credits
Uses multiple perspectives: economic, geographical, anthropological, political etc. to study rela tionships between industrialized and developing countries, poverty, productivity, justice and other aspects of development

401 INTERNATIONAL DEVELOPMENT PROJECT
1.3 credits

Prerequisite: $\mathbf{2 1}$ credits towards intemational Development Certificate. Research project to be carried abrcad. Students must arrange international experience through channels outside the Certificate program. Project report is capstone requirement of Cerificate.

## INTERDISCIPLNARY PROGRAM

## INSTITUTE FOR LIFE-SPAN DEVELOPMENT AND GERONTOLOGY

## 3006:

450 INTERDISCIPLINARY SEMINAR IN LIFE-
2 credits
SPAN DEVELOPMENT AND GERONTOLOGY
(May be repeated for a total of two credits) Prerequisite: permission of instructor. Introduction to interdisciplinary study of gerontology including discussion of dimensions of aging, historical framework of aging in America, dernographics, service systerns, and current issues.
485 SPECLAL TOPICS
13 credits
Prerequisite: permission of instructor. Specialized topics and current issues in life-span development or gerontology. Covers content or issues not currently addressed in other academic courses.

488/686 RETIREMENT SPECLAUST
2 credits
An investigation of issues related to the design and implementation of pre-retirement planning and examination of life-span planning education as employed by labor, business and education.

## 490 WORKSHOP

$1-3$ credits
(May be repeated) Group studies of special topics in life-span development and gerontoiogy. May not be used to meet certificate requirements. May be used for elective credit only.

495 PRACTCUM IN LFE-SPAN DEVELOPMENT
1.3 credits

AND GERONTOLOGY
(May be repeated) Prerequisite: perrnission. Supervised experience in research or community agency work.

## INTERDISCIPLINARY PROGRAM

## ENVIRONMENTAL STUDIES

## 3010:

201 INTRODUCTION TO ENVIRONMENTAL SCIENCE
3 credits
Interdisciplinary analysis of our relationship with nature and dependence upon the environment, with emphasis on evaluation of current environmental problems and rational solutions.
401/501 SEMINAR IN ENVRONMENTAL STUDIES
2 credits
Specific environmental topic or topics from interdisciplinary viewpoint each semester. The director of Environmental Studies coordinates course; resource persons are drawn from the University and surrounding community.

490/590 WORKSHOP IN ENVIRONMENTAL STUDIES 1-4 credits
Prerequisite: varies with topic. Credit in graduate program must have prior approval of adviser. Skills, attitudes and fundamental concepts dealing with timely environmental problems and issues covered. Instruction under direction of University faculty.
495/595 RELD/LAB STUDIES IN ENVRRONMENTAL SCIENCE
3 credits Prerequisites: permission. A Field/Laboratory inquiry into a specific interdisciplinary, environmental science topic. Students complete a research project where they collect, analyze and interpret real world data.

## ENGLISH LANGUAGE INSTITUTE

## 3030:

031 ELI WRTTTEN EXPRESSION
3 academic progress units
Prerequisite: permission of instructor. Intensive course in English as a second language writing skills, designed to help students develop effective strategies for expressing ideas clearly and correctly in writing. May be repeated an unlimited number of times as course is noncredit.
032 EU READING COMPREHENSION
3 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language reading skills, designed to help students develop efficient reading strategies and build vocabulary. May be repeated an unlimited number of times as course is noncredit.

033 EL GRAMMAR AND ORAL COMMUNHCATION
3 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language grammar with an emphasis on oral skills, designed to help students speak fluently and correctry. May be repeated en unlimited number of times as course is noncredit.

034 EL LISTENNG COMPREHENSHON
3 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language listering skills, designed to help students develop strategies to understand spoken English and take academic lecture notes. May be repeated an unlimited number of times as course is noncredit.
041 ESL. WRITING: DEVELOPING WRTTING PROFICIENCY 4 academic progress units Prerequisite: permission of instructor. Provides intensive instruction in English as a second larguage writing. Students develop effective composing strategies while learning to wite for a variety of academic purposes. May be repeated an unlimited number of times as course is noncredit.
042 ESL READING: DEVELOPING READING PROFICIENCY guage reading. Students acquire effective reading and vocabulary development strategies for a range of academic purposes. May be repeated an unimited number of times as course is norcredit.

043 ESL GRAMMAR: DEVELOPING ORAL PFOFCHENCY 4 academic progress units Prerequisite: permission of instructor. Provides intensive instruction in English as a second lan guage grammar for speaking purposes. Students review grammar basics and expand their knowledge and usage of pattems. May be repeated an unlimited number of times as course is noncredit.
044 ESL LSTENHNG: DEVELOPANG AURAL PROFCHENCY 4 academic progress units Prerequisite: permission of instructor. Provides intensive instruction in English as a second larguage listening for academic purposes. Students acquire effective listening strategies for a range of contexts. May be repeated an unlimited number of times as course is noncredit.

051 ESL WRIMNG AND STUDY SKILLS
5 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language witing and study skills. Students learn and extensively practice techniques for writing, revising, and editing academic texts. May be repeated an unlimited number of times as course is noncredit.

052 ESL READNGG AND STUDY SKHLLS
5 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language reading and study skills. Students learn and extensively practice techniques for comprehending a variety of academic texts. May be repeated an unimited number of times as course is noncredit.
053 ESL GRAMMAR AND SPEAKING SKILS
5 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language grammar. Students leam and extensively practice a range of grammatical forms and functions in spoken contexts. May be repeated an unlimited number of times as course is noncredit.
054 ESL LSTENANG AND STUDY SKULLS
5 academic progress units
Prerequisite: permission of instructor. Intensive course in English as a second language listening and study skills. Students leam and practice techniques for comprehending spoken English in an academic setting. May be repeated an unlimited number of times as course is noncredth.

096 EU WORKSHOP
1-5 academic progress units
Prerequisite: permission of instructor. Provides instruction in English language and related topics for speakers of languages other than English. May be repeated an unlimited number of times as course is noncredit.

099 ELI HDDEPENDENT STUDY
1-5 academic progress units Prerequisite: permission of instructor. Independent study in English as a second language under the supervision and evaluation of selected faculty member. May be repeated an unlimited number of times as course is noncredit.

## BIOLOGY

## 3100:

100 INTRODUCTION TO BOTANY
4 credits
identification and biology of common plants of this region. Recommended for teachers of nature study. Not available for credit toward a degree in biology. Laboratory.

101 INTRODUCTION TO ZOOLOGY
4 credits
Identification and biology of common animals of this region. Recommended for teachers of nature study. Not available for credit toward a degree in biology. Laboratory.

103 NATURAL SCIENCE: BIOLOGY
4 credits
Designed for non-science majors. Laboratory and class instruction illustrate concepts of living organisms with emphasis on mankind"s position in, and influence on, the environment. Not available for credit toward a degree in biology.
104 INTRODUCTION TO ECOLOGY LABORATORY 1 credit Corequisite: 105. Short field trips and laboratory studies illustrating natural and modified characteristics of selected local ecosystems.

105 INTRODUCTION TO ECOLOGY
2 credits Basic principles goveming structure and function of natural ecosystems. Various options for managing natural resources, human populations, biotic communities and industrial technologies at global level emphasized. Not available for credit toward a degree in biology.
108 INIRODUCTION TO 8IOLOGICAL AGING
3 credits Prerequisite: 3100:103. Survey of normal anatomical and physical changes in aging and associated diseases. (For students in gerontological programs at Wayne College. Not for B.S. biology credit.)

111 PRINCIPLES OF BHOLOGY
4 credits
Molecular, cellular basis of life; energy transformations, metabolism; ceil reproduction, genetics, development, immunology, evolution, and origin and diversity of life (through plants). Laboratory.

## 112 PRINCIPLES OF BIOLOGY II

4 credits
Prerequisite: 111. Animal diversity; nutrients, gas exchange, transport, homeostasis, control in plants and animals; behavior: ecology. (111-112 are an integrated course for biology majors.) Laboratory.

130 PRINCIPLES OF MICROBIOLOGY
3 credits
Basic principles and terminology of microbiology; cultivation and control of microorganisms: relationships of microorganisms; medical microbiology. Laboratory. Not available for credit toward a degree in biology
180 BS/MD ORIENTATION 1 credit
Orientation to the BSMMD Program. Restricted to students in the BS/MD Program. Graded credit/no credit. Not available for credit toward a biology degree.
190/191 HEALTH-CARE DELMERY SYSTEMS $t$ credit each Health-care principles and practices. Restricted to the student in NEOUCOM, six-year BSMD program. Graded credit/honcredit. Not available toward credit as major in biological sciences.
200 HLMAAN ANATOMY AND PHYSIOLOGY I
3 credits
Study of structure and function of the human body. Molecular, cellular function, histology, integumentary system, skeletal system, muscular system, nervous system, and the sense organs. Not available for credit toward a degree in biology

201 HUMAN ANATOMY \& PHYSIOLOGY LABORATORYI
Laboratory devised to allow hands-on experience using models, dissections of various animals, virtual dissection, and physiological exercises. Not available for credit toward a degree in biology.
202 HUMAN ANATOMY \& PHYSIOLOGY II
3 credits
Prerequisite: 200. Study of structure and function of the human body. Endocrine system, cardiovascular system, lymphatics, respiratory system, uninary system, digestive system and reproductive systems. Not available for credit toward a degree in biology.
203 HUMAN ANATOMY \& PHYSIOLOGY LABORATORY II 1 credit
Laboratory devised to allow hands-on expenience using models, dissections of various animats, vitual dissection, and physiological exercises. Not available for credit toward a degree in biology.
211 GENERAL GENETICS
3 credits
Prerequisite: 112. Pninciples of heredity, principles of genetics.
212 GENEIICS LABORATORY
1 credit
Prerequisite or corequisite: 211 . Laboratory experiments in genetics with emphesis on scientific method; techniques in molecular biology.

217 GENERAL ECOLOGY
3 credits
Prerequisite: 112 . Study of interrelationships between organisms and environment.
225 810LOGY OF ADS
1 credit
Prerequisite: permission. Course examines the Human immunodeficiency Virus and the disease of AIDS. Virus structure, replication, therapy, transmission, epidemionogy, disease process and social consequences are studied. Not available for credit toward a degree in biology.

265 INTRODUCTORY HUMAN PHYSKLOGY
4 credits
Study of physiological processes in human body, particularly at orgar-systems level. Not open to preprofessional majors. Laboratory. Not available for credit toward a degree in biology.
290/291 HEALTH-CARE DELIVERY SYSTEMS
1 credit each Health-care principles and practices. A continuation of 190/191 for a second year student in NEOUCOM six-year BSMMD program. Graded credit/noncredit. Not available toward credit as major in biological sciences.
295 SPECIAL TOPICS: BIOLOGY
1 to 3 credits Prerequisite: permission. Special courses offered occasionally in areas where no formal course exists. Not available for credit toward a degree in biology.
311 CELL AND MOLECULAR BIOLOGY
4 credits Prerequisites: 3100 : $211,3150: 151,152,153,154$. Study of structure and function of ceils, with emphasis on both classical and modem approaches to understanding organelles, energy bat ance, protein synthesis, and replication.
315 EVOLUTIONARY BIOLOGY DISCUSSION
Prerequisite: 211. Informal discussions of various aspects of organic evolution of general or spe cial interest.
316 EVOLUTIONARY BIOLOGY
3 credits
Prerequisite: 112. Description of core evolutionary concepts and the history of evolutionary thought, including natural selection, sexual selection, genetic drift, higher level selection and speciation.

331 MICROBKOLOGY
4 credits
Prerequisites: 112, 211 and prerequisite or corequisite 3150:263. Survey of monera with empha sis on the hacteria: their morphology, cultivation and chemical characteristics. Relationships of microorganisms to humans and their environment. Laboratory.
342 FLORA AND TAXONOMY 3 credits Prerequisite: 112. Origins of Ohio flora, ecological and evolutionary relationships. Survey of local flowering plant families, collection and identification of fiora. Laboratory and field trips.
343 DIVERSITY OF PLANTS 3 creadits Prerequisite: 112,217 . A broad survey of the traditional plant "branches" of the tree of life. Diversity, structure, and function of fungi, algae and land plants
344 DIVERSITY OF PLANTS LABORATORY
2 creaits
Prerequisite: 112, 217. Corequisite: 343. A broad laboratory survey of the traditional plant "branches" of the tree of life. Students will have hands-on experience with fungi, algae and land plants.
345 BOLOGY OF VASCULAR PLANTS
4 credis
Prerequisite: 112. A lecture and laboratory course which presents an overview of the anatomy, morphology, development and evolution of vascular plants.
363 ANIMAL PHYSIOLOGY
4 credits
Prerequisites: 112. Study of transport mechanisms, excitatory membranes, sensory reception, neuroendocrine systems, and muscle contraction. The foundation for all physiology courses. Laboratory.
365 HISTOLOGY
4 credits
Prerequisite: 311 . Cellular structure of organs in relation to their functional activity, life history, comparative development. Laboratory.

392 BIOLOGY OF AGING
Prerequisite: 112 or $\mathbf{2 6 5}$ or equivalent. Introduction to anatomical and physiological changes occurring in organ systems of humans during aging process; cellular basis for these changes; biological theories of aging.

400 FOOD PLANTS 2 credits
Prerequisite: 112 or permission of instructor. A survey of the plants used for human food, inctuding their history, structure, uses.
406 PRINCIPLES OF SYSTEMATICS 3 credits Prerequisites: $112.211,316$. The science of identifying, naming, and classifying the diversity of life. Topics include: nomenclature, types, techniques of data collection, and methods of phyloge netic reconstruction.
412 ADVANCED ECOLOGY
3 credits
Prerequisite: 217. Advanced study of the ecology of individuals, populations, communities, and conservation/applied ecology. Active perticipation/discussion of primary literature in ecology is required.
418 FELD ECOLOGY 4 credits Prerequisite: 217 (statistics strongly recommended). Introduction to sampling methods, design of experiments and observations, and computer analysis; some local natural history. Laboratory.
421 TROPICAL FELD BIOLOGY
4 credits Prerequisites: $111 / 112$ or equivalent. Ecology of coral reefs, tide pools, mangroves, intertidal zones, terrestrial flora and fauna, island biogeography. Taught at a field station in the tropics. Field trips involved; transportation costs.

422 CONSERVATION BIOLOGY
3 credits
Prerequisite: 217. Explores the factors affecting survival of biodiversity, and how to develop practical approaches to resolve complicated conservation issues.
423 POPULATION BIOLOGY
3 credits
Prerequisites:211, 217. Discussions of animal and plant ecology and evolutionary biology from a species and population level perspective. Includes topics in population ecology and population genetics.

426 WETLAND ECOLOGY
4 credits
Prerequisite: 217. Wetland ecology; principles and conservation. Field studies will be conducted at Bath Nature Preserve. Laboratory.

427 FRESHWATER ECOLOGY 4 credits
Prerequisite: 112 or by permission. This course explores the diversity of aquatic life and key characteristics of freshwater ecosystems with emphasis on the Laurentian Great Lakes. includes field trips, laboratory.

428 BIOLOGY OF BEHAVIOR
3 credits
Prerequisites: 211, 217 and 316. Biological basis of behavior, ethology and behavioral ecology. An evolutionary perspective is emphasized.
429 BIOLOGY OF BEHAVIOR LABORATORY
1 credit
Prerequisite or corequisite: 428 and permission of instructor. Individualized, directed study to provide the student with firsthand experience in observing, describing and interpreting animal behavior.
430 COMMUNTTY/ECOSYSTEM ECOLOGY
3 credits
Prerequisite: 217. An examination of the components, processes and dynamics in communities and ecosystems. Includes reading and discussion of primary literature.
433 PATHOGENIC BACTERIOLOGY
4 credits
Prerequisite: 331 . Study of major groups of bacteria which produce infections in humans. Biocthemical properties of microcrganisms which engender virulence and nature of host resistance. Laboratory.
437 IMMUNOLOGY 4 credits
Prerequisite: 211. Corequisite: 331. Recommended: 311. Nature of antigens, antibody response, and antigen-entibody reactions. Site and mechanism of antibody formations, hypersensitivity, immunologic tolerance and immune diseases considered. Laboratory.

439 ADVANCED IMMUNOLOGY 3 credits
Prerequisite: 437. Immunology is studied from a historical and current perspective. Topics include T cells, B cells, antigen presentation, HIV, and transplantation.

440 MYCOLOGY 4 credits
Prerequisite: 112. Structure, life history, classification of representative fungi with emphasis on the importance of fungi to humans. Laboratory.

441 PLANT DEVELOPMENT 4 credits
Prerequisites: 112 and one vear of organic chemistry. Embryology and morphogenesis of plants in relation to physical, chemical, genetic and spatial factors. Laboratory.
442 PLANT ANATOMY 3 credits
Prerequisite: 112. Structure and development of cells, tissues, organs and organ systems of seed plants. Laboratory.
443 PHYCOLOGY 4 credits Prerequisite: 112. Examination of the major groups of algae with emphasis on life histories and their relationship to algal form and structure. Laboratory.
44 FIELD MARINE PHYCOLOGY 3 credits Prerequisite: 112. Collection and identification of tropical marine algae on San Salvador Island, The Bahamas. Discussion of characteristics and ecology of major groups of Caribbean algae. Laboratory.
445 PLANT MORPHOLOGY
4 credits Prerequisite: 112 . Structure, reproduction, life cycles, ecology, evolution, economic significance of land plents-byyophytes, club-mosses, whisk fems, horsetails, ferns, seed plants. Laboratory. Field trips involved; minor transportation costs.
451 GENERAL ENTOMOLOGY
4 credits
Prerequisites: 112,217. Structure, physiology, life cycles, economic importance and characteristics of orders and major farnilies of insects. Laboratories parallel lectures.
453 INVERTEBRATE ZOOLOGY 4 credits Prerequisites: 112, 217. Invertebrate groups, their classification, functional morphology, adaptive radiation and life history. A phylogenetic approach is used. Laboratories parallel lectures.
454 PARASTOLOGY 4 credits
Prerequisites: 112. Principles of parasitism; host parasite interactions; important human and veterinary parasitic diseases; and control measures. Laboratories parallel lectures.
455 ICHTHYOLOGY 4 credits
Prerequisites: 217. Study of fishes; incorporates aspects of evolution, anatormy, physiology, natural history, and commercial exploitation of fishes. Laboratory incorporates field-based exercises and fish taxonomy.

458 ORNTHOLOGY 4 credits
Prerequisite: 112. Introduction to biology of birds: classification, anatomy, physiology, behavior, ecology, evolution, natural history and field identification. Laboratory and field trips.
457 HERPETOLOGY
4 credits
Prerequisite: 112. Survey of the diversity, ecology and evolution of amphibians and reptiles. Special emphasis is given to Onio species. Laboratory.

458 VERTEBRATE ZOOLOGY
4 credits
Prerequisite: 316 or permission. Biology of vertebrates, except birds evolution, ecology, behevior, systematics and anatomy. Laboratory with field trips.
463 EXERCISE PHYSIOLOGY 3 crodits Prerequisite: 363 or instructor permission. Through lecture, reading and critical analysis of current literature, physiological mechanisms of exercise in animals will be explored.
465 ADVANCED CARDIOVASCULAR PHYSIOLOGY
3 credits
Prerequisite: 202 or 363 or 473 . Study of biological mechanisms involved in heart attack, strokes, fluid balance, hypertension and heart disease. Controversial issues in each area will be examined and curtent research presented.
468 VERTEBRATE EMBRYOLOGY
4 credits
Prerequisite: 112. Lectures focus on development of model vertebrate organisms and cellular and molecular mechanisms underlying animal development. Laboratory focuses on frog and chick development.
467 COMPARATIVE VERTEBRATE MORPHOLOGY
4 credits
Prerequisite: 112. An introduction to the comparative morphology of major vertebrates. The laboratories consist of dissections of representative vertebrates.
468 THE PHYSIOLOGY OF REPRODUCTION
3 credits
Prerequisite: 202 or 363 or $\mathbf{4 7 3}$. Study of the physiological mechanisms of reproduction throughout the animal kingdom with special emphasis upon mammalian endocrinological control. Controversial issues in the field will be examined and current research presented.

## 169 RESPIRATORY PHYSIOLOGY

3 credits
Prerequisite: 202 or 363 or 473 . Study of mechanisms determining gas exchange including mechanics, ventilation, blood flow, diffusion, and control systems. Emphasis is given to normal human lung function. (Clinical aspects are not considered in detail.)
470 LAB ANIMAL REGULATIONS
i credit
Required of anyone working with animals, and covers govemment regulations, care of animals and a lab to teach basic animal handing and measurement techniques.
471 PKYSIOLOGICAL GENETICS
4 credits
Prerequisite: 211 or equivalent; 202 or 363 or 473 . The integrative study of how genetics and physiology influence complex systems from moiecuiar to behavioral in plants and animals. Laboratory.
472 BHOLOGICAL MECHANISMS OF STRESS
3 credits
Prerequisite: 202 or 363 or 473/573. Study of mechanisms from molecular to behavioral of how stress influences body systems and signals. The latest research and experimental issues are discussed.
473 COMPARATIVE ANIMAL PHYSIOLOGY
3 credits
Prerequisites: 363 or instructor consent. Study of respiration, circulation, digestion, metabolism, osmoregulation and excretion in a variety of invertebrate and vertebrate animals. Adeptation to the environment is emphasized.

474 COMPARATIVE ANIMAL PHYSIOLOGY LABORATORY
1 credit
Prerequisite: 112. Corequisites: 473. Laboratory experiments in animal physiology frespiration, circulation, metabolism, osmoregulation). Presentation of results in scientific format and as oral reports.
475 COMPARATIVE BIOMECHANICS
3 credits
Prerequisite:112 or equivalent. Investigation of how physical constraints on biological materials, structural mechanics and locomotion relate to the survival and evolution of living organisms.
460 MOLECULAR BKLOGY
3 credits
Prerequisite: 211 and 311. Fundamentals of molecular biology, including recombinant DNA technology, applications in biotechnology, medicine, and genetic engineering. Mechanisms of gene regulation.
481 ADVANCED GENETICS
ADVANCED GENETICS 3 credits
Prerequisite: 211 . Nature of the gene; genetic codes; hereditary determinants; mutagenesis and genes in population. Lecture and seminar.
482 NEUROBHOLOGY
Prerequisites: 111, 112. History of Neuroscience; organization, function and development of the central nervous system; electrophysiological properties of nerve cells; leaming and memory; molecular basis for mental diseases.
485 CELL PHYSIOLOGY
4 credits
Prerequisite: 311. Explores molecular and biochemical aspects of energy metabolism, inter and intracellular signaling, growth and death of cells. Emphasizes up-to-date scientific literature and techniques. Laboratory.

494 WORIKSHOP IN BIOLOGY
$1-3$ credits
(May be repeated) Prerequisite: permission of instructor. Group studies of special topics in biology. May not be used to meet undergradiate or graduate major requirements in biotogy. May be used for elective credit only.
495 SPECIAL TOPICS: BIOLOGY
$1-3$ credits
Prerequisite: permission. Special courses offered occasionaly in areas where no formal course exists. Maximum of 24 credits of 3100:295/495 will apply toward major.
497,8 BIOLOGICAL PROBLEMS
1-2 crodits each
Prerequisite: permission. Honors-level work, usually consisting of laboratory investigations. A maximum of 4 credits may apply toward the major degree requirements.
499 SENOR HONORS PROGRAM IN BKOLOGY $1-3$ credits (May be repeated for a total of five credits) Prerequisites: senior standing in Honors College and approval of honors preceptor. Open only to biology and natural sciences divisional majors in Honors College. Independent study leading to completion of approved senior honors.

## CHEMISTRY

## 3150:

100 CHENUSTRY AND SOCHETY
3 credits
Qualitative introduction to chemistry using current world problems and commercial products, such as the ozone layer, nuclear fission, polymers and drugs, to introduce chemical principles.

101 CHEMISTRY FOR EVERYONE 4 credits
Integrated, hands-cn, laboratory instruction in the fundamental concepts of chemistry for genera education and middle-level licensure for preservice and it-service teachers.

110 INTRODUCTION TO GENERAL
3 credits
ORGANIC AND BIOCHEMISTRY I (LECTURE)
Sequential. Introduction to principtes of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzyrnes metabolism, radiation
111 INTRODUCTION TO GENERAL,
1 credit
ORGANIC AND BOCHENISTRY I (LABORATORY)
Prerequisite/Corequisite: $3150: 110$. Sequential. Laboratory course applying principles of chem istry and fundamentals of inorganic, organic and biochemistry.

112 INTRODUCTKON TO GENERAL
3 credits
ORGANC AND BKCHEMISTRY II (LECTURE)
Prerequisite: 110. Sequential. Introduction to principles of chemistry, fundamentals of inorganic organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochern istry of enzymes, metabolism, radiation.
113 INTRODUCTION TO GENERAL
1 credit
ORGANC AND BIOCHEMMSTRY II (LABORATORY)
Prerequisite/Corequisite: 3150:112. Sequential. Laboratory course applying principles of chern istry and fundamentals of inorganic, organic end biochemistry.
151 PRHNCIPLES OF CHEMUSTRY I
3 credits
Prerequisite: placement in 3450:149 or higher or permission. Introduction to basic facts and prin ciples of chemistry including atomic and molecular structure, states of matter and thermodynamics. For chemistry majors, pre-medical students and most other science majors. Discussion (day sections).

152 PRUNCIPLES OF CHEMISTRY LABORATORY
1 credit
Pre/Corequisite: 151, Laboratory course applying principles of thermodynamics, chemical analy sis and laboratory practice.

153 PRINCIPLES OF CNEMISTRY II
3 credits
Prerequisite: 151. Continuation of 151, 152, including aqueous solution theory, chemical kinetics, equilibrium, electrochemistry and nuclear chemistry. For chemistry majors, premedical students and most other science majors. Discussion (day sections)
154 QUALTATIVE ANALYSIS 2 credits
Prerequisite: 152. Pre/Corequisite: 153. Laboratory course applying principles of chemical equilitrium to inorganic qualitative analysis.
199 INTRODUCTORY SEMINAR WN CHEMISTRY
1 credit
Basic concepts in chemistry practice including witten and oral communication skills, computer skills, professional ethics, environmental issues, chemical literature, degree options, and career considerations.
203,4 ORGANIC CHENISTRY LECTURE I, II
3 credits each
Sequential. Pre/Corequisite for 3150:263: 153 or permission. Prerequisite for 3150:264: 263 Structure and reactions of organic compounds, mechanism of reactions.
265,6 ORGANC CHEMSTRYY LABORATORY I, $H$
2 credits each
Sequential. Pre/Corequisite for $3150: 265$ : 263; prerequisite: 154. Prerequisite for $3150: 266$ : 265 Laboratory experiments to develop techniques in organic chemistry and illustrate principles Discussion.

301 BASIC BIOCHEMLSTRY
3 credits
Prerequisite: 264. A onesemester, basic course in biochemistry covering structure/reactivity relationships of biological molecules and the metabolism of carbohydrates, lipids, amino acids and nucleic acids.

305 PHYSICAL CHEMSSTRY FOR THE BKOLOGICAL SCIENCES 4 crodits Prerequisites: 264, 3450:222, 3650:262 or 292. Chemical thermodynamics, kinetics, molecular stucture and spectra. Accepted for the BS degree in Biochemistry.

313 PHYSICAL CHEMISTRY LECTUREI
3 credits
Prerequisites: 264, 3450:223, 3650:291 or permission. Gases, thermo dynarnics, thermocherristry, solutions, dilute solutions, chemical equilibrium, phase rule, chemical kinetics, electro chemistry, electrolytic equilibris.
314 PHYSICAL CHEMISTRY LECTURE
3 credits
Prerequisites: 264, 3450:335,3650:292 or permission of instructor. Atomic and molecular structure and spectroscopy
370 BIOCHEMISTRY LABORATORY
2 credits
Prerequisite: 266. An integrated taboratory experience covering the isolation, characterization and analysis of enzymes and DNA, protein synthesis and purification, enzyme kinetics, biochemical databeses and statistical treatment of data.
380 ADVANCED CHEMISTRY LABORATORY I
2 credits
Prerequisite: 266. A laboratory experience that focuses on the synthetic and spectroscopic tech niques of modern inorganic chemistry, including bioorganic and organometallic compounds.
381 ADVANCED CHEMISTRY LABORATORY II
2 credits
Prerequisite: 266. Corequisite: 314 and 424 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, and instrumental techniques.
399 INTERANSHP IN CHEMISTRY
(May be repeated for a maximum of six credits) Prerequisites: minimum GPA of 2.5; permission of the Department. Work experience focused on career applications of the discipline of Chemistry.

401 BOCHEMISTRY LECTURE
3 credits
Prerequisite: 264. Biochemistry of amino acids, carbohydrates, lipids, and nucleic ocids: struc tureffunction relations. Enzymes as catelysts: kinetics and regulation. Cofactors.
402 EOOCHEMASTRY LECTURE II
Prerequisite: 401/501. Overview of metabolism; thermodynamics; carbohydrate, fatty acid. amino acid, and nucleoside anabolism and catabolism; hormonal control of metabolism. Photosynthesis.

123 ANALYTCAL CHEMISTRY 1 3 credits Prerequisite: 154 and 263 . Theoretical principles of quantitative and instrumental analysis.
04 ANALYTICAL CHEMISTRY H
3 credits
Prerequisite 154 and 263. Instrumental analysis with emphesis on newer analytical tools and methods.

163 ADVANCED ORGANIC CHEMISTRY
3 credits
Prerequisites: 264. Introduction to study of mechanisms of organic reactions
472 ADVANCED INORGANIC CHEMISTRY
Prerequisite: 314 or permission. Concepts of atomic structure integrated in systematic classifics-
Prerequisite: $\mathbf{3 1 4}$ or permission. Concepts of atomic structure integrated in systematic classifics tion of elements. Periodic table. Chemistry of the representative elements. Transition elements including coordination compounds, organometallics and metal carbonyls.

## 88 ADVANCED CHEMISTRY LABORATORY III

2 credits
Prerequisite 381 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, instumental techniques, and inorgenic chemistry.

481 ADVANCED CHEMISTRY LABORATORY IV
2 credits
Prerequisite 480 and 472 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, and instrumental techniques and biochemistry.

490 WORKSHOP IN CHEMISTRY
13 credits
(May be repeated) Group studies of special topics in chemistry. May not be used to meet undergraduate or graduate major requirements in chemistry.
497 HONORS PROJECT IN CHEMISTRY
2 credits
(May be repeated for a total of eight credits) Prerequisites: junior or senior standing in Honors College and permission of department honors preceptor. Independent research leading to completion of honors thesis under guidance of honors project adviser.
498 SPECIAL TOPICS: CHEMISTRY
$1-3$ credits
499 RESEARCH PROBLEMS $1-2$ credits
(May be repeated for a total of eight credits) Prerequisite: permission. Assignment of special problems to student, designed as an introduction to research problems.

## CLASSICS

## 3200:

220 INTRODUCTION TO THE ANCIENT WORLD
3 credits
Prerequisite: 3400:210. Introduction to the civilizations of the Near East, Greece, and Rome, their cultural influences upon each other and their legacy to Europe.

230 SPORTS AND SOCIETY IN ANCIENT GREECE AND ROME 3 credits
Greek and Roman sports, games and festivals, from the Olympics to gladiatorial games as social phenomena; multimedia survey of the archaeology of ancient sport.

289 MYTHOLOGY OF ANCIENT GREECE
3 credits
Prerequisite: 3400:210. Myth, legend and folktale in ancient Greece, with some attention to religion (Olympian deities, Orphism, etc.) and the transmission of Greek myth to Rome and the West. No foreign language necessary.
361 THE UTERATURE OF GREECE 3 credits Prerequisite: 3400:210. Major writers of ancient Greace and their influence on later European literature. No foreign language necessary. Required of majors.
362 THE UTERATURE OF ROME
3 credts
Major witers of ancient Rome and their influence on later European literature. No foreign language necessary. Required of majors.
363 WOMEN IN ANCIENT GREECE AND ROME 3 credits
Examine women's lives in ancient Greece and Rome. Read their poetry, see them in ancient theatre, art, and philosophy, and in modern art and film.
401 EGYPTOLOGYI 3 credits The history and antiquities of ancient Egypt.
480 READNNG AND RESEARCH IN CLASSICAL STUDIES $1-3$ credits Prerequisite: permission of instructor. Directed reading and research for individual and smail group study in any recognized area of classical studies.
499 HONORS PROJECT IN CLASSICS
1.3 credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and permission. Independent study leading to completion of a senior honors thesis under the supervision of a member of the Department of Classics.

## GREEK

## 3210:

## 121,2 BEGINNING GREEK I AND II

4 credits each

Sequential. Standard Attic Greek of classical times.

223,4 WTERMEDIATE GREEK 3 credits each
Prerequisites: 12?, 122. A survey of readings of the less difficult authors such as Homer, certain dialogues of Plato, Herodotus, Xenophon, New Testament or the like

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303.4 ADVANCED GREEK 3 credits each
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(May be repeated with a change of subject) Tragedy, comedy, philosophy, history, lyric poetry, prose composition or epigraphy.

## ANTHROPOLOGY

## 3230:

150 CULTURAL ANTHROPOLOGY Introduction to study of culture; cross-cultural view of hurnan adaptation through technology. social organization and ideology. Lecture.
151 HUMAN EVOLUTION
4 credits Study of biological evolution of Homo Sapiens, including primate comparisons and cultural deveropment. One-hour laboratory using interactive computer programs, casts and Anthropology's cultural collection.

## 251 HUMAN DVERSTTY

3 credits
A study of the critical elements of world diversity, both cultural and biological. Cross-cultural comparisons of family, religion and politics in contemporary world. Multimedia and lecture.

340 PALEODEMOGRAPHY AND HUMAN OSTEOLOGY
3 credits
Prerequisites: 1510, 151, 3240:100 or instructor's permission. An intensive study of bone, bone growth, and the human skeleton; ageing and sexing techniques; application of demographic techniques to paleoanthropological populations.

355 INDIANS OF SOUTH ANERICA 3 credits Prerequisite: 150 or 3850:100 or permission. Survey of aboriginal pecples of South America, with emphasis on culture areas and continuity of culture patterns. Lecture.

357 MAGIC, MYTH AND RELIGION 3 credits Prerequisite: 150 or 3850:100. Analysis and discussion of the data conceming the origins, roles and functions of magic and religion in a broad range of human societies, with emphasis on the non-Western, pre-industrial societies. Examination of belief and ritual systems of such societies.
358 INDLANS OF NORTH AMERICA
3 credits Prerequisite: 150 or permission. Ethnographic survey of native cultures of North America, with emphasis on variations in ecoiogical adaptations, social organization and modern American Indians in anthropologicai perspective. Lecture.
359 ANTHROPOLOGICAL THEORY
3 cradits Prerequisites: 150, 151 or permission of instructor. Advanced seminar addressing the history of anthropological theory and current theoretical debates within the discipline.
370 CULTURES OF THE WORLD
3 credits Prerequisite: 150 or $3850: 100$. An examination of cultural change and diversity in the 20th century; includes the ways in which cultures differ and major processes which produce those differences.
397 ANTHROPOLOGICAL RESEARCH
$1-3$ credits
(May be repeated) Prerequisite: permission. Individual study of problem areas of specific interest to an individual student under guidance of a facuity member.
398 INTRODUCTION TO ANTHPOPOLOGICAL DATA
3 cracits
Prerequisites: 150,151 and 3240:100. This course focuses on the characteristics of anthropological evidence through hands-on activities and examination of the uses of data in published works.
410 EVOLUTION AND HUMAN BEHAVIOR 3 credits Prerequisite: 151. Critical examination of the theory of natural selection and its usefulness for understanding the origins and evolution of early hominid and modern human social behavior,
416 ANTHROPOLOGY OF SEX AND GENDER
3 credits
Prerequisites: 150 or $3850: 100$. This course explores cross-cultural variation regarding sex, gender and sexuality. It examines the ways that cultures create, maintain and reproduce gender concepts and gender relations.
420 THE ANTHROPOLOGY OF FOOD
3 credits
Prerequisites: 150 or permission. Utilizing anthropological approaches and theories, this course explores the social relations and cultural beliets associated with food cross-culturally.
455 CULTURE AND PERSONALITY
3 credits
Prerequisite: 150 or permission. Examination of functional and causal relationships between cut ture and individual cognition and behavior. Lecture.
457 MEDICAL ANTHROPOLOGY
3 credits
Prerequisite: 150 or permission of instructor. Analyzes various aspects of Western and nonWestern medical systems from an anthropological perspective. Compares traditional medical systems around the world.
460 FIELD METHODS IN CULTURAL ANTHROPOLOGY
4 credits Prerequisite: 150 or permission of instructor. Community-based research and service-learning course in which students design and undertake a project. Addresses ethics, data collection, manegement and analysis in collaboration with community partners.
463 SOCIAL ANTHROPOLOGY nuclear and extended households and other kinship groupings. Lecture.

470 RESEARCH METHODS FOR THE SOCLAL SCIENCES PROSEMINAR
3 credits Pre-requisite: Completion of required coursework for the Research Methods Certificate Program or permission of instructor. Application of qualitative and/or quantitative research methods and analysis, and preparation of a scholarly research paper for presentation and/or publication. Seminar.
472 SPECIAL TOPICS: ANTHROPOLOGY
3 credits
(May be repeated) Prerequisites: 150 and permission. Designed to meet needs of student with interests in selected topics in anthropology. Offered irregularty when resources and opportunities permit. May include archaeological field school, laboratory research or advanced coursework not presently offered by department on regular basis.
474 SPECIAL TOPICS IN BIOLOGICAL ANTHROPOLOGY
3 credits
Prerequisite: 151. Advanced topics in biological anthropology, human paleontology and primate behavioral ecology. May be repeated.
494 WORKSHOP IN ANTHROPOLOGY
1.3 credits
(May be repeated) Group studies of special topics in anthropology. May not be used to meet departmental undergraduate or graduate major requirements. May be used for elective credit only.

3 credits
497 SENOR HONORS PROJECT WN ANTHFOPOLOGY ber in conjunction with Honors College preceptors under the guidelines of the Honors College.

## ARCHAEOLOGY

## 3240:

100 INTRODUCTION TO ARCHAEOLOGY
3 credits
Introduction to the sturty of ancient cultures based on material remains. Course covers basic archaedogical concepts and tools, types of data and interpretation.
101-120 CASE STUDIES IN ARCHAEOLOGY
1 credit each
A series of one-credit modules designed to introduce specific topics of archaeological interest to the non-specialist.
102 AGE OF ARTHUR 1 credit
Examines the archaeological and historical records of early medieval Europe to put Arthurian myth and legend into a real social context. Directed towards non-majors.

103 KNGS OF THE NORTH SEA 1 credit
Looks at Viking activity from pillaging to farming in Scandinavia, Europe and North America through historical and archaeological evidence. Directed towards non-majors.

## 104 CRYPTS, CASTLES AND CATHEDRALS 1 credit

Surveys the evolution of major defensive and religious structural achievements in medieval Europe: castles, churches, and monasteries. Directed towards non-majors.

105 THE INCAS 1 credit
Rise and fall of the Inca empire of South America. Topics include: politics, ideotogy, daily life and methods of recovering and interpreting archaeological date.
108 THE MAYA 1 credit
Rise and fall of the Maya civilization of Mesoamerica. Topics include: politics, ideology, daiky life and methods of recovering and interpreting archaeological data.
107 ARCHAEOLOGY OF PETS 1 credit
A look at pets from earliest times to the present and how the keeping of pets leads to the domestication of animals.
108 WORLD OF HOMER
7credit
Examination of Greek Bronze and Iron Age material culture and its possible relationship to the works of the poet Homer.
150 THME BEFORE HISTOFY
3 credits
Survey of world prehistory from the first appearance of anatomically modem humans to the rise of statelevel societies from an archaeological perspective.
313 ARCHAEOLOGY OF GREECE 3 credits
The ruins and monuments of Greece; history reconstructed by examination of the materiai remains. No foreign language necessary.
314 ARCHAEOLOGY OF ROME 3 credits
The ruins and monuments af Rome; history feconstructed by examination of the material remains. No foreign larguage necessary.
320 MEDIEVAL ARCHAEOLOGY
3 credits
This course will allow students to have the opportunity to examine the material/artifact record of the Medieval Period (c. AD 450-AD 1450) in Europe.
360 ANCIENT MEAR EASTERN ARCHEOLOGY 3 credits
General survey of the archaeological material, culture, and witten history of the ancient Near East. Covers human achievements from the Paleolithic to Alexander's conquest.
400 ARCHAEOLOGICAL THEORY
3 credits
Prerequisite: 100. Advanced seminar covering history of scientific archəeological exploration, major theoretical paradigms and current trends in archaeology. Required for Certificate in Field Archaeclogy.
410 ARCHAEOGEOPHYSICAL SURVEY
3 credits
Prerequisite: 100 or $3370: 101$ or $3350: 310$. Advanced instruction in principies of subsurface geophysical survey techniques in archaedogy. Emphasizes magnetic gradiometry and electricat resistivity techniques. Includes both laboratory and fieldwork.

420 ARCHAEOLOGY OF OHIO
3 credits
Prerequisite: 100. Provides a detailed overview of Ohio's prehistoric cultures and the early historic period iocusing on cultural evolution and environmental relationships.

440 ARCHAEOLOGICAL LABORATORY METHODS
3 credits
Prerequisite: 100. Laborator-besed course teaching essentials of artifact documentation, han dling and analysis. Focus on quantification, statistics, conservation and illustration, lithics, ceram ics, palsofaunal, paleobotanical remains and soils.

440 ARCHAEOLOGICAL LABORATORY METHODS LAB
Ocredits Corequisite:440/540.

450 ARCHAEOLOGICAL RELD SCHOOL
3.6 credits
(May be repeated for up to six credits). Prerequisite: 100. A fieldbased course teaching basic archaeological tecthiques, mapping, excavation of prehistonic and historic sites, survey and doc umentation.
472 SPECLAL TOPICS IN ARCHAEOLOGY
3 credits
Prerequisite: 100 or permission. Designed to meet needs of students with interests in selected topics in archasology. May includa fieldwork, laboratory research or advanced courses not regularty offered.

## ECONOMICS

## 3250:

100 INTRODUCTION TO ECONOMICS
3 credits
May not be substituted for 200, 201,244. Economics primanly concemed in a broad social sci ence context. Adequate amount of basic theory introduced. Cannot be used to satisty major or minor requirements in economics.
200 PRINCIPLES OF MICROECONOMICS
3 credits
Analysis of behavior of the firm and household, and their impact on resource allocation, output and market price. No credit it 244 atready taken
201 PRINCIPLES OF MACROECONOMICS
3 credits
Prerequisite: 200. Study of the economic factors which affect the price level, national income, employment, economic growth. No credit if 244 siready taken.
226 COMPUTER SKILS FOR ECONOMIC ANALYSIS
3 credits
Prerequisites: 100 or 200 or 244 . Application of word processing, spreadsheets, presentation packages, SAS, the intemet, library resources, and other computer tools in communicating eco nomic analysis.

230 ECONOMICS OF SOCIAL POLICY ISSUES
Prerequisite: 100 or permission of the instructor. Investigation of selected labor and social policy issues. Examples include health care, economic demography, anti-poverty programs, immigra tion, discrimination, and the impact of unemployment and inflation.

24 INTRODUCTION TO ECONONHC ANALYSAS
3 credits
Recommended for engineering and mathematical science majors. Intensive introduction to analysis of modem industrial society and formulation of economic policy. Structure of economic theory and its relation to economic reality. No credit to a student who has completed 200, 201.
310 MANAGERIAL ECONOMICS
3 credits
Prerequisites: 200 , or $244 ; 3470: 261,262$. Apptication of economic analysis to management problems; the organization of enterprises and the allocation of their resources; decision making under uncertainty; strategic behavior.
330 LABOR PROBLEMS
3 credits
Prerequisites: 200 or 201, or 244. Labor economics, principles and public policy. Study of structure of labor market and impact unions have on labor management relations
333 LABOR ECONOMICS
3 cradits
Prerequisite: $\mathbf{2 0 0}$ or 244 . Theoreticai tools used in analysis of problems of labor in any modem eco nomic system. Emphasis given to examination of determinants of demand for and supply of labor.
360 INDUSTRIAL ORGANIZATION AND PUBLLC POUCY
3 credits
Prerequisites: 200 or 244. Role of industrial structure and firm conduct in performance of indus try and way in which antitrust policy is designed to provide remedies where performance is unsatisfactory.

380 MONEY AND BANKING
3 credits
Prerequisite: 201. Institutions of money, banking and credit, monetary expansion and contraction, public policies affecting this process, development of our money and banking system.

386 ECONOMICS OF NATURAL RESOURCES AND THE ENMRONMENT
3 credits
Prerequisites: 100 or 200 or 244 or permission. Introduction to economic analysis of use of nat ural resources and economics of environment. Problems of water and air pollution, natural environments, natural resource scarcity, conservation, economic growth.

400 INTERMEDATE MACROECONOMICS 3 credits
Prerequisites: 201 and $3450: 145$ or equivalent. Changes in national income, production, employment, price levels, longrange economic growth, shortterm fluctuations of economic activity.
405 ECONOMCS OF THE PUBLIC SECTOR
3 credits
Prerequisites: 200 and 201, or 244. Considers nature and scope of govemment activity, rationale for govemment intervention, problems of public choice, taxation and revenueraising, costbene fit analysis, program development and evaluation.
410 INTERAMEDIATE MICROECONOMHCS 3 credits
Prerequisites: 200 or 244 , and $3450: 145$ or equivatent. Advanced analysis of consumer demand, production costs, market structures, determinants of factor income.
423 APPLED GAME THEORY
3 credits
Prerequisite: 200 or permission of the Economics department. Application of the basic concepts of geme theory fanalysis of strategic behovior) to relevant economics issues including bargaining, cartels, voting, conflict resolution and non competitive pricing.
426 APPLIED ECONOMETRICS
3 credits
Prerequisites: 200 and 201 or 244; 3470:261 and 262. Application of regression analysis to eco nomic and social sciences data. Discusses typical problems from applied research, including estimation technique, hypothesis testing and modeling framework.

427 ECONOMIC FORECASTING
3 credits
Prerequisites: 200 and 201 or 244; 3470:261 and 262; or permission of the Economies depart ment. Methods for building, identifying, fitting and checking dynamic economic models and use of these models for forecasting. Emphasis on application of available computer software sys tems.
430 LABOR MARKET AND SOCLAL POUCY
Prerequisite: 333 or permission of the Economics department. Intensive study of current labor and social policy issues (e.g., discrimination, poverty, migration, education, demographic and labor market changes, impact of international trade on employment)
432 THE ECONOMICS AND PRACTICE OF COLLECTIVE BARGAINING
3 credits
Prerequisite: 200 or $\mathbf{2 4 4}$. Principles and organization of collective bargaining, collective bargaining agreements, issues presented in labor disputes and settlements, union status and security, wage scales, technological change, production standards, etc.

434 LABOR MARKFT ANALYSIS AND EVALUATION
3 credits
Prerequisites: 410, 426, 430. Applied labor market research using specialized techniques Employment, health, education, and other current policy issues and programs analyzed and evaluated. Original research project required

436 HEALTH ECONOMHCS
3 credits
Prerequisites: $\mathbf{1 0 0}$ or $\mathbf{2 0 0}$ or $\mathbf{2 4 4}$ or permission of the instructor for 436 . Economic analysis of health care. Stresses health policy issues, includes study of demand and supply of medical services and insurance, analysis of heath care industries.
438 ECONOMICS OF SPORTS
3 credits
Prerequisites: 100 or 200 or 244 or permission of instructor. Sports franchises as profit maximizing firms; costs and benefits of a franchise to a city; labor markets in professional sports; the economics of college sports.
440 SPECAAL TOPICS: ECONOMICS
3 creaits
Prerequisite: permission of the Economics department. Opportunity to study special topics and current issues in economics.

460 ECONOMICS OF DEVELOPING COUNTRIES
3 credits
Prerequisites: 200 and 201, or 244; or permission of the Economics department. Basic problems in economic development. Theories of development, issues of political economy and institutions. Topics include poverty, population, migration, employment, finance, international trade and environment.

461 PRINCIPLES OF INTERNATIONAL ECONOMICS
3 credits
Prerequisites: 200 and 201, or 244; or permission of the Economics department. International trade and foreign exchange, policies of free and controlied trade, intemational monetary problems.

475 DEVELOPMENT OF ECONOMBC THOUGHT 3 credits
Prerequisites: 200 and 201, or 244; or permission of the Economiss department. Evolution of theory and method, relation of ideas of economists contemporary to conditions.
481 MONETARY AND BANKING POLICY
3 credits
Prerequisites: 380, 400 or permission of the Economics department. Control over currency and credit, policies of control by central banks and govemments, United States Treasury and Federal Reserve System.
487 URBAN ECONOMICS: THEORY AND POLICY
3 credits
Prerequisite: 200 and 201 or 244 or permission of instructor. Anatysis of urban issues from an economic perspective. Emphasis on urban growth, land-use pattems, housing, income distribut tion, poverty and urban fiscal policy.
40 INDEPENDENT STUDY IN ECONOMICS
$1-3$ credits
(May be repeated for a total of six credits) Prerequisite: permission of instructor. Independent study in economics under supervision and evaluation of selected faculty member.
491 WORKSHOP IN ECONOMICS
1-3 credits
Prerequisite: permission of the Economics department. (May be repeated) Group studies of special topics in economics. May not be used to meet undergraduate or graduate major requirements in economics. May be used for elective credit only.

## 495 INTERNSHIP IN ECONOMICS

1.3 credits

Prerequisites: 200, 201 and at least three additional courses in economics at the 300 - or 400 levei. Supervised placement in appropriate position in public or private sector organizations. Reports and written assignments required
496 SENIOR PROJECT W ECONOMICS
2 credits
Prerequisites: $400,410,426$. Corequisites: 405 or 423 or 430 or 460 or 461 or 475 or 481 or 487 Taken concurrently with or following a 400 -hevel field Economics course. Involves independent out-of-class work on a project designed in consultation with the designated 400 -level course instructor.
497 HONORS PROJECT
$1-3$ cradits
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors College. Individual senior honors thesis on a creative project relevant to economics, approved and supervised by faculty member of the department.

## ENGLISH

## 3300:

111 ENGLSH COMPOSITION I 4 credits
Extensive and varied experience in developing writing skills, with practice in expressive, reflective, and analytic forms of witing.
112 ENGLSH COMPOSTION a 3 credits
Prerequisite: 111. Designed to develop skills in analyzing and writing persuasive arguments.
113 AFRICAN AMERICAN LANGUAGE AND CULTURE I: COLLEGE COMPOSTIION 4 credits Discussion, argumentation and writing related to African American culture and language. An option to 3300:111 English Composition I. Open to all students

114 AFRICAN AMERICAN LANGUAGE AND CULTURE II: COUEGE COMPOSTION 3 credits Composition and discussion topics focus on the structure, history and culture of African American English. An option to 3300:112 English Composition II. Open to all students.
250 CLASSIC AND CONTEMPORARY UTERATURE
3 crodits Prerequisites: 111 and 112 or their equivalents, and $3400: 210$, or permission of the instructor. Close reading and analysis of fiction, poetry, and drama from the evolving canon of American, British, and World literature. This course fulfilis the General Education Humanities Requirement. It cannot be used to meet requirements in English.

252 SHAKESPEARE AND HIS WORLD
3 credits
Prerequisites: 111 and 112 or their equivalents, and 3400:210. An introduction to the works of Shakespeare and their intellectual and social contexts. Each section "places" Shakespeare through compact readings of works by the playwright's contemporanies. This course fulfills the General Education Humanities Requirement It cannot be used to meet requirements in English.

275 SPECIALIZED WRTING
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated for different topics, with permission) Frincipies and practice of style, structure and purpose in writing, with special applications to writing dernands of a specific career area.
277 INTRODUCTION TO POETRY WRITING
3 credits Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Practice in witing poems. Study of techniques in poetry, using contemporary poems as models. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing.
278 INTRODUCTION TO FICTION WRITING
3 credits
Perequisite: Completion of 111 and 112 or their equivalents, of permission of the instructor. Practice in writing short stories. Study of various techniques in fiction, using contemporary stories as models. Class discussion of student work. Individuai conferences with instructor to direct student's reading and witing.

279 INTRODUCTION TO SCRIPT WRITING
3 credits
Prerequisite: Completion of 111 and 112 or ther equivalents, or permission of the instructor. Practice in writing scripts. Study of various techniques in script writing, using contemporary modeis for study. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing
280 POETRY APPRECLATION
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Close reading of a wide selection of British and American poems with emphasis on dramatic situation, description, tone, analogical language, theme and meaning
281 FCTION APPRECAATION
3 crodits
Prerequisite: Completion of 111 and 112 or their equivalents, and $3400: 210$. Close reading of modern masters of short story and novel. Fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English.

283 FLM APPRECIATION
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Introduction to dramatic choices made by filmmakers in scripting, directing, editing and photographing narrative films; and qualities of reliable film reviews

300 CRITICAL READING AND WRTTING
3 credits
Prerequisits: Completion of 111 and 112 or their equivalents, or permission of the instructor. An introduction to English studies, focusing on critical methods for reading and writing about literature, with attention to research skills and uses of computer technology.
301 ENGLISH UTERATURE I
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Studies in English literature from Old English to 1800, with emphasis upon specific representative works and upon the cuitural and intellectual background which produced thern. Literature to be read will include both major and minor poetry, prose and drama.
302 ENGUSH UTERATURE II
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Studies in English literature from 1800 to present. Emphasis will be given to cultural and inteilectual backgrounds and to the development of various modes and genres.
315 SHAKESPEARE: THE EARLY PLAYS
Prerequisite: Completion of 111 and 112 or their equivaients, or permission of the instructor. Introduction to early drama of Shakespeare with close reading of tragedies, histories and comedies. Inciudes explanatory lectures of both the plays and their backgrounds

316 SHAKESPEARE: THE MATURE PLAYS
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of Shakespeare's plays after 1598, beginning with mature comedies. Concentration on major tragedies and romances.
341 AMERICAN UTERATURE I
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Historical suivey of major and minor American writers to 1865.
342 AMERICAN UTERATURE II
3 credits
Prerequisite: Completion of 111 and 112 or their equivaients, or permission of the instructor. Readings in major and minor American writers from 1865 to present.
350 BLACK AMERICAN LTERATURE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Survey of representative black American writers from the 19th Century to present, with particur lar attention to historical and social backgrounds.
360 THE OLD TESTAMENT AS LTERATURE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. History of Hebrews to 586 B.C., as revealed through epic, fiction, saga and poetry, viewed against background of the Asian Worid.
361 THE NEW TESTAMENT AND APOCRYPHA AS LTERATURE form of gospel and epistie, and concept of apocalypse. Both are viewed against their historical and social backgrounds.

362 WORLD LTERATURES 3 credits
The course is a study of short fiction, poems, plays, and novels of the nonWestern world from early antiquity to the present.
354 WOMEN WRTERS 3 credits
Prerequisite: Completion of 112 or equivalent, or permission of the instructor. A study of the diverse voices of female experiences through literature witten by women.
366 EUROPEAN BACKGROUNDS OF ENGLUSH UTERATURE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor.
Representative continental texts from Homer to Cervantes, selected both for their excellence and for their important influence on English and American literature.
371 INTRODUCTION TO LNGUSTICS
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Scientific introduction to the study of writen and spoken linguistic behavior in English. History of English, vaneties of English, and acquisition of English also introduced.

376 LEGAL WRIIING
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Intensive prectice in witing for pre-law students through assignments based on actual legal siturations and real cases. Particular attention to stating legal issues, writing persuasively, applying rules of law, and other topics that will help those preparing for law school and the profession.
377 ADVANCED POETRY WRIING
3 credits
Prerequisites: 277, and 111 and 112 or their equivalents, or permission of the instructor. Advanced practice in witing poems, emphasis on shaping publishable works. Survey of market. Class discussion of student poems; individual conference with instructor.
378 ADVANCED FICTION WRTTMG
3 credits
Prerequisites: 278, and 111 and 112 or their equivalents, or permission of the instructor.
Advanced practice in writing short stories, emphasis on shaping publishable works. Survey of market. Class discussion of student stories; individual conference with instructor.
379 ADVANCED SCRIPT WRTING

## 3 credits

Prerequisite: 112 and 279 or their equivalents, or permission of the instructor. This course focuses on writing for the screen and developing the visual imegination.

## 380 FILM CRITICLSM

3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Application of literary critical theory to the study of film.

381 CREATIVE NONFICTION
3 credits
This course explores the increasingly popular genre of creative nonfiction through the analysis, evaluation, and appreciation of published works, as well as through a workshop classroom structure in which students will practice and improve their writing skills in this particular form.

389 SPECHAL TOPICS: LTERATURE AND LANGUAGE
3 credits
Prerequisite: Complation of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated for credit as different topics are offered). Traditional and nontraditional topics in English literature and language, supplementing course listed in this General Bulletin, generally constructed around theme, genre and language study.
390 PROFESSIONAL WRTTING I
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Designed to heip prepare student for a career as professional business witer. Stresses theory and practice of written and oral communication in business organization. Individual and group performance, relating to cormmunication theories, concepts of semantics. Functional witing as well as special needs of business are illustrated by actual cases. Adapting style and organization is practiced.

391 PROFESSIONAL WRTING II
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Designed to help prepare student for a career as professional technical writer. Covers principles and practices concerning editing company technical communications, such as specifications, annual reports, promotional brochures for technical products, services, scientific abstracts, proposals. Also treats problems of adapting materials to formats, graphic display of technical information, adaptation of technical material to nontechnical reader.
392 INTERNSHHP IN ENGLSH
1-3 credits
(May be repeated for a maximum of six credits) Prerequisite: Minimum GPA of 2.5, permission of the instructor. Critical reading and writing focused on career applications of the discipline of English. May count up to three credit hours toward the English major.
399 THE GOTHIC IMAGINATION
Prerequisite: Completion of 111 and 112. A loosely chronological study of major British, American and European authors in the Gothic tradition. Focus on literary conventions of Gothic fiction, to the "popular" nature of the liferature and to th major themes/motifs.

400 ANGLO SAXON
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Studies in Old English language and Old English prose and poetry, including Beowulf.
403 DEVELOPMENT OF THE ARTHURIAN LEGEND 3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Traces evolution of Arthurian materials from 540 to 1500 and beyond, with emphasis on characters, themes, events and treatments.

## 406 CHAUCER

3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Close study of Chaucer's major works The Cantertury Tales and Troilus and Criseyde in Middle English.

## 407 MIDDLE ENGLISH UTERATURE

3 credits
Prerequisite: Completion of 111 and 112. Study of genres, topics, styles and witers of the Middle English literary works from 12th to 15 th Centuries. Readings in Middle English.

## 421 SWFT AND POPE

3 credits
Prerequisite: Completion of 111 and 112 or their equivaients, or permission of the instuuctor. An intensive study of the major satires of Swift and Pope. Concentration on the metorical strategies of each author within the context of the shifting intellectual and cultural milieu at the end of the 17th and beginning of the 18th Centuries.

## 24 EARLY ENGLSH FICTRON

3 credits
Prerequisite: Completion of 111 and 712 . Development of English novel before 1830. Focus on works of Defoe, Richardson, Fieldling. Smollet, Sterne, Austen and Scott.

## 125 STUDIES W ROMANTICISM

3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Literary, philosophical, psychological and social revolutions of romantic period as reflected in works of such major writers as Wordsworth, Byron and Keats.
430 VICTORIAN POETRY AND PRROSE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Poetry, prose of the late 19th Century, exduding fiction, with attention to Tennyson, Browning, Amold, Cartyle, Ruskin and other major writers.
431 VICTOPIAN FICTION
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Reading of at least five maior novels of Victorian era, of varying length, by Emily Bronte, Dickens, Eliot, Thackeray and Hardy. Cherecterization, theme and attitude toward iffe emphasized.
435 20TH CENTUHY BRTISH POETRY
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Concentrated study of major poems of Yeats, Eliot and Auden, with attention also to Hardy. Housman, Spender, C. Day Levis, Dylan Thomas and others.

436 BRTISH FCTION: 1900-1925
3 credits Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of Conrad, Joyce, D. H. Lawrence and Virginie Woolf, with attention to their innovations in narative and style, their psychological realism and symbolism. Brief consideration of other important fiction witers of the period, including Wells, Bemett and Marsfield.
437 BRIISH FCTION SNNCE 1925
3 creatiss
Prerequisite: Completion of 111 and $112 a$ their equivalents, or permission of the instructor. Study of important British novelists since 1925, excluding Lawrence, Joyce and Wooff. Attention to development of British short story from 1925 to present.
440 WOMEN \& RLM
3 credits
Prerequisite: completion of 111 and 112 or their equivalents, or permission of instructor. This course explores representations of feminine and treatments of gender issues in mainstream Hollywood films within a critical framework of ferninist film theory.

448 AMERICAN ROMANTTC FCTION
3 crodits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Examination of earty American fiction, tracing its genesis, somantic period and germinal movements toward realism. Writers discussed include Cooper, Poe, Hawthome and Mehile.
449 AMERICAN FCTION: REALSSM AND NATURALLSM
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Examination of American witers of realistic and naturalistic fiction (e.g., Howells, James. Crane, Dreiser), tracing developments in American fiction against background of cutural and historical change.
450 MODERN AMERICAN FCTION
3 credits Prerequisite: Completion of 111 end 112 or their equivalents, or permission of the instructor. Study of significant American short and long fiction from World War I to the present.
451 ANEERICAN POETRY TO 1900
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Survey of American poetry of the 17th, 18th and 19th Centuries.
452 MODERN AMERUCAN POETRY
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Survey of 20th Century American poetry beginning with Edvin Alington Robinson and ending with contemporary poets.
453 AMERICAN WOMEN POETS
3 credits
Prerequisite: Completion of 111 and 112. Study of modern poets' uses and revisions of tredition, women's relationships, conceptions of art and of the artistes woman, and the debate between "public" and "private" poetry.

454 20TH CENTURY AMERICAN DRAMA
3 crodits Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Examination of major, established playurights (including O'Neill, Milier and Williams) and sampling of new and rising ones.
455 THE AMERICAN SHORT STORY
3 credits Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. A study of the development of the short story as a particularly American genie, from Washington Irving to the present.
456 THOREAU. EMERSON, AND THER CIRCLE
3 credits A study of work and life of Henry David Thoreau, Ralph Weldo Emerson, and other key figures of the American Renaissance.
460 FLLM AND UTERATURE
3 credits
Prerequisites: completion of 111 and 112 or their equivalents, or permission of the instructor for 460. Analysis of literary texts and their film adaptations. Emphasis on genre, structure and visual elements as counterparts to written texts.
467 MODERN EUROPEAN FCTION
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor.
Prerequisit: Completion of 111 and 112 or their equivalents, or permission of the instructor. Representative European writers from about 1850 to present, in translation. Focus on fiction of such writers as Dostoyevsky, Gide, Camus, Mann, Kafka and Kundera.
468 INTERNATIONAL POETRY
3 credits
Prerequisite: Completion of 112 or equivalent, or permission of instructor. This survey of world postry focuses on the stylistic concerns and social consequences of literature from Latim America, Africa, Asia, Europe and beyond.

469 EROS AND LOVE $\mathbb{N}$ EARLY WESTERN UTERATURE
3 credits Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. An analysis of the use of sex and love in the literature of the Westem World from Greco-Roman times to 1800 , with special emphasis on how sexuality end "romantic" love are used as allegorical, satinc, fantastic or realistic devices.

470 HISTORY OF ENGLISH LANGUAGE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Develcopment of English language, from its beginnings: sources of its vecabulary, its sounds, its rules; semantic change; political and social influences on changes; dialect origins; correctness.
471 U.S. DIALECTS: BLACK AND WHTIE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of differences in pronunciation, vocabulary and grammar among U.S. language varisties. Origins, regional and social dimensions are explored. Correctness, focusing on black English and Appalachian speech explored.
472 SYNTAX
3 credits
Prerequisites: 371 , and 111 and 112 or their equivalents, or permission of the instructor. Principles of syntactic description. Sentence structures are investigated from a variety of languages, with emphasis on English.
473 SEMINGAR IN TEACHING ESL: THEORY AND METHOD
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Theoretical issues in linguistic description and language acquisition as relevant to leaming of a second language. Elaboration of principles for the teaching of English as a second language based on research in linguistics, psycholinguistics and second language pedagogy.
474 AFPICAN ANERICAN ENGLSH
3 credits
African American English grammatical structure, pronunciations, origins, and cultural role. Comparisons with acadernic English. Discussion of language correctness, legal status, and role in education.
475 THEORY OF RHETORIC
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Ancient and modem theories of metoric, with attention to classical oration, "topics" of metoric and their application to teaching of English.
479 MANAGEMENT REPORTS
3 credits
Prerequisites: completion of 111 and 112 or their equivalents, or permission of the instructor for 479. Study of principles and writing practices in effective business style, specialized structure, and purpose for business reports.

482 SENOR HONORS PROJECT IN ENGLSH
1-3 credits
(May be repeated for a total of six credits). Prerequisites: Completion of 3300:111 and 3300:112 or their equivalents, or permission of the instructor, senior standing in Honors College and approval of honors preceptor; open only to English majors enrolled in Honors College. Independent study leading to completion of senior honors thesis or other original work.
484 FANTASY
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. A study of forms of literature, primarily fiction, based on and controlled by an overt violation of what is generally considered as possibility.
465 SCIENCE FRCTION
3 credits
A study of twentieth-century British and American science fiction, featuring primary forms of the science fiction story and the work of major authors.
469 SEMINAR IN ENGUSH
2-3 credits
(May be repeated with different topics.) Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Special studies, and methods of literary research, in selected areas of English and American literature and language.
490 WORKSHOP IN ENGLSH
13 credits
(May be repeated with different topics.) Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Group studies of special topics in English. Cannot be used to meet undergraduate or graduate major requirements in English; for elective credit only.
92 SENOR SEMINAR 3 credits
Discussion of select literacy topic and refiection on student development in the major. Requires independent research and reflection papers. Limited to senvior English majors.
498 INDEPENDENT STUDY
$1-3$ credits
Prerequisite: completion of 111 and 112 or their equivalents. Directed study in a special field of interest chosen by student in consultation with instructor.

## GEOGRAPHY AND PLANNING

## 3350:

100 INTRODUCTION TO GEOGRAPHY
3 crodits
Analysis of world patterns of population characteristics, economic activities, settlement features, landforms, climate as interrelated factors.
250 WORLD REGIONAL GEOGRAPHY 3 credits
Survey of world regions with focus on both physical and hurnan landscapes; emphasis on world patterns and issues from a regional perspective.
305 MAPS AND MAP READNG 3 credits
Introduction to use and interpretation of maps. Study of basic map types, elements, symbolism, and historical and cultural context of maps. (Laboratory.)

306 MAPPING THE EAFTH 3 credits
Introduction to Geographic information Systems (GIS), remote sensing, and cartography, inchuding Global Positioning Satellites (GPS) and spatial databases.
310 PHYSICAL AND ENVIRONMENTAL GEOGRAPHY
3 credits
Landforms, weather and climate, soils and vegetation and natural hazards. Nature and distribur tion of these environmental elements and their significance to society. Laboratory.

## 314 CUMATOLOGY

3 credits
Prerequisite: 310 or permission. Analysis and classification of climates, with emphasis on regional distribution. Basic techniques in handling climate data.
320 ECOMOMIC GEOGRAPHY
3 credits
Geographical basis for production, exchange, consumption of goods. Effect of economic patterns on culture and politics.

350 GEOGRAPHY OF THE UNTTED STATES AND CANADA
3 credits
Regional and topical study of United States and Canada, with emphasis on environmental, econorric and cultural patterns and their interrelationships.
351 OHMO: ENVIRONMENT AND SOCIETY 3 credits
Regional and topical analysis of cultural, economic and environmental patterns; also in comparison with other states.

353 LATW AMEPICA 3 credits
Analysis of relationship of cultural and economic patterns to physical environment in Mexico, Central America, the Caribbean and South America.

356 EUROPE
3 credits
Regional and topical anatysis of cultural, economic and environmental pattems.
360 AStA
3 creaits
Environmental, cultural and economic geography of East, Southeast, South, Asia and Middie East with emphasis on the conternporary.

363 AFRICA SOUTH OF THE SAHARA
3 credits
Environmental and human bases of regional contrasts. Emphasis on tropical environmental systems and changing patterns of resource utilization.
375 GEOGRAPHY DF CULTURAL DVERSITY
2 credits
Evaluation of cultural elements unique to various geographical regions to explain why different peopie utilize resources differently, and how cultural diversity affects regional conflicts.
397 SPECHAL PROBLEMS
13 credits
(May be repeated for a total of five credits) Prerequisite: permission of instructor. Directed reeding and research in special field of interest.
405 GEOGRAPHIC IN:ORMATION SYSTEMS 3 credits
Prerequisites: 305 or permission. Introduction to the principles and concepts undertying geographic information systems (GIS) and their application in professional practice and academic research. Laboratory.
407 ADVANCED GEOGRAPHIC INFORMATION SYSTEMS
3 credits
Prerequisites: 405 or permission. Advanced instruction in the theory and application of geographic information systems (GIS) including hands-or experience with both raster and vecter GIS. Leboratory.
409 ARCHAEOGEOPHYSICAL SURVEY 3 credits
Prerequisites: $3240: 250$ or 3370:101 or 3350:310. Advanced instruction in subsurface geophysical survey techniques in archaeology. Emphasis on magnetic gradiometry and electrical resistivity techniques, image processing and geological and archaeological interpretation.

## 415 ENVIRONMENTAL PLANNING

3 credits
Scientific and technical principles for decision-making in planning, with emphasis on soils, land use, and water quality issues. Data sources and methods of site evaluation.

## 420 URBAN GEOGRAPHY

3 credits
Spatial structure of urban systems; interaction between cities; internal structure of cities. Perspectives on utban change; contemporary urban geographic problems; urban and regional planning issues.

422 TRANSPORTATION SYSTEMS PLANNNNG 3 credits Study and analysis of transportation systems from a geographic perspective. Emphasis on transportation problems and issues, elements of transportation planning.
424 MILTARY GEOGRAPHY 3 credits
influence of physical and human geography on military operations and military history. Role played by geography in international conflicts.
432 LAND USE PLANNING LAW 3 credits
Acquaint student with past and present approaches to land use control in the United States and examine the politica, economic, social and legal forces that have shaped existing land-use legislation.

## 433 PRACTICAL APPROACHES TO PLANNING

Introduction to the history, theories and forms of urtan planning.
437 PLANNNG ANALYSIS AND PROJECTION METHODS
3 credits

PLANNNG ANALYSIS AND PRO.JECTION METHODS
Introduction to the primary analytic techniques for Smallarea demographic and economic analysis and projection.
438 LAND USE PLANNING METHODS
3 credits
Application of GIS and other computer-based tools to the preparation, implementation and evaluation of comprehensive land use plans.
439 HISTORY OF URBAN DESIGN AND PLANNHNG
3 credits
Origins of human settlements and planning from the perspective of ubtan design and related societal trends. Comparison of word regional and historical urban forms. Experience in "reading" settiements as visual landscapes.
440 CARTOGRAPHY
3 credits
Use of graphic/cartographic principles and techniques as a means of presenting geographical information on maps and producing maps. Laboratory.
441 GLOBAL POSTIONING SYSTEMS (GPS)
1 credit
Fundamentals of Global Positioning System (GPS), with emphasis on geographic and planning activities. Includes hands-on exercises.
442 CARTOGRAPHIC THEORY AND DESIGN
3 credits
Prerequisite: $\mathbf{4 4 0}$ or permission of instructor. Principles and techniques of thematic mapping. Stresses maps as communications tools. Examines principle thematic mapping. techniques and means of presenting qualitative and quantitative data. Laboratory.
44 APPLCATIONS W CARTOGRAPHY AND GEOGRAPHC NFORMATIONSYSTENAS 3 credits Prerequisite: 440 and 405 or permission. Application of analytic and presentation techniques from cartography and geographic information systems to practical problems in geography and plarcartography and
ning. Laboratory.
445 GIS DATABASE DESIGN
3 credits
Prerequisites for 445: 405 or permission. introduction to theory and concepts of geographic data modeling, geodatabase design, and topology. Emphasis on current practices and methodologies in geography and planning.

446/546 GIS PROGRANMING AND CUSTOMIZATION
3 credits
Pterequisite for 446 : 405 or permission. Prerequisite for 546 : 505 or permission. Introduction to the use of scripting languages for customizing the interface and extending the functionality of desktop GIS software.
447 REMOTE SENSNG
3 credits
Prerequisite: 305 or permission. Concepts, systems, and methods of applying aerial photography, satellite imagery, and other remote-sensing data for analyzing geographic, geooogical, and other earth phenomena.

44 ADVANCED REMOTE SENSING 3 credits
Prerequisite: 447 or permission. Current research in remote sensing. Applications in study of human cultural and biophysical environment. Practice in planning, design, execution and interpretation of remote sensing studies. (Laboratory.)
450 DEVELOPMENT PLANNING
3 credits
A study of planning concepts and techniques for developing countries, including growth and development, planning agencies, regional inequities and altemative approaches.
481 RESEARCH METHODS IN GEOGRAPHY AND PLANNANG 3 credits Prerequisites: 12 credits in Geography and Planning. Investigation of library and archive resources. Emphasis on develcpment of professional witing skills.
483 SPATLAL ANALYSIS 3 credits
Prerequisite: 12 credits in Geography and Planning. Anaiysis of mapped statistical surfaces.
Principles for use of map as model for statistical evidence, prediction, hypothesis testing.
485 GEOGRAPHY AND PLANNHNG INTERNSHIP
13 credits
(May be repeated for a total of six credits) Prerequisite: permission. Supervised professional experience in planning agencies or related settings. Only three credits can be used toward a degree in Geography and Planning.
469 SPECLAL TOPICS IN GEOGRAPHY
1.3 credits
(May be repeated) Selected topics of interest in geography.
490 WORKSHOP IN GEOGRAPHY
$1-3$ credits
(May be repeated for a total of six credits) Group studies of special topics in geography.
495 SOIL AND WATER FIELD STUDIES
3 credits
Properties, origins and uses of major soil and water regime landscapes. Stresses relationships between soil and the hydrological cycle, urbanization, suburbanization and agriculture. Field trips required.
496 FELD RESEAFCH METHODS. 3 credits
Prerequisite: 12 credits in Geography and Planning. Field work enabling student to become competent in cellecting, organizing and analysis of data while carrying out field research projects.
497 REGIONAL FELD STUDIES
13 credits
(May be repeated for up to six credits) Off-campus intensive study of geographic features of a region or regions through direct observations and travel using appropriate fieid study methods.

498 HONORS RESEARCH IN GEOGRAPHY $1-3$ credits
(May be repeated for a total of six credits) Prerequisite: permission of department honors preceptor, honors student only. Exploration of research topics and issues in contemporary geography. Selection of research topic and writing of research paper in proper scholarty form under direction of faculty member.
499 CAREER ASSESSMENT SEMINAR
2 credits
Students demonstrate knowledge and skills acquired as geography majors through assessment testing and semester project, evaluate career options, and prepare resume and portiolio.

## GEOLOGY AND ENVIRONMENTAL SCIENCE

## 3370:

100 EARTH SCIENCE
3 credits
Introduction to earth science for non-science majors. Survey of earth in relation to its physica composition, structure, history, atmosphere, oceans; and relation to solar system and universe.
101 INTRODUCTORY PHYSICAL GEOLOGY
4 credits
A study of the nature of earth, its materials, and the processes which continue to change it. Laboratory. Field trips.
102 INTRODUCTORY HISTORICAL GEOLOGY
4 credits
Prerequisite: 101. Geologic history of earth, succession of major groups of plants and animals interpreted from rocks, fossils. Laboratory. Field trips.
103 NATURAL SCIENCE: GEOLOGY
3 credits
Study of basic principles and investigative techniques in various fields of geology with emphasis on relationship of geologic processes to society.
104 EXERCISES IN PHYSICAL GEOLOGY 1 credr
Prereguisites: 100,103,200/permission of geology adviser. Laboratory exercises on the identification of earth materials and the utilization and interpretation of geologic data and maps.
105 GEOLOGY FOR ENGINEERS
3 crodits
Introduction of physical geology to engineers, including mechanics, hydraulics, and case studies that illustrate interactions between geology and engineering. Laboratory. Field trips.
121-140 CONCEPTS IN GEOLOGY
1 credit each
A series of one-credit modules designed to introduce specific topics of science and the scientific method from the perspective of geologists.
121 DINOSAURS
1 credit
Introductory course exploring the geological occurrence, mode of fossilization, evolutionary development, habits, and sudden extinction of the largest known land vertebrates.

122 MASS EXTINCTIONS AND GEOLOGY
1 credit
Catestrophic changes in plants and animais have occurred throughout earth history. The causes of these extinctions have sparked debate which has enlivened the scientific world.
125 EARTHOUAKES: WHY, WHERE, WHEN?
1 credit
Causes and effects of earthquakes, geological settings for earthquakes, seismic measurements, mechanical response of rock to stress, earthquake prediction and precautionary measures.
127 THE ICE AGE AND OHIO
1 credn
Introductory course covering the effects of the ice age on the geology, vegetation, fauna and economy of Ohio.
128 GEDLOGY OF OHIO
1 credit
Survey of Ohio's geologic setting and history, natural resources, landforms, and their significance in terms of human activity, from earty settiement to future economy.
129 medical geology
1 credit
Abundance and distribution of trace elements in surface and groundwater, soils and rocks. The effects of trace elements to heath through doseresponse relationships.

132 GEMSTOMES AND PRECHOUS METALS 1 credit Introduction to minerals which form gemstones and precious metals. Topics to be covered include physical properties, geologic occurrences, and geographic locations of major deposits.
133 CAVES
1 credit
Topics inciude: karst processes and the origin of caverns; carbonate depositional environments and the origin of limestones; environmental probtems associated with karst landscapes
135 GEOLOGY OF ENERGY RESOURCES
1 credit
Topics include the origin of hydrocarbon and coal deposits, methods of petroleum exploration, global distribution of hydrocation resources.
137 EARTH'S ATMOSPHERE AND WEATHER 1 crodit
Structure and composition of the atrosphere; earth's radiation budget; atmospheric moisture,
clouds and precipitation; weather systems and storms, severe weather, Ohio weather.
139 CURRENT TOPICS
1 credit
(May be repeated for up to 2 credits) Special topics offered once or only occasionally in areas where no formal course exists.
140 ROCKY MOUNTAN NATIONAL PARKS
1 credit
Badlands, Yellowstone, Grand Canyon and other Rocky Mountain National Parks will be used to illustrate basic principles of geology.
141 NATURAL ENVIRONMENT OF CHINA
1 credit
introduction to geographical and geological environments of Chira. Gecgraphy and geology of geoparks will be presented and discussed as examples.
171 INTRODUCTION TO THE OCEANS
3 credits
Provides a basic introcuction to the oceans. Topies inciude formation of the oceans, ocean circula tion, waves and tides, marine animals, marine communities, and climate chenge.
200 ENVRONMENTAL GEOLOGY
3 credits
Analysis of geologic aspects of the human environment with emphasis on geologic hazards and environmental impect of society's demand for water, minerals and energy.
201 EXERCISES N ENMRONMENTAL GEOLOGYI 1 credit
Prerequisite or corequisite: 200. Recognition, evaluation of environmental problems rolated to geobogy through field, laboratory exercises and demonstrations which apply concepts from 200. Laboratory.
202 GEOLOGY OF THE NATIONAL PARKS
3 credits
Prerequisite: 100 or 101 or 103 . Geologic setting of major national parks, interpreted in terms of geological principles and processes which shaped them in past anolor currently affect them, inducing the rock cycle, evolution of landscapes and plate tectonics.
203 EXERCISES N ENVIRONMENTAL GEOLOGY \#
1 credit
Prerequisites: 200 (or corequisite) and 201. Recognition and evaluation of environmental problems related to geology. (Continuation of 201) Laboratory.
230 Mineral sctence
4 creaits
Prerequisites: 101. Corequisites: $3150: 151,152$. Crystallography and chemistry of minerals. Topics also covered inciude physical, chemical and optical properties, occurrences and uses of the common nor-silicate minerals. Laboratory. Field trips.
231 SHICATE MINERALOGY AND PETROLOGY
4 credits
Prerequisites: 101. Corequisites: $3150: 151$ 1, 152. Physical and chemical properties, occurence, and uses of common silicate minerals, followed by megascopic and microscopic identification, classification, and petrogenesis of rocks. Laboratory.
301 ENGINEERING GEOLOGY
3 credits
Prerequisites: Four credits in introductory physical geology and permission. Presents quantitative analysis of geologic features and processes and is supported by the study of case histories. Lecture, lab, and field study. Field trips.

## 310 GEDMOPPHOLOGY

3 credits
Prerequisite: 101. Study of landforms as a function of structure, process, and time. Laboratory. Field trips.

324 SEDAMENTATION AND STRATMGRAPHY
4 creaits
Prerequisites: 102 and 231. Introcuction to sedimentary processes and environments; straigraphic prir ciples and techniques. Hand specimens, thin sections, and sedimentary sequences studied. Laboratory. appes and toch
Field trips.

350 STRUCTURAL GEOLOGY
4 credits
Prerequisite: 101 or permission. Origins and characteristics of folds, faults, joints and rock cleavage. Stuctural features of sedimentary, igneous and metarnorphic rocks. Laboratory. Field Trips.
360 PALEOBOLOGY
4 credits
Prerequisite: 101 or 3100:111. Introductory course emphasizing morphology and evolution of major animal groups with consideration of practical applications of paleontology and the evolution of life. Laboratory. Field trips.

371 OCEANOGRAPHY
4 credits
Prerequisity: 101. Study of the dominant feature of our planet, the oceans, emphasizing ocean basins evolution, and physical, chemical and biotogical processes in the various marine environments. Field thips.

## 405 ARCHAEOLOGICAL GEOLOGY

3 credits
Prerequisites: 101, or permission. Provides background in geologic principles and techniques relevant to archaeologists. Topics include stratigraphy, absolute dating, locality assessment, zocarchasology, taphonomy, and remote sensing. Laboratory. Field trips.

407 ARCHAEOGEOPHYSICAL SURVEY
3 credits
Prerequisites: 3240:250 or 3370:101 or 3350:310. Advanced instruction in subsurface geophysi cal survey techniques in archaeology. Emphasis on magnetic gradiometry and electrical resistivity techniques, image processing and geological and archaeological interpretation.
410 REGIONAL GEOLOGY OF NORTH ANERICA
3 credits Prerequisites: 101, 102, or permission; recommended: 350. Examination of physiographic provinces of North America emphasizing structure, tectonic setting, stratigraphy and processes responsible for landforms in each province. Laboratory. Field trips.
411 GLACAAL GEOLOGY 3 credits
Prerequisite: permission. Causes and effects of Pleistocene expansion of polar ice masses with
emphasis on glacial deposits and world climactic changes. Laboratory. Field trips.
421 COASTAL GEOLOGY 3 credits
Prerequisites: 101,324 or permission of instructor. Study of the onigins and evolution of coasts and
coastal deposits with particular attention paid to the interaction of waves and currents with sedr ment, and the development of associated sedimentary features. Field trips.
425 PRINCIPLES OF SEDIMENTARY BASIN ANALYSIS
3 credits
Prerequisites: 324 and 360 or permission. Primarily the study of depositional systems, regional and global stratigraphic cycles, and sedimentation and plate tectonics.
432 OPTICAL MHNERALOGY-INTRODUCTORY PEIROGRAPHY
Prerequisites: 230 and 231. Optical techniques for identification, characterization, and classification of minerals and rocks using the petrographic microscope. Laboratory.
433 ADVANCED PETROLOGY
Prerequisite: 432/532. Petrogenesis of igneous, metamorphic and sedimentary rocks as determined by microscopic studies of textures and mineral assemblages using thin sections. Laboratory.

## 435 PETROLEUM GEOLOGY

3 credits
Prerequisite: 350 or permission; recommended: 324. Natural occurrences of petroleum. Characteristics, origin, entrapment and exploration methods. Laboratory. Field trips.
436 COAL GEOLOGY
3 credits
Prerequisites: 101, 102; recommended: 324. Origin, composition and occurrence of coal with emphasis on depositional environments, coalification processes, exploration, evaluation and exploitation. Laboratory. Field trips.
437 ECONONIC GEOLOGY
ECONOMLC GEOLOGY
Prerequisites: 231 and 350 . Study of metallic and nonmetallic mineral deposits emphasizing paragenesis and exploration. Laboratory. Field trips.
44 FUNDANENTALS OF GEOPHYSICS
3 credits
Prerequisites: 3450:223 or permission and 3650:292. Fundamental concepts in solid earth geophysics, planetary physics, geodesy, and geomagnetism. Contributions of geophysics to recent major developments in geoscience.
444 ENVIRONMENTAL MAGNETSM
3 credits
Prerequisites: 101 or permission. Introduction to the theory and methods of environmental magnetism and the application of environmental magnetism to interpreting sedimentary deposits.
445 ENVIRONMENTAL AND ENGINEERING GEOPHYSICS
3 credits
Prerequisite: 3650:261 or $3650: 291$ or permission of instructor. Corequisites: $3650: 261$ or 3650:291 or permission of instructor. Basic subsurface exploration using ground penetrating radar and multi-channel electrical resistivity. Applications in envronmental assessment, civil engineering and geotechnical engineering. Field trips.
446 EXPLORATION GEOPHYSICS 3 credits
Prerequisites: $3450: 223,3650: 292$ or permission. Basic principles and techniques of geophysical exploration with emphasis on gravimetric, magnetic, seismic and electrical methods and application to geological problems. Laboratory. Field trips.

449 BOREHOLE GEOPHYSICS 3 credits Prerequisite: permission. Basic principles and techniques of geophysical well logging with emphasis on electrical, radioactive, and sonic measures and their quantitative evaluation. Applications in oil, gas, and groundwater exploration. Laboratory.
450 ADVANCED STRUCTURAL GEOLOGY
3 crodits
Prerequisite: 350 or permission. Fundamental and advanced concepts of structural geology with emphasis on curent and developing concepts. Laboratory. Field trips.
462 MACROEVOLUTION
3 credits
Prerequisites: 360 or $3100: 111$. Provides a comprehensive treatment of macroevolutionary theory, focusing on evidence from the fossil record. Topics include genetics, speciation, development, and fossil lineages. Laboratory.
463 ENVIRONAMENTAL MICROPALEONTOLOGY
Prerequisite: 360 or permission. Introduction to techniques of micropaleontology as proxy indica tors for environmental and climate change. Laboratory. Field tnips.
470 GEOCHEMISTRY
Prerequisite: 101,230 and $231,3150: 151,152$ and 153 or permission. Application of chemical prin
3 credits ciples to the study of geologic processes. Laboratory. Field trips.
472 STABLE ISOTOPE GEOCHEMISTRY
Prerequisite: 101 and 102;3150:151, 152 and 153; 3450:221. Application of stable isotope geochemistry to the study of hydrologic and carbon cycles, modem sedimentary environments, and the interpretation of sedimentary rocks.
474 GROUNDWATER HYDROLOGY
Prerequisite: 101. Origin, occunence, regimen and utilization of groundwater. Qualitative and quarr titative presentation of geological and geochemical aspects of groundwater hydrology.Laboratory. Field trips.

481 ANALYTICAL METHODS IN GEOLOGY
2 credits
Prerequisite: 230, 231. A suvvey of analytical methods used to solve geologic problems with emphesis on method selection, proper sample collection, analysis of data quality and data presentation.
484 GEOSCIENCE INFORMATION ACOUISTION AND MANAGEMENT
2 credits Prerequiste: Must be a Gedogy Department graduate student or serior major in Geology, or have permission of instuctor. Methods for finding, gathering, managing, and evauating geoscience information. Emphasis on finding data sourcos (induding electronic), creating valid data sets, visuafrïng data.
485 INDIMDUAL READINGS IN GEOLOGY
1-3 credits
(May be repeated for a total of 4 credits) Prerequisite: permission of instructor. Independent study and directed readings on a selected topic to fit an individual student's program.

490 WORKSHOP
13 credits
(May be repeated) Group studies of special topics in geology. May not be used to meet undergraduate or graduate major requirements in geology. May be used for elective credit only.

491 INTERNSHP $\operatorname{N}$ GEOLOGY
13 credits
Prerequisite: permission of instructor. May be repeated for a total of six credits. Supervised profes sional experience in geology or geophysics. Only three credits can be used toward a degree in Geology.

493 GEOLOGY FELD CAMP I 3 credits
Frerequisites: 101 and 102 and permission; Introduction to collection and interpretation of field data and construction of geologic maps.
494 GEOLOGY REL CAMP II 3 credits Prerequisites: 231, 350,493/593, or permission. Advanced techniques and methods of field geot ogy necessary for detailed geologic maps and interpretations.
495 FELD STUDIES IN GEOLOGY
13 credits
(May be repeated for a total of four credits) Prerequisite: permission. Field trip course emphasizing phases of geology not readily studied in Ohio. Includes pretrip preparation and post-trip examination. Student will bear trip expenses.
496 GEOLOGY SERVICE LEARNANG
13 credits
Prerequisite: permission of instructor. Team service leaming project that involves collection, organization, analysis and presentation of geologic data. May be repeated for a maximum of four credits. Field trips.
497 SENIOR HONORS PROJECT IN GEOLOGY
13 credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College, permission of department honors preceptor and major in geology or natural science. Independent research leading to completion of senior honors thesis or other original work under guidance of student's honors project adviser.

496 SPECLAL TOPICS
1-3 credits
Prerequisite: permission of instructor. Special lecture courses offered once or only occasionally in areas where no formal course exists.

499 RESEARCH PROBLEMS 1.3 credits
(May be repeated for a total of four credits) Prerequisite: permission. Independent research leading to the completion of a written paper or presentation at a professional meeting.

## HISTORY

## 3400:

## 200 EMPIRES OF ANCIENT ASLA

3 credits
Comparative study of the formative empires East, South, and westem Asia. Emphasis on the origins and development of core institutions and early witings.
210 HUMANTIES NTHE WESTERN TRADTION E ANTIOUITY TO THE RENAUSSANCE 4 credits Prerequisites: 32 credits and completion of $3300: 112$. Invoduction to the human condition in the past as manifested in the ideas, religions, visual arts and music of Westem civilization from the ancient Greeks through the Renaissance. Cannot be used to meet major requirements in History.

211 HUMANTES IN THE WESTERN TRADITON H: REFORMATION TO THE PRESENT 3 credits Prerequisite: $3400: 210$. Introduction to the human condition in the past as manifested in the ideas, religions, visual ants and music of Western civilization from the Protestant Reformation to the Present. Cannot be used to meet major requirements in History.

250 UNIED STATES HISTORY TO 18774 credits
Historical survey from the Age of Discovery and North American colonization through the creation of the United States to the Civil War and Reconstruction.
251 UNITED STATES HISTORY SINCE 18774 credits
Survey of United States history from the end of federal Reconstruction to the present.

## 300 IMPERIAL CHINA

3 credits
Selective study of institutionai, intellectual, political and artistic developments.in Chinese civilization from antiquity to 18 th Century. Emphasis on general features of traditional Chinese culture.
301 MODERN CHINA
This course examines the domestic and global roots of China's 20 th century mele 3 credits their relationship to the challenges China now faces.
303 MODERN EAST ASIA 3 credits
Exploration of domestic and global factors that shaped modern East Asia (Japan, China, Korea and Vietnam).
307 ANCIENT NEAR EAST 3 credits
Mesopotamia, Egypt; Israel, and neighbors to Persian Empire.
308 GREECE
3 credits
Minoans and Mycenaeans; classical Greece to triumph of Macedon.
310 HISTOAICAL METHOOS
313 EASTERN ROMAN EMPIRE
Byzantine culture and history from 324 to the fall of 1453.

317 ROMAN REPUBLC 3 credits
An intensive survey of the Roman Republic. Attention will be given to the nature of the source material, ancient historiography, text criticism and the like.
318 ROMAN EMPRE
3 credits
An intensive survey of the Roman Empire. Attention will be given to the nature of the source material, ancient historiography, text criticism and the like.
319 MEDIEVAL EUROPE, 500-1200
3 credits
Migration of peoples, Carolingian revival, renewed invasions; social, economic and intellectual stirrings lead to "birth of Europe."
320 MEDIEVAL EUROPE, 1200-1500
3 credits
Middle Ages and the middle class; economic and political change, international wars, social unrest and religious crosscurrents.

321 EUROPE: RENALSSANCE TO RELIGIOUS WARS, 1350-1610 3 credits
Survey of the social, political, economic, religious, and intellectual history of Early Modern Europe from the Italian Renaissance to the early 17th century.

322 EUROPE: ABSOLUTISM TO REVOLUTION, 1610-1789
3 credits
Survey of the social, political, economic, religious, and intellectual history of Early Modem Europe from the Thity Yeers War to the french Revolution.

323 EUROPE FROM REVOUTION TO WORLD WAR. 178919143 credits
Surveys the political, economic, social, and cultural history of modem Europe from the French Revolution to the first World War.

324 EUROPE FROM WORID WARI TO THE PRESENT
3 crodits
A survey of European political and social history from World War I to the present.
325 WOMENIN MODERN EUROPE
3 credits
A survey of the history of women in Europe since 1500, with emphasis on their roles and the changes attendant on modernization.
335 RUSSIA TO 1801 3credits
Survey of Russian history from Kievan period to death of Paul I, emphasizing development of autocratic govermment, Russian culture, reigns of Peter and Catherine.
336 RUSSA SANCE 18013 credits
Survey of 19 th and 20 th Centuries. Special emphasis on problems of modemization, the revolution and development of communism.
337 FRANCE FROM NAPOLEON TO DEGAULLE 3 credits
Combines a study of Napoleon and DeGaulle with a survey of the political, economic, social, and cut turalartistic trends of modern French history.
338 ENGLAND TO 1688 3credits
Survey of English history from the Anglo-Saxon conquest to the Revolution of 1688. Medieval and earty modem institutions, social and cultural life.
339 ENGLAND SHCE 1688 3credits
Survey of English history from 1688 to the present. The reform of English institutions and life, modemization of the economy, the welfare state, society and war.
340 SELECTED TOPTCS
Includes experimental offerings such as those crossing subiect of chronological lines, and subjects not listed in this Generai Bulletin. See deppertmental office for current subject.
341 ISLAMIC FUNDAMENTALISM AND REVOLUTION
3 credits
The political and socioeconomic roots of Islamic reformism and militancy in the Middle East and North Africa sinces the 1960s.
342 THE CRUSADES THROUGH ARAB EYES 3 credits
Political and military struggles, diplomatic practices and intellectual traditions of the Medieval Islamic/Arab wordd and the Western crusaders.
345 NATIVE NORTH AMERICAN HISTORY
3 credits
The histories of Native Americans from Columbus to the present, emphasizing a half-millennium of adaptive responses to the presence of Europeans in North America.
350 U.S. WOMENS HSTORY 3 credits
History of American wormen's experiences and exploration of gender as a changing structure sheping American life from the colonial period through the 20th century.

351 GLOBAL HSTORY: ENCOUNTERS AND CONFLCTS 4 credits
This course explores historical encounters between societies to explain the development of the integrated etonomic, political, and cuttural systems presently characterizing the modern world.
352 THE AMERICAN WEST 3 credits
Exarnination of westward moverment from revolution to closing of frontier; types of frontiers; impact of west on nation's development.

354 AMERICAN IMMIGRATION 3 credits
Examination of European migrants to American colonies and United States, their reasons for leaving Europe and coming to America, and their experience after arival.
355 AMERICAN RELGGOUS HSTOFY 3 credits
Addresses critical issues and figures in American religious history from the colonial era to present. including ways ideas have influenced political and judicial discourse.
356 SPORTS IN AMERICAN HESTORY SANCE 1865 3credits
An examination of the reciprocal relationship between sports and various institutions of societry. cult ture, religion, politics, education, economics, race, ethnicity, diplomacy and gender.
358 URBAN AMERICA
3 crodits
This course looks at the significance of cities and urban development in shaping American society.
360 UNTED STATES MULTARY HISTORY
3 credits
Survey of United States military history from the colonial era to the present.
361 AFRICAN-AMERICAN HISTORY, 1492 TO 1877
This course focuses on Afican American history, auture and heritage from 1492 to 1877.
362 AfRICAN-AMERICAN HISTORY, 1877 TO PRESENT
This course focuses on African American history, culture and heritage from 1877 to present

## 371 SEEECTED TOPICS: NORTH AMERICAN HESTOFY

3 crodits
Selected topics addressing the history of North America frrom the Rio Grande to the Arctic). Contict the department office conceming specific topics.
372 SEEECTED TOPFCS: EUROPEAN HESTOFY
3 credits
Selected topics addressing European history from the collepse of the Roman Empie to the present. Contact the department office concerming specific topics.
373 SEECTED TOPICS: OTHER
3 credts
Selected historical topics on Africa, Asie, Latin America, the ancient world and word history. Contiact the dopartment office conceming specific topics.
377 HISTORY OF WOMEN IN LATIN AMERICA
3 credits
Survey of changes and continuities in the lives of Latin American women since the colonial period; emphasis on gender, race, class in shaping women's experiences.

378 COLONIAL LATIN AMERICA
3 credits
Examines colonial history of Latin America until struggles for independence in 19th century. Emphasis on cultural, political, social developments, issues of ethnicity, race and gender.

379 MODERN LATNN AMERICA
3 credits
This course examines the history of Latin America during the national period, ca. 1820s to the present. Focus on politics, economic systems, and nation-state formation.

## 381 HISTORY OF CANADA

3 credits
Sunver of Canadian history from the age of the explorers to the present Special emphasis will be placed on the history of Frenct-Canadians, on economic development and on Canadian-American relations.

## 382 THE VIETNAM WAR

3 credits
An examination and evaluation of ali aspects of the war in Vietnam, political, military, diplomatic and economic, induding its impect domestically then and later.

## $385-391$ WOPLD CNLZATIONS

Courses 385 throught 391 are designed to provide a basic knowledge of pest hurnan experiences and an understanding of aurert events in key ereas of the non-Westem word. These courses can not be used to meet maior requirements in History.
385 WOPLD CMILZATIONS: CARMA 2 crodits Prerequisite: 64 crodits.
398 WOPLD CMIEATIONS: JAPAN 2 crodits Prerequisite: 64 credits.
387 WORID CMIEATIONS: SOUTHEAST ASUA 2 crodits Prerequisit: 64 credits.
398 WOPID CMIEATIONS: NDAA 2 credits Prerequisite: 64 credits.
388 WOPLD CMILZATIONS: NIDDUE EAST 2 credits Prerequisite: 64 credits.
390 WOPLD CMMIZATIONS: AFPICA 2 credits Prerequisite: 64 credits.
391 WORLD CIVILZATIONS: LATIN AMERICA 2 credits Prerequisite: 64 credits.

1-3 credits
$392 \mathbb{I N T E R N S H P S}^{\text {IN HISTORY }}$
(May be repeated up to 6 credits; 4 credits to apply to the 32 credit minimum for a history
major.JPrerequisites: 64 credits, History major or minor, prior completion of 16 credits in History major.JPrerequisites: 64 credits, History major or minor, prior completion of 16 credits in History
(not induding Humanities in the Westem Tradition or World Civilizations), minimum 2.5 history GPA and permission of instructor. Individual field experience in applied history.
396 IRAO IN HISTORICAL PERSPECTIVE
3 credits
This course will offer a complex and nuanced look into the history of raq and will situate current events firmly in their historical context.

397 INDMDUAL STUDY OR RESEARCH IN HISTOFY
1.3 credits
(May be repeated for a total of four credits) Prerequisite: permission. For individual study or research in history, including specia! projects, summer study tours or specialized training.

## 400 GENDER AND CULTURE IN CHWNA

3 credits
Prerequisites: Six credits in 3400 courses. This course examines the dymamic between gender and culture from late imperial to post-socialist China, with connections drawn to public policies in different periods.

401 JAPAN AND THE PACHFC WAR, 1895-1945 3 credits The rise of Japanese militanism, Japan's drive to create en empire in East and Southeast Asia, 1895-1945, and its role in the Pacific War, 1937-45.
404 STUDIES IN ROMAN HISTORY
3 credits
Prerequisite: Completion of six hours of History courses at the 200 or 300 level. Concentrated investigation of selected topics, such as imperialism in middele and late Republic, the age of Augustus, or the fall of westem Empire.
410 HISTOAY AND FLM
3 credits Prerequisite: Six credits 3400 courses or permission of the instructor. Repeatable once with permission. Examines films as historical experiences, historical events, and artifacts of history. Themes and foci will vary.
416 MODERN NDDA
3 credits
History of the Indian subcontinent from c. 1500 with emphasis on India society and culture, British imperialism, and the emergence of Indian nationalism.
417 LATIN AMERICA AND THE UNITED STATES
3 credits Prerequisite: Six credits of 3400 courses or permission of the instructor. Inter-American reiations viewed from Latin American and U.S. perspectives; U.S. policy, imperielism, economic and cut tural influences.
418 HISTORY OF BRAZL SINCE 1500
3 credits
Prerequisite: Six credits of 3400 courses or permission of the instructor. Survey of the economic, political, social and cultural history of Brazil since 1500 . Six credits of 3400 courses or permission from instructor required to enroll.
424 THE RENALSSANCE
3 credits
The age of transition from the Middle Ages to modern times (1350-1600). Special emphasis on intellectual trends, the development of humanism, and the fine arts.

425 THE REFORMATION 3 credits
Europe in 16th Century; its religious, cultural, political and diplomatic development, with special emphasis on Protestant, Anglican and Catholic reformations.
429 EUROPE IN THE FRENCH REVOLUTIONARY ERA, 1789-1815 3 credits Development of Revolution: Napoleon's regime and satellites.
438 NAZI GEPMANY
3 credits
This course covers the social, economic, and political history of Germany from Word War I to 1945 with emphasis on the Third Reich.
440 TUDOR AND STUART BRITAIN, 1485-1714 3 credits
An examination of the development of, and increasing links between the British kingdorns in the early modern period, with emphasis on culture, politics, and religion.
443 CHURCHIL'S ENGLAND 3 credits
An examination of the changes that Britain experienced during the life of Winston Churchill, 1874-1965. Emphasis is on cultural, social, and political developments.
451 COLOMAL AMERICAN HISTORY
3 credits
This course covers the history of colonial America from the first European contact in the Americas in 1492 to the onset of the American Revolution.
452 THE AMERICAN REVOLUTIONARY ERA: POUTICAL, MILTARY,
3 credits AND CONSTTIUTIONAL ASPECTS
The struggle for the rights of Englishmen and independence; the impact of war on American socierty and the creation of republican institutions.
453 THE EARLY AMERICAN REPUBLIC 3 credits Prerequisite: Six credits of 3400 courses; these credits can include Humanities in the Westem Tradition and Word Civilization courses. The evolution of the American republic from its early beginnings after the American Revolution to the antebellum era. Emphasis upon political, social, and cultural developments.
454 THE CIVL WAR AND RECONSTRUCTION, 1850-1877
4 credits
Sectionalism, slavery and the causes of the Civil War; wartime activities of the Union and Confederacy; leading personalities; problems of reconstruction and the new Union.
455 THE ORIGINS OF MODERN AMERICA, 1877-1917 3 credits
United States from Reconstruction Era to World War I (1877-1920); emphasis on political responses to rise of an industrialized-urbanized society, the populist and progressive movements.
456 AMERICA IN WORLD WARS AND DEPRESSION, 1917-1945
3 credits
World War I and Versailles; the 1920s, the Great Depression and the New Deal; World War II.
457 THE UNITED STATES SINCE 1945
3 credits
Nuclear age, cold war, foreign policy and domestic affeirs to present. Social, political, constitutional, diplomatic, cultural and economic changes since 1945.
461 THE UNITED STATES AS A WORLD POWER 3 credits
The course analyzes the emergence and functioning of the United States as a world power, with particular emphasis on the 20th century.
463 U.S. CONSTITUTIONAL HISTORY
3 credits
This course examines the evolution of constitutional govemment from the drating of the U.S. Constitution (1787) to present.
485 AMERICAN ECONOMY SINCE 1900
3 credits
Survey of economic developments since 1900; topics include agriculture, business and labor. Special emphasis on role of big business and evolution of monetary and fiscal policy.
467 HISTORY OF AMERICAN POP CULTURE
3 credits
Historical analysis of mass cultural phenomena and the social experiences associated with mass technologies that transformed modern America life in the 19th and 20th centuries.
468 AFRICAN_AMERICAN SOCIAL AND INTEL ECTUAL HISTORY 3 credits Examination of black thought and activities reflective of African-American culture, conditions facing black people within America and efforts toward coordinated black activity.
400 AFPICAN-AMERICAN WOMEN'S HISTORY
3 credits
Study of black American women's lives from colonial times to the present featuring autobiographical. fictional and secondary works authored by black women.
470 OHO HISTORY
3 credits
Political, social, economic and intellectual history of Ohio, with special emphasis on Ohio's relationship to Old Northwest and to the nation.
471 AMERICAN ENVIRONMENTAL HISTORY 3 credits
Utilization, conservation of netural resources from beginnings of American society to present; combination of economic, technological history of extensive treatment of public policy, environmental issues.
476 CENTRAL AMERICA AND THE CARIBBEAN
3 credits
Selected aspects of the histories of Central American and Caribbean countries with emphasis on populist and peasant moverments, political reform, social revolution, economic and under development, and relations with the United States.
484 MUSEUMS AND ARCHINES
3 credits
This course will focus on the work of history museums, historical societies and historic house museums and archives.
465 HISTORY, COMMUNTIES AND MEMORY
3 credits
Course examines the interections between the work of acadernic historians and the public in areas such as local history, monuments, oral history, film and the Intemet.
467 SCIENCE AND TECHNOLOGY IN U.S. HISTORY 3 credits
This course examines the development of science and technology in U.S. history and its resulting sociat, economic and political effects.
489 OTTOMAN STATE AND SOCIETY
3 credits
Prerequisite: Six credits of 3400 courses or permission of the instructor. These credits can include Humanities in the Westem Tradition and World Civilizations courses. Explores political, economic, and social dymamics of one of the worid's most enduring and expansive multiethnic empires.

492 HONORS PROJECT
$1-3$ credits
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors College. An individual research project relevant to history, supervised by a member of the Department of History, culminating in an undergraduate thesis.
493 SPECIAL STUDHES: NORTH AMERICAN HISTORY
3 credits Prerequisites: Six credits of 3400 courses or permission of the instructor. These credits can include Humanities in the Westem Tradition and World Civilizations courses. Special studies in the history of North America (Rio Grande to Arctic). See department office for information on particular offerings.

495 SPECIAL STUDHES: EUROPEAN HISTORY
3 credits
Prerequisites: Six credits of 3400 courses or permission of the instructor. These credits can include Humanities in the Westem Tradition and World Civilizations courses. Special studies in European history from the fall of the Roman Empire to the present. See department office for information on particular offerings.

496 SPECLAL STUDIES: OTTHER
3 credits
Prerequisites: Six credits of 3400 courses or permission of the instructor. Special studies in the history of Latin America, Asia, Africs or the Pacific. See department office for information on particular offerings.

498 RACE, NATION, AND CLASS IN THE MIDDLE EAST
3 credits Prerequisite: Six credits of 3400 courses or permission of the instructor. This course analyzes identity politics and the development of the ideas of race, nation, and class in the Middle East from a historical perspective.
499 WOMEN AND GENDER IN MIDDLE EASTERN SOCIETIES
3 credits
Prerequisites: Prerequisite: Six credits of 3400 or permission of instructor. This course explores the multi-iayered processes and dimensions, including texts, cultural values and practices, institutions, and events, which have shaped women's experiences in the Middle East.

## MATHEMATICS

## 3450:

100 INTERMEDIATE ALGEBRA
3 credits
Prerequisite: Placement. A review of high school algebra: real numbers, exponents, radicals, factoring, linear and quadratic equations, graphing, and problem solving. Does not meat General Studies mathernatics requirement.
135 EXCURSIONS IN MATHEMATICS
3 credits
Prerequisites: placement test, 100 or 2030:153. Contemporary applications of mathernatics for the non-science major to develop skills in logical thinking and reading technical material. Topics include voting, apportionment, scheduling, patterns, networks.
140 MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS I
3 credits
Prerequisites: Completion of 100 with a grade of $C$ - or better or placement test. Enrollment limited to educations majors only. A problem-solving and inquiry-based approach to number systems; bases; operations, properties, relationships, algorithms of Real Numbers. Introctuction to number theory, functions, algebre and coordinate geometry.

145 COUEGE ALGEBRA
4 credits
Prerequisite: Mathematics Placement Test or completion of 100 with a grade of C - or better. Real numbers, equations and inequalities, linear and quadratic functions. Exponential and logarithmic functions. Systems of equations, matrices, determinants. Permutations and combinations.

## 49 PRECALCULUS MATHEMATICS

4 credits
Prerequisite: Completion of 145 with a grade of C - or better or piacement. Functions, polynomial functions, complex numbers, exponential and logarithmic functions, systems of equations, trigonometric functions, mathematical inductions, sequences, and binomial theorem.
208 INTRODUCTON TO DISCREIE MATHEMATICS
4 credits
Prerequisites: Completion of 145 or 149 with a grade of C - or better or placement. A foundation course in discrete mathematics with applications. Topics include sets, number systems, Boolean Algebra, logic, relations, functions, recursion, matrices, induction, graphs, and trees.
210 CALCULUS WITH BUSINESS APPLICATIONS
3 credits
Prerequisites: Mathematics Placement Test or completion of 145 with a grade of C - or better. Review of functions, derivatives of functions, extrema and concavity, optimization, logarithmic and exponential functions, extrema for multivariate functions. Graphing calculator required. For business majors only.
215 CONCEPTS OF CALCULUS
4 credits
Prerequisite: Completion of 145 or 149 with a grade of $C$ - or better or placement. Functions; limits and continuity; differentiation and applications of differentiation; logarithmic and exponential functions; integration and applications of integration; partial differentiation.

221 ANALYTIC GEOMETRY-CALCULUS I
4 crodits
Prerequisite: Completion of 149 or 145 with the grade(s) of C- or better. Analytic geometry, limits, continuity, derivatives, tangent and normal lines, extrema of functions, Rolle's theorem, mean value theorem, related rates, antiderivatives, definite integrals, areas, volumes, arc length.
222 ANALYTIC GEOMETRY-CALCULUS H
4 credits
Prerequisite: Completion of 221 with a grade of C - or better. Derivatives of exponential, logarithmic trigonometric, inverse trigonometric, hyperbolic and inverse hyperbolic functions; methods of integration, sequences, series; moments, centroids, indeterminate forms, polar coordinates.
223 ANALYTIC GEOMETRY-CALCULUS III
4 credits
Prerequisite: Completion of 222 with a grade of C - or better. Vector algebra, cylindrical, spherical coordinates, vector-valued functions, curvature; functions of several variables, limit, continuity, partial derivatives, differentials, directional derivatives, maxima and minima, multiple integrais, Divergence Theorem.
260 MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS il
3 credits
Prerequisite: Completion of 140 with a grade of C - or better. A problem-solving and inquirybased approech to fundamentals of Euclidean Geometry and elementary data analysis via handson activities and the use of technology.

289 SELECTED TOPICS IN MATHEMATICS
1.3 credits

Prerequisite: permission. Selected topics of interest in mathematics.
307 FUNDAMENTALS OF ADVANCED MATHEMATICS
3 credits
Prerequisite: Completion of 222 with a grade of C- or better. Logic, solving problems, and doing proofs in mathematics. Sets, extended set operations, and indexed family sets, induction. Binary relations. Functions, cardinality. Introductory concepts of algebra and analysis.
312 LINEAR ALGEBRA
3 credits
Prerequisite: Completion of 223 with a grade of C- or better or permission of instructor. Study of vector spaces, linear transformations, matrices, determinants, inner products, the eigenvalue problem, quadratic forms and canonical forms.
335 INTRODUCTION TO ORDINARY DIFFERENTLAL EOUATIONS
3 credits
Prerequisite: Completion of 223 with a grade of C - or better or permission of instructor. Basic techniques for solving ODEs and systems of ODEs. Analysis of models involving differential equations of first order and simple equations of second order.
401 HISTORY OF MATHEMATICS
3 credits
Prerequisite: Completion of 307 with a grade of C - or better. Origin and development of mathematical idees.

410 ADVANCED LNEAR ALGEBRA 3 credits
Prerequisite: Completion of 312 with a grade of C- or better. Study of vector spaces, linear transformation, canonical and quadratic forms, inner product speces.

414 ABSTRACT ALGEBRAI
3 credits
Prerequisite: Completion of 307 with a grade of C- or better or permission of instructor. Study of groups, rings, fields, ittegrai domains.
412 ABSTRACT ALGEBRA: 3 crodits
Prerequisite: Completion of 411 with a grade of $C$ - or better or permission of instructor. Study of groups, rings, fields, integral domeins, vector spaces, fieid extensions, Galois theory.
413 THEORY OF NUMBERS
3 crodits
Prerequisite: Completion of 222 with a grede of C - or better or permission. Euclidean algorithm, unique factorization theorem, congruences, primitive roots, indices, quadratic residues, number-theoretic functions, Gaussian integers and continued fractions.
415 COMBMNATORICS AND GRAPH THEORY
3 credits
Prerequisite: Completion of 222 with a grade of C - or better or permission. Introduction to basic ideas and techriques of mathematical counting; properties of structure of systems.
420 MATHEMATICAL TECANOLOGY AND COMNUNCATION
3 credits
Prerequisites: Completion of 222 and 312 with grades of C - or better, or permission. Graphical, numerical and aigebraic computation with applications using a variety of mathematical hardware and software: symbolic manipulators, dynamic geometry software, programs, scripts and Webbrowsers.
4212 ADVANCED CALCULUS I AND :
3 credits each
Sequential. Prerequisite: Completion of 223 with a grade of C- or better; 307 is highly recommended. Reai number system, sequences, series, set theory, continuity, differentiation, integration, partial derivatives, multiple integration, maxima and minima, convergence and uniform convergence, power series, irrproper integrals, transformations, line and suffece integrals.

5 COMPLEXVARABBLES 3 credits
Prerequisite: Completion of 223 with a grade of C - or better. Complex variables; elementary functions, differentiation and analytic functions; integration and Cauchy's theorem; power series and Laurent series; residue theorem; applications such as conformal mappings, inversion of integral transform.

427 APPLLED NUMERICAL METHODS I
3 credits
Prerequisites: Completion of 222 and 3460:209 with grades of C - or better or permission. Numerical methods in polynomial interpolation, rootfinding, numerical integration, and numerical linear algebra.
428 APPLED NUMERICAL METHODS I
3 credits
Prerequisites: Completion of 335 and 427 with grades of C - or better or permission. Nurnerical
methods in the solution of ordinary and partial differential equations. Numerical differentiation,
Rungo Kutta methods, and iterative methods for ODEs, finite differences for PDEs.
430 NUMERICAL SOLUTIONS FOR PARTIAL DFFERENTIAL EOUATIONS
3 credis
Prerequisite: Completion of 428 with a grade of C -or better or equivalent. For advanced undergraduate and graduate students. The study of finite difference and finite element methods for partial differential equations consistency, stability, corvergence and computer implementation.
432 PARTMAL DIFFRENTIAL EOUATIONS
4 credits
Prerequisite: Completion of 335 with a grede of C- or better. The classical initial value and boundary value problems of mathematical physics developed and solved using Fourier series and integral transforms.

435 SYSTENS OF ORDMARY DFFERENTIAL EOUATIONS
3 credits
Prerequisites: Completion of 335 and either 312 or 428 with grades of C - or better or permission. Analysis, solution of systems of equations, linear, nonlinear. Topics: stability theory, perturbation methods, asymptotic methods, applications from physical, social sciences.
438 MATHEMATICAL MODELS
3 credits
PTerequisite: Completion of 335 with a grade of C-or better, and a six-hour sequence in an approved applied area, or pernission. Formulation and analysis of mathematical models in social and physical sciences. Analysis of deterministic and stochastic models. Topics may include stochastic processes, linear programming, graph theory, theory of measurement
438 ADVANCED ENGNEERNG MATHEMATCCSI
3 crodits
Prerequisites: Completion of 335 and 312 with grades of $C$ - or better or permission. Matrices, eigenvalue problems, systems of ODEs, vector analysis, complex variables.
439 ADVANCED ENGNEERNG MATMEMATICS: 3 crodits Prerequisites: Completion of 335 and 312 with grades of C- or better or permission. Special functions, Fourier series and transforms, PDEs.
44 CONCEPTS N GEOMETRY
CONCEPTS N GEOMETRY
PTerequisite: Completion of 307 with a grade of C - or better or permission of instructor. Axiomatic treatment of both Euclidean and non-Euclidean geometries. Other concepts included are finite geometry, transformations, constructions and inversions.

## 445 NTRODUCTION TO TOPOLOGY

3 credits Prerequisite: Completion of 307 with a grade of C - or better or permission of instructor. Introduction to topological spaces and topologies, mappings, cardinality, homeormorphisms, connected spaces, metric spaces.
469 TOPICS IN MATHEMATICS
14 credits (May be repeated for a total of 12 credits) Prerequisite: permission of instructor. Selected topics in mathematics and applied mathematics at an advanced livel.
491 WOPKSSHOP N MATHEMATICS
1-4 credits
(May be repeated) Group studies of special topics in mathematics and applied mathematics. May not be used to meet undergraduate or graduate major requirements. May be used for elective credit only.
497 NDIVIDUAL READMG
$1-2$ cradits
Prerequisites: senior standing and permission. Mathematics or applied mathematics majors only. Directed studies designed as an introduction to research problems, under guidance of selected facuity member.
48 SENOR HONORS PROJECT
13 credits Prerequisite: 489 (honors). Directed study for senior student in the Honors College who has completed 489 (honors). An intuoduction to research problems in mathematics and applied mathematics under the guidance of selected faculty.

## COMPUTER SCIENCE

## 3460:

## 125 DESCRIPTIVE COMPUTER SCIENCE

2 credits
Computer literacy: terminology; methods, media for data representation, storage; elements of a computing system; data organization.
126 INIRODUCTION TO VISUAL EASIC PROGRAMMING
3 credits
Prerequisite: Completion of $3450: 100$ with a grade of C- or better or placement. Windows GUI and Microsoft's Visual BASIC programming environment. Design of user interfaces, event-driven programming, basic controi structures, simple variables, arrays, and sequential fies.
208 INTRODUCTION TO C++ PROGRAMMING
3 credits
Prerequisites: knowledge of C . Introduction to class types and data abstraction. In addition, memoiy managernent and dymamic memory allocation will be discussed.
208 INIRODUCTION TO COMPUTER SCIENCE 4 credits Prerequisite: Completion of $3450: 145$ or $3450: 149$ with a grade of $C$ - or better or equivalent. Imroduction to problem-soking methods and atgorithms. Programming in a high-level language including how to design, code, debug and document programs with good programming style.
210 DATA STRUCTURES AND ALGORTTHMS I
4 credits
Prerequisites: 3450:208 and 209 or equivalent with grades of C - or better. Dymamic memory allocation methods. elementary data structures, intemal representations, and associated algorithms. Topics include lists, stacks, queues, trees, and sorting methods.
289 SELECTED TOPICS IN COMPUTER SCEENCE
13 credits Prerequisite: permission. Selected topics of interest in computer science.
302 PPOGRANMMING APPLICATIONS WITH COBOL
3 credits
Prerequisite: Completion of 210 with a grde of C -a better. Applications of COBOL JCL and file manipUation; intended to introcuce business data processing techriques to the business aption computer science majo. Does not meet maior requirements for system aption computer science students.
306 ASSEMBLY AND SYSTEM PROGRAMMING
4 crodits
Prerequisite: Completion of 210 or equivalent with a grade of C - or better. Basic computer organization, digital logic, and data representation. Programming in assembly and C languages on a typical digital computer.
307 INTERNET SYSTEMS PROGRAMMNAG 3 crodits
Prerequisite: Completion of 210 or equivalent with a grade of C - or better. Overview of current programming languages, tool and scripting technologies for the internet and World Wide Web.

## 316 DATA STRUCTURES AND ALGORTHMS:

3 credits
Prerequisites: Completion of 210 and $3450: 221$ or $3450: 215$ with grades of C - or better. A contint ation of topics in 210. Topics include: graphs and graph algorithms, extemal sorting, hashing. advanced tree and file structures.
389 INTERMEDATE TOPICS IN COMPUTER SCIENCE $1-3$ credits Prerequisite: permission of instructor. Selected topics of interest in computer science at an intermediate level.
401 FUNDAMENTALS OF DATA STRUCTURES
3 credits Prerequisites: programming experience in C. Basic data structures and algorithms, sorting and search algorithms. Data abstraction and algorithm analysis. (Not an approved major, minor, or certificate elective in computer science.)
406 MNTRODUCTION TO C AND UNAX
3 credits
Prerequisite: programming experience. Symtax of C with flow structures, pointers, and command line concepts. For UNIX, shell scripts, UNIX file structure, system calls and interprocess communication protocols. (Not an approved mathematics and computer science major, minor, or certificate elective.)
408 WINDOWS PROGRAMMMING
3 credits
Prerequisites: Completion of 208 or 210 or 406 with a grade of C - or better or permission. Windows operating systems, integrated development environment, event-diven programming. graphical user interface design, object libraries, component object model. object linking, embedding, client-server objects.
418 INTRODUCTION TO DISCRETE STRUCTURES
3 credits
Prerequisite: Completion of 210 with a grade of C - or better or permission. Introduction to a number of structures in algebra of particular use to student in computer science. Topics include algorithms and flow chart language, graphs and digraphs, trees, lattices codes.
421 INTRODUCTION TO OBNECT-ORIENIED PROGRAMMING
3 credits
Prerequisite: Completion of 316 with a grade of C - or better. Obiect-oriented design, analysis, and programming using different development models. Comparison with other programming paradigrns.

426 OPERATING SYSTEMS
3 credits
Prerequisites: Completion of 306 and 316 , or equivalents with grades of $C$ - or better. Introduction to various types of operating systems: batch processing systems, multiprogramming systems and interacting processes: storage management; process and resource control; deadlock problem. Course is independent of any particular operating system.
428 UNIX SYSTEM PROGRANMING
3 credits
Prerequisite: Completion of 316 with a grade of C-or better and knowledge of C. An overview of the UNIX operating system. Shell programming. Process management, processor management, storage management, scheduling algorithms, resource protection, and system programming.
430 THEDRY OF PROGRAMMING LANGUAGES
Prerequisite: Completion of 316 with a grade of C - or better. Advanced concepts undertying programming languages and their applications, formal definitions of programming languages, Backus Normal Form, semantics. Alternative programming paradigms including functional programming.

435 ANALYSIS OF ALGORTTHMS
3 credits
Prerequisite: Completion of 316 with a grade of C - or better. Design and analysis of efficient algorithms for random access machines; derivation of pattern classification algorithms.

440 COMPHER DESIGN
3 credits
Prerequisites: Completion of 307 and 316 with grades of C - or better. Techniques used in writing and modifying compilers including translation, loeding, execution, symbol tables and storage allocation; compilation of simple expressions and statements. Organization of a compiler for harding lexical scan, syntax scan, object code generation, error diagnostics and code optimization. Use of compiler writing languages and boat-strapping. The course requires a project involving compiler writing.
445 INTRODUCTION TO BIOINFORMATICS
3 credits
Prerequisite: Completion of 316 with a grade of C- or better or permission. Introduce major thernes in bioinformatics. Topics include concepts of molecular genetics, biological databases, database searching, sequence alignments, phylogenetic trees, structure prediction, and microarray data analysis.
446 INTRODUCTION TO BIOHFORMATICS LABORATORY
1 credit
Laboratory course investigating basic tools currently available for biological database searching, sequence alignments, phylogenetic tree construction, protein structure prediction and microarray anatysis.

453 COMPUTER SECURITY
3 credits
Prerequisites: Completion of 316 with a grade of C - or better. Principles of computer security cryptography, authentications, secure network protocols, intrusion detection and countermeasures.
455 DATA COMMUNICATION AND COMPUTER NETWORKS
3 credits
Prerequisites: Completion of 316 or 401 with a grade of C - or better. ISO-OSI, TCPAP, SNA data switching, protocols, flow and error control, routing, topology, Network trends, network taxonomies, and socket-based programming.
457 COMPUTER GRAPHICS
3 credits
Prerequisite: Completion of 316 with a grade of C - or better and knowiedge of C . Topics in vector and raster graphics, interactive graphics languages, scan conversion, clipping, geometric transformation, projection, shading, animation and virtual reality.
460 ARTIFICIAL INTEUGENCE AND HEURISTIC PROGRANAMING
3 credits
Prerequisite: Completion of 316 with a grade of C- or better. Study of various programs which have displayed some intelligent behavior. Exploration of level at which computers can display intelligence.
463 PERVASNE COMPUTING
3 credits
Prerequisites: Completion of 316 with a grade of C - or better. Computing from a wireless perspective. Topics include protocols, algorithms, security and sensor networks.
465 COMPUTER ARCHITECTURE
3 credits
Prerequisite: Completion of 306 or ( 210 and $4450: 330$ ) with a grade of C - or better. An introduction to the hardware organization of the computer at the register, processor and systems level. In-depth study of the architecture of a particular computer system family.
467 MICROPROCESSOR PROGRAMMING AND INTERFACING
3 credits
Prerequisites: Completion of 306 and 316 with grades of C- or better. Detailed study of a particut lar microprocessor architecture and instruction set. Standard device interface components. Real time programming concepts.
468 MOBILE ROBOTICS
3 credits
Prerequisites: Completion of 316 with a grade of C - or better. Introduction to history, hardware and software components, and design of autonomous mobile robots. Multiple projects involving both physical robots and software emulation.
470 AUTOMATA, COMPUTABIUTY AND FORMAL LANGUAGES
3 credits Prerequisite: Completion of 418 with a grade of C-or better. Presentation of theory of formal karguages and their relation to automata. Topics include description of languages; regular contextfree and context-sensitive grammars; finite, pushdown and linear-bounded automata; turing machines; closure properties; computational complexity, stack automata and decidability.
475 DATABASE MANAGEMENT
3 credits
Prerequisite: Completion of 316 with a grade of C - or better. Fundamentals of database organization, data manipulations and representation, data integrity, privacy.
477 INTRODUCTION TO PARALIEL PROCESSING
Prerequisites: Completion of 316 with a grade of C - or better and knowledge of C. Commercial processors: past and present. Parallel languages, models of parallel computation, parallel algorithm design and performance evaluation. Parallei paradigms with relation to real world applications.
480 INIRODUCTION TO SOFTWARE ENGINEERING AND FORIMAL METHODS 3 credits Prerequisite: Completion of 316 with a grade of C- or better. Introduction to formal software specification and validation. Introduction of methodologies and tools of design, development and validation, and maintenance.

489 TOPICS IN COMPUTER SCAENCE
$1-3$ credits
Prerequisite: permission of instructor. Selected topics in computer science at an advanced level. (May be repeated.)

## 490 SENIOR SEMINAR IN COMPUTER SCIENCE

3 credis
Prerequisite: Must have completed at least 30 hours of 3460 (computer science) courses. Protessional software development, surviving "Mission Impossible" projects, computer ethics, intellectual property rights (patents and copyrights), and other current topics.
491 WORKSHOP IN COMPUTER SCIENCE
$1-3$ credits
Group studies of special topics in computer science. May not be used to meet graduate or undergraduate requirements in mathematics, statistics or computer science.
497 INDIVDUAL. STUDY IN COMPUTER SCIENCE
1.3 credits
(May be repeated. Can apply to degree, minor or certificate only with department approval.) Prerequisite: permission. Directed studies designed as introduction to research problems, under guidance of designated faculty member.
498 SENIOR HONORS PROUECT
$1-3$ credits
Prerequisite: 497 (honors). Directed study for senior student in the Honors College who has completed 3460:497. An introduction to research problems in the computer science under the guidance of selected faculty.

## STATISTICS

## 3470:

250 STATISTICS FOR EVERYDAY LIFE
4 credits
Prerequisite: Mathematics Placement Test. Conceptual approach to the basic ideas and reasoning of statistics. Topics include descriptive statistics, probability (uncertainty), statistical inference (estimation and hypothesis testing). Computer applications laboratory.
260 BASIC STATISTICS
3 credits
Prerequisite: Mathematics Placement Test or 3450:100. Applied approach to data description and statistical inference (hypothesis testing, estimation). Analysis of ratios, rates, and proportions. Computer applications Laboratory.
261 INTRODUCTORY STATISTICS I
2 credits
Prerequisite: Mathematics Placement Test. Descriptive statistics, tabular and graphical data displays; probability, probability distributions. Introduction to statistical inference (hypothesis testing, estimation); one-sample parametric and nonparametric methods. Computer applications.
262 INTRODUCTORY STATISTICS II
2 credits
Prerequisite: 261 or equivalent. Parametric and nonparametric methods of statistical inference for paired data and two-sample problems; one-way ANOVA, simple linear regression and correlation. Computer applications.
289 SELECTED TOPICS IN STATSTICS
$1-3$ credits
Prerequisite: Permission. Selected topics of interest in statistics
3 credits
60 STATISTICAL. INVESTIGATIONS
3 credits
Prerequisites: $\mathbf{2 5 0}$ or $\mathbf{2 6 0}$ or $\mathbf{2 6 2}$. This course provides practical statistical methods beyond the introductory course. The topics include, design of experiments, data analysis, multiple regression and modern software use.

401 PROBABILTY AND STATISTICS FOR ENGINEERS
2 credits
Prerequisite: $3450: 222$. Introduction to probability, statistics, random variables, data descriptions, statistical inference, confidence intervals, hypothesis testing, design of expenments, and applications of statistics to engineering.

## 50 PROBABITTY

3 credits
Pterequisite: $3450: 221$. Introduction to probability, random variables and probability distributions, expected value, sums of random variables, Markov processes.

451,2 THEORETICAL STATISTICS I AND II 3 credits each
Sequential. Prerequisite: $3450: 223$. Elementary combinatorial probability theory, probability distributions, mathematical expectation, functions of random variables, sampling distributions, point and interval estimation, tests of hypotheses, regression and correlation, introduction to experimental designs.
460 STATISTICAL METHODS
4 credits
Application of statistical methods to the social sciences including descriptive statistics, probability distributions, statistical inference (parametric, nonparametric), categorical data analysis, linear regression, correlation, computer applications. May not be used to meet Mathematical Sciences degree requirements.

461 APPLED STATISTICS
4 credits
Prerequisite: $3450: 222$ or equivalent. Applications of statistical theory to natural and physical sciences and engineering, including probability distributions, interval estimation, hypotheses testing (parametric and nonparametric), and simple linear regression and correlation.

462 APPLED REGRESSION AND ANOVA 4 credits
Prerequisite: 461 or equivalent. Applications of the techniques of regression and multifactor analysis of variance.

465 DESIGN OF SAMPLE SURVEYS 3 credits
Prerequisite: 461 or equivalent. Design and analysis of frequently used sample survey techniques.
469 RELABILTY MODELS
3 credits
Prerequisite: 461 . Selected topics in reliability modeling including parametric and nonparametric models, competing modes of failure, censored data and accelerated life models.

## 471 ACTUARIAL SCIENCE

3 credits
Prerequisite: 451 or 461 or equivalent. Study of various statistical, financial, and mathematical calculations used to determine insurance premiums related to contingent risks based on individual risk model frameworks.

472 ACTUARIAL SCHENCE II
3 credits
Prerequisite: 471. Continuation of Actuarial Science I. Study of multiple life functions, multiple decrement models, valuation theory for pension plans, insurance models including expenses, nonforfeiture benefits and dividends.
475 FOUNDATIONS OF STATISTICAL QUALTY CONIROL
3 credits
Prerequisite: 461 or equivalent. Course provides a solid foundation in the theory and applications of statistical techniques widely used in industry.

## 480

STATSTICAL DATA MANAGEMENT
3 credits
Prerequisites: 461. Students learn data organization and structures, design of statistical data bases, statistical software analysis, importing and exporting data between software, and missing data analysis.
469 TOPICS IN STATISTICS
1.3 credits
(May be repeated for a total of six credits) Prerequisite: permission. Selected topics in advanced
statistics, including quality control, reliability, sampling techniques, decision theory, advanced inference, stochastic processes and others.
491 WORKSHOP IN STATISTICS
$1-3$ credits
(May be repeated with change of topic) Group studies of special topics in statistics. May not be used to meet undergraduate or graduate major requirements in mathematics and statistics. May be used for elective credit only.
495 STATISTICAL CONSULTING

## $1-3$ credits

Prerequisite: 480 or permission. Students will be assigned to work with an instructor on current projects in the Center for Statistical Consulting. May be repeated for a total of 4 credits; however, only 2 credits will count toward major requirements. Does not count for elective credit for Mathematical Sciences majors.
497 INDMDUAI. READING
1-2 credits
(May be repeated for a total of four credits) Prerequisites: senior standing and permission. Directed studies in statistics designed as introduction to research problems under guidance of selected faculty member.
498 SENBOR HONORS PROUECT
1-3 credits
Prerequisite: 489 (honors). Directed study for senior student in the University Honors College who has completed 489 (honors). An introduction to research problems in the mathematical sciences under the guidance of selected taculty.

## MODERN LANGUAGES

## 3500:

## PLACEMENT PROCEDURES FOR NEW STUDENT

in lieu of taking the placement test, a student with two years or less of a foreign language in high school may register in 101; a student with three years in high schcol and average grades should register for 102; a student with three years and above average grades ( $\mathrm{B}+$ or A ) should register for 201; a student with four years in high school should register for 202. For placement in third-year courses or higher, department permission is required.

101,2 BEGINRHNG MODERN LANGUAGE I AND II
4 credits each
Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts.

201,2 INTERMEDLATE MODERN LANGUAGE I AND II
3 credits each
Sequential. Prerequisite: 102 or equivalent. Continuing acquisition of competence in reading.
writing, speaking, and listening comprehension through use of culturally authentic materiais,
with emphasis on developing accuracy and seff-expression in a wide range of situations.
320 FRENCH CANADIAN LTERATURE IN TRANSLATION
3 credits
Prerequisite: French major and minors only; 3520:306. Reading and discussion of English translations of French Canadian Literature. French majors and minors must read original French version and do all writing in French.
422 MODERN LANGUAGES: SPECLAL TOPICS IN ADVANCED
$1-4$ credits
LANGUAGE SKILLS, OR CULTURE, OR UTERATURE
Prerequisite: Modern Languages 202 or equivalent. Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

## 400 WORKSHOP

$1-4$ credits
(May be repeated for a total of 8 credits) Prerequisite: permission of instructor. Group studies of special topics in Modern Languages.
497 INDIVIDUAL READNGGS IN MODERN LANGUAGES
$1-3$ credits
Prerequisites: 202 and permission of department chair.
498 SENIOR HONORS PROJECT IN MODERN LANGUAGES
1-3 credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and permission. Open only to language major enrolied in Honors College. Independent study leading to completion of senior honors thesis or other oniginal work.

## LATIN

## 3510:

190 THE MAKING OF ENGLUSH WORDS FROM
3 crodits
LATIN AND GREEK ELEMENTS
languages in the scientific and legal fields. No foreign language is necessary.
101,2 BEGNNNING LATIN I AND II
4 credirs each
Sequential. Prerequisite for 102: 101 or equivalent. Reading, writing and translation; oral and
witten drill; analysis of grammatical structure and English vocabulary building.
201,2 INTERMEDLATE LATIN I AND \&
3 credits each
Prerequisite for 201: 102 or equivalent. Prerequisite for 202: 201 or equivalent. A survey of readings of the less difficult authors such as Pliny, Caesar, Plautus, Cicero's Letters or equivalent material.
303,4 ADVANCED LATIN
3 credits each
(May be repeated for credit with change of subject) Prerequisites: 202 or equivalent. Satirists,
dramatists, philosophical, religious writers, lyric and elegiac poets, medieval writers.

## 497, LATIN READING AND RESEARCH

3 credits ョach
(May be repeated for credit with change of subject.) Prerequisite: permission of instructor. Generally Latin epigraphy, prose composition or phillogy; numismatics or certain other archaeological topics may be offered.

## FRENCH

## 3520:

## 101,2 BEGINNING FRENCHI AND II

4 credits each
Sequential. Prerequisite for 102: 101 or equivalent. Acquisition of basic reading, speaking, writ ing and listening comprehension skills, with emphasis on development of self-expression in everydey situations, through culturally authentic media and texts.

201,2 INTERMEDIATE FRENCH I AND :
3 credits oach
Sequential. Prerequisite for 201: 102 or equivalent. Prerequisite for 202: 201 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and selfexpression in a wide range of situations.
300 CONIEMPORARY FRENCH AND FRANCOPHONE CULTURES
3 credits
Prerequisite: 202 or permission. Introduction to contemporary lives and cultures in France and other Francophone countries as portrayed in recent documents, literary works and films.
301 FRENCH CONVERSATION
3 credits Prerequisite: 202 or equivalent. Development of speaking skills beyond intermediate level. Practice of listening comprehension, correct pronunciation, extended and grammatically sound discourse.

302 FRENCH COMPOSTTION
3 credits
Prerequisite: 202 or equivalent. Development of writing skills beyond intermediate level.
303 FRENCH CULTURE AND CIVLZZATION I
3 credits
Prerequisite: 202 or equivalent. History of France and French cultural heritage from its origins to mid-20th century.

304 FRENCH CULTURE AND CMLZATHON II
3 credits
Prerequisite: 202 or equivalent. Modem history of France. Focus on political and social trends since 1960.

305,6 INIRODUCTION TO FRENCH LIERATURE
3 credits each
Prerequisite: 202 or equivalent. Survey of French literature from its origins to present, with lectures, reading and class discussion of representative works.

308 INTERTNSHIP IN FRENCH
1-3 credits
(May be taken for a total of six credits. No more than three credits may be applied toward a 3520 major.) Prerequisites: Permission of the French section adviser. Student's internship which results in portolio on career applications of the discipline of French.

311 CONTEMPORARY FRENCH SOCETTY
3 credits
Prerequisite: 202 or equivalent. A study of contemporany French society, including customs and political and social issues. Conducted in French. Counts toward Culture and Civilization requirement for major.
312 FRENCH/FRANCOPHONE CULTURAL EXPERIENCE ABROAD
13 credits (May be taken for a total of six credits. No more than three credits may be applied toward a 3520 major.) Prerequisites: Permission of the French section adviser. Student's residence and independent study/project in French-speaking country which results in demonstrable understanding of the country's culture.
315 FRENCH PHONETICS
3 credits
Prerequisite or corequisite: 202 or equivalent. Intensive drill in pronunciation with correction and improvement of student's accent, emphasis on articulation, intonation and hythm.

350 THEMES IN FRENCH IITERATURE IN TRANSLATION
3 credits
Prerequisite: 3400:210. (May not be taken for credit toward the French major) Readings, discussion of novels and plays relating to selected themes of French literature. Texts and discussion in English.

351 TRANSLATION: FRENCH
3 credits
Prerequisite: 202 or equivalent. Study of translation techniques, both French to English and English to French. Emphasis on stylistics and interpretation of idioms.

352 TRANSLATION: BUSINESS FRENCH
3 credits
Prerequisite: 351 or equivalent. Application of translation techniques with particular stress on business styles, formats, and vocabulary. Especially recommended for students interested in intemational business.

402 ADVANCED FRENCH GRAMMAR
3 credits
Prerequisite: 302 or equivalent. Advanced study of normative French grammer with emphasis on syntax, morphology, grammatical structure and phonetic principles.
403 ADVANCED FRENCH: WRITEN AND ORAL COMMUNICATION
3 credits Prerequisite: 301 and 302, or permission. Development of writing and speaking skills beyond that achieved in 301 and 302 through intensive practice and grammar review.
404 ADVANCED FRENCH COMPOSTION AND CONVERSATION 3 credits Prerequisite: 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure.
413 FRENCH CINEMA
3 credits
Prerequisites: 301 or 302; or permission from instructor. Study and discussion of various aspects of French culture and civilization as characterized in movies.
422 FRENCH: SPECIAL TOPICS IN ADVANCED
$1-4$ credits
LANGUAGE SKILS, OR CULTURE, OR LIERATURE
Prerequisite: 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.
$22720 T H$ CENTURY FRENCH UTERATURE
4 credits
Prerequisite: 305 or 306 or equivalent. Reading and discussion of the most representative works of period. Conducted in French.
430 CONTEMPORARY QUEBEC
3 credits
Prerequisite: 301 or 302 or permission. Historical, political, sociotogical and culturai overviews of Quebec, offering an in-depth examination of questions of identity through the study of literature and popular culture.
431 FRANCOPHONE ITERATURE
3 credits
Prerequisite: 300 or 301 or 302 or permission. The problematics of identity (race, class) in postcolonial context, studied through literary texts by authors from Africa, Caribbean, and Québec.
450 EXPLICATION DE TEXTES
3 credits
Prerequisite: 302 or equivalent. Study of traditional French method of literary analysis based on passages of representative authors from selected periods of French literary history.
497,8 INDIVIDUAL READING IN FRENCH
$1-3$ credits each
Prerequisite: 202 and permission of department chair

## GERMAN

## 3530:

## 101,2 BEGINNING GERMAN I AND II

4 credits each
Sequential. Prerequisite for 102: 101 or equivalent. Acquisition of basic reading, speaking, witing and listening comprehension skills, with emphasis on development of selfexpression in everyday situations, through culturally authentic media and texts.
201,2 INTERMEDIATE GERMAN I AND II
3 credits each
Sequential. Prerequisite for 201: 102 or equivalent. Prerequisite for 202: 201 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and seffexpression in a wide range of situations.
301 GERMAN CONVERSATION AND COMPOSTION
3 credits each
Prerequisite: 202 or equivalent. Advanced composition using German models, special attention to words and idioms, development of oral expression and conversational ability.

302 GERMAN CONVERSATION AND COMPOSTION: SPECIAL TOPICS
3 credits each Prerequisite: 202 or equivalent or permission of instructor. May be repeated for credit. Special attention to development of oral expression and conversational ability.

310 SEX, VOLENCE, AND TERROR IN GERMAN FAIRY TALES 3 credits
Exploration of historical context of German fairy tales and interpretation plus modem significance of texts according to Jungian archetypal psychology. Readings and discussions in English.

403,4 ADVANCED GERMAN CONVERSATION AND COMPOSTION 3 credits each Prerequisite: 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure.

406,7 GERMAN CULTURE AND CNMLIZATION 3 credits each Prerequisite: 302 or 306 or equivalent. Particular emphasis on customs, traditions, literary trends and artistic tendencies that constitute German's contribution to Western civilization.

422 GERMAN: SPECIAL TOPICS IN ADVANCED $1-4$ credits LANGUAGE SKILLS, OR CULTURE, OR LITERATURE
Prerequisite: 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.
497,8 INDIVIDUAL READING IN GERMAN
1-3 credits each Prerequisite: 202 and permission of department chair.

## ITALIAN

3550:
101,2 BEGINNING ITALANN I AND II
4 credits each
Sequential. Acquisition of basic reading. speaking, writing and listening comprehension skitls, with emphasis on development of selfexpression in everyday situations, through culturally authentic media and texts.

201,2 INTERMEDLATE TTALIAN I AND H
3 credits each
Sequential. Prerequisite: 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and selfexpression in a wide range of situations.
301,2 ITALAN COMPOSTION AND CONVERSATION 3 credits each Prerequisite: 202 or equivalent. Italian composition using Italian models, special attention to words and idioms and development of oral expression and conversational ability.
422 ITALAN: SPECLAL TOPICS IN ADVANCED
$1-4$ credits
LANGUAGE SKILLS, OR CULTURE, OR UTERATURE
Prerequisite: 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.
497 INDIMDUAL READING IN ITALAN
$1-3$ credits
Prerequisite: 202 and permission of the department chair.

## JAPANESE

## 3560:

101,2 BEGINNING JAPANESE I AND |I
4 credits
Sequential. Prerequisite for 102: 101 or equivalent. Acquisition of basic reading, speaking, writing and listening comprehension skills.

201, 2 INTERMEDIATE JAPANESE I AND II 3 credits
Sequential. Prerequisite: 102 for 201; 201 for 202; or equivalents.Continuing development of reading, speaking, writing and listening comprehension skills.

304 JAPANESE CULTURE THROUGH FILM 2 credits Prerequisites: 64 credits. Exploration of various aspects of Japanese culture through viewing of films. Films are subtitled in English. Readings and discussions in English.

42 SPECLAL TOPICS IN LANGUAGE SKILLS, OR CULTURE OR LIERATURE 3 credits Prerequisite: 202 or equivalent. (May be repeated). Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

497 INDIVIDUAL READING IN JAPANESE 1.3 credits Prerequisite: 202 or permission of the department chair. Directed study in area of individual interest chosen by the student in consultation with the instructor.

## RUSSIAN

## 3570:

101,2 BEGINNING RUSSIAN I AND II
4 credits each
Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of selfexpression in everyday situations, through culturally authentic media and texts.

## 201,2 WNTERMEDIATE RUSSIAN I AND

3 credits each
Sequential. Prerequisite: 102 or equivalent. Continuing acquisition of competence in reading, witing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and seffexpression in a wide range of situations.
497,8 INDMDUAL READING IN RUSSIAN
$1-3$ credits aach
Prerequisite: 202 and permission of the department chair.

## SPANISH

## 3580:

101,2 BEGINNING SPANHSH: AND I:
4 credits each
Sequential. Prerequisite for 102: 101 or equivalent. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturalły authentic media and texts.

## 111 INTENSIVE BEGINNING SPANISH

4 credits
Sequential. Prerequisite: minimum of two years of prior study of Spanish at the secondary level or the equivalent, or a satisfactory score on the UA Spanish Placement Exarnination, or permission of the instructor. Acquisition of basic reading, speaking, writing, and listening comprehersion skills, with emphasis on development of seffexpression. Sequence covers the entire first year in one semester.
112 INTENSVE BEGINNING SPANASH \#
4 credits
Sequential. Prerequisite: completion of 101 with a grade of 8 or better, or completion of 111 with a grade of C or better, or a minimum of three years of prior study of Spanish at the secondary level or the equivalent and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers the entire first year in one semester.

201,2 ANTERMEDATE SPANISHI AND I
3 credits each
Sequential. Prerequisite for 201: 102 or equivalent. Prerequisite for 202: 201 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and seffexpression in a wide range of situations.
211 INTENSIVE INTERMEDIATE SPANISH I
3 cradits Sequential. Prerequisite for 211: completion of 3580:102 with a grade of B or better, or completion of $3580: 112$ with a grade of C or better, or minimum of three years of prior study of Spanish at the secondary level or the equivalent and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Continuing acquisition of reading. speaking, writing, and listening comprehension skills, with emphasis on development of self expression. Sequence covers entire year in one semester.
212 INTENSIVE INTERMEDIATE SPANHSH II
3 credits
Sequential. Prerequisite for 212: completion of $3580: 201$ with a grade of $B$ or better, or comple tion of $3580: 211$ with a grade of C or better, or minimum of three years of prior study of Spanish at the secondary level or the equivalent and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Continuing acquisition of reading, speaking, writing, and listening comprehension skills, with emphasis on development of self expression. Sequence covers entire second year in one semester.
301 SPANBSH CONVERSATION
3 credits
Prerequisite: 202 or equivalent. Development of oral expression, listening comprehension and conversational ability.

302 SPANISH COMPOSTION
3 credits
Prerequisite: 202 or equivalent. Development of witing skills through intensive prectice and study of written expression in Spanish. Conducted in Spanish.
303 SPANISH GRAMMAR 3 credits
Prerequisite: 202 or equivalent. Post-intermediate review and study of grammar and basic principles of grammatical analysis. Conducted in Spanish.
311 SPANHSH/SPANSH-AMERICAN CULTURAL EXPERIENCE
1-2 credits
Prerequisite: permission. Student's residence and/or independent study in Spanish-speaking country which results in demonstrable assimilation of country's culture may eam a maximum of two credits.
340 INTRODUCTION TO SPAMMSH AND SPANISH-AMERICAN UTERATURE 3 credits Prerequisite: two of the group 301, 302, and 303 or permission of instructor. Reading and discussion of Spanish and Spanish-American literature of all genres. Introduction to the fundamentals of literary criticism and literary movements. Conducted in Spanish.
350 THE LTERATURE OF SPANHSH-AMERICA WN TRANSLATION
3 credits
Prerequisites: 3400:210. (May not be taken for credit toward the Spanish major or minor.) Reading, discussion of novels, short stories of major Spanish-American authors. Texts and discussion in English.

351 SPANISH FOR PROFESSIONALS: BUSNNESS
3 credits
Prerequisites: 301, 302, and 303 or permission of instructor. Study of business terminology as well as cultural factors affecting the conduct of business with Hispanic nations and populations. Conducted in Spanish.

401 ADVANCED CONVERSATION 3 credits each Prerequisites: 301 and either 302 or 303; or permission of instructor. Development of speaking skillis at a level beyond that achieved in 301. Conducted in Spanish.
402 ADVANCED COMPOSTTION 3 credits each Prerequisites: 302 and either 301 or 303; or permission of instructor. Development of writing skills at a level beyond that achieved in 302. Conducted in Spanish.
403 ADVANCED GRAMMAR
3 credits
Prerequisite: 303 and either 301 or 302; or permission of instructor. Advanced study of Spanish syntax and grammatical analysis. Conducted in Spanish.
404 INTRODUCTION TO SPANISH UNGUISTICS
4 credits
Prerequisites: 401, 402, and 403 or permission of instructor. This course provides a detailed overview of the structure of Spanish and areas of inquiry within linguistics: phonetics, phonology, morphology, syntax, semantics and applied fields.
405 SPANISH UNGUISTICS: PHONOLOGY
4 credits
Prerequisite: 401, 402, and 403 or permission of instructor. Descriptive study of Spanish phonetics and morphology, comparison of Spanish and English sounds, historical aspects, regional accents and sociolinguistic variation. Conducted in Spanish.

408 SPANISH LNGUISTICS: SYNTAX
4 credits
Prerequisite: 401, 402, and 403 or permission of instructor. Descriptive study of Spanish syntex; introduction to theories of grammer; overview of Spanish semantics and pragmatics. Conducted in Spanish.

407 SURVEY OF HISPANC LIERATURE: SPAN 4 credits
Pterequisites: 340 and two of the group 401, 402, 403 or permission of instructor. Study of the most representative works and literary movements in Spain from the Middle Ages to the present. Conducted in Spanish.
408 SURVEY OF HISPANIC UTERATURE: SPANISH AMERICA
4 credits
Prerequisites: 340 and two of the group 401, 402, 403 or permission of instructor. Study of the most representative works and literary movements in Spanish-America from the Discovery to the present. Conducted in Spanish.
409 CULTURAL MANUESTATIONS IN MEDEVAL AND PEMASSANCE SPAN
4 credits Prerequisite: 407 or 408 or permission of instructor. Comparative study of representative artistic and literary works of the Medieval and Renaissance periods. Conducted in Spanish.
410 SPANISH APPLIED LINGUISTICS
4 credits
Prerequisites: 401, 402, and 403 or permission of instructor. This course discusses current theories of second language acquisition and their implications for the leaming of problematic Spanish structures.

411 SPAN DUPANG THE BAROQUE PERIOD
4 credits
Prerequisite: 407 or 408 or permission of instructor. A comparative stucy of the different cultural manifestations during the 17th century in Spain. Conducted in Spanish.
412 CERVANTES: DON QULOTE
Prerequisite: 407 or 408 or permission of instructor. Reading and analysis of Don Quijote as the first modem novel in the historical context of Renaissance and Baroque esthetics. Conducted in Spanish.

413 THE DON JUAN MYTH IN SPANASH CULTURE
4 credits
Prerequisite: 407 or 408 or permission of instructor. Study of the evolution of the Don Juan myth from its origins to its latest versions in the 20th century.

414 CULTURAL POLTICS IN THE RIVER PLATE 4 credits Prerequisite: 407 or 408 or permission of instructor. This course will examine the military dictatorships of the seventies and eighties in Argentina and Uruguay by looking at how these regimes affected culture.
415 THE AGE OF REASON AND THE ROMANTIC REBELLION IN SPAIN
4 credits Prerequisite: 407 or 408 or permission of instructor. Study of the Enlightenment and the Romantic movement as reflected in the works of the major artists and writers of these periods. Conducted in Spanish.
416 REPRESENTING REALITY IN 19TH CENTURY SPAN
4 credits
Prerequisite: 407 or 408 or permission of instructor. A comparative study of the major literary and artistic movements in Spain from Realism to Modemism. Conducted in Spanish.

## 418 20TH CENTURY SPAIN: THE AVANT-GARDE

4 credits

## IN ITERATURE AND ART

Prerequisite: 407 or 408 or permission of instructor. A comparative study of the major literary and artistic movements in Spain which illustrate the primary cultural changes of the century. Conducted in Spanish
419 THE SPANISH CVL WAR AND ITS CULTURAL MMPACT
4 credits
Prerequisite: 407 or 408 or permission of instructor. Study the impact of the Civil War on Spanish culture.
422 SPECLAL TOPICS IN SPECIALITED
14 credits

## LANGUAGE SKILLS, OR CULTURE, OR LIERATURE

Prerequisite: 407 or 408 or permission of instructor. (May be repeated) Development of specialized language skills or reading of significant works of iterature or culture not studied in other courses.

423 SPANISH-AMEPICAN LTERATURE BEFORE 1900
4 credits Prerequisite: 407 or 408 or permission of instructor. Reading of representative SpanishAmerican literature from the discovery to 1900. Oral and written reports. Conducted in Spanish.

425 20TH CENTURY SPANSHAMERICAN NOVEL
4 credits
Prerequisite: 407 or 408 or permission of instructor. Reading and discussion of representative contemporary Latin American novels. Conducted in Spanish.
427 LATHNO CULTURES WN THE U.S.A.
4 credits
Prerequisite: 407 or 408 or permission of instructor. Inquiry into the Latino experience of displacement and marginality through the analysis of cultural manifestations in the U.S.A. Conducted in Spanish.
430 WOMEN IN 20TH CENTURY HISPANIC LIERATURE
4 credits
Prerequisita: 407 or 408 or pernission of instructor. Reading and analysis of selected works from the 20th Century that depict women in Hispanic countries. Methodologies of feminist criticism will be studied. Conducted in Spanish.
431 HISPANEC CULTURE: SPARN
4 credits
Prerequisite: two of the group 401, 402, 403 or permission of instructor. Study of society, customs, history, art, music, etc. of Spain, from a Hispanic perspective. Conducted in Spanish.
432 HISPAN:C CULTURE: SPANISH ANERICA
4 credits
Prerequisite: two of the following - 401,402,403-or permission of instructor. Overview and historical survey of Spanish American civilization and culture. Taken as 532, does not count toward the M.A. in Spenish. Conducted in Spanish.
497 INDMDDUAL READING IN SPANISH
$1-3$ credits
Prerequisite: 407 or 408 and departmental permission.

## PHILOSOPHY

## 3600:

109 INIRODUCTION TO PHILOSOPHY
3 credits
Introduction to philosophic problems and attitudes through acquaintance with thoughts on some leading thinkers of Westem tradition.
120 INTRODUCTION TO ETHICS
3 credits
Introduction to problems of moral conduct through readings from the tradition and class discussions; nature of "good," "right." "ought" and "freedom."
125 THEORY AND EVIDENCE
3 credits
An investigation of the concept of evidence and the crienia for the evaluation of theories in various areas of study including the natural sciences, the social sciences and philosophy. The role of scientific information in the formation and justification of value judgments.
170 INTRODUCTION TO LOGIC 3 credits Introduction to logic and critical thinking. Includes such topics as meaning, informal fallacies, propositional logic, predicate and syllogistic logic and nature of induction.
201 PH:LOSOPHY OF WORLD RELIGIONS 3 credits A philosophical examination of the major religious traditions of the word including Christianity, Judaism, Islam, Buddhism, Hinduism, Taoism, tribal religions, and others.

## 211 HISTORY OF ANCIENT PHLLOSOPHY

3 credits
History and development of ancient Greak philosophy from preSocrates to Aristotle. Readings of primary sources in transtation.

312 HISTORY OF MEDEVAL PHILOSOPHY
3 credits
History of Westem philosophy from end of Roman Empire to Renaissance. Major philosophers studied include St. Augustine, St. Anselm, Peter Abelard, St. Thomas Aquinas, Duns Scotus and William of Ockham. Readings from primary sources.
313 HISTORY OF MODERN PHILOSOPHY
3 credits
Analysis of major philosophical issues of 17 th and 18th Centuries from Descartes through Kant. Readings of primary sources in translation.
323 ADVANCED TOPFCS IN ETHICS
3 credits (May be repeated with change of topic for a total of nine credits) An examination of selected topics in applied ethics and ethical theory, such as the ethics of cloning, evolutionary ethics, history of ethics and ethical issues from the Human Genome Project. Specific topics will be announced in the course schedule.
324 SOCIAL AND POUTICAL PHLLOSOPHY
3 credits An examination of the normative justification of social, political institutions and practices. Analysis of concepts such as rights, justice, equality, political obligation from historical as well as contemporary points of view. Application to particular social issues covered.
327 LAW AND MORAUTY
3 credits Nature of law examined from the perspective of the law's alleged obligation to be ethical and promote justice.
329 PHILOSOPHIES OF INTERNATIONAL LAW
3 credits
Inquiry into the theories of utility of international law and the philosophical controversies surround them, e.g., international legel norms vs. international relations.

331 PHILOSOPHY OF RELGION
3 credits
Discussion, analysis of problems of theology, nature of religious experience; God's nature, existence; immortality, sin, faith, reason; holy revelation and redemption.
333 PHILOSOPHY OF SCIENCE AND RELIGION
3 credits
Survey of conflict, independence, and integration models of science and religion. Topics include: origin and nature of the universe, life, mind, value, meaning, science, religion.
340 EASTERN PHILOSOPHY
3 credits
Examination and evaluation of philosophical traditions from India, China and Japan, including Hinduism, Buddhism, Taoism and Confucianism.
350 PHILOSOPHY OF ART
3 credits
An examination of theories of the nature of art and the grounds of aesthetic evaluation. Analysis of such concepts as representation, form, content, expression, institution, convention, meaning and truth as they apply in the context of the arts.
355 PHILOSOPHY OF FEMINISM
3 credits
Introduction to feminist critiques of, and alternatives to, traditional westem philosophy, including topics in ethics, metaphysics, epistemology, and religion
361 BIOMEDICAL ETHICS
3 credits
The identification, analysis and evaluation of ethical issues ansing most critically in the biomedical setting, e.g., abortion, termination of treatment, definition of death, IVF, AIDS.
362 BUSINESS ETHICS 3 credits
Basic moral theories, moral principles and the decision-making process, applied to issues in business.
363 POLICE ETHICS 3 credits
Basic moral concepts and their application to the criminal justice system. Concerned with such issues as punishment, the use of force and conflict resolution.

## 364 COMPUTER ETHICS

3 credits
A critical examination of ethical issues arising in connection with computers and information technology, e.g., computer hacking, electronic privacy, and the regulation of intemet content.
365 ENVIRONMENTAL ETHICS
3 credits
Examination of the moral relationships among human beings, other species, and their shared environment. Ethical aspects of agricuture, global warming, extinction, and wilderness.

371 PHILOSOPHY OF MIND
3 credits
Nature of mind and the relationship between mind and body. Specific topics such as the limits of human reason, personal identity, the role of human thought in action and whether machines can think are also considered.
392 INTERNSHIP IN PHILOSOPHY $1-3$ credits
(May be repeated for a maximum of six credits) Prerequisite: 2.7 GPA and permission of instructor. Placement in appropriate public or private sector orgenization. Written assignments required.
411 PLATO
3 credits
Prerequisite: 211 or permission of instructor. Detailed study of the origin and development of Plato's theory of forms and the related theories of knowledge, ethics and politics.
414 AOUINAS
3 credits
Prerequisite: One course in philosophy, or permission of instructor. An in depth examination of the philosophy of St. Thomas Aquinas covering his contributions in metaphysics, epistemology. ethics, political theory, and philosophical theology.
415 AUGUSTINE
3 credits
Prerequisite: One course in philosophy, or permission of instructor. An in depth examination of the philosophy of St. Augustine covering his contributions in metaphysics, epistemology, ethics, political theory, and philosophical theology.
418 20TH CENTURY ANALYTIC PHILOSOPHY
3 credits
Prerequisite: One course in philosophy or permission of instructor. Study of ideal and ordinary language movements in 20th Century British and American philosophy. Deals with such figures as Russell, Carnap, Ayer, Moore, Wittgenstein, Ryle and Austen.
421 PHILOSOPHY OF LAW
3 credits
Prerequisite: One course in philosophy or permission of instructor. Identification and critical evaluation of classic and contemporary theories and assumptions of law, including legal reasoning, justice, natural law, punishment, etc.

424 EXISTENTIALISM
3 credits
Prerequisites: one course in philosophy or permission of instructor. In-depth inquiry into the thought of Kierkegaard, Jaspers, Heidegger, Sartre, Tillich and other existentialists with their concem for the human condition.
426 PHENOMENOLOGY
3 credits
Prerequisites: one Philosophy course or permission of instructor. Inquiry into methodology of
Husserl and Heidegger and their influence upon Western European and American thought.
432 ARISTOTLE
3 credits
Prerequisites: 211 or permission of instructor. Detailed study of Aristotle's metaphysics, philosophy of nature, philosophy of mankind and ethics.
434 KANT
3 credits
Prerequisite: 313 or permission of instructor. Study of Kantian system of thought and its relation to
history of philosophy. Includes thorough investigation of one or more of Kant's philosophic works.
461 NEUROETHICS
3 credits
Prerequisites: 120 or 361 or permission of instructor. Discussion and evaluation of contemporary
theories of moral agency arising from developments in neuroscience.
462 THEORY OF KNOWLEDGE
3 credits
Prerequisite: One course in philosophy or permission of instructor. Examination of nature of knowledge; theories of perception, conception and truth, problem of induction and relation of language to knowledge.
464 PHILOSOPHY OF SCIENCE
Prerequisites: One course in philosophy or permission of instructor. Nature of scientific inquiry, types of explanation, laws and causality, theoretical concepts and reality. Also considers critics of hypothetical-deductive view of science, e.g., Hanson and Kuhn.

471 METAPHYSICS 3 credits
Prerequisite: One course in philosophy or permission of instructor. Theories about ultimate nature and utimate explanation of reality. Uses readings from classical and contemporary sources.
480 SEMINAR
3 credits
(May be repeated, for additional credit with change of tooic) Prerequisite: one course in philosophy or permission of instructor. Varying philosophical topics not covered in regular course offerings.
481 PHILOSOPHY OF LANGUAGE
3 credits
Prerequisites: One course in philosaphy or permission of instructor. Contemporary philosophies about nature of language and its relation to reality and human thinking. includes discussion of views of linguists such as Chomsky.
490 SENIOR HONORS PROJECT IN PHILOSOPHY
3 credits
Prerequisite: senior standing in Honors College or senior honors standing as philosophy major and permission of Fhilosophy Department Honors preceptor. Research leacing to completion of senior honors thesis involving original work under faculty supervision.
497 INDIMDUAL STUDY
13 credits
(May be repeated for a total of six credits) Prerequisites: completion of required courses of phi iosophy major or permission of instructor and department head. Directed independent study of philosopher, philosophy or philosophical problem under guidance of selected faculty member. Subject matter determined by selected facuty member in consultation with student. Graduate credit requires significant additional work which may include additional research paper.

## PHYSICS

## 3650:

130 DESCRIPTIVE ASTRONOMY
4 credits
Qualitative introduction to astronomy, intended primarily as a first science course for non-science majors. Includes laboratory and observational activities.

## 131 ASTRONOMY BY INQUIRY

4 credits
Qualitative introduction to the major concepts of Astronomy by means of inquiry-based laboratory investigations. Intended for education majors.
133 MUSIC, SOUND AND PHYSICS
4 credits
Qualitative introduction to the physics of sound, its properties, perception and reproduction, including acoustical principles of musical instruments. Laboratory and observational activities included.
137 LGHT
4 credits
Introductory, qualitative course dealing with the nature of igigtt and the interaction of light with various materials to produce common visual effects. Laboratory activities provide experience in scientific investigation.

261 PHYSICS FOR THE LIE SCIENCES I
4 credits
Prerequisites: high school algebra, trigonometry or 3450:149 as corequisite or permission. Introductory course for professional work in biology and heath professions and services. Emphasizes life science applications. Mechanics: laws of motion, force, torque, work, energy, power, properties of matter: gases, liquids, solids, fluid mechanics. Includes laboratory activities.
262 PHYSICS FOR THE UFE SCIENCES II
4 credits
Prerequisite: 261. Laws of thermodmamics, kinetic theory. Wave phenomena: sound, light, optics; electricity and magnetism; atomic and nuclear physics; radioactivity. Includas laboratory activitios.
2878 LFE SCIENCE PHYSICS COMPUTATIONS IAND I
1 crediteach
Corequisites: 261 (with 267 ); 262 (with 268 ). Optional companion courses to 261,2 provides additional computational experience in applications of physics to life sciences, emphasizing use of algebre and trigonometry. Particularly recommended for student with modest mathernatical preparation.
291 ELEMENTARY CLASSICAL PHYSICSI
4 credits
Prerequisite: Completion of $3450: 221$ with a passing grade. Introductory physics for students of science and engineering. Classical kinematics and dynamics as related to contemporary physics. Oscillations, thermodynarrics. Vectors and some calculis introduced as needed. Inciudes laboratory activities.

292 ELEMENTARY CLASSICAL PHYSICS I
4 credits
Prerequisite: completion of 291 with a passing grade. Fluid mechanics, mechanical and electromagnetic waves and wave phenomena, hasic laws of electromagnetism, interference and diffraction, coherence, geometrical and pitysical optics. inculudes laboratory activitios.
293,4 PHYSICS COMPUTATONSI AND II
1 crediteach Corequisite: 291 (with 293); 292 (with 294). Optional companion courses to 291,2 provides experience in problem solving, and elaborates application of calculus to simple physical phenomena. Particularty recommended for a treshman and for student with modest preparation in mathematics or physical sciences.
301 ELENENTARY MODERN PHYSICS
3 credits
Prerequisite: 292 or permission of instructor. Special relativity, introduction to quantum physics, hydrogen atom and complex atoms, atomic spectra, topics in nuclear and solid-state physics.
302,3 NTERMEDLATE LABORATORY I AND I
3 credits each
Prerequisite: 262 or 292. Laboratory course stressing measurement techniques with contemporary laboratory apparatus. Experiment design, instrument calibration and reporting emphasized. Modern physics experiments and measurement of fundamental natural constants.

## 340 THERMAL PHYSICS

3 credits
Prerequisite: $\mathbf{2 6 2}$ or 292. Basic principles of thermal and statistical physics. Ensembles, laws of thermodynamics, equilibrium, ireversibility, equipartition theorem, canonical distribution, Maxwell distribution, phase changes, cyclic processes, transpor processes.

4 credits
4 crearts
Prerequisites: 292, or 262; one elementary course in Computer Science such as $3460: 208$ or 209; or permission of instructor. An interdisciplinary course stressing modeding of natural phenomena using fundamertal principles, and their simulation. Topics may include growth phenomena, fault propaga tion, kinetics, chemical reactions, wave phenomena.

399 UNDERGRADUATE RESEARCH
1-6 credits
(May be repeated) Pterequisite: permission of instructor. Participation in current research project in department under supervision of faculty member.

401 EVERYDAY PHYSICS
4 credits
Prerequisite: permission of instructor. College-level physics content for future teachers. Inquiry, discovery, activities, discussion, and experiential learning take place in a laboratory/embeddedlecture environment.
406 OPTICS
3 credits
Prerequisites: 291, 350 and 3450:335. Propagation, reflection and refraction of electromagnetic waves, superposition, polarization, interference and interferometry. Fresnel and Fraunhofer diffraction, Fourier optics, coherence theory and quantum optics.
431 MECHANICS 1
3 credits
Prerequisites: 291, 350 and 3450:335. Mechanics at intermediate level. Newtonian mechanics, motion of a particle in one dimension, central field problem, system of particles, conservation laws, rigid bodies, and gravitation.
432 MECHANICS II
3 credits
Prerequisite: $431 / 531$. Advanced mechanics at the senior or beginning graduate level, moving coordinate systems, mechanics of continuous media, Lagrange's equations, tensor algebra and stress analysis, rotation of rigid bodies, vibration theory.
436 ELECTROMAGNETISM I
3 credits Prerequisites: 291, 350, 3450:335 or permission of instructor. Electricity and magnetism at intermediate level. Electrostatics and magnetostatics, electric field, scalar potential, dielectrics, Laplqace's and Poisson's equations, currents, magnetic field, vector potential, magnetic materials, and inductance.
437 ELECTROMAGNETISM II
3 credits
Prerequisite: $436 / 536$. Special relativity, four vectors, Maxwell's equations in covariant form: propagation, reflection and refraction of electromagnetic waves; multipole radiation.
441 QUANTUM PHYSICS I
3 credits
Prerequisites: 301,350 and 3450:335. Introduction to quantum theory, Schrödinger equation, observables, angular momentum, perturbation theory, variational principle, bound states, scattering theory, radiative interactions, spin and the Pauli Principle.
42 QUANTUM PHYSHCS II
3 credits
Prerequisite: $441 / 541$. Applications of quantum mechanics to atomic, nuclear and solid state physics. Tunneling and alpha decay, periodic potential, hydrogen and helium atoms; interatomic forces, quantum statistics.
451 ADVANCED LABORATORY I
3 credits
Pterequisite: 323 or pemission of instructor. Experimental techniques, applicable to researchtype projects in contemporary physics. FT-IR spectroscopy, optical spectroscopy, tasers and thir-film growth and characterization.

452 ADVANCED LABORATORY II
3 credits
Prerequisite: 323 or permission of instructor. Experimental projects applicable to contemporary physics. Diode and dye lasers, NMR, SPM, chaos, electron tunneling and fiber optics.
470 INTRODUCTION TO SOUD-STATE PHYSKCS
3 credits
Prerequisite: 441 or permission of instructor. Account of basic physical processes occurring in solids, with emphasis on fundamental relation between these processes and periodicity of crystalline lattice.
481,2 METHODS OF MATHEMATICAL PHYSICS I AND I
3 credits each
Prerequisites: 292, 350,3450:335 and senior or graduate standing in a physical science or engineering. Vectors, generalized coordinates, tensors, calculus of variations, vector spaces, linear transformations, matrices, eigenvalues, Hilbert space, boundary value problems, transcendental functions, complex variables, analytic functions, Green's functions, integral equations.
488 SELECTED TOPICS: PHYSICS
$1-4$ credits
(May be repeated) Prerequisite: permission. Consideration of selected topics, procedures, techniques, materials or apparatus of current interest in physics.
490 WORKSHOP
1.4 creaits
(May be repeated) Group studies of special topics in physics. May not be used to meet undergraduate or graduate major requirements in physics. May be used for elective credit only
497 INDEPENDENT STUDY
1-4 credits
(May be repeated) Prerequisite: permission. Further investigations of various selected topics in physics, under guidance of faculty member.

## 498 PHYSICS COLLOOUIUM

1 cradit
Lectures on current research topics in physics by invited speakers. May be repeated but only one credit counts toward the M.S. Degree. Offered on a credit/noncredit basis only,

## POLITICAL SCIENCE

## 3700:

100 GOVERNMENT AND POLTICS IN THE UNITED STATES
4 credits
Examination of American political system with emphasis on fundamental principles, ideas, institutions and processes of modern government. Lecture and discussion sections (day classes only).
150 WORLD POLITCS AND GOVERNMENTS 3 credits Introduction to intemational politics and an examination of the govemments and foreign policies of selected states from a comparative perspective.
201 INTRODUCTION TO POUTICAL RESEARCH 3 credits
Introduction to the research process in political science through an introduction to the logic of social science inquiry and contemporary techniques of analysis.

210 STATE AND LOCAL GOVERNMENT AND POLTICS 3 credits
Examination of institutions, processes and intergovemmental relations at state and local levels.

## 300 COMPARATIVE POLTICS

4 credits
Introduction to comparative political analysis; description of political systems of several count tries; contrast between democracy and totalitarianism.
302 AMERICAN POUTICAL IDEAS 3 credits
Study of major thinkers and writers of American political thought.
303 INTRODUCTION TO POUTICAL THOUGHT 3 credits
Survey of major ideas and concepts of Westem political theory from pre-Socrates through period of Enlightenment.
304 MODERN POUTICAL THOUGHT
3 credits
Examination of central concepts of political thought from 19th Century to present. Modern liberalism, communism, fascism and totalitarienism emphasized.
310 INTERNATIONAL POUTICS AND INSTTIUTHONS . 3 credits Relations among nations examined in political context.
311 DEVELOPANG STATES WN WORLD POLTICS 3 credits Examines how developing states are conditioned by the global system and how they attempt to modify it.
312 THE POLITICS OF INTERNATIONAL TRADE AND MONEY
3 credits
Prerequisite: 310 or permission of instructor. Examines trade and money as sources of international power; focuses on the evolution of the Bretton Woods monetary and GATT trade regimes.
321 WESTERN EUROPEAN POUTICS
3 credits
Description and analysis of govemment and politics of France, Germany, taly and Switzerland, with appropriate references to Scandinavia and Low Countries.
326 POUTICS OF DEVELOPNG NATIONS
3 credits
General introduction to concepts and thecries of political development and political institutions, eliterecruitment and political processes of selected emerging nations.

328 AMERICAN FOREIGN POLLCY PROCESS
3 credits
Examination of American foreign policy-making process; public opinion and other limitations on policy: specific contemporary problems in selected foreign policy areas.

334 LAW, MEDIATION AND VIOLENCE
3 credits
A critical analysis of the practical challenges central to learning to better prevent, resolve or reduce the harms associated with conflict.

335 LAW AND SOCIETY 3 credits
This course will examine how law constructs and constrains political confict, and how legal institutions mediate, reinforce, and challenge existing power relationships.
336 HOMELAND SECURTY POLICY AND PROCESS 3 credits The course will focus on the topic of homeland security, an area that has received a great deal of attention following the tragic events of September 11, 2001.
337 TERRORISM: PERPETRATORS, POLTICS, AND RESPONSE 3 credits Survey of terorist organizations, political implications of terrorism, and govermmental response to terrorism.
338 POUTICS OF $9 / 11 \quad 3$ credits Among other topics, we will explore the nature of terorism and terrorist incidents occurring before and after $9 / 11$, as well as the U.S. govemment's response to the $9 / 11$ attacks.
338 TERROPISM AND THE CONSTITUTION 3 credits Primary gools include leaming about the balance courts try to strike in safeguarding public safety and respect for personal freedom in a constitutional republic.
341 THE AMERICAN CONGRESS
3 credits
Examination of structure and function of Congress, with comparative materials on legislative process on all levels. Presidential and congressional conflict examined.
345 WORLD POUTICS IN FILM
3 credits
This course examines the political meaning and content of films. Themes investigated include war, the nuclear age and its consequences, postindustrial society, the future, and unemployment.
346 AMERICAN POLTICS IN FLM
3 credits
Examines the portrayal and representation of American politics through cinema. Emphasis on the positive and negative roles that movies play in educating the public.
350 THE AMERICAN PRESIDENCY 3 credits The presidency as focal point of politics, policy and leadership in American political system.
352 WEAPONS OF MASS DESTRUCTION
3 credits
An exploration of the various weapons of mass destruction available to tenorists and other potential enemies with an emphasis on the challenge America faces in responding to such threats.
353 FUTURE INTERNATIONAL THREATS 3 credits A study of future threets through the use of scenario construction and future projections.
355 LAWYERS, LAWSUITS AND THE PRACTICE OF JUSTICE
3 credits Prerequisite: 100. A critical examination of the American legal profession and the impact it has on political society.
360 THE JUDICIAL PROCESS 3 credits Role of police, lawyers, courts and judges in context of American political process. Structure and process of judicial policy making and limitations on judicial power.
361 POUTICS OF THE CRMMINAL JUSTICE SYSTEM 3 crodits Examines the impact of the political process and political institutions on criminal law and policy.
363 CRIME, PUNUSHMENT, POUTICS: A COMPARATIVE PERSPECTIVE 3 credits Comparative study of the structures, practices, power relationships, and politics in various criminal justice systems.

370 PUBLIC ADMINISTRATION: CONCEPTS AND PRACTICES 4 eredits
Examines current administrative theories and their application in public bureaucracies. Emphasis is placed on practices to improve the quality of public sector administration.
375 WOMEN IN POUTICS
3 credits
Course examines the past, present and future roles of women in politics.
380 URBAN POLITCS AND POLCIES 4 credits
Examination of problems emerging from urban and regional complexes in the United States. Structure and processes of political decision making at this level analyzed.
381 STATE POLTICS 3 credits Analysis of the state political process in terms of its capaciry to deal with a wide range of socioeconomic problems. Special emphasis on legislators, administrators, parties and interest groups.
391 HONORS IN POLTICAL SCIENCE 3 credits
Prerequisites: at least 17 credits and a 3.25 average in political science and permission of adviser.
392 SELECTED TOPICS IN POLTICAL SCIENCE
1.3 credits
(May be repeated, but no more than three credits can be applied to major in political sciencel
Topics of substantial current importance, specialized topics within political science or experiment tal courses.
395 INTERNSHIP IN GOVERNMENT AND POLTICS
$2-9$ credits
(May be taken twice for a total of nine hours. No more than four cresits may be applied toward major in political science.) Prerequisite: Three courses in political science at The University of Akron, 2.20 average in political science, and permission of instructor. Supervised individual placement with political office holders, party groups, governmental agencies, law firms and other organizations providing professionaHevel work.

397 INDEPENDENT STUDY
$1-4$ credirs
(May be repeated for a total of four credits) Prerequisites: senior standing, 3.00 grade-point average and permission of adviser.
402 POLITICS AND TME MEDIA 3 credits Examination of relationships between the press, the news media and political decision makers.

## 405 POLTICS IN THE MHDDLE EAST

3 credits
The rise of the state system in the Middle East after World War I; an analysis of the socio-cultural, ideological forces influencing the political behavior of the people of the Middle East. In-depth study of selected political systems.
410 INTERNATIONAL DEFENSE POLICY
3 credits
Prerequisite: At least one of the following: 220, 310; $3400: 380,382,460,461$, or permission. Introduction to political uses of military forces. Major focus on methodological, conceptual, and ethical dilemmas confronted in developing and implementing defense policy.
415 COMPARATIVE FOREIGN POLICY 3 credits
Prerequisite: 310 or 328 or permission. Study of foreign policies of selected nations, with special attention to processes and instruments of decision making of the major powers.
422 UNDERSTANDING RACIAL AND GENDER CONFICT 3 credits
This is the core course for the certificates in racial and gender confict. It provides students with an opportunity to intensively examine racial and gender conflict.
437 GOVERNMENT VERSUS ORGANIZED CRIME 3 credits
The course gives a history of organized crime and the govemment's response to fight it. Newty emerging international crime groups are also discussed.
440 SURVEY RESEARCH METHODS
3 credits
Prerequisites: 100 or permission. Study of survey research methods as applied to the analysis of public opinion, political behavior, and public policy formation.
441 THE POLICY PROCESS
3 credits
Prerequisites: eight cresits in political science. Intensive study of policy-making process, emphasizing roles of various participants in executive and legislative branches as well as private individuals and groups.

442 METHODS OF POUCY ANALYSIS 3 credits
Prerequisite: 201. Examines variety of methods available for analyzing public policies. Techniques of cost benefit analysis, evaluation research quasiexperimentation are covered as well as consideration of ethical questions in policy analysis, the practical problems facing policy analysts.
443 POLITCAL SCANDALS AND CORRUPTION 3 credits
This course will provide information on major political scandats, including media coverage, public opinion, the role of special prosecturs, and the impacts of scandals.
445 AL QAEDA 3 credits This course explores the causes and consequences of Al Qaeda's terrorism. Students will weigh different explanations for why individuals join and participate in terorist groups.
450 ADMINISTERING PRISONS, PROBATION AND PAROLE 3 credits
Prerequisite: 100. Analysis of the administrative, electoral and community conflicts central to understanding, resolving and preventing these conficts in a correctional environment.
461 THE SUPREME COURT AND CONSTITUTIONAL LAW
3 credits
Prerequisite: 100 or permission. Interpretation of the Constitution by the Supreme Court with emphasis on federal judicial, legislative and executive power; separation of powers; and federalism.
462 THE SUPREME COURT AND CIVIL UBERTIES
3 credits
Prerequisite: 100 or permission. Interpretation of the Constitution by the Supreme Court with emphasis on freedom of speech and press, freedom of religion, criminal rights and right to privacy.
463 HUMAN RIGHTS IN WORLD POLTICS
3 credits
An introduction to human rights from a comparative perspective; topics include definition and deveiopment of human rights with attention paid to govemment interaction and wartime.
470 CAMPAIGN MANAGEMENTI
3 credits
Prerequisite: permission of instructor. Reading, research end practice in campaign management decision making.
471 CAMPAIGN MANAGEMENT \#
3 credits
Prerequisite: $\mathbf{4 7 0}$. The second course in campaign management. The focus is on timing, coalition building, candidate positioning, event planning, internal organization, and other elements of campaign strategy.

472 CAMPAIGN RNANCE 3 credits
Prerequisite: permission of instructor. Reading and research in financial decision making in political campaigns.
473 VOTER CONTACT AND ELECTIONS 3 credits
Prerequisite: permission of instructor. Theoretical and practical approaches to communication in all types of campaigns.
474 POLTICAL OPINION, BEHAVIOR AND ELECTORAL POUTICS 3 credits Prerequisite: 100 or 201 or permission. Advanced analysis of psychological, cultural, and group processes of opinion formation and change. Attention given to the effect of opinion change on electoral outcomes.
475 AMERICAN INTEREST GROUPS
3 credits
Prerequisite: six credits of poltical science or permission. Reading and research on the development, structure and function of interest groups in the United States.
476 AMERICAN POLTICAL PARTIES 3 cradits
Prerequisites: six credits of political science or permission. Reading and research on the devel opment, structure and function of parties in the United States.
477 Lobbying 3 credins
Examines the lobbying profession in the political process. Topics include theories of lobbying. tools of lobbying, the lobbving process, and types of lobbying.
480 POLICY PROBLEMS 3 credits
(May be repeated for a total of six credits) intensive study of selected problems in public policy.
481 THE CHALLENGES OF POUCE WORK
3 credits
Analysis of the neighborhood, bureaucratic, electoral and operational conflicts central to police work, with a focus on efforts and obstacles to improving police work.
482 CRIMINAL JUSTICE TOPIC: CURRENT ISSUES $\quad 3$ credits
(May be repeated for a maximum of six credits) Prerequisite: 100. Critical analysis of current issues relating to political science and criminal justice. No more than three credits can be applied to the major.

483 CONSTITUTIONAL.PROBLEMS IN CRIMINAL JUSTICE
3 credits
Prerequisite: 100. Analyzes Supreme Court policy-making regarding problems of criminal justice including search and seizure, self-incrimination, right to counsel, jury selection, and post-appeal prisoner rights.

490 POUTICAL SCIENGE WORKSHOP
$1-3$ credits
Timely workshops on varying subjects to meet the changing needs of our students in response to new and emerging political issues and controversies. May be repeated for up to 9 nine credits.
497 SENIOR HONORS PROJECT IN POUTICAL SCHENCE
$1-3$ credirs
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and permission. Open only to a political science major in Honors College. Independent study leading to completion of senior honors thesis or other original work.

## PSYCHOLOGY

## 3750:

100 INTRODUCTION TO PSYCHOLOGY
3 credits
Introduction to scientific study of behavior, survey of physiological basis of behavior, sensation and perception, development, learning and cognition, personality, social interaction and other selected topics.
105 PROFESSIONAL AND CAREER ISSUES IN PSYCHOLOGY 1 credit
Corequisite: 100 . An ovenview of the field of psychology including educational requirements, career opportunities and professional issues for students considering a psychology major.
110 QUANTTIATIVE METHODS IN PSYCHOLOGY
4 credits
Prerequisite or corequisite: 100 . Presentation of data, descriptive statistics, correlation, hypothesis testing and introduction to statistical methodologies in psychology, including computer applications.
220 INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY
4 credits
Prerequisites: 100 and 110 . Lectures and laboratory experience in the scientific bases of psychology such as experimental design, methods and apperatus, collection and analysis of data and interpretation of results.
230 DEVELOPMENTAL PSYCHOLOGY
4 credits
Prerequisite: 100. Determinants and nature of behavioral change from conception to death.
320 BKPSYCHOLOGY
4 credits
Prerequisite: 100 . Relationship between behavior and its biologicaliphysiological foundations including brain structure and function, sensation, behavior genetics, leaming and memory, and other topics.
335 DYNAMICS OF PERSONALITY
4 credits
Prerequisits: 100. An overview of theory and research involving the development, maintenance and assessment of personality and individual differences.

340 SOCLAL PSYCHOLOGY
4 credits
Prerequisite: 100. The examination of an individual's response to social environment and social interaction processes. Social perception, attitude formation and change, affiliation and attraction, altruism, group processes and nonverbal behavior.
345 COGNTIVE PROCESSES
4 credits
Prerequisite: 100 . Survey of the basic phenomena, concepts and theories in the areas of human perception, leaming, memory and cognition.
380 INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY
4 credits
Prerequisite: 100 . Survey of the applications of psychology to the workplace including an emphosis on organizational (e.g., motivation) and personnel issues (e.g., selection).

400 PERSONALTTY
4 crodits
Prerequisites: 400-100 and 335;500-edmission to the Graduate School. Consideration of current conceptualizations of the normal personality with emphasis on methods of measurement, experimental findings and research techniques.
410 PSYCHOLOGICAL TESTS AND MEASUREMENTS 4 credits Prerequisites: $410-100,110 ; 510$-admission to the Graduate School. Consideration of the nature, construction and use of tests and measurements in industry, government and education. Includes aptitude and achievement tests, rating scales, attitude and opinion analysis.
420 ABNORMAL PSYCHOLOGY
4 credits
Prerequisites: 420-100; 520-admission to the Graduate School. Survey of syndromes, etiology, diagnoses and treatments of major psychological conditions ranging from transient maladjustments to psychoses.
430 PSYCHOLOGICAL DISORDERS OF CHLDREN
4 credits
Prerequisites: 430-100 and 230; 530-admission to the Graduate School. Survey of syndromes, etiologies and treatments of behavioral disorders in children from the standpoint of developmental psychology. Behevioral data and treatment approeches emphasized.

## 435 CROSS-CULTURAL PSYCHOLOGY

4 credits
Prerequisites: 100. Influence of culture and ethnicity upon development of individual psychological processes including functioning, identity, social motives, sex roles and values.

440 PERSONNEL PSYCHOLOGY AND THE LAW
4 credits
Prerequisites: 380 or $6500: 301$. The implications of equal employment law on the practice of personnel psychology.

441 CLANCAL AND COUNSELING PSYCHOLOGYI 4 credits Prerequisites: 100 and 335 . Overview of the fields of clinical and counseling psychology with a major focus on psychotherapeutic approaches, including cultural considerations, legal/ethical issues and outcome research.
42 CUNICAL AND COUNSELING PSYCHOLOGY :
4 credits Prerequisite: 441. Overview of individual counseling and psychotherapy, group counseling, persorality and ability testing, marriage and family counseling, hypnosis, sex therapy, psychopharmacology and related speciatties. Specific topics in clinical and counseling practice including professional trends, ethics, various therapeutic and diagnostic procedures, and specialty areas.
443 HUMAN RESOURCE MANAGEMENT
4 credits
Prerequisites: 443-100 and 380; 543-admission to the Graduate School. The application of psychological theory to the effective management of human resources in an organization, including recruitment, selection, training and retention of personnel.
44 ORGANIZATIONAL THEORY 4 credits
Prerequisites: 444-100 and 380; 544 — admission to the Graduate Schoot. The application of psychological theory to macro-level processes in organizations including leadership, motivation, task performance, organizational theories and development.
445 PSYCHOLOGY OF SMALL GROUP BEHAVIOR
4 crodits
Prerequisites: 445-100; 545-edmission to the Graduate School. Intensive investigation of factors affecting behavior and performance in small groups including effects of personafity, social structures, task, situational and socialcognitive variables.
446 RESEARCH DESIGN AND ANALYSIS
4 credits
Prerequisites: 100, 110 and 220. Review of psychological methodology including research design and analysis, intemal and external validity, measurement of constructs and specific ana lytic techniques.
450 COGNTIVE DEVELOPMENT
4 credits
Prerequisite: 450-100 and 345; 550-admission to the Graduate School. Theory and research on life-spen changes in cognitive processes including concept formation/categonization, information processing and Piagetian assessment tasks.
460 HISTORY OF PSYCHOLOGY
3 credits
Prerequisite: $460-100,560$ - admission to the Graduate School. Psychology in pre-scientific period and details of deveiopmental or systematic viewpoints in 19th and 20th Centuries.
474 PSYCHOLOGY OF WOMEN
4 credits
Prerequisites: 3750:100 or 3001:300. Reviews theory and research in the psychology of women and gender and encourages students to use these in their everyday lives.
475 PSYCHOLOGY OF ADULTTHOOD AND AGING
4 credits
Prerequisites: 100 and 230. Psychological aspects of human development from adolescence to older aduthood including agerelatad changes in sociatization, personality, intelligence, sensation, perception, leaming, memory and clinical applications.

480 SPECAAL TOPICS IN PSYCHOLOGY
$1-4$ credits
(May be repeated to a maximum of 8 credits) Prerequisite: 100 and 64 credits completed. Comprehensive survey of conternporary status of speciatized topics and issues in psychology. Emphasis on original source materials, critical analysis and synthesis of empirical and theoretical aspects.
485 APPUED DEVELOPMENTAL PSYCHOLOGY
4 credits
Prerequisite: 100. Conceptual and methodological issues in life-span developmental psychology. The approech is data-based, multidisciplinary and problem-focused.
488,8 HONORS PROJECT IN PSYCHOLOGY 4 credits each Prerequisites: Psychology major and departmental permission, and 100 and 105 and 110 and 220, and 320 or 335 or 340 or 345 . 488: Selection of research topic, review of relevant literature, research design, and proposal. 489: Data collection, analysis, and preparation of the final research report in journal style.
490 WORESHHOP IN PSYCHOLOGY
1-5 credits
(May be repeated. May not be used to meet undergraduate or graduate major requirements in psychology.) Prerequisites: 490-3750:100 and 64 credits completed; 590-admission to the Graduate School. Group studies of special topics in psychology.
495 FIELD EXPERIENCE IN PSYCHOLOGY tional credits in psychotogy. On-site supervised individual placements in appropriate settings. The academic component of the experience will be under the supervision of a selected faculty member.

## 497 INDEPENDENT READING, AND/OR RESEARCH IN PSYCHOLOGY

1-3 credits
(May be repeated to a maximum of six credits). Prerequisites: $3750: 100$ and 105 and 110 and 220 and four additional credits in psychology. Independent reading and/or research in an area of psychology under the supervision and evaluation of a selected taculty member.

## SOCIOLOGY

## 3850:

## 100 INTRODUCTION TO SOCIOLOGY

4 credits
Basic terminology, concepts and approaches in sociology, including introduction to analysis of social groups and application of sociological concepts to the understanding of social systems. Required of majors. Lecture/discussion.
301 METHODS OF SDCIAL RESEARCH I
4 credits
Prerequisites: 100,301 and Arts \& Sciences math requirement. The basis of this course is leaming to apply course material to improve thiniking, problem solving, and decisions in conducting research design and data gathering techniques. Required of all majors.
302 METHODS OF SOCIAL RESEARCH II
4 credits
Prerequisites: 100, 301 and Arts \& Sciences math requirement. Essential objectives of this course are developing expression skills in writing and leaming fundamental principles in statistics. Other key topics include quantative techniques and application to sociological data. Required of ail majors.

310 SOCLAL PROBLEMS
3 credits
Prerequisite: 100 or permission. Study of selected contemporary problems in society; application of sociological theory and research to understand the social construction of and response to these problems.

315 SOCIOLOGICAL SOCTAL PSYCHOLOGY
3 credits
Prerequisite: 100. The reciprocal influence of individuals and groups. How interpersonal processes produce and affect group structure. How groups affect the development and behavior of the social person.

320 SOCLAL INEQUALTIES
3 credits
Prerequisite: 100 or permission. This course covers local, regional, national, and global dimen-
sions of social inequalities. Structurai and interactionist approaches to relations of power in soci-
ety frame the course.
321 POPULATION
3 credits
An introduction to world and national population trends, related demographic and social characteristics. Topics include fertility, mortality, morbidity, migration, abortion, birth control, population policy in relation to societal problems. Lecture.
324 SOCIAL MOVEMENTS
3 credits
Prerequisite: 100 or permission. Social movements as distinguished from other forms of collective behavior; analysis of social situations which produce social movements; focus on development of social movements and their role in social change. Lecture.

325 SOCIOLOGY OF WOMEN IN A GLOBAL SOCIETY
3 credits
Prerequisites: 100 or permission of instructor. Examination of research and theories pertaining to women's status in society, including economic conditions, the relationship between structure and experience, and other gender-related issues.
330 CRIMINOLOGY
3 credits
Prerequisite: 100. Major focus on interrelationships and analysis of crimes, criminals, criminal justice systems and society. Lecture.
334 SOCIAL ORGANZATION
3 cradits
Prerequisite: 100 or permission. Nature of social organization, social control; organizational topologies; theories of organizational structure, functions; analysis of complex organizations in a social system. Lecture.
335 SOCLAL BEHAVIOR IN ORGANIZATIONS
3 credits
Prerequisite: 100 or permission. Analysis of the structure of such complex organizations as voluntary associations, business organizations and public bureaucracies, in relation to issues including organizational effectiveness, organizational design and change, job satisfaction and quality of work experience. Lecture.

336 SOCIOLOGY OF WORK AND OCCUPATIONS
3 credits
Prerequisite: 100 or permission. Survey of theory and empirical research in areas such as the structure of occupations and professions, occupational attainment, work force characteristics, work values and orientations, the nature of work. Lecture.

340 THE FAMILY
3 credits
Prerequisite: 100 or permission. Analysis of family as a social system; historical, comparative and contemporary sociological approaches examined in relation to family structure and functions. Lecture.

341 POUTICAL SOCIOLOGY
3 credits
Prerequisite: 100 or permission. Survey of theory and empirical research dealing with relationship between political phenomena and the larger network of social processes in human societies. Lecture.
342 SOCHOLOGY OF HEALTH AND ILLNESS
3 credits
Prerequisite: 100 or permission. General survey of sociological perspectives, concepts and research on health, illness and health-care delivery systems. Lecture.
343 THE SOCIOLOGY OF AGMG
3 credits
Prerequisite: 100 or permission. Examination of process of aging from perspective of behavioral and sociological aspects. Lecture.
$447 / 547$ SOCIOLOGY OF SEX AND GENDER 3 credits
Prerequisite for 447: 100 and 320 or permission. Review of research and theories of sex and gender. Examination of gender as structure, process and experience in society.

## 345. FAMILY AND HEALTH

3 credits
Prerequisites: 100 or permission. Survey of interrelationships between family structure and functioning and the health care system. Includes historical perspectives as well as current conditions.

350 DRUGS IN SOGETY
3 credits
Prerequisite: 100. This course is a survey, from a sociological perspective, of drug abuse, of the relationship between drugs and crime, and of various treatment strategies.
365 SPECLAL TOPICS IN SOCIOLOGY
1-3 credits
(May be repeated) Prerequisite: permission. Special topics of interest to sociology major and non-major not covered in regular course offerings.
397 SOCIOLOGICAL READINGS AND RESEARCH
$1-3$ credits
Prerequisite: permission. Individuel study of problem aree of specific interest to individual student under guidance of department membar. Preparation of a research paper.
410 SOCIAL STRUCTURES AND PERSONALTY 3 credits Prerequisite: 100 or permission. Interrelationships between position in society, personality characteristics. Personality treated as both result and determinant of social structure and process. Lecture.
411 SOCIAL INTERACTION
3 credits
Prerequisite: 100 or permission. Intensive study of advanced theory and research in social psy chology, particularly how social interaction and self-conception affect one another. Lecture.
412 SOCIALIZATION: CHILD TO ADULT
3 credits
Prerequisite: 100 or permission. Theoretical and empirical analysis of process by which infant, child, adolescent and adult learn social and cultural requirements necessary to function in new roles, changing roles and society in general.

421 RACIAL AND ETHNIC RELATHONS
3 credits
Prerequisite: 100 or permission. Analysis of structure and dynamics of race and ethric relations from a variety of perspectives emphasizing both historical and contemporary issues. Lecture.

425 SOCHOLOGY OF URBAN LIFE
3 credits
Prerequisite: 100 or permission. Emergence and development of urban society: Examination of urban social structure from neighborhood to metropolis, the problems and prospects. Emphasis on various life styles of urban subcultures. Lecture/discussion.
428 THE VICTM IN SOCHETY
3 crodits
Prerequisites: 100 or permission of instructor. Study of the nature, causes, and consequences of victimization with special focus on crime victimization.
430 JUVENILE DELINOUENCY
3 credits
Prerequisite: 100 or permission. Analysis of social structure and process from which delinquency develops. Emphasis on current and past research. Lecture/discussion.
431 CORRECTIONS
3 credits
Prerequisites: 330 or 430 . Theories, belieis and practices of community and institutional correc-
tions systems, includirg past and current social research. Course taken prior to 3 credit hour Field Placement in Corrections (3850:471).
433 SOCIOLOGY OF DEVIANT BEHAVIOR
3 credits
Prerequisites: 100 and at least six additional credits of sociology courses or permission. Survey of theories of deviant behavior and relevant empirical research. Special emphasis given to interaction processes and social control. Lecture.

435 SOCIOLOGY OF LOVE
3 credits
Prerequisite: 100 or permission. Study of the relation of love to the social order. Coverage includes diverse types, such as romantic, familial, religious and altruistic love.
441 SOCHOLOGY OF LAW
3 credits
Prerequisites: 100 and at least six additional credits of sociology courses or permission. Social origins and consequences of law and legal processes. Emphasis on uses of law, social change and aspects of legal professions. Lecture.

44 SOCIAL ISSUES IN AGING 3 credits
Prerequisite: 100 or permission. A look into the major issues and problems facing ofder persons Special attention is given to the unmet needs of the elderty as well as an examination of current societal policy and programs to meet these needs.
450 SOCIOLOGY OF MENTAL ILNESS 3 credits Prerequisite: 100 or permission. The social history of the mental hospital, theories and epidemiology of mental iliness, community-based treatrment models, the organization of mental health services, the role of personal social networks and mutual support groups.
455 FAMLLY VIOLENCE
3 credits
Prerequisite: 100. Family violence with a focus on child abuse, courtship violence, spouse/partner abuse, and elder abuse. Theories, methodologies, and strategies to end family violence are explored.
460 SOCIOLOGICAL THEORY
4 credits
Prerequisite: 100 or permission. An overview and examination of theoretical issues in sociology through the study of both classical and contemporany theoretical work.
470 RESEARCH METHODS FOR THE SOCLAL SCHENCES PROSEMINAR 3 credits Prerequisite: Completion of required coursework for the Research Methods Certificate Program or permission of instructor. Application of qualitative and/or quantitative research methods and analysis, and preparation of a scholarly research paper for presentation and/or publication. Seminar.
471 FIELD PLACEMENT IN CORRECTIONS
3 credits
Prerequisite: 431. Placement in selected community or institutional agency. Minimum 80 hours. Student must receive permission from instructor for placement.
495 FELD INTERNSHIP 2-4 credits
(May be repeated for a total of nine credits) Prerequisites: permission of a faculty supervisor and a minimum of 64 hours of undergraduate work, of which 12 hours must be in sociology. Placement in community organization for supervised experience related to degree requirements.
Student must submit an application to the intem coordinator during semester prior to enrollment.

496 SENIOR HONORS PROJECT
(May be repeated for a total of six credits) Prerequisites: enrollment in Honors College and senior standing, and major in sociology or sociology/anthropology. Thesis or original creative work appropriate to student's area of interest. Requirements and evaluation of project determined by departmental honors preceptor and student's honors project adviser.

# College of Engineering 

## GENERAL ENGINEERING

## 4100:

## 110 WOMEN IN ENGINEERING SEMINAR ANO PEER GROUPS

1 credit
Beginning women students may elect this one-credit course that provides an overview of the career opportunities for women in engineering. The course utilizes dynamic speakers to reirforce the student's educational and career choices. Small groups meet weekky, led by an upperclass engineering student. This interactive peer environment fosters personal development for first-year students.
120 MINORTTY ENGINEERING SEMINAR AND PEER GROUPS
1 credit
Provides overview of disciplines/opportunities in engineering through dymamic speakers, tours, and group discussions. Reinforces educationalcareer choices and provides role models of successful minority engineers.
203 ENVIRONMENTAL SCIENCE AND ENGINEERING
3 credits
Science and engineering fundamentals required to understand environmental issues and altemative solutions. Not for engineering, chemistry, or physics majors.
300 COOPERATIVE EDUCATION WORK PERIOD 0 credit
Elective for cooperative education student who has completed sophomore year. Practice in industry and comprehensive written reports of this experience.

301 COOPERATIVE EDUCATION WORK PERIOD 0 credit
Required for cooperative education student only. Practice in industry and comprehensive witten reports of this expenence. Offered spring semester of third year

302 COOPERATIVE EDUCATION WORK PERIOD
0 credit
Required for cooperative education student only. Practice in industry and comprehensive written reports of this experience. OHfered fall semester of fourth year
336 AEROSPACE STRUCTURES
3 credits
Prerequisites: 3450:335 and 4300:202. Basic theory and methods for analysis and design of aerostructures are covered. Topics inciude torsion, shear flow, buckling, fracture and fatigue of beams and plates
400 ENGINEERING MANAGEMENT \& LEADERSHIP
3 credits
This is a case and discussion oriented course that examines the role of the engineering manager as a leader, problem solver, strategic pianner, and a well rounded business minded individual.
403 COOPERATIVE EDUCATION WORK PERIOD
0 credit
Required for cooperative education student only. Practice in industry and comprehensive written reports of this experience. Offered summer after fourth year.

## CHEMICAL AND BIOMOLECULAR ENGINEERING

4200:
101 TOOLS FOR CHEMICAL ENGINEERING
2 credits
Corequisites: 110 and $3450: 149$. Introduction to Chemical Engineering. Basic concepts of engineering practice. Introduction to professional level software including process simulation, control design, spreadsheets, mathematical computation, and process flow graphics.
110 PROJECT MANAGEMENT AND TEAMWORKI
1 crocit
Teams freshmen through senior Chemical and Biomolecular Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project management and information technology skills.
121 CHEMICAL ENGINEERUNG COMPUTATIONS
2 credits
Prerequisites: 101 or permission. Computer programming language, flowcharting, introductory simulation and introductory numerical analysis.
194 CHEMJCAL ENGINEERING DESIGNI
1 credit
Prerequisites: 4200:101 and permission. Individual or group project under faculty supervision. Introduction to chemical engineering processes and modern design technology. Written report is required.
200 MATERLAL AND ENERGY BALANCES
4 credits
Prerequisites: 121, 3450:221 and 3150:154. Introduction to material, energy balance catculations applied to solution of chemical problems.
210 PROFECT MANAGEMENT AND TEAMWORK II
1 credit
Prerequisite: 110. Teams freshmen through senior Chemical and Biomolecular Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project managernent and information technology skills.

225 EQUILIBRIUM THERMODYNAMHCS
4 credits
Prerequisites: 200 and $3450: 223$. Second law of thermodynamics, entropy, applications, com prehensive treatment of pure and mixed fluids. Phase and chemical equilibria, flow processes, power production and refrigeration processes covered
294 CHEMICAL ENGINEERING DESIGN H
1-2 crodits
Prerequisites: 121, 200 end permission. Supervised individual or group design project. Analysis of multi-unit process using simulation and/or experimental techniques. Written report and ora presentation required.
305 MATERIALS SCIENCE
2 crodits
Prerequisites: 3150:153 and 3650:292 and junior standing. Structure, processing and properties of metals, ceramics and polymers. Special topics, such as composites, corrosion and wear.
310 PROJECT MANAGEMENT AND TEAMWORK III
1 credit
Prerequisite: 210. Teams freshmen through senior Chemical and Biomolecular Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, profect management and information technology skills.

321 TRANSPORT PHENOMENA
3 credits
Prerequisites: 200 and $3450: 223$. Constitutive equations for momentum, energy and mass transfer. Development of microscopic and macroscopic momentum, energy and mass transter equations for binary systems. Analogy and dimensioniess analysis. Problems and applications in unit operations of chemical engineering
330 CHEMICAL REACTION ENGINEERING 3 credits
Prerequisite: 225. Nonequilibrium processes including chemical reaction mechanisms, rate equations and ideal reactor design applied to homogeneous and heterogeneous systems.
341 PROCESS ECONOMICS
2 credits
Prerequisite: 200. Theory and application of engineering economy to multi-unit processes. Cost estimation, time value of money, profit analysis, decision making and introduction to project management.
351 FLUID AND THERMAL OPERATIONS
3 credits
Prerequisite: 321. Applications of fluid mechanics including piping, pumping, compression metering, agitation and separations. Applications of heart transfer by conduction, convection and radiation to design of process equipment.
353 MASS TRANSFER OPERATIONS
3 credits
Prerequisites: 225 and C - or above in 200. Theory and design of staged operations including distillation, extraction, absorption. Theory and design of continuous mass transfer devices.
360 CHEMICAL ENGINEERING LABORATORY
3 credits
Prerequisites: 353. Corequisite: 330, 351. Comprehensive experiments in combined heat and mass transfer, thermodynamics, and reaction kinetics. Data collection and analysis. Comprehensive reports in various formats.

394 CHEMICAL ENGINEERING DESIGN III
$1-3$ credits
Prerequisites: 351 and permission. Supervised individual or group design project. Develop, eval uate and design feasible solutions to an open-ended problem pertinent to chemical engineering. Written report and oral presentation required.
408 POLYMER ENGINEERING
3 credits
Prerequisite: permission or senior standing. Commercial polymerization, materials selection and property modification, polymer processing, applied theology and classification of polymer industry.
410 PROJECT MANAGEMENT AND TEAMWORK IV
1 credit
Prerequisite: 310. Teams freshmen through senior Chemical and Biomolecular Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops tearn work, communications, presentation, project management and information technology skills.
421/521 FUNDANENTALS OF MULTIPHASE TRANSPORT PHENOMENA
3 credits
Prerequisite: 4200:321 Transport Phenomena or equivalent, and instructor permission. Major top ics to be covered: Intraphase and interphase transport phenomena, Transport phenomena in multiphase thuids, Transport in Porous Media, Transport in Gas/iquid pipe flows, Computational Fluid Dynamics of multiphase systems, and Case studies.

435 PROCESS ANALYSIS AND CONTROL
3 credits
Prerequisites: 330,353 . Response of simple and chemical processes and design of appropriate control systems.

438 ENERGY INTEGRATION
3 credits
Prerequisite: 351 . This course uses Pinch Design formalism to present the core energy integration tools for energy and area targeting, and tools for integration of reactors, distilation columns, and heat pumps.

441 PROCESS DESKGNI
3 credits
Prerequisites: $330,351,353$. Application of chemical engineering fundamentals to the design of a muti-unit process. Emphasis on use of process simulators. Advanced equipment design, oral and witten communication skills and teamwork.
42 PROCESS DESIGN 11
3 credits
Prerequisite: 441 or permission. Teaches methods of process conceptualization, preliminary opti-
mization. Specific topics include: chemical process design methodology, design heuristics, ener-
gy integration, and process safety review.
450 CHEMICAL PRODUCT DESIGN AND DEVELOPMENT
3 credits
Prerequisite: senior standing or permission. Introduction to the strategies and processes used
to design and development new chemical products from the idea stage through manufacturing.
461/561 SOLDS PROCESSING
3 credits
Prerequisites: 321 and 353 or permission. Comprehensive problems in sedimentation, fluidization drying and other operations involving mechanics of particulate solids in liquid and gas continua.
462 INDUSTRLAL ENZYME TECHNOLOGY
Prerequisites: 330 and 351 . Application of chemical engineering to biological processes involving enzymes and their industrial applications. Special emphasis given to the kinetics, control, design, and procass economics aspects.
463/563 POLLUTION CONTROL
Prerequisite: 353 or permission. Air and water poliution sources and problems. Engineering aspects and methodology.

468/566 DIGITZED DATA AND SMMULATION $\quad 3$ credits
Prerequisite: permission. Data acquisition and analysis by digital devices, digital control applications and design.
470/570 ELECTROCHEMICAL ENGINEERING
3 credits
Prerequisites: 322, 330. Chemical engineering principles as appied to the study of electrode processes and to the design of electrochemical reactors. Topics include electrochemical thermodynamics, cell polarizations, Faraday's Laws, electrode kinetics, transport processes in electrochemical systems, current distributions, reactor design, experimental methods, commercial processes, and batteries and fuel cells.

471 FUEL ENGINEERING
3 credits
Prerequiste: 330 or permission of instuctor. Topics related to clean liquid and solid fuels technology. Special emphasis given to design, system analysis, environmental impacts, and novel technologies.

## 472 SEPARATION PROCESSES IN BIOCHEMICAL ENGINEERING

3 credits
Introduction to the separation and purification techniques pertinent to bioprocesses, with emphasis on engineering considerations for large scale operations.
473 BIOREACTOR DESIGN 3 credits
Prerequisite: 330 or instructor's consent. Design, analysis, and scaleup of bioreactors for various biological processes.

488 CHEMICAL PROCESSES DESIGN 3 credits
Prerequisite: Pemission of instructor or senior standing. Process design and analysis of emerging chemical technologies. Case studies, such as in-situ processing, altemative fuels, bioremediation, and engineering materials manufacture.

## 494 DESIGN PRONECT

3 credits
Prerequisite: Permission or senior standing. Individual design project pertinent to chemical engineering under faculty supervision. Written report and oral presentation required.
496 TOPICS IN CHEMICAL ENGINEERING
1-3 credits
(May be repeated for a total of six credits) Prerequisite: permission. Topics selected from new and developing areas of chemical engineering, such as electrochemical engineering, coal and synthetic fueis processing, bicengineering, simultaneous heat and mass transfer phenomena and new separation techniques.
497 HONORS PRONECT
1-3 credits
(May be repeated for a total of six credits) Prerequisite: special permission. Individual creative project perinent to chemical engineering culminating in undergraduate thesis, supervised by faculty member of the department.

RESEARCH PRONECT
(May be repoated for a total of six creaits) Prerequisite: permission. Individual research project 10 credits pertinent to chemical engineering under faculty supervision. Report required.

## CIVIL ENGINEERING

## 4300:

101 TOOLS FOR CIVL ENGINEERING
3 credits
Corequisites: 3450:149. Introduction to Civil Engineering. Basic concepts of engineering practice including commurication skills, problem solving skills, professional ethics/goals, and teamwork. introduction to professional level software including CAD, graphics presentation, spreadsheets, datebase, and mathematical computation.

120 INTRODUCTION TO CIVL ENGINEERING DESIGN
2 credits.
Introduction of basic design concepts in different civil engineering disciplines. Students learn to gain experience through hands-on mini projects by working in a team under supervision.

## 201 STATICS

3 credits
Corequisites: $3450: 222$ and $3650: 291$. Forces, resuitants, couples; equilibrium of force systems: distributed forces; centers of gravity, analysis of simple structures; moments of inertia; kinematics.
202 INTRODUCTION TO MECHANICS OF SOUDSS
3 credits
Prerequisite: 201. Axial force, bending moment diagrams, axial stress and deformation; stressstrain diagrams; torsion; flexural stress; flexural shearing stress; compound stresses; indeterminate bearns; columns.
230 SURVEYNG
3 credits
Basic tools and computations for surveying: measurement of distance elevation and angles; traverse surveys. Laboratory field practice.
306 THEORY OF STRUCTURES
3 credits
Prerequisite: 202. Stability and determinacy; statically determinate trusses and frames; approximate frame analysis influence lines; moving loads; virtual work analysis; moment area theorem; theorem of three moments; moment distribution for continuous beams and frames.
313 SOH MECHANESS
3 credits
Prerequisite: 202 or permission. Physical properties of soils. Soil water and groundwater flow. Stresses, displacements, volume changes, consolidation within a soil mass. Soil strength. Compaction.

314 GEOTECHNHCAL ENGINEERING
3 credits
Prerequisite: 313. Limiting equilibrium within a soil mass. Design of retaining walls, bulkheads, shat low, deep foundation systems. Slope stability, Laboratory study of soil properties and behavior.
321 NIRODUCTION TO ENVIRONMENTAL ENGINEERING
3 credits
Prerequisites: 3150:153, 3450:222. Basic principles of ecosysterns, microbiology, chemical reactions, and material flow that emvironmental engineers use to protect our water, air and soil.
323 WATER SUPPLY AND POLUTION CONTROL
3 credits
Prerequisite: 321. Water and wastewater characteristics, criteria, quantities and distribution. Water and wastewater treatment process flowsheets, design and operation. Wastewater and residue disposal.

341 HYDRAULIC ENGMEERANG
4 credits*
Prerequisite: 4600:310. This course will focus on presentation and application of fundamental hydraulic principles in both the classroom and laboratory. Examination of flow in pipelines and pipe networks, pumps and pumping stations, hydrology, flow in open channels, groundwater hydraulics, and design of hydraulic structures will be studied. Emphasis will be placed on proper application of principles, data interpretation and analysis, problem solving, and report writing.

361 TRANSPORTATION ENGINEERING
3 crodits
Prerequisite: junior standing. Introductory survey of transportation topics including transportation planning requirements and tectniques, introduction to design of highweys, airports and railroads and introduction to traffic engineering.

380 ENGINEERING MATERIALS LABORATORY 3 crodits
Prerequisite: 202. Fundamentals and applications of materials science, mechanics of solids and study of laboratory instrumentation and standard techniques in testing of engineering materials.
350 CML ENGINEEPRNG SEMINAR
1 credit
A civil engineering seminar discussing contemporary issues in civil engineering, our professional and ethical responsibilities, and our impact and interaction with society.
401 STEEL DESKGN 3 credits
Prerequisite: 306. Tension, compression members; openweb joists; beams; bearing plates; beamcolumns; bolted, welded connections
403 REINFORCED CONCRETE DESIGN
3 credits
Prerequisite: 306. Ultimate strength analysis and design; compression steet; diagonal tension; stirrups; development length; one-way slab; Tbeams; two-way slabs; columns; isolated and comt bined footings.
404 ADVANCED STRUCTURAL DESIGN
3 credits
Prerequisites: 401, 403. Composite design; plate girclers; plastic design; cantilever retaining walls;
torsion in R/C members; deflection of R/C members; contimuous girder bridge design.
407 ADVANCED STRUCTURAL ANALYSIS
3 credits
Prerequisite: 306. Energy methods for bearns and frames. Stiffness and flexibility formulations for framed structures using classical and matrix methods. Introduction to stability and plastic analysis
Warping-Torsion behavior of bearns. Anahsis of axisymmetric circular phates and membrane shells.
414/514 DESIGN OF EARTH STRUCTURES
3 credits
Prerequisite: 314 or permission. Design of earth structures: dams, highway fills, cofferdams, etc Embankment construction techniques, quality control, embankment analysis, instrumentation foundation soil stabilization, seepage analysis and control. Design problem. Graduate students will perform more advanced analysis and design.

418/518 SOHL AND ROCK EXPLORATION
3 crodits
Prerequisite: 314 or permission. Site exploration criteria and planning. Conventional boring, sampling and in situ testing methods. Theory and application of geophysics and geophysical methods including seismic, electrical resistivity, gravity, magnetic and radioactive measurements. Air photo interpretation.
423 CHEMISTRY FOR ENVIRONMENTAL ENGINEERS
3 credits
Prerequisite: One year of coilege chemistry. General, physical, organic biochemistry, equilibrium, and colloid chemistry concepts applied to Environmentai Engineening. Concepts are used in water and wastewater laboratory.
424 WATERWASTEWATER LABORATORY
1 credit
Corequisite: 323 or permission. Analysis of water and wastewater.
426/526 ENVIRONNENTAL ENGNEERTNG DESIGN
3 credits
Prerequisite: 323. An introduction to the physical, chemical and biological processes utilized in the treatment of water and wastewater, with design parameters emphasized.
$427 / 527$ WATER QUALTY MODELING AND MANAGEMENT
3 credits
Prerequisite: 323. Analysis and simulation of the physical, chemical ard biochemical processes affecting stream quality. Development of management strategies based upon the application of water quality modeling techniques to environmental systems.
428/528 HAZARDOUS AND SOLD WASTES
Prerequisite: senior standing or permission of instructor. Hazardous and solid waste quantities properties and sources are presented. Handling, processing, storage and disposal methods are discussed with nor-technical constraints outlined.
441 HYDRAULC DESIGN
Prerequisite: 341 . Collection and critical evaluation of hycraulic data related to actual design problem selected by instructor. Development and analysis of design altematives. Preparation of reports.

443/543 APPLED HYDRAULCS
3 credits
Prerequisite: 341. Review of design principles: urban hydroulics, stream channel mechanics, sedimentation, coastal engineering.

445 HYDROLOGY
3 credits
Prerequisite: 341. Surface water hydrology, water cycle, precipitation, evaporation, stream flow
Principles of hydrologic systems and thair analysis. Hydrologic simulation, reservoir planning and water supply studies. Analysis of rainfall and floods.

448 HYDRAULCS LABORATORY
1 credit
Prerequisite: 341. Introduction to laboratory and field devices for hydraulic measurements. Reduction and presentation of hydraulic data. Individual assignments of model studies of hydraulic structures.
450 URBAN PLANNMNG 2 credits Historical developments in urban planning; urbaṇ planning techniques and patterns; comprehensive master planning studies; planning regulations; design problems; class projects; class project presentation.
451/551 COMPUTER METHODS OF STRUCTURAL ANALYSIS
3 crodits
Prerequisite: 306 . Computer methods of structural analysis. Finite element software and interac-
tive graphics. Stiffness concepts and matrix formulation of beams; modeling of simple and comr plex structural systems; vibration analysis using microcomputers.
452 STRUCTURAL VBRATIONS AND EARTHOUAKES
3 credits
Prerequisite: 306. Vibration and dynamic analysis of structural systems with one, two, or more degrees of freedom; beams, frames, buildings and bridges. Numerical methods of analysis. Elasticplastic systems. Earthquake analysis of design. Earthquake codes.

## 453/553 OPTMUM STRUCTURAL DESYGN

3 crodits
Prerequisite: 306. Basic concepts in structural optimization. Mathematical programming methods including unconstrained minimization, multidimensional minimization and constrained minimization.
454/554 ADVANCED MECHANUCS OF MATERIALS
3 credits Prerequisite: 202 or equivalent. Threedimensional state of stress and strain analysis. Unsym metric bending of straight and curved members with shear deformation. Beams on elastic foundations. Saint Venant's torsional problems. Inelastic analysis of bending and torsional members. Introduction to energy method. Instability behavior of prismatic members.
463/563 TRANSPORTATION PLANNHNG
3 credits
Prerequisite: 361 . Theory and techniques for development, analysis and evaluation of transportation system plans. Emphasis on understanding and using tools and professional methods available to solve transportation plamning problerns, especially in urban areas.

464/564 HGHWAY DESKGN
3 credits
Prerequisite: 361. Study of modem design of geometrical and pavement features of highways. Design problem and computer use. Graduate students will produce a more complete design

3 credits
Prerequisite: 361. Theories of elasticity, of viscoelasticity and of layered systems as applied to pavements. Pavement materials characterization; pavement dasign, pavement restoration for nigid and flexible pavements.

466/566 TRAFFC ENGNEERING
3 credits
Prerequisite: 361 . Vehicle and urban travel characteristics, traffic flow theory, traffic studies, accidents and safety, traffic signs and marking, taffic signal planning, traffic control and transportation administration.

467 ADVANCED HIGIWAY DESIGN
3 credits
Prerequisites: 464, autoCAD capability, or permission. Computer-aided geometrical design of highways including survey data input, digital terrain modeling, cross-section templates, horizontal and vertical roadway design, earthwork computations, and advanced topics.
468/568 HIGHWAY MATERIALS
3 credits
Prerequisites: 361,380 or permission. Properties of aggregates, menufacture and properties of portand cement concrete, properties of asphatic materials, design and testing of hot mix asphalt pavement mixes and of surface treatments. Laboratory preparation of specimens and determina tion of properties. Graduate student requirement: Graduate students will be required to perform an additional eight-hour asphalt laboratory (Abson recovery of asphalt from solution) and to prepare a paper on a higtway materials topic

471 CONSTRUCTION ADMINHSTRATION
3 credits
Prerequisite: senior standing or permission. Organization for construction, construction contracts, estimating, bidding, bonds and insurance. Construction financial management and supervision of construction, scheduling using critical path method.
472 CONSTRUCTION ENGINEERING
3 credits
Prerequisite: senior standing or permission. Construction equipment selection and management. Techniques of various engineering construction operations including blasting, tunneling, concrete ramework and dewatering.
473 CONSTRUCTION MATERIALS
2 credits
Prerequisites: $380,4200: 305$. Composition, structure and mechanical behavior of structural materit als such as concrete, wood, masonry, plastics and composite materials. Discussion of applications and principles of evaluating material properties.
474/574 UNDERGROUND CONSTRUCTION
2 credits
Prerequisite: 314. Description of practices and techniques of underground construction. Selection of proper method for indridual job. Design of underground openings, support systems and linings.
480 RELLABLITY-BASED DESIGN 3 credits
Prerequisite: 3470:261 and senior standing. Probability concepts in civil engineering. Risk analysis and reliability based design.

481 CNML ENGNEERHG SYSTEMS
2 credits
Prerequisite: senior standing. Systems approach to civil engineering problems. Mathematical programming: project planning, scheduling and cost analysis; basic operations research methods; decision analysis. Management of engineening design of complex civil engineering projects.

## 42 SPECLAL PROJECTS

1.3 credits

Prerequisites: senior standing and permission. Directed individual or group research or study in student's field of interest. Topic subject to approval by adviser.

3 3 crodits
Prerequisites: senior standing. A civil engineering design project that emphasizes interdisciplinary tearnwork to solve a substantial, currently relevant problem.
497 HONORS PROIECT 1.3 credits
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors College. Individual creative project or design reievamt to civil engineering, supervised by faculty member of the department

## ELECTRICAL ENGINEERING

## 4400:

101 TOOLS FOR ELECTRICAL AND COMPUTER ENGNEERING
Corequisite: 3450:221 or 149 . Orientation to degree programs and design practice in electrical and computer engineening and in computer science. Introduction to computer applications and resources for engineering studies.

## 163 DIGTIAL LOGIC DESIGN

4 credits
Prerequisites: 101 or 230,231 . Boolean algebra and simplification of logic functions Combinational and synchronous sequential circuits. Laboratory projects include design of digital systems with hardware description language and simulation.
230 CIRCUTS I LABORATORY 1 credit
Corequisite: 231. Computation, computer aided circuit analysis, circuit theorem confirmation, report writing to include data analysis and reduction, introduction to electrical measurements.
231 CPRCUITS I
3 credits
Prerequisite: 3650:291. Corequisite: 23e, 3450:223, 3650:292. Fundamentals of circuit analysis including loop and nodal methods, phasor techniques, resonance, polyphase circuits and magnetic coupling
320 BASNC ELECTRICAL ENGHNEERING
4 credits
Prerequisite: junior standing in engineering; corequisite: 3450:335. Cowers fundamental aspects of electrical circuits, electronics and electrical machinery. Not open to an electrical engineering major.
330 CRCUITS M LABORATOFY
1 credit
Corequisite: 332. Computation, computer aided circuit analysis, circuit theorem confirmation report witing to include data analysis and reduction, intermediate electrical measurements

332 CRRCUTTS $:$
3 creotits
Prerequisite: 231. Corequisite:330; 3450:335. Network theorems, Fourier methods, transfer functions. Laplace and Fourier transforms and their use in analyzing dynamic operation of circuits.
341 COMMUNICATIONS AND SIGNAL PROCESSING
3 credits
Prerequisite: 163,343 . Introduces analog and digital communication systems and signal processing. Time-sampling and filtering. Modulation and demodulation techniques. Noise and bandwidth requirements. System design and performance analysis

343 SIGNALS AND SYSTEMS
4 credits
Prerequisites: 3450:335 and 4400:231. Linear systems theory and transform analysis techniques for continuous and discrete systems. Convolutions, Laplace transforms, continuous and discrete Fourier transforms. Difference equations and $Z$ transforms.

353 ELECTROMAGNETICSI
4 credits
Prerequisites: 231, 3450:335. Vector analysis. Electrostatics: electrostatic field, scalar potential, dielectrics, boundary-value problems. Magnetostatics: magnetic circuits. Maxwell's equations: Faraday's law, time-harmonic fields. Introduction to plane waves.
354 ELECTAOMAGNETICS $I$
3 credits
Prerequisite: 353. Theory and application of transmission lines: transient and steady-state waves. Plane EM waves: propagation, reflection, and refraction. Waveguides open and closedboundary guiding structures.
360 PHYSICAL ELECTRONICS
3 credits
Prerequisite: 163, 332. PN junction, diffusion, tunneling, FET and B.J device physics, equivalent circuits for electronic devices, time and frequency analysis, biasing and logic families.
361 ELECTRONLC DESKGN
4 credits
Prerequisites: 343, 360. Power amplification, feecthack, oscillators, linear integrated circuits, modulation and demodulation circuits.

371 CONTROL SYSTEMS! 4 credits
'Prerequisite: 343. Introduction to servomechanisms and feedback. Modeling and response of feedback control systems. Stability of linear systems. Experiments include analog simulation and basic servomechanism.

381 ENERGY CONVERSKON
4 credits
Prerequisites: 332. Corequisite: 353. Nonelectrical to electrical energy conversions and vice versa: thermal, chemical, solar. Fundamentals of electromechanical energy conversion. Principles of operation of transformers, commutator machines, induction and synchronous machines.

391 PROBLEMS 13 credits
(May be taken more than once) Prerequisite: permission of department head. Select comprehersive problems, supervised discussions and computation periods.
353 DESIEN PROMECT SEMINAR
1 credit
Prerequisite: junior standing and permission. Project selection and proposal. Project specifications and altemative design. Professional ethics. Intellectual properties. Sociatal impact issues in engineering design. Senior Design Project II presentations.
401 SENIOR DESIGN PROJECT I
2 credits
Prerequisites: senior standing, 399 and permission. Corequisite: 400 . Design and preparation phase of an engineering project. Requires project presentation, approval of a written proposal and ordering of required parts.
402 SENIOR DESIGN PROJECT II
3 credits
Prerequisite: 401. Implementation and evaluation phases of an engineering design project. Requires a project presentation and report.
434 ACTME CHCUTS
3 crodits
Prerequisite: 343. Applications of operational amplifiers inctuding bilinear transfer functions, scaling cascade design, biquad circuits, lowpass, high pass, bancpass-filters, Butterworth and Chebyshev response, sensitivity, delay filters, frequency transformations, ladder design, simulated element design, leaptrog simulation and switched-capacitors.
447 RANDOM SICNALS
Prerequisite: 343. Applications of set theory, discrete and continuous sample spaces; probability, random variables, distribution functions, density functions, stochastic processes, random signals, system function, power spectrum and correlation functions.

44 OPTICAL COMMUNMCATTON NETWORKS . 3 credits
Prerequisites: 341,354 . Optical waveguides and integrated components. Optical transmitters and receivers. Optical communications network design.

448/549 DIGTTAL COMMUNICATKON 3 credits
Prerequisite: 341. Introduction to digital communication theory and systems; coding of anabog and digital information; digital modulation techniques. Introduction to information theory.
451 ELECTROMAGNETIC COMPATIBILTY 3 credits
Prerequisite: 360 . Introduction to electromagnetics, electromagnetic compatibility, crosstalk and effects on computers, communication lines and systems.

## 453/553 ANTENNA THEORY

3 credits
Prerequisite: 354. Theory of EM radiation. Wire antennas, arrays, receiving antennas, reciprocity. Integral equations for induced currents, selt and mutual impedances. Equivalence principle, radiation from aperture antennas.
455/655 MICROWAVES
4 credits
Prerequisite: 354. Dynamic fields, Maxwell's equation and wave equations. Field analysis of wave guides, microwave components, techniques and systems.
457/557 WRELESS COMMUNHCATIONS
3 credits
Prerequisite: 449. Theory and analysis of wireless communication systems, wireless propagation, multiple access, modulation, demodulation, multipath channel characterization, diversity. cellular and PCS services and standards.

481 OPTICAL ELECTRONICS AND PHOTONIC DEVICES
3 credits
Prerequisites: 360,$341 ; 354$ or 451. Lightwave engineering, photonic principles and optical electronic device technology.

405/565 PROGRAMMABLE LOGIC
3 credits
Pterequisite: 163. Digital design with programmable devices. PLD and FPGA architectures. Logic design and technology mapping tools.

470 EMBEDDED SYSTEMS INTERFACING
3 credits
Prerequisites: 3460:209 or 4450:208. Microcontroiler structures and embedded peripherals. Interfaces to physical environments. Software access to peripherals including timers, ADCs and DACs. Synchronous and asynchronous communications. Interrupts. Real-time operating systems.
472/572 CONTHOL SYSTEMS :
4 credits
Prerequisite: 371. Sampled-data control system analysis and design. Discrete-time representation of sampled-data systems. Cascade, feedforward and state-variable compensation techniques. Digital computer implementation.
481 MODERN POWER SYSTEMS
3 credits
Prerequisite: 381. Introduction to electricity utility load flow, faulty analysis, stability, surge protection and relaying.
483/583 POWER ELECTRONICS I
3 credits
Prerequisite: 332. Steady-state analysis and design of power electronic converters: AC/DC converters (rectifiers), DC/DC converters, DC/AC PWM and resonant converters, $\mathrm{AC} / \mathrm{AC}$ converters and cycloconverters.
494/584 POWER ELECTRONICS LABORATORY AND DESIGN PROJECT
2 credits
Pterequisite: 483/583 or equivalent. Experiments on different types of power electronic converters: AC/DC, DC/DC, DCIAC, and AC/AC. Design project to include design, simulation, building, and testing of a power electronic circuit.

469 ELECTRICAL AND HYBRID VEHICLES
3 credits
Prerequisite: 3450:335. Basic principles of electric and hybrid vehicles. Characteristics of electric machines, internal combustion engines, transmissions, batteries, fuel celis, ultracapcitors. Vehicle control strategies, communication networks, and overall system integration.
490 INTRODUCTION TO SENSORS AND ACTUATORS
3 credits
Prerequisite: Senior standing or permission. Introduction to the theory and practice of sensors and actuators; sensing and actuation technologies; performance, and interfacing.
497 HONORS PROJECT
1-3 credits
(May be repeated for a total of six credits) Prerequisite: senior standing in Honors College.
Individual creative project or design relevant to electrical engineening, supervised by faculty member of the department.
498/5s8 SPECLAL TOPICS: ELECTRICAL ENGINEERING
$1-3$ credits
(May be taken more than once) Prerequisite: permission of department chair. Special topics in electrical engineering.

## COMPUTER ENGINEERING

## 4450:

208 PROGRAMMING FOR ENGINEERS 3 credits
Prerequisite: 4400:101 or permission. Introduction to programming. Environment and toois. C programming language. Machine level data forms and organization.
330 COMPUTER SYSTEMS
3 credits
Prerequisite: 4400:163, 3460:209. Introduces the design and architecture of modem computer systems. Data and instruction representation. Conventional computer organization. Hardware and software design processes. The hardware/software interface.
370 VLSI DESIGN
3 credits
Prerequisite: 4400:360. Digital logic circuits. Very large scale integration VLSI) fabrication processes and layout design. Delay and power of digital circuits. Latches and flip-flops in VLSI. Memory design. System level design issues. Design project.
375 OPERATING SYSTEMS CONCEPTS
3 credits
OPERATNG SYSTEMS CONCEPTS
Prerequisites: $330,3460: 316$. Process communication and resource sharing. Deadlock resolution. Memory management. File systems. Introduction to network operating systems.

410 EMBEDDED SCIENTIFC COMPUTING
3 credits
Prerequisites: 208 or 3460:209. Fixed point, floating point representation and coding. Processor/DSP implementations. Assemblers, C language semantics. Adapting scientific library routines for embedded use. Minimizing complexity. Il-conditioned problems.
432 SYSTEM SMULATION 3 credits
Prerequisite: 4400:371 or permission. Simulation of continuous systems on a digital computer. Methods and tools for linear, nonlinear, and chaotic systems.
441 EXPERT SYSTEMS DESIGN AND DEVELOPMENT 3 credits
Prerequisite: Senior standing or permission, Introduction to the design and development of expert systems.
42 KNOWLEDGE ENGINEERING 3 credits
Prerequisite: 441 or equivalent. Study of knowiedge acquisition and expert system project management.
44 FRAME-BASED EXPERT SYSTEM DESIGN 3 credits
Prerequisite: permission. Introduction to the design and development of frame-based expert systems.
44 FUZZY LOGIC EXPERT SYSTEM DESIGN 3 credits
Prerequisite: permission. introduction to the design and devalopment of fuzzy logic expert systems.
45 APPLED DATA MNING 3 credits
Prerequisite: senior standing or permission. Introduction to the design and development of data min-
ing systems. Extensive use of data mining software to build systems applied to reelworld problems.
470/570 VLSI CARCUITS AND SYSTEMS 3 credits
Prerequisite: 370 . High performance adders and multipliers for very large scaie integration M.S:
systems. Architectural synthesis. Deign for high performance, low power and testability.
460 COMPUTER SYSTEMS DESIGN
3 credits
Prerequisite: 330 . Design of advanced processors at the microarchitecture level. Pipelining
Superscale, vector and VLiW architecture. Instruction-level parallelism. Compiler support Multiprocessor architectures.

498/598 SPECIAL TOPICS: COMPUTER ENGINEERING
(May be taken more than once) Prerequisite: permission of department chair. Special topics in computer engineering.

## MECHANICAL ENGINEERING 4600:

165 TOOLS FOR MECHANICAL ENGINEERING
3 credits
Corequisite: 3450:149. Personal computer DOS system, word procassing, spreadsheet, com-puter-aided drafting, math calculating package, mechanical graphics, and introduction to mechanical engineering program and curriculum.
203 DYNAMICS
3 credits
Prerequisite: 3450:222, 3650:291, 4300:201. Corequisite: 3450:223. Kinematics and kinetics of particles and rigid bodies. Principles of work, energy, momentum and impulse.
260 ENGINEERING ANALYSIS I 2 credits
Prerequisite: 3450:222. Corequisite: 3450:223. Introduction to numerical methods in mechanical engineering; applications of computer tools (MatLab)
300 THERMODYNAMICSI 3 credits
Prerequisite: 3450:223. Corequisite: 3650:292. Basic concepts of thermodmamics. Pure substances, closed and open systems, and the first and second lews of thermodynamics. Entropy, vapor power cycles and vapor compression refrigeration.
301 THERMODYNAMICS H
2 credits
Prerequisites: 300, and 3450:335. Absorption refrigeration. Gas cycles, thermodynamics of state, gas mixtures and gas-vapor mixtures. Combustion.
305 THERMAL SCIENCE
2 credits
Prerequisite: 3450:223. Corequisite: $\mathbf{3 6 5 0} \mathbf{2 9 2}$. Credit not allowed for both 300 and 305 Introduction to first and second laws of thermodynamics, perfect gas relationships, equations of state, cycle analysis. Introduction to conduction, convection and radiation heat transfer.
330 FLUID MECHANICS I
Prerequisite: 203 and 3450:335. Properties and behavior of gases and liquids at rest and in motion. Energy equation. Flow in conduits. Forces on body submerged in static fluid. Dimensional analysis and similitude.

311 FLUID MECHANICS II
3 credits
Prerequisite: 310. Navier-Stokes equations. The boundary layer. Extemal viscous flows and potential flow. Fundamentals of compressible flow. Concepts of computational fluid dymamics.

315 HEAT TRANSFER 3 credits
Prerequisites: 310 or 4800:360; 4600:300, 360. Fundamentals of heat transfer by conduction, convection and radiation.

321 KINEMATICS 2 credits
Prerequisites: 165, 203. Displacements, velacities, accelerations and introduction to plan motion mechanisms. Introduction to design of gears, gear trains and cams.
336 ANALYSLS OF MECHANICAL COMPONENTS 3 credits
Prerequisite: 4300:202. Corequisite: 3450:335. Analysis of stress and strain at a point. Mohr's circies, shear centers, elastic instability. Stresses in thick and thin cylinders. Fatigue analysis.
337 DESIGN OF MECHANICAL COMPONENTS
3 credits
Prerequisites: 336. Application of stress analysis to design of fasteners, welds, springs, ball bearings and gears. Introduction to journal bearings and lubrication. Component design projects.
340 SYSTEMS DYNAMICS AND RESPONSE
3 credits
Prerequisites: 203, 3450:335. A unified approach to modeling, analysis, response and stability of
engineering systems: anałog, digital and hybrid computer simulation of interdisciplinary engineering problems are included.

360 ENGINEERING ANALYSIS II 2 credits
Prerequisite: 260 and $3450: 335$. Numerical methods of solution of mechanical engineering problems.
330 MECHANICAL METALIURGY
2 credits
Prerequisite: 3150:153. Corequisite: 4300:202. Structures of common metallic materials and study of their macroscopic mechanical behavior. Phase changes and heat treatment. Theories of failure.
400/500 THERMAL SYSTEM COMPONENTS
3 credits
Prerequisites: 301, 311, 315 or permission. Performance analysis and design of basic components of thermal energy exchange and conversion systems. Components studied include heat exchangers, pumps, compressors, turbines and expansion engines.

402 SENIOR SEMINAR
1 credit
Corequisites: $400,441,460,461,4700: 499$. Students need further education in ethics, codes and stendards, intellectual property, product liability, safety issues, technical witing, diversity, and job opportunities.
410/510 HEATING AND AIR CONDITONING
3 credits
Prerequisites: 301 or permission. Corequisite: 315 or permission. Thermodynamics of gas mixtures. Design and selection of air conditioning equipment. Control of gas mixtures, heating, coot ing and humidity.
411/511 COMPRESSIBLE FLUID MECHANICS
3 credits
Prerequisites: 301, 311 or permission. Subsonic and supersonic flow in nozzles, diffusers and ducts. One-dimensional reactive gas dynamics. Prandt-Myer theory. Applications to design and analysis of compressors, turbines and propulsion devices.
412/512 FUNDAMENTALS OF FUGHT
3 credits
Prerequisite: $\mathbf{3 1 1}$ or permission. Introduction to basic aerodynamics, airplane performance, sta bility and control, astronautics and propulsion. Design considerations are emphasized.
413/513 INTRODUCTION TO AERODYNAMICS
3 credits
Prerequisite: 311. Introduction of aerodynamic concepts; includes conformal transformations, theory of thin airfoils, two-dimensional aiffoil theory, wings of finite span, lifting line theories, lumped vortex, vortex lattice, and panel methods.
414/514 INTRODUCTION TO AEROSPACE PROPULSION
3 credits.
Prerequisite: 311. Introduction to propulsion systems currently used in aerospace fields; proput sion principles for turbojets, turbofans, ramiets, chemical rockets, and electrical rocket propulsion.

415/515 ENERGY CONVERSION
3 credits
Prerequisites: 301 or permission. Corequisite: 315 or permission. Topics from fields of internal combustion engines, cycle analysis, modem conversion devices.

416/516 HEAT TRANSFER PROCESSES • 3 credits
Prerequisite: 315 or permission. Analysis, design of extended surfaces. Natural convection and mixed convection, combined modes of heat transfer and heat transfer with phase changes.

420 INTRODUCTION TO FNTIE ELEMENT METHOD 3 credits Prerequisite: 315 and 4300:202. Introduction to matrix and finite element methods. Stiffness and flexibilty formulations in solid mechanics and thermal sciences. Basic finite element methods and its implementation.
422/522 EXPERIMENTAL STRESS ANALYSIS I 3 credits
Prerequisite: 336 or permission. Experimental methods of determining stress or strain: brittle lacquer, strain gages, photoelasticity, full field techniques.
430/530 MACHINE DYNAMICS
3 credits
Prerequisite: 321 or permission. Static and dynamic forces in machines, products of inertia, dynamic equivalence, flywheels. Balancing of rotating, reciprocating, cyclic plane motion. Computer simulation of transient mechanism dynamics, other topics in advanced dynamics.
431/531 FUNDAMENTALS OF MECHANHCAL VBRATIONS
3 credits
Prerequisites: 203 or permission and $3450: 335$ or permission. Undamped and forced vibrations of systems having one or two degrees of freedom.
432/532 VEHICLE DYNAMICS
3 credits
Prerequisites: 203 or permission and 3450:335 or permission. Application of dynamic systems analysis techniques to road vehicles. Newtonian and Lagrangian methods. Tire/road interface. Ride characteristics, handling and stability. Digital simulation.
441/541 CONTROL SYSTEMS DESIGN
3 credits
Prerequisites: 340 or permission. Methods of feedback control design such as minimized eror, root-locus, frequency domain. Compensation techniques. Multivariable and nonlinear design methods and computeraided control design.
442/542 NDDUSTRIAL AUTOMATIC CONTROL
3 credits
Prerequisite: 441 or permission. Operation of basic control mechanisms. Study of mechanical, tyydraulic, preumatic, fluidic control systems, including application areas. Tuning of control devices for optimum performance of system. Case studies on control applications from industry, e.g. boit ers, furnaces, process heaters.
443/543 OPTIMIZATION METHODS IN MECHANICAL ENGINEERING
3 credits Prerequisite: 360 or permission. Development and method of solution of optimization problems in mechanical engineering. The use of dynamic programming and operational research methods for optimization induding computer utilization and applications.
44/544 ROBOT DESIGN, CONTROL AND APPLICATION
3 credits
Prerequisites: 321 or permission, 441 or permission. Robot design and control. Kinematic transformations, velocities and accelerations, path trajectories and dynamics, control and sensing in robotics. The automated factory with robot applications.
450/550 INTRODUCTION TO COMPUTATIONAL FLUID FLOW AND CONVECTION 3 credits Prerequisites: 315 or permission, 360 or permission. Numerical modeling of fluid/thermal systems; numerical solution of the momentum and thermal boundary layer equations; flow simulation using advanced heat transferffluid/graphics packages.

460 CONCEPTS OF DESIGN
3 credits
Prerequisite: 337. Design process. Creativity and inventiveness. Tools of decision making, engineering economics, reliability, optimization. Case studies.

461 ME SENIOR DESTGN PROJECT I 2 credits
Corequisites: $400,441,460$. Detailed serior design project. Design, feasibility and cost analysis.
452/562 PRESSURE VESSEL DESIGN 3 credt
Prerequisite: 336 or permission. Introduction to modem pressure vessel technology. Topics include
basic structural considerations, materials and their environment and design-construction features.
463/563 COMPUTER AIDED DESIGN AND MANUFACTURING
3 credits
Prerequisites: 165 or permission, 360 or permission. The use of computer systems to assist in the
creation, modification, analysis, or optimization of engineering designs, and to plan, manage, and control manufacturing plants.
471 ME SENOOR DESIGN PRONECT H
2 credis
Prerequisite: 461 . Detailed senior design project. Final design and implementation.
483 MECHANMCAL ENGINEERING MEASUREMENTS LABORATOFY
2 credits
Prerequisites: 300, 310. Corequisite: 340 . Development of methods to measure temperature pressure, flow rate, viscosity and motion. Includes both lecture and laboratory experience and emphasizes calibration and accuracy of appropriate instruments.

484 MECHANMCAL ENGINEERANG LABORATOFY 2 credits
Prerequisite: 301, 311, 315, 380, 431, 483. Corequisite: 441. Laboratory experiments in area of dymamics, vibrations, thermodynamics, fluids, heat transfer and controls.

486 SPECIAL TOPMCS 1.3 credits
Prerequisite: permission. Brief description of current contant to be announced in schedule of classes,
497 HONORS PROJECT 4 credits
Prerequisite: senior standing in Honors College. Individual creative project in thermal science, mechanics or design relevant to mechanical engineering, slpervised by faculty member of the department.
498 EXPERIMENTAL INVESTIGATION IN
MECHANICAL ENGINEERING
Individual independent laboratory investigations in areas relevant to mechanical engineering Student suggests a project and makes appropriate arangements with faculty for supervision.

## MECHANICAL POLYMER ENGINEERING

## 4700:

281 POLYMER SCIENCE FOR ENGINEERS
2 Credits
Prerequisites: $3150: 151$ and $3150: 152$. Chemical bonds and structure of organic molecules, polymer chain structure, amorphous and crystalline morphology and structural characterization, polymerization and copolymerization, experimental demonstrations, typical solid-state and flow properties.
321 POLYMER FLUID MECHANICS 3 Credits
Prerequisite: 4600:310 or equivalent. Rheological properties and flow characteristics of polymer fluid systems; non-Newtonian viscosity, viscoelasticity.
381 POLYMER MORPHOLOGY FOR ENGINEERS 3 Credits
Prerequisites: 3150:151, 3650:292, 4600:380 of permission. Fundamental understanding of solid structure, crystallography and morphology, processed polymers, co-polymers and their blends.
422 POLYMER PROCESSING
3 Credits
Prerequisites: 321 and $4600: 315$ or equivalent. Polymer processing technology. Basic studies of flow in extrusion, molding, and other processing methods.

425 INJRODUCTION TO BLENDING AND COMPOUNDHNG OF POLYMERS 3 credits
Prerequisites: $4200: 321$ or $4300: 341$ or $4600: 310$ or permission. Nature of polymer blends and compounds and their applications. Preparation and technology using batch and continuous mixers, mixing mechanisms.
427 MOLD DESIGN 3 credits
Prerequisites: 422 or permission. Molding methods to manufacture polymeric products. Machinery, materiais, molds, equipment, computer-tided design.
450 ENGINEERING PROPERTIES OF POLYMERS 3 credits Prerequisites: 4700:281, 4700:381and 4600:336 or equivalent. Introductory course to engineering properties and processing of polymers. Analysis of mechanical tests of polymers in the glassy, nubbery, and fluid states. Product design. Concepts of rheology, meometry and polymer processing.
451 POLYMER ENGINEERING LABORATORY
2 Credits
Prerequisite: 321 and 4600:483. Corequisite: 422 or permission. Laboratory experiments on the rheological characterization of polymer melts, fabrication of engineering products, structura; investigation of polymeric parts.
497 HONORS PROJECT
2 credits
Prerequisite: Senior standing in the Honors College. Individual creative project in mechanical polymer engineering, supervised by faculty member of the department. This course must be designed oriented if used in place of 4700:499.
499 POLYMER ENGINEERING DESKGN PROJECT
Prerequisite: Senior standing and permission. Corequisite: 4600:400. Analysis and design of mechanical polymer systems.

## BIOMEDICAL ENGINEERING

## 4800:

101 TOOLS FOR BIOMEDICAL ENGINEERING
3 credits
Corequisite: $3450: 149$. Introduction to Biomedical Engineering. Personal computers, word processing, spreadsheets, mathematical computational software and computer aided dratting
111 INTRODUCTON TO BIOMEDICAL ENGINEERING DESIGN
3 credits
Prerequisites: 101 or permission. Students will be introduced to the interdisciplinary nature of Biomedical Engineering research and design through the use of lectures, discussions, homework and design projects.
201 BOMEDICAL ENGINEERING SOPHOMORE SEMMNAR
1 credit
Prerequisite: 101. A seminar format to allow students to learn about current research and careers in Biomedical Engineering. Topics in technical cormmunications will also be covered.
220 BIOMEDICAL COMPUTNG
3 credits
Prerequisite: 101. Corequisite: $3450: 223$. Programming in BASIC and Visual Basic for data acquisition, analysis and display. Object-oniented programming using biomedical engineering examples. HighHevel processing and display techniques using MATLAB

305 INTRODUCTION TO BIOPHYSICAL MEASUREMENTS
4 credits
Prerequisites: 101 and 4400:231 or 4400:320. Corequisites: 3100:202. Biomedical Engineering involves measurement of Physiological processes in living organisms. An understanding of the variety of instruments used and the limitations are introduced.

310 MODELNG AND SIMULATION OF BHOMEDICAL SYSTEMS 3 credits
Prerequisite: $3450: 335$. Modeling and simulation of physiological systerms and their interactions with therapeutic devices, such as the artificial kidney.

325 DESIGN OF MEDICAL DEVICES
3 credits
Prerequisites: Junior/senior standing in the College of Engineering, the Coilege of Polymer Science and Engineering or the College of Arts and Sciences. Design of Medical Devices, design criteria, human factors, patient care and monitoring devices, surgical devices, bench testing and legal liability.
360 BIOFLUID MECHANMCS
3 credits
Prerequisites: 3450:335, 3150:133, 3650:292, and 4600:203. Introduction to the fundamentals of fiuid mechanics and their application to biological, cardiovascular, respiratory and other biofluid systems.
365 MECHANICS OF BIOLOGICAL TISSUES
3 credits
Prerequisites: 4300:202 and 3450:335. The mechanical properties of musculoskeletal tissues are presented along with modeling techniques and testing procedures. Tendons, ligaments, muscles, cartilage and bone will be addressed

370 BOMECHANICS OF HUMAN MOVEMENT
3 credits
Prerequisites: 3100:202 and 4600:203. The application of engineering mechanics and anatomy to study and analyze human movement. Lectures and in-class labs will introduce students to experimental and theoretical techniques.

400 BNOMATERTALS 3 credits
Prerequisite: 4200:305. Properties of Materials used in medicine and their interaction with biological materials will be discussed. Biocompatibility issues, material degradation, biomaterials testing will also be discussed.
420 BIOMEDICAL SIGNAL AND IMAGE PROCESSING
3 credits
Prerequisites: 4400:163. Introduction to the basic problems associated with biological signal and image processing applications, and appropriate approaches to dealing with them.

422/522 PHYSKOLOGICAL CONTROL SYSTEMS
3 credits
Prerequisite: 3100:202, 3450:335. The basic techniques employed in control theory, systems analysis and model identification as they apply to physiological systems.
430/530 DESIGN OF MEDICAL MMAGING SYSTEMS
Prerequisites: 3100: 200, 3650:292, 4400:343,353, 4800:305, or permission of instructor Physical principles and engineering design of medical imaging systems, with emphasis on digital radiography, computed tomography, nuclear medicine, ultrasound and megnetic resonance.

## 435/535 IMAGE SCIENCE

3 credits
Prerequisites: $3100: 200,3650: 292,4400: 343$ or by permission of instructor. Principles of image science, image performance parameters and image assessment techniques of medical imaging systems, with emphasis on digital radiography, tomographic imaging, ultrasound and magnetic resonance.

437/537 PHYSICS OF MEDICAL IMAGING
3 credits
Prerequisites: $3100: 200,3650: 292,4400: 353,4800: 305$. Physical principres of medical imaging modalities with emphasis on the properties, generation mechanisms and interaction of radiation with matter, physics of the image formation and optimization.
440 ADVANCED BIOMATERIALS
3 credits
Prerequisite: 400. The interactions between biomaterials and medical devices will be arralyzed with respect to their potential activation of biological mechanisms.
445 EXPERIMENTAL TECHNIOUES IN BIOMATERIALS TISSUES ENGINEEPRNG 3 credits
Prerequisite: 440. Laboratory experience that applies engineering concepts and practices to the analysis of biomaterials and tissue engineering.
460/560 EXPERINENTAL TECHNIQUES WN BIOMECHANICS
Prerequisites: $3150: 153,3450: 335,3650: 292,4600: 203$ or by permission of instructor. Principles of testing and measuring devices commonly used for biofluid and biosolid mechanics studies Laboratories for demonstration and hands on experience

470/570 HUMAN FACTORS ENGINEERING
3 credits
Reliability and human error, human capabilities and limitations, crew protection, display systems, controls and controlling actions, interface design principles, risk management, Safety and accident prevention.

485 SPECIAL TOPICS H BIOMEDICAL ENGINEEPING $1-3$ credits
Prerequisite: permission of adviser. Directed individual or group research or study in the student's field of interest. Topic subject to approval of adviser.

491 BIOMEDICAL ENGINEERING DESIGN | 2 credits
Prerequisites: 111 and 310 . Corequisite: 305 . The design process will be further discussed utilizing case studies and detailed biomedical engineering design projects.
492 BIOMEDICAL ENGHEERING DESIGN M 2 credits
Prerequisites: 111, 305, 310, 491. The design process will be further discussed utilizing detailed biomedical engineering design projects. Projects will be required to be interdisciplinary in nature.

## College of Education

## COOPERATIVE EDUCATION

## 5000:

301 COOPERATIVE EDUCATION
0 credits
(May be repeated) For cooperative education students only. Work expenience in business, indus try or governmental agency. Comprehensive performance evaluation and written report required.

## EDUCATIONAL FOUNDATIONS AND LEADERSHIP

## 5100:

150 DEMOCRACY AND EDUCATION 3 credits Based on an interdisciplinary inquiry, this course examines varied theories and practices of democratic education.
200 INTHODUCTION TO EDUCATION
3 credits
Prerequisite: admission to the College of Education. This course is an introduction to the teaching profession designed to explore the purposes of schools in society and what is required to be an effective teacher today.
205 FUNDAMENTAL EDUCATIONAL COMPUTER SKULS
1 credit
Elective Course: Computer Sikils for education majors with little or no computer experience. Includes word processing, datahases, graphics and communications. Cannot substitute for any required course.
210 CHARACTERISTICS OF LEARNERS 3 credits
Prerequisite: Completion of all College of Education program admission requirements; Corequisite: 211. Describe cognitive, psychosocial, physical, language, and moral development of leamers Pre-K through adult. Identifies leamer needs, roles of teachers and schools in fostering optima development. ( 10 hours of fiekd experience included.)

211 TEACHHNG AND LEARNNG STRATEGIES
3 credits
Prerequisite: Completion of all College of Education admission requirements; Corequisite: 210 From course content and activities, students will recognize, select, and practice various instruction al models. Students will acquire and apply appropriate learning and motivational strategies. (10 hours of field experience included.)

220 EDUCATIONAL PSYCHOLOGY
3 credits
Corequisite: 200. This course focuses on the developmental influences and characteristics of learners, and psychological principles pertaining to teaching and learning processes, motivation and self-regulation in learners.
300 EOUTTY AND EXCELENCE IN EDUCATION
3 credits
Prerequisites: 200,220,5500:230,5610:225. Corequisite with or prerequisite to 5500:360
Engages teacher candidates in inquiry-based seminars and service leaming that facilitate their developing pedagogicał competence implementing equity and excellence in education.
410 PROFESSIONAL ISSUES N EDUCATION
3 credits
Prerequisites: 5050:310, 5050:311, 5050:320, 5050:330. coursework applies social and philosophi cal foundations of education to current and historical issues in education with attention to roles and responsibilities of contemporary teachers.

412/512 DESIGN AND PRODUCTION OF
HNSTRUCTIONAL MATERIALS
3 credits (20 clinical hours)
Design, adaptation, and preparation of instructional materials using graphics, transparency production, video equipment, compter authoring software, mounting and laminating processes, photog raphy, and other procedures.
420/520 INTRODUCTION TO INSTRUCTIONAL COMPUTING
3 credits
Prepares the student in the use of instructional technologies in educational and business settings Segments of the course are offered in an online format.
430 SENIOR HONORS PROVECT: FOUNDATIONS
$1-6$ credits
(May be repeated for a total of six cradits) Prerequisites: senior standing in Honors College and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.
480 SPECLAL TOPICS: EDUCATIONAL FOUNDATIONS
$1-4$ credits
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concem in professionat education.
490/590 WORIKSHOP
13 credits each
Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units.
497 INDEPENDENT STUDY
1.3 credits
(May be repeated for a total of six credits) Prerequisites: permission of department head and instructor. Specific area of study determined in accordance with prograrn and professional goals.

## EARLY CHILDHOOD EDUCATION

## 5200:

100 ORIENTATION TO EARLY CHIDHOOD EDUCATION O credits Corequisite: 5100:200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development.
215 THE CHID, THE FAMILY, AND SCHOOL
3 credits (10 clinicalfield hours) Prerequisite: $5100: 220,5610: 225$. The purpose of this course is to leam about why we create reci procal working relationships with parents and methods of creating these types of relationships.
319 INTEGRATED EXPRESSNE ARTS
3 credits ( 5 field hours and 10 clinical hours) IN EARLY CHILDHOOD
Prerequisite: Admission to Teacher Education and 7100:210 or 7500:201. Use of expressive arts as a means for young children to represent their thinking and to enhance their learning of curriculum content.

321 NSSTRUCTIONAL TECHNOUES: MODERN LANGUAGES - K-8
3 credits
Focus on theories of language acquisition, models of instruction suited to teaching foreign languages and cultures in the elementary school ( $\mathrm{K}-8$ ), and strategies that promote appropriate levels of language proficiency and competency for young leamers.

325 ADVANCED EARLY CHLDHOOD CURRRICULUM 4 credits (33 field and 27 clinical hours) Frerequisite: completion of or concurrent enrollment in 550:370, 7400:265, 270, 280. To teach skills for curriculum development for half- and full-day programs for children $3-6$ with an emphasis on authentic assessment, projects, and state/national standerds.
340 DEVELOPMENTAL WRITING IN EARLY CHIDHOOD 3 credits Prerequisite: 5500:245. This course is designed to prepare early childhood pre-service teachers to teach writing, emphasizing writing foundations, the writing process, and creative writing.
342 TEACHING MATH TO YOUNG CHILDREN
3 credits Prerequisites: completion of or concurrent enroliment in 550:370. Trends in mathematics instruction in earty childhood/middle level classrooms. Procedures for the development of mathematics concepts and skills.
360 TEACHING IN THE EARLY CHILDHOOD CENTER
2 credits (10 clinical hours) Prerequisite: $7400: 280,270$. Corequisite: 370 . Assists students with the integration of knowledge, skills, attitudes and values leamed in the prekindargarten program as they participate with young children.
370 EARLY CHILDHOOD CENTER LABORATORY
2 credits ( 53 clinical hours) Prerequisites: 7400:280,270. Corequisite: 360 . This lab is an integrated practical experience in the University's Center for Child Development under the direction of experienced teachers.
395 FELD EXPERTENCE
1.3 credits

Independent field work in area selected by student's adviser, based on student's needs.
420 INTEGRATED PRIMARY CURFICULUM
4 credits ( 25 field and 35 clinical hours) Prerequisite: completion of or concurrent enrollment in 550:370. Course models an inquirybased format that integrates math, science, social studies, and technology standards where students leam how to create, implement, manage, and evaluate student-centered learning environments.

425 ADVANCED INTEGRATED PRIMARY CURRICULUM 4 credits ( 25 fieid and 35 clinical hours) Prerequisite: adrnission to teacher education program; 420. This course further explores an inquirybased format that integrates math, science, social studies, and technology standards by having stur dents implement, manage, and evaluate their own and their students' learning.

430 SENIOR HONORS PROJECT: EARLY CHILDHOOD
$1-6$ credits (May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.
480 SPECIAL TOPICS: ELEMENTARY EDUCATION 14 credits
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special tcpics of critical, contemporary concern in professional education.
490,1,2,3/590,1,2,3 WORKSHOP
13 credits each
Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices.
45 STUDENT TEACHING (PREK THROUGH K)
6 credits ( 322 field hours)
Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Corequisite: 498. Planned teaching experience in schools selected and supervised by Office of Field Experience.

496 STUDENT TEACHING (GRADES 1-3)
6 credits
Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Corequisite: 498. Planned teaching experience in schools selected and supervised by Office of Field Experience.

497 INDEPENDENT STUDY $1-3$ credits Prerequisites: permission of ackiser and department head. Specific area of curriculum investigation pertinent to elementary education as determined by student's academic needs.

498 STUDENT TEACHING COLLOOUHMM
1 credit
Preperes students for the final phase of becoming decision makers. The colloquium will explore problems encountered in classrooms, initiate reflective practice and concepts of action research, and focus on preparation of unit outlines with emphasis on applied decision making.

## MIDDLE LEVEL EDUCATION

## 5250:

100 ORAENTATION TO MIDDLE LEVEL EDUCATION
Corequisites: 5100:200. Orientation to the information and strategies necessary for a student to be successful in the program, including portolio development.

300 MidoLe Level education
Corequisite: $5500: 360$. This course will review nature/needs of earty adolescents; developmentally appropriate middle schooling; philosophy of school organizations; curriculum, pedagogy, and assessment: cultural and community contexts.

353 TEACHING SCIENCE TO MIDDLE LEVEL LEARNERS
4 credits (15 field hours Corequisite: 5500:370. A methods course for the prospective teacher to develop a point of view toward science teaching and strategies for effective standards-based teaching
358 TEACHANG SOCLAL STUDIES TO MIDDLE CHIDHOOD 3 credits
Prerequisites: 5100:300, 5500:360. A methods course to examine the school social studies curriculum and strategies for effective standards-based teaching.
342 TEACHING MATH TO MWDLE LEVEL LEARNERS 3 credits Corequisite: $5500: 370$. Modem strategies of psychology and methodology in middle childhood mathematics on exploratory, structural and mastery levels of learning.
350 TEACHING LANGUACE ARTS \& MEDIA TO MIDDLE LEVEL LEARRERS
3 credits Prerequisites: $5100: 300,5500: 245,5500: 286,5500: 360$. A methods course for examining current practices and matenals for integrating the language arts including listening, speaking, reading, witing, drame and media.
351 MODES OF WRITING FOR THE MIDDLE GRADES
3 credits
Prerequisite: Admission to College of Education's Teacher Education Program. This course will provide middie school langueges arts teachers the understandings and skills necessary to teach writing in vaneties of forms and modes including newswriting.
430 SENHOR HONORS PROJECT: MIDDLE LEVEL EDUCATION
1-6 credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.

480 SPECLAL TOPICS: MIDDLE SCHOOL
1-4 credit
(May be repeated with change of topic.) Prerequisite: permission of instructor. Group study of special topics in middle childhood of critical contemporary concern in professional education.

## 490 WORKSHOP

1-3 credits
Elective workshop for Middle Childhood majors who would like to pursue further refinement of teaching skills. Emphasis in demonstrations of teaching techniques and development.

4 STS STUENT TEACHING (GRADES 4-6) 6 credits
Planned teaching experience in schools selected and supervised by Office of Field Experience.
406 STUDENT TEACHING (GRADES 7-9)
6 credits
Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved porticlio; senior status. Corequisite: 498 . Planned teaching experience in schools selected and supervised by Office of Field Experience.

497 IRDEPENDENT STUDY
1.3 credits

PTerequisite: Permission of adviser and department chair. Specific area of curriculum investigation pertinent to middle level education as determined by student's academic needs.
498 STUDENT TEACHNG COHLOQUIUM: MIDDLE GRADES
1 credit
Corequisite: 495 and 496. Prepares learner for final phase of becoming a decision maker Explores problems encountered in the classroom, initiates reflective practice and concepts of other research.

## SECONDARY EDUCATION

5300:

100 OREENTATION TO THE AYA/P-12/MULTHAGE PROGRAMS
0 credits
Prerequisite: admission to the College of Education's Teacher Education Program. Corequisite $5100: 200$. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development.
311 INSTRUCTIONAL TECHNIOUES IN
5 credits ( 30 clinical hours, 50 field hours)

## SECONDARY EDUCATION

Prerequisite: 5500:370. Open to student who has completed certification requirements in all content fields. Techniques of planning, instruction and evaluation in various secondary teaching fieds.

317 INSTRUCTIONAL TECHNOUES: MODERN LANGUAGES - SECONDARY 3 credits Fecus on theories of language acquisition, models of instruction for teaching foreign langueges/cultures and strategies that promote levels of proficiency/competency for adolescent leamers.
325 CONTENT READNG $\operatorname{HN}$ SECONDARY SCHOOLS 3 credits ( 30 clinical hours) instructional principles and prectices for helping secondary schook youth and adults learn subject matter through application of reading and study skills.

330 TEACHING ADOLESCENT/MiDDDLE LEVEL LTERATURE 3 credits ( 30 clinical hours) Student develops skills for selection of literature that is well-suited for adoiescent/middle level children. Student develops, uses, and experiences methods for teaching adolescent/middle level literature in the classroom.
395 FELD EXPERIENCE
1.3 credits

Supervised work with youngsters, individually and in groups in school and/or community settings.

430 SENIOR HONORS PROJECT: SECONDARY
1-6 credits
May be repeated for a total of six credits) Carefully definad individual study demonstrating originality and sustained inquiry.
480 SPECIAL TOPICS: SECONDARY EDUCATION
1-4 credits
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education.
490,1,23/590,1,2,3 WORKSHOP
1.3 credits each

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units.
494 EDUCATIONAL INSTIFUTES
1-4 credits
Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations.
495 STUDENT TEACHING
811 credits
Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portiolio. Corequisite: 496. Planned teaching experience in schools selected and supervised by Office of Field Experience.
496 STUDENT TEACHING COLLOOUIUM 1 credit
Concurrent with Student Teaching; emphasis on applied decision making, group problem solving, and commitment to life-long learning.
497 INDEPENDENT STUDY
1.3 credits.

Specific area of curriculum investigation pertinent to secondary education as determined by student's academic needs.

## POSTSECONDARY <br> TECHNICAL EDUCATION

## 5400:

301 OCCUPATIONAL EMPLOYMENT EXPERIENCE AND SEMINAR
$1-4$ credits
Provides student with knowledge of current industrial or business practice at level minimally comt mensurate with that associated with employment expectations of graduates of technical programs.

351 CONSUMER HOMEMAKING METHODS
4 credits
Prerequisites: senior standing, enrolled in student teaching. Organization of family and consumer sciences in secondary schools. Emphasis on methodology, techniques, development of voca tional concepts, utilization of audio-visual materials, evaluation procedures.
395 FIELD EXPERIENCE
$1-3$ credits
Prerequisite: upper-coliege standing. Supervised work with youngsters, individually and in groups in educational institutions, training and/or community settings.
400/500 THE POSTSECONDARY LEARNER
3 credits
Prerequisite: 401 or permission. Describes characteristics of the the postsecondary leamer and studies issues, factors, and strategies pertinent to successful facilitation of learming in a variety of postsecondary occupationa! leaming environments. Delivered in a totally online format and face-to-face format with Web enhancements.
401 LEARNING WTH TECHNOLOGY
Experiences in using, developing, and evaluating instructional technologies and media used for postsecondary education. Delivered in a totally online format and face-to-face format with Web enhancements.

405/505 WORIKPLACE EDUCATION FOR YOUTH AND ADULTS
3 credits
Prerequisite: 401 or may be taken as a corequisite or with permission of the instructor. History and operations of current vocational education for youth and adults. Includes study of social, economic and political influences that stimulate growth and expansion of vocational education. Delivered in a totally online format and face-to-face format with Web enhancements.

415/515 TRAINING IN BUSINESS AND INDUSTRY
3 credits Prerequisites: 401 or permission. Examine the role and mission of the training function in the modern industrial setting. Foundation for students interested in industrial trainer or training supervision positions. Delivered in a totally online format and face-to-face format with Web enhancements.
420 POSTSECONDARY INSTRUCTIONAL TECHNOLOGIES Experiences in using, developing, and evaluating instructional technologies and media used for technical instruction. Delivered in a totally online format and face-to-face format with Web enhancements.

430/530 SYSTEMATTC CURRICULUM DESIGN FOR POSTSECONDARY RNSTRUCTION 3 credits Prerequisite or corequisite: 401, 420. admission to program or permission of instructor Procedure of breaking down an occupation to determine curriculum of their laboratory and class room, developing this content into an organized sequence of instructional units. Delivered in a totally online format and face-to-face format with Web enhancements.

435/535 SYSTEMATIC INSTRUCTIONAL DESIGN IN POSTSECONDARY EDUCATION 3 credits Prerequisites or corequisites: 401, 420, 430, admission to program, or permission of instructor. Selected topics in instructional techniques appropriate in postsecondary technical education. Emphasis on instructional methods, techniques in classroom, laboratory including tests, mea surements. Delivered in a totally online format and face-to-face format with Web enhancements.
451/551 FAMILY AND CONSUMER SCTENCES JOB TRANING
3 credits
Prerequisite: senior standing or permission of instructor. Concept development in vocationa family and consumer sciences. Job training, program development, operational procedures, skill and knowledge identification, training profiles, job description and analysis. Individualized study guides. In-school and on-the-job observations.

75 INSTRUCTIONAL PRACTICE SEMINAR
3 credits
Prerequisites: $400,401,405,415,420,430,435$, and admission to the Postsecondary Technical Education program with a ' C ' or better in each 5400 course and a 2.5 or better overall GPA. May be taken with 475 . Micro teaching and portfolio development. Delivered in a totally online format and face-to-face format with Web enhancements.

480 SPECLAL TOPICS: WORK FORCE EDUCATION AND TRANING
1-3 credits
(May be repeated with a change in topic) Prerequisite: permission of instructor. Group study of special topics of critical, contemporary concern in professional education. Delivered in a totally online format and face-to-face format with Web enhancernents.
4S0,1,2/590,1,2 WORKSHOP
1-3 crodits each
Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. Delivered in a totally online format and face-to-face format with Web enhancements.

455 POSTSECONDARY EDUCATION PRACTICUM
3 credits
Prerequisites: $400,401,405,415,420,430,435$ and admission to the Postsecondary Technical Education program with a ' $C$ ' or better in each 5400 course and a 2.5 or better overall GPA in 5400 courses, and an overall GPA of 2.5 or better. May be taken with 5400:475. Directed instruction under the supervision of directing instructor and university supervisor, and development of instructional portfolic. Delivered in a totally online format and faceto-face format with Web enhancements.

497 INDEPENDENT STUDY
1-3 credits
Area of study determined by student's need.

## CURRICULUM AND INSTRUCTION

## 5500:

230 EDUCATIONAL TECHNOLOGY
3 credits
Prerequisite: admission to the College of Education. Corequisite: 200. Educational Technology encompasses effectively identifying, locating, evaluating, designing, preparing, and efficiently using educational technology as instructional resources in the classroom to support learning and teaching.

245 UNDERSTANDING UTERACY DEVELOPMENT
AND PHONICS
3 credits (10 hours of senvice learning) Prerequisite: admission to Teacher Education Program. Children's literacy develcpment is explored through an integrated instructional model, with emphasis on the role of comprehension, phonics, and functional spelling in language leaming.

286 TEACHING MULTIPLE TEXTS THROUGH GENRE 3 credits (10 hours of service learning) Prerequisite: 245 . Survey of children's literature through print and nonprint media. Genres will be explored through a variety of technologies, including computer sottware and film.
310 HSTRUCTIONAL DESIGN
3 crodits
Prerequisite: $5100: 210,5100: 211$; Corequisite: 311. Design and teach lessors using instructional models, strategies, and resources for students with different characteristics and design appropriate assessments to measure content mastery.
311 NSTRUCTIONAL RESOURCES
3 credits
Prerequisites: 5100:210, 5100:211; Corequisite: 310. Examines existing and developing media, technological, human and environmental resources as they relate to leaming. Includes identifying, locating, evaluating, using, designing, and preparing educational resources.
320 DIVERSTY N LEARNERS
3 credits
Prerequisites: 5100:210, 5100:211. Students leam to appreciate common core culture, the diversity in the student population and the democratic ideal of equal access to educational opportunity. ( 10 hours of field experience included.)

330 CLASSROOM MANAGEMENT
3 credits
Prerequisites: $5100: 210,5100: 211$. Content regarding effective organization of the classroom as well as procedures and models for mediation of student beheviors will be presented.

341 LABORATORY PRACTICUM IN PEADNNG
3 credits
Prerequisite: 445. Laboratory experience with classroom, small groups and individual situations. A student diagnoses, implements procedures and follows prescribed reading improvement practices.

## 360 EDUCATIONAL PLANNING

INSTRUCTION, ASSESSMENT \& CLASSROOM MANAGEMENT
3 credits
Prerequisite: 230,5100:200, 220,5610:225. Corequisite: $5100: 300$ will be required as either a pre- or corequisite for $5500: 360$. Theoretical foundations for standards-based thematic units and lesson plans, classroom assessment and organization; including procedures and models for mediating student behavior and classroom management.
370 EDUCATIONAL MPLEMENTATION:
INSTRUCTION, ASSESSNENT \& CLASSROOM MANAGEMENT
3 credits
Prerequisite: $\mathbf{3 6 0}, 5100: 300$. Interpretation and application of standerds-based thematic units and lesson plans; classroom assessment and organization, including mediation of student behaviors and classroom management.

40/522 CONTENT AREA UTERACY
3 credits (10 hours of service learning) Prerequisite: 245 or permission of instructor. Nature of reading skills relating to content subjects. Methods and materials needed to promote reading achievement in content subjects by the elementary classroom teacher.

442/524 TEACHING READING TO CULTURALLY OVERSE LEARNERS
3 credits Prerequisite: 245 and 286. The course is designed to provide a student with knowledge, skills and atuitudes which will enable employment of effective methods of teaching reading to culturally different leamers, and/or leamers whose language pattems are nonstandard.

445 EVALUATING LANGUAGE LTERACY
3credits (30 hours field experience) Prerequisite: 245, 286, 440. Explores assessment of students' progress in language literacy. Formal and informal instruments identifying progress in reading, writing, speaking, and listening are examined linked to work in the field.

450/550 NATURE, HISTORY AND PHILOSOPHY OF SCIENCE
3 credits
(May be repeated with a change in topic) Provides opportunities to examine the historical and philosophical perspectives of science in an online medium and the impact of science and technology on science.

455/555 UTERACY FOR MULTIAGE LICENSURE
3 credits
Prerequisite: Admission to Teacher Education Program. Organizing instruction, use of oral lar guage development protocols, strategies for word skill development, comprehension and assessment as they relate to content areas
475 INSTRUCTIONAL TECHNOLOGY APPLICATIONS
3 credits
Prerequisite: 5500:230. Focus on developing leamer competencies in the use of instructional technologies to enhance both the instructor's personal and professional productivity.
480/580 SPECLAL TOPICS
$1-4$ creaits
(May be repeated with change in topic.) Group study of special topics of critical, contemporary concern in professional education.
484/540 PRINCIPLES OF BILINGUAL/MULTICULTURAL EDUCATION
3 credits
An introduction to the theoretic, cultural, sociolinguistic bases of bilingual/multicultural education. Legislation, court decisions, program implementation included.
465/541 TEACHING LANGUAGE UTERACY TO SECOND LANGUAGE LEARNERS 4 credits Prerequisite: Admission to the College of Education. Course applies methodologies for teaching reading, language arts in the bilingual/multicultural classroom. The bilingual student's native larguage, culture stresses.

486/642 TEACHING MATHEMATICS, SOCLAL STUDIES AND SCIENCE
3 credits

## TO BELNGUAL STUDENTS

Prerequisites: Completion of all age-appropriate methods courses. Course applies methodologies for teaching mathematics, science, social studies in the bilingual/multicultural classroom. The bilingual student's native language stressed.
487/543TECHNIOUES FOR TEACHING ENGLISH AS A SECOND
4 credits
LANGUAGE IN THE BULNGUAL CLASSROOM
Course includes teaching language skills to Limited English Proficient students in grades K-12, administration of language assessment tests, selection and evaluation of materials.
490,1,2/590,1,2 WORKSHOP
$1-3$ credits
Emphasizes development of teaching devices and/or curriculum units, demonstration of teaching techniques.
497 INDEPENDENT STUDY
1.3 credits

Specific area of curriculum investigation pertinent to the general curriculum and instruction area as determined by the student's academic needs.

## PHYSICAL EDUCATION

## 5540:

120-83 PHYSICAL EDUCATION
Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. One-half credit courses are offered one half semester. Permission of coach necessary for enrolment in varsity sports(170-181).**
120 ARCHERY
150 TENNIS (beginning)
121 BADMINTON
151 VOLEYBAL
122 BASKETBALL 155 BASIC KAYAKING $\ddagger$
123 BOWLANG 170 VARSTY BASEBALL
126 FINESS AND WELLNESS $\ddagger \quad 171$ VARSTTY BASKETBALL
127 GOLF
132 KARATE\#
133 LIFEGUARD TRANNING $\ddagger$
135 RACQUETBALL
172 VARSTY CROSS COUNTRY
173 VARATTY FOOTBALL
174 VARSTTY GOLF

138 SCUBA $\ddagger$
175 VARSTTY SOCCER

139 SELF DEFENSE $\ddagger$
141 SKIING (downhill)
176 VARSTTY SOFTBALL 178 VARSTY TEAN:

142 SOCCER
144 SOUARE AND FOLK DANCE
146 SWIMMING (beginning)
147 SWIMMING (intermediate)
183 VARSTY CHEERLEADING
190 SPECIAL TOPICS: GENERAL EDUCATION PHYSICAL EDUCATION
.5-2 credits
Weight training, self defense for the blind, water safety instruction, beginning yoga, tai chi, bil liards, intermediate and advanced bowling, intermediate and advanced golf, advanced self defense.
200 UFEGUARD INSTRUCTOR
UFEGUARD INSTRUCTOR
This course is designed to train students to teach the American Red Cross lifeguard training courses.
201 WATER SAFETY INSTRUCTOR
2 credits
This course is designed to train students to teach swimming and water safety courses from PreK to adult.

## 206 ORIENTEERING

1 credit
This course teaches map and compass skills and introduces the sport of orientering. This is an active, hands-on course. No previous experience is necessary.

207 INTRODUCTION TO ROCK CLMMBNG 1 credit
This course teaches basic rock-limbing skills. No previous experience in necessary.
208 BACKPACKING
1 creait
This course teaches backpacking and camping skills. An weekend trip is included. No previous previous experience is necessary.
209 FLATWATER CANOE TRIPPING
1 credit
This course teaches canoeing and camping skills. An overnight trip is included. No previous canoeing or camping experience is necessary.

## PHYSICAL EDUCATION

## 5550:

100 INTRODUCTION TO SPORT/EXERCISE STUDHES
Provides student with general overview of career opportunities within sport/exercise studies. Emphasis pleced on the understanding of the field of sport studies, exercise science and wellness education.

102 PHYSICAL EDUCATION ACTIVITIES :
3 credits ( 30 clinical hours)
FITNESS, LEISURE \& HEALTHY LIFESTYLE
Introduction to fitness and leisure activities, as well as healthy life style. Knowledge of developing programs that lead to fitness, leisure and heathy life style for individuals as well as groups.
110 INTRODUCTION TO ATHLETIC TRANHNG
1 credit
Provides an overview of the Sports Medicine team and the components of a comprehensive athletic heath care program. Introduces the student to the profession of athiatic training.
130 PHYSICAL EDUCATION ACTIVITES FOR CHHLDREN 2 credits ( 30 clinical hours) For a physical education majors only. Participation in methods, activities and issues relating to preK through elementary physical education programs. One lecture and two laboratory periods per week.
150 CONCEPTS IN HEALTH AND FTNESS
3 credits
introduction to basic health and finesss concepts and related topics. Attention will be given to individual fitness programs emphasizing such topics as aerobic and anaerobic exercises, nutrition, diet, stress, and assessment methods and procedures.
160 INIRODUCTION TO COACHING
3 credits
An introduction to the coaching profession. Discussion of the important technical and tactical elements of coaching athletes.
193 ORIENTATION TO PHYSICAL EDUCATION 3 credits ( 10 field hours, 22 clinical hours) Introduction to physical and heakh education to students who pursuit state license in teaching physical and heelth education. It's also the required course before the admission to the college of education.

194 SPORTS OFFCCLATING
2 credits ( 8 clinical hours)
Knowiedge of rules for interscholastic sports and officiating techniques. Successful completion of course permits taking of state examination for officiating. Two lectures and one laboratory per week.
195 CONCEPTS OF GAME AND PLAY 2 credits (10 clinical hours) Concept analysis of games and play and application of these concepts to the teachingleaming process in physical education at all ages.
200 AOUATIC FACIUTY MANAGEMENT 3 credits
This course is designed to explore, acquire, and discuss knowledge and techniques for aquatic facility operation and management.
201 KINESHOLOGY
3 credits (8 clinical hours)
Prerequisites: 3100:200/201 or 3100:202/203. Application of basic principles of anatomy and mechanics to humen movement Three hours lecture with practical application and demonstrations.
202 DIAGNOSIS OF MOTOR SKILLS 3 credits ( 30 clinical hours) Prerequisite: 5550:201. This course introduces athletic trainers and physical education majors to the sciences of diagnosing motor skills.
203 MEASUREMENT AND EVALUATION IN
3 credits (20 clinical hours)

## PHYSICAL EDUCATION

Statistical procedures needed for analysis and interpretation of tests. Evaluation procedures, testing instruments, and techniques for administering tests are discussed and practiced. Three hours lecture.

204 PHYSICAL EDUCATION ACTIVITIES II:
3 credits ( 30 clinical hours) TEACHING INDIVIDUAL AND TEAM SPORTS
TEACHING INOMDUAL AND TEAM SPORTS
Introduction of individual and team sports that commonly taught in schoots. Courses presents knowledge, fundemental skill devalopment, and psychomotor skills analysis for the content areas.
205 PHYSICAL EDUCATION ACTIVITIES B: TEAM SPORTS 2 credits ( 30 clinical hours) The purpose of this course is to teach students how to teach team sports.
211 FRST AID AND CARDIOPULMONARY RESUSCITATION 2 credits ( 15 clinical hours) Based on American Red Cross standards for first aid and cardiopulmonary resuscitation. Instruction and skills practice for sudden illnesslemergencies is provided. Two hours lecture.
212 FIRST AID AND CPR FOR THE PROFESSIONAL RESCUER
2 credits
Prerequisite: permission of instructor. First aid and cardiopulmonary resuscitation for health care professionals based upon American Red Cross standerds. Instruction and skills practice for sudden illness/emergencies is provided.
220 HEALTH PROMOTION AND BEHAVIOR CHANGE
3 credits Prerequisite: 150 . Course will translate theories of behavioral science for heath professionals who are involved in planning, developing, implementing or evalusting physical activity programs.

235 CONCEPTS OF MOTOR LEARNING
3 credits ( 10 field hours, 10 clinical hours) AND DEVELOPMENT
This course will introducs key metor learning concepts and analysis of developing fundamental motor skills. Three hours lecture.
240 CARE AND PREVENIION OF ATHLETIC INJURIES
3 credits
Prerequisites: 3100:200/201/202/203. This course will provide an introduction for the student in relation to numerous aspects of athletic training, including injury recognition/evaluation, management, treatment and rehabilitation.
241 CARE AND PREVENTION OF ATHLETIC INUURIES LAB
1 credit (50 clinical hours) Prerequisites: $3100: 200 / 201$. Corequisite: $3100: 200 / 202 ; 240$. This course is designed to ellow students to learn, practice, and become competent and proficient in the psychomotor skills associated with basic injury prevention, evaluation, management, and treatment of physically active individuals in the practice of athletic training as defined by the NATA educational competencies.
245 ADAPTED PHYSICAL EDUCATION
3 credits ( 30 clinical hours, 10 fleld hours) Identification of atypical movement ameng various exceptional individuals, with adapted physical education programming experience in a laboratory setting. Two hours lecture and two hours lab.

250 PRINCIPLES OF ATHLETIC TRANNNG
2 credits
Prerequisites: 3100:200, 201, 202, 203. This course will cover principles and techniques used in evaluation of musculoskeletal injury. It is primarily a hands on laboratory course with practical application.
260 SPORTS RULES AND REGULATIONS 1 credit
This course will address the most common rules and regulations of common athietic competitions paying specific attention to injuries and injury time.
300 PHYSIOLOGY OF EXERCISE FOR THE ADULT AND ELDERLY* 3 credits Prerequisite: 302. Analysis of physiological effects of exercise on elderly. Exercise programs adaptable for use by persons working with elderty. Three hour lecture.
302 PHYSIOLOGY OF EXERCISE*
3 credits ( 30 clinical hours) Prerequisites: $3100: 200 / 201$ or 3100:202/203. A course designed to study the physiological effects of exercise relative to physical education activities, athletics and athletic training. Two hours lecture, two hours laboratory.
305 CUNMCAL EXPERTENCE I
2 credits
Prerequisite: by permission only. Improves the student's psychomotor skills in the following domains of athletic training: injury prevention, injury recognition/evaluation and management, therapeutic exercise and rehabilitation.
306 PHYSICAL EDUCATION ACTIVITES N*
2 credits ( 30 clinical hours) BADMINTON AND GOLF
Course presents knowledge, fundamental skill development, and psychornotor skill analysis for the content areas of badminton and goff. One hour lecture, two hours lab.
307 PHYSICAL EDUCATION ACTIVITES V*
2 credits (30 clinical hours)
TENNIS AND VOLIEYBALL
Course presents knowledge, fundamental skill development, and psychomotor skill anaysis for the content areas of tennis and voileyball. One hour lecture, two hours lab.
308 PHYSICAL EDUCATION ACTIVTIES V ${ }^{*}$
2 credits ( 30 clinical hours) DANCE AND TUMBLING
Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of dance and tumbling. One hour lecture, two hours lab.
327 EXERCISE LEADERSHIP 3 credits
Prerequisite: 302. Students leam principles of teaching safe and effective exercises designed to enhance physical finess. Course will assist students in preparing for a group exercise certification.
330 EXERCISE AND WEIGHT CONTHOL
3 cradits
Prerequisite: 302. Course will focus on role of exercise in regard to its positive influences on weight control. The hazards and implications of being overweight are studied.
335 MOVEMENT EXPEPIENCES FOR
3 credits ( 20 clinical hours, 10 field hours) CHIDREN"
Prerequisites: 130, 193, 235. Course focuses on use of fundamental motor skill analysis to structure movement lessons for children from early childhood through elementary vears. One hour lecture, two hours lab.
336 MOTOR LEARNHNG AND DEVELOPMENT
2 credits (10 figld hours)
FOR EARLY CHHDHOOD*
Physical fitness, fundamental motor skills, motor development and learning for eary childhood, birth to age eight. Creating an environment of motor experiences for young chikten.
365 INSTRUCTIONAL TECHNIOUES FOR CHLDREN
3 credits ( 30 clinical hours) IN PHYSICAL EDUCATION*
Prerequisites: 130 and 193. Microteaching experience with the purpose being to improve presenvice instructional skills for effective teaching of multi-age physical education.
346 INSTRUCTIONAL TECHNIOUES IN SECONDARY
3 credits ( 30 clinical hours)
PHYSICAL EDUCATION*
Prerequisites: 102, 193 and 204/205. Presentation of various teaching styles/skillsstehaviors for effective teaching of secondary physical education via microteaching. Two hours lecture, two hours lab.
352 STRENGTH AND CONDTIONNG FUNDAMENTALS* 3 credits Prerequisite; 3100 : $200,201,202,203$. This course will address CAAHEP competencies in the area of strength and conditioning of physically active individuals.
355 EXERCISE IN SPECLAL POPULATIONS 3 credits
Prerequisites: 302, 403. Advanced course in clinical exercise testing and prescription relative to disease of the cardiovascular, pulmonary, metabolic, musculoskeletal, neuromuscular, and immunologic systems.

[^64]380 PRACTICUM I AT
Prerequisites: 3100:200, 201, 202, 203. This is a senior-tevel athletic training course focusing on the refinement of practical skills and preparation for the NATABOC certification examination.
362 SPORT HISTORY
3 credits
This course is designed to introduce students to sport in American History. The people, organizations and institutions that shaped the development of sport are examined.
364 SPORT ETHICS
3 credits
The focus of this course is the ethical behavior of sport participants and sport administrators studied within the context of the sport environment.
386 SPORT COMMUNICATION
3 credits
The focus of this course is on the important knowledge that administrators should have related to the field of sport communication.
368 SPORT FACILTY MANAGEMENT
3 credits
This course has been designed to identify the systems approach for the effective management of the maintenance and operation of sport and recreation facilities.
370 FANANCLAL ASPECTS OF SPORT
The focus of this course is related to the important knowledge that administrators should have related to the field of the finsncial aspects of sport

375 SPORT PERFORMANCE PRINCIPLES
3 credits
An introduction to important elements related to the physical aspects of sport performance. Discussion of the important physical elements of coaching athletes.

395 FELD EXPERIENCE*
16 credits ( $30-90$ field hours) Prerequisite: permission of adviser. Corequisite: permission of adviser. Practical experience in an area related to physical education under supervision of faculty member. Student works with current physical education programs or exercise science settings. May be repeated for a maximum of 12 credits.
400/500 MUSCULOSKELETAL ANATOMY I
3 credits
Prerequisite: $3100: 200,3100: 202$. This course includes lecture/laboratory activities to provide the student a comprehensive learning experience in upper extremity musculoskeletal anatomy.
401/501 MUSCULOSKELETAL ANATOMY II 3 credits Prerequisites: 3100:200,:202. This course includes lecture laboratory activities to provide the student a comprehensive leaming expenence in lower extremity musculoskeletal anatomy.
403 EXERCISE TESTING*
3 credits
Prerequisite: 302. This course will cover basic knowedge of exercise testing and interpretation of results. Cardiovascular and muscular fitness aspects will be measured.
404 EXERCISE PRESCRIPTION*
3 credits Prerequisites: 403 or instructor's permission. This course focuses on how to appropnately prescribe exercise for vanious populations (young, middle-aged, elderty, pregnant, diseased-states).
405 CLINRCAL EXPERIENCE II
2 credits
Prerequisite: by permission only. Improves the student's performance in the following domains of athletic training: injury prevention, injury recognitionlevaluation and management, education and counseling.

## 409 SPORT BEHAVIOR

3 credits
Prerequisite: 302. The focus of this course is the behavior of athletes and sport participants studied within the context of play, games, and sport.

410/510 INTRODUCTON TO SPORT SOCHOLOGY
3 credits
Provides information to students about the sociological aspects of sport. The course will educate students about gender and sport, race and sport, economics in sport, media and sport, children and sport, and intercollegiate athletics.

412 GENERAL MEDICAL ASPECTS
3 credits
Prerequisite: $3100: 200 / 201 ; 3100: 202 / 203$; by permission. Covers various topics related to sports medicine and general medical conditions. Students will gain perspectives and exposure to a variety of allied health care professionals.
415 SEMINAR IN ATHLETIC TRAINING
2 credits
Prerequisites: $3100: 200,201,202,203$. This is a senior-level athletic training course focusing on the refinement of practical skills and preparation for the NATABOC certification examination.
418/518 CARDIORESPIRATORY FUNCTION
3 credits Prerequisite: 302 for 418 . This course is designed to study the nomal structure and function of the respiratory system and how it is affected by different types of disease.
420/520 SPORT MANAGEMENT
3 credits
This course seeks to explore, acquire, and discuss knowledge within the theoretical and applied management practices of sport, fitness, and instructional programs.
422/522 SPORT PLANHING/PROMOTION
3 credits
Analysis of marketing/promotions from a sport manager's perspective. Emphasis on marketing strategy, tactics and development in sport delivery systems.
424/524 SPORT LEADERSHIP
3 credits
This course has been designed to introduce the students to current issue related to leadership, manegement, and supervision. Course also will examine current sport leadership research as well as the fundemental governance structure of amateur and professional sport organizations.

## 426/526 NUTRITION FOR SPORTS

3 credits
Prerequisite: 7400:133. This course will provide an explanation of the consumption, absorption and recommendation for diet of athistes and the physically active individual.
430 SENIOR HONORS PROJECT: PHYSICAL EDUCATION*
$1-6$ credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and permission of student's preceptor. Carefuily defined individual study demonstrating originality and sustained inquiry.

432 THERAPEUTIC EXERCISE \& REHABILTATION I
3 credits Prerequisites: $3100: 200,201,202,203$. This course will address CAATE standerds and guide lines for competencies and proficiencies in exercise and rehabilitation techniques of the upper extremity in a physically active population.

433 THERAPEUTIC EXERCISE \& REHABILTATION I LAB
1 credit
Prerequisites: $3100: 200,201,202,203$. This course will address CAATE standards and guidelines for competencies and proficiencies in exercise and rehabilitation techniques of the upper extremity in a physically active population.
436/536 FOUNDATIONS AND ELEMENTS OF ADAPTED PHYSICAL EDUCATION* 3 credits Principles, components, and strategies necessary in providing motor activities for handicapped sturdents via application of a neurodevelopmental model and altemate methods. Three hours lecture.
438/538 CARDLAC REHAB PRINCIPLES
3 credits
Prerequisite: 302. This course wilt teach students to core competencies for cardiac rehab professionals, based upon the American Association of Cardiovascular and Pulmonary Rehabilitation Specialists (AAVCPR).

433 ADVANCED ATHLEIIC INJURY MANAGEMENT: UPPER EXTREMITY LAB 1 credit Prerequisites: by permission only. Corequisite: 441 . This course is designed to allow students to leam, practice, and become competent and proficient in the psychomotor skills associated with upper extremity evaiuation as defined by the NATA. Inciudes a 300 -hour clinical sport rotation.

## 440/540 INJURY MANAGEMENT FOR TEACHERS AND COACHES

 2 credits Prerequisites: 211 . This course challenges the student to understand ways to provide and care for the safety of individuals they teach or caach.441/541 ADVANCED ATHLETIC INJURY MANAGEMENT/
3 credits

## UPPER EXTREMTTY

Prerequisites: 201, 240,241, 3100:200/201/202/203. Corequisite: 439. This is a comprehensive course designed for the student to display knowledge/psychomotor skills in injury evaluation/recognition in the upper extremity.
442/542 THERAPEUTIC MODALTIES
3 credits
Prerequisites: $3100: 200 / 201 / 202 / 203$. Corequisite: 443 . This course will promote student medical and technical aspects of therapeutic modalities and pharmacological agents in the treatment and rehabilitation of injured physically active individuals.
443 THERAPEUTIC MODALTIES LAB
1 credit
Prerequisites: 3100:200/201, 3100:202/203. Corequisite: 442. This course is designed to allow students to learn, practice, and become competent and proficient in the psychomotor skills associated with the use of therapeutic modalities and pharmacological agents in the practice of athletic training as defined by the NATA.
44 THERAPEUTIC EXERCISE AND REHABILTATION II LAB
1 credit Prerequisites: 432 and 433 and $3100: 200 / 201,3100: 202 / 203$. This course is designed to allow students to learn, practice, and become competent and proficient in the psychomotor skills associated with the use of therapeutic exercise and current rehabilitation techniques in the practice of athlatic training as defined by the NATA.
445 THERAPEUTIC EXERCISE AND REHABILTATION II
3 credits
Prerequisites: 432 and $433,3100: 200 / 201 / 202 / 203$. This is a comprehensive course covering exercise prescription for injured active individuals, determination of therapeutic goals and selection of remabilitation techniques.
449 ORGANZATION AND ADMINHSTRATION FOR HEALTH CARE PROFESSIONALS 3 credits Prerequisite: senior level status and permission only. This class is a requirement for Athletic Trainers and Exercise Science majors. This class presents the skills necessary for supervising a health care facility.

450 ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION,
3 credits INTRAMURALS, AND ATHLETICS*
Prerequisite: instructor's permission. Investigation of procedures for conducting physical educz tion, intramural, and athletic programs. Includes toumament designs, supplies and equipment, liability, curriculum, and general administration. Three hours lecture.

## 451/551 ASSESSMENT AND EVALUATHON IN

3 credits ( 20 clinical hours) ADAPTED PHYSICAL EDUCATION*
Prerequisites: permission of adviser. Investigation, analysis, and selection of appropriate assessment instruments, as well as methodology for determining instructionat objectives and activities for handicapped students. Three hours lecture.
452 FOUNDATIONS OF PHYSICAL AND HEALTHEDUCATION* 3 credits Overview of the emergence of physical education as a profession and the supporting role of underlying scholarly and scientific disciplines.
453/553 PRINCIPLES IN COACHING
3 credits ( 10 clinical hours)
Basies for becoming a successful coach. Discussion of principles applying to most sports, players and coaches. Ten (10) clinical hours required.

455/555 MOTOR DEVELOPMENT OF SPECIAL POPULATIONS* 3 cradits
Prerequisite: permission of adviser. Task analysis essential to structuring activity sequences for motor skills and lifetime fitness activities for handicapped students. Three hours lecture.
459 PRACTICUM SEMINAR
1 credit
Prerequisite: permission of instructor. This course will focus on the professional develcoment process, including practicum preperation, resume development, interview skills and job search strategies.

460 PRACTICUM IN PHYSICAL EDUCATION*
1-6 credits (90-180 field hours) Prerequisites: permission of adviser. Corequisite: permission of adviser. Practical work experience with certified personnel in a discipline or profession related to physical education or sport and exercise science. May be repeated for a maximum of 12 credits.

462/562 LEGAL ASPECTS OF PHYSICAL ACTIVITY
2 credits
This course will overviow legal and ethical elements of greatest concern to specialists in sport and physical activity. Cases used to illustrate specific points. Topics vary.
465/565 PSYCHOLOGY OF INJURY REHABNLTATION
2 credits
Prerequisites: $3100: 200,201,202,203$. This course will address the cognitive and affective aspects of injury and rehabilitation of injury. Specifically the stages of rehabilitation and techniques to aid in the rehabilitation process.
467 PRACTICUM II AT
1 credit
Prerequisites: $3100: 200,201,202,203$. This course will allow the students to practice psychomotor skills in the high school setting while being supervised by a certified athletic trainer.

470/570 ORTHOPEDIC INJURY \& PATHOLOGY
3 credits
Prerequisites: $\mathbf{3 1 0 0 : 2 0 0}, 201,202,203$. This course will discuss common musculoskeletal pathology and surgical procedure associated with a physically active population.
475 ADVANCED ATHLETIC INJURY MANAGEMENT: LOWER EXTREMITY
Prerequisites: 240,241 and $201 ; 3100: 200,201,202,203$. Corequisite: 476 . This is a comprehensive course designed for the student to display knowledgepsychomotor skills in injury evaluationtecognition of the lower extremity.

476 ADVANCED ATHLETC NUUAY MANAGEMENT: LOWER EXTREMITY LAB 1 credit Presequisites: 201, 240, 241 and 3100:200/201, 3100:202/203. Corequisite: 475. This course is designed to allow students to leam, practice, and become competent and proficient in the psychomotor skills associated with lower extremity evaluation as defined by the NATA.

4s0,1,2,3/590,1,2,3 WORKSHOP*
$1-3$ credits each
Proctical, intensive and concentrated involvement with current curricular practices in areas related to physical education.
494 STUDENT TEACHING COLLOOUIUM
2 credits (20 clinical hours) FOR PHYSICAL AND HEALTH EDUCATION*
Prerequisites: Core courses, program studies courses; corequisite: Student Teaching, 495 Students meet during student teaching to discuss concems about student teaching and analyze previous leaming as it relates to their future as a professional educator.
495 STUDENT TEACHING FOR PHYSICAL
10 cradits (480 fiald hours)

## AND HEALTH EDUCATION*

Prerequisites: approval of the Student Teaching Committee, consideration based upon approved application to student teaching, passing PRAXIS II subject test and approved portolio. Corequisite: 494. Planned teaching experience in schools selocted and supervised by the Office of Extended Fiold Experiences.

497 INDEPENDENT STUDY*
$1-6$ credits (30-60 field hours)
Prerequisite: permission of adviser. Corequisite: permission of adviser. Analysis of specific topic related to a current problem in physical education or sport and exercise science. May be repeated for a maximum of 12 credits.

## OUTDOOR EDUCATION

## 5560:

430 SENHOR HONORS PROJECT: OUTDOOR EDUCATION
$1-6$ credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and permission of student's preceptor. Caretuly defined individual study demonstrating originality and sustained inquiry.

440 INTRODUCTION TO OUTOOOR PURSUITS
3 credits
The purpose of this course is to introduce students to the varied but interfllated topics of Outdoor Pursuits, Adventure Education, Project Adventure, and New Games philosophy as they relate to Ptysical Education and Recreation programming
450/550 APPLICATION OF OUTDOOR EDUCATION TO THE SCHOOL CURRICULUM 4 credits Provides knowledge, skills and techniques useful in application of outdoor education to school curiculum.
462/552 RESOURCES AND RESOURCE MANAGEMENT FOR TEACHING
4 credits OUTDOOR EDUCATION
Methodologies unique to outdoor education which incorporate a multisensory approach to learning. Instructional materials and resources which permit expansion of curriculum beyond the school building.
454 RESIDENT OUTDOOR EDUCATION
2 credits (20 field hours)
Skills, program considerations, and organizationai techniques unique to an extended, overnight, resident outdoor education program. Off-campus location for four days and three nights.

456/5ES OUTDOOR PURSUTTS
4 credits
Investigation and participation in practical experiences in outdoor pursuits.
458 ORGANIZATION AND ADMINISTRATION OF OUTDOOR PURSUITS
3 credits
The purpose of this course is to provide the basic information necessary for the preparation of educators, leaders and administrators of outdoor programs.

460 OUTDOOR EDUCATION PRACTICUM
2 credits
Prerequistes: 452, 454. Closely supervised practical experience in conjunction with regularly scheduled classroom mertings. Laboratory experience consists of active participation with an established outdoor education program.

462 ADVENTURE THERAPY 3 credits
This course will discuss the interaction of experimental learning and adventure therapy. Application of adverture experiences therapeutic processes will be analyzed and explored.
464 WLDERNESS EDUCATION ASSOCLATION OUTDOOR LEADERSHIP 3 crodits This is the Widerness Education Association Standard Program for Outdoor Leadership Cenification.
490/690 WORKSHOP: OUTDOOR EDUCATION
1-3 cradits
Practical application of contemporary ideas, methodologies, knowiedge relevant to outdoor edication. Emphasis on participsnt involvement in educational practices, utiizing the natural environment.
494/594 EDUCATIONAL. INSTTIUTES: OUTDOOR EDUCATION $1-4$ credits Practical experience with current research or curricular practices involving expert resource persons in outdoor education.
497 INDEPENDENT STUDY
$1-3$ credits ( $30-90$ field hours) Prerequisites: permission of adviser and supervisor of independent study. Provides varied opportunities for a student to gain firsthand knowledge and experience with existing outdoor educa tion programs.

## HEALTH EDUCATION

## 5570:

101 PERSONAL HEALTH
2 credits (5 clinical hours)
This course applies the current principles and facts pertaining to heatthful, effective living. personal health problems, and needs of the student. Two hours lecture
201 FOUNDATIONS IN HEALTH EDUCATION
3 credits ( 10 field hours, 20 clinical hours) Prerequisite: 101. History and philosophy of health education as a discipline; professionalism and administration in heath education are considered.
202 STRESS, LFE-STYLE AND YOUR HEALTH
This course will provide knowledge and attitudes about the relationship between stress and physiological and psychological illness and disease as well as how to prevent and manage stress in daily life activities.
322 CURRENT TOPICS IN HEALTH EDUCATION*
3 credits ( 20 clinical hours)
Prerequisites: 101, 201, 320. Skills needed to do research, teach, and present current heath edrcation topics in a factual and comfortable manner in schools and community. Three hours lecture.

## 350 MEASUREMENT AND EVALUATIONIN

3 credits ( 20 clinical hours) HEALTH EDUCATION*
Prerequisites: 101, 201, 202, 320. Presentation of measurement inventories and evaluation techniques in heath education. Testing instruments, edministering tests and evaluation proce dures are discussed and practiced. Three hours lecture

375 PROGRAM PLANNING AND EVALUATION
2 credits
Prerequisites: 101, 201. This course addresses the process of planning and evaluating heath education programs within the school and community.
395 FELD EXPERIENCE IN HEALTH EDUCATION* $1-3$ credits ( $30-90$ fieid hours) Prerequisite: permission of the adviser. On-site field experience will be conducted in an area related to pre-K-12health education under the supervision of a faculty member.
400 ENVIRONMENTAL ASPECTS
3 credits (5 field hours, 20 clinical hours)

## OF HEALTH*

Prerequisite: Major or minor in hearth education or instructor's permission. A study of the interrelationships of ecosystems and a healthful environment. This course investigates many aspects of the environment and their influences upon the quality of humen life.
420 COMMUNTTY AND PERSONAL HEALTH*
3 credits ( 20 clinical hours)
introduction of current public and personal health issues. Organizations and their roles in public and personal health programs.
421/521 COMPREHENSIVE SCHOOL HEALTH
3 credits (20 clinical hours)
Prerequisites: 101, 201, 320. This course explains and presents comprehensive school health curricula for pre-K-12. The three components of a comprehensive school heath program are presented.

423 METHODS AND MATERIALS OF 3 credits (10 field hours, 20 clinical hours) HEALTH EDUCATION*
Prerequisites: 101, 201, 320,5100:210/211, 5500:310/311. Planning. organization, use of instructional resources and delivery of health education content and teaching processes (pre K-12).
430 SENIOR HONORS PRONECT: HEALTH EDUCATION*
1-6 credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry.
460 PRACTICUM IN HEALTH EDUCATION*
2 credits ( 60 field hours)
Prerequisite: permission of the adviser. The practicum in Health Education is an on-site participe tion in a community health organization, agency or resource.
497 INDEPENDENT STUDY IN HEALTH EDUCATION*
$1-2$ credits $130-60$ field hours)
Prerequisite: permission of the adviser. Analysis of a specific topic related to a curtent problem in health education. May include investigative procedure, research or concentrated practica experience.

## EDUCATIONAL GUIDANCE AND COUNSELING

## 5600:

436 HELPING SKILLS FOR RESIDENT ASSISTANTS
2 credits
(Credit/noncredit) Prerequisite: open to resident assistants in University housing. A course designed to help student personnel workers become more effective in professional role

450/550 COUNSELNG PROBLEMS RELATED TO UFE-THREATENMNG
3 credits
ILLNESS AND DEATH
Prerequisite: permission. Consideration of the global issues, curent research, coping behavior, support systems and family and individual needs in regard to life-threatening situations.

## SPECIAL EDUCATION

## 5610:

100 ORIENTATION TO INTERVENTION SPECYALLST EDUCATION
0 credits
Corequisite: 5100:200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development.
225 INTRODUCTION TO EXCEPTIONALTIES
3 credits
Prerequisite: admission to the College of Education's Teacher Education Program. Corequisite: 5100:200. Survey course covering the identification, developmental characteristics and intervention strategies for children and youth with exceptionalities across educational and community settings.
380 MATH METHODS: SPECIAL EDUCATION
3 credits
Prerequisite: Admission to the Teacher Education Program. Ensure the understanding of mathe matios and to promote the prospective special education teacher's confidence in hisher own ability to teach mathematics.
395 FELD EXPERENCE: SPECLAL EDUCATION
1.3 credits Supevised work with youngsters, individually and in groups in school and/or community settings.
403 STUDENT TEACHING COLLOOUHUM: SPECLAL EDUCATTON
1 credit An examination of problems, issues, and practices encountered during the student teaching experience.
430 SENIOR HONORS PROJECT: SPECIAL EDUCATION
16 credits
(May be repeated for a total of six credits) Carefuly defined individual study demonstrating originality and sustained inquiry.
440/540 DEVELOPMENTAL CHARACTERISTICS
OF EXCEPTIONAL INDIMDUALS
3 credits (1 field hour)
Prerequisite: Admission to a College of Education Preparation Program or permission of the instructor. A survey course covering the identification, developmental characteristics, and intervertion strategies for exceptional children and youth across educational and community settings.
447/EA7 INDIVDUALS WTH MLD/MODERATE EDUCATIONAL NEEDS:
4 credits CHARACTERISTICS AND IMPLICATIONS
Prerequisite: 225. Survey of the etiology, identification, classification, developmental characteristics of and intervention strategies for individuals with mild/moderate educational needs.
448/548 INDMDUALS WITH MODERATE/NNIENSNE EDUCATIONAL NEEDS 4 credits CHARACTERISTICS AND IMPLICATIONS
Prerequisites:7400:265 and 440/540. Survey of the etiology, diagnosis, ctassification and developmental characteristics of individuals with moderatefintensive educational needs.
450/550 SPECIAL EDUCATION PROGRAMNMIN: EARLY CHMDHOOD 3 credits ( 20 field hours) Prerequisites: 225,447/547 or 448548 . Developmental patterns of young children with disablities and deveiopmentally/exceptionelity appropriate practices with respect to programming and adaptations.

451/551 SPECLAL EDUCATION PROGRAMAMING: MILD/AMODERATEI 3 crodits ( 20 field hours) Prerequisites: 225 and 447/547. Educational implications regarding assessment, teaching strategies, and adaptive materials necessary to meet the needs of school age students with mild/moderate educational needs.

452/552 SPECHAL EDUCATION PROGRAMMING:
SECONDARY/TRANSTION
3 credits (20 field hours)
Prerequisites: 225 , and $447 / 547$ or $448 / 548$. Study of diagnostic prescriptive service delivery systerns designed to accommodate developmental patterns of secondary-level students with exceptionalities.
453/553 SPECLAL EDUCATION PROGRANMING: MODERATE/INTENSIVE I

4 credits (20 field hours) Prerequisites: $448 / 548$. Development of the programming strategies including assessment, inter/transdisciplinary models, family involvement, IFSP/EP/IP devetopment, instructional practices based upon legalethical principles for individuals with moderateintensive educational needs.

454/554 SPECIAL EDUCATION PROGRAMMING:

## MODERATE/INTENSVE H

4 credits (20 field hours)
Prerequisites: 448/548, 453/553. Advanced program for providing educational planning and intervention for individuals with moderate to intensive educational needs. Focus is on developing a comprehensive educational program which will facilitate optimum functioning and independence.
457/557 SPECLAL EDUCATION PROGRAMMING: MILD/MODERATE H 4 credits ( 20 field hours) Prerequisite: 447/547, 451/551. Special educational implications regarding assessment, teaching strategies, and adaptive materials necessary to meet the needs of school age students with mild/moderate educational needs.
458/559 COLLABORATION \& CONSULTATION IN SCHOOLS AND COMMUNTY 3 credits Prerequisites: 225. Provides professional educators/intervention specialists with skills in collaboration and consultation for working with parents of exceptional individuals and other professionals within school/community settings.

460/560 FANMLY DYNANICS AND CONMUNCATION N THE EDUCATIONAL PROCESS 3 credits Prerequisites: 225. A study of family theory and structure along with beginning techniques for working with families of students with exceptionalities, in educational and community settings.
461/601 SPECAAL EDUCATION PROGRAMMING:
3 credits (20 field hours)

## EARLY CHLLOHOOD MODERATE/INTENSIVE

Prerequisites: 440/540, 448/548. Developmental patterns of young children with moderate/intensive needs (ages 3-8) and developmentally appropriate practices in programming and adaptations.

463/563 ASSESSMENT IN SPECLAL EDUCATION
3 credits
Prerequisites: 225. Prepares student to select, administer and interpret formal and informal assessment procedures and use resulting data in planning educational programs for exceptional individuals.

464 ASSESSMENT AND EVALUATION IN EARLY CHILDHOOD
3 credits SPECLAL EDUCATHON
Prerequisites: 225 and $448 / 548$. The assessment of children (three to eight) and their environment who are at nsk for disabilities or currently in special education.
467/567 MANAGENENT STRATEGIES IN SPECLAL EDUCATION
3 crodits
Prerequisite: 225 . Corequisite: $447 / 547$ or $448 / 548$. Content emphasizing the development of application strategies with a variety of behavior management models for meditation of behaviors with exceptional individuals.
470/570 CLINBCAL PRACTICUM IN SPECLAL EDUCATION 3 crodits
Prerequisite: Completion of all 5610: courses, except 486, 487 and 403. Corequisites: 403 and 486 or 487. Provides a pre-student teaching experience for students in the areas of assessment, program planning, instructional planning and presentation, classroom management, adaptations, and collaboration with parents and other educational professionals.

479/579 SEMHNAR: INVITATIONAL STUDIES IN SPECIAL EDUCATION
1-2 credits
(May be repeated for a total of four credits) Topical study with a varied array of disciplinary input. Staffing will be invited members of allied and contributing professions active in manage ment of exceptional children.
485 STUDENT TEACHING: EARLY CHILDHOOD INTERVENTION SPECLALST
8 credits Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test and approved portolio. Corequisite: 403. Planned teaching experience in schools selected and supervised by Office of Field Experience.
486 STUDENT TEACHING: MID/MODERATE EDUCATIONAL NEEDS
8 credits
Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portiolio. Corequisite: 403. Planned teaching experience in schools selected and supervised by Office of Field Experience.

487 STUDENT TEACHING: MODERATE/INTENSIVE EDUCATIONAL NEEDS 8 credits Prerequisite: Approval of the Students Teaching Committee, consideration based upon approved application to students teaching, passing PRAXIS II subject test, and approved portfolio. Corequisite: 403 and 470 . Planning teaching experience in schools selected and supervised by the office of Field Experience.
488 ST: EARLY CHILD/EARLY CHID INTERVENTION SPECLALIST Geredits Prerequisite: Approval of the Student Teaching Committee, based upon approved application to student teaching, passing PRAXIS II subject test, and approved portolio. Corequisite: 403, 470. 5200:495. Planned teaching experience in schools selected and supervised by the Office of Field Experience.
490,1,2,3/590,1,2,3 WORKSHOP
13 credits each
(May be repeated for a total of six credits) Designed to explore special topics in in-service or preservice education on a needs basis.
497 INDEPENDENT STUDY: SPECAL EDUCATION
$1-3$ credits
Specific area of investigation determined in accordance with student's needs.

## SCHOOL PSYCHOLOGY

## 5620:

490/590 WORKSHOP
1-2 credits
Prerequisite: permission of instructor. Opportune topical expenence provided periodically as needed and/or as resources become available.
491,2/591,2 WORKSHOP 1.3 credits each
Prerequisite: permission of instructor. Opportune topical experience provided periodically as needed and/or as resources become available.
494/594 SCHOOL PSYCHOLOGY INSTITUTES
1-4 credits
Prerequisite: permission of instructor. Specifically designed leaming experience for program graduate focusing on critical topics.

## SPECIAL EDUCATIONAL PROGRAMS

## 5800:

490/590 WORKSHOP IN ECONOMIC EDUCATION OR IN SOCIAL STUDIES
13 credits
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.
491/591 WORKSHOP IN ARTHMETIC OR IN PHYSICAL SCIENCE
1-3 credits
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curricuium units.
492/592 WORKSHOP IN READING
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.
493/593 WORKSHOP ON EXCEPTIONAL CHILDREN
$1-3$ credits
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.
494/594 INTERNATIONAL SCHOOL STUDY
Or-thescene study of education in foreign countries, usually by concentrating on the study of schools in one restricted geographical area.

## College of Business Administration

## COOPERATIVE EDUCATION

## 6000:

## 301 COOPERATIVE EDUCATION

0 credits
(May be repeated) For cooperative education students only. Work experience in business, industy,
or govemmental agency. Comprehensive performance evaluation and witten report required.

## GENERAL BUSINESS

## 6100:

101 GLOBAL BUSNNESS CONCEPTS AND PRACTICES
3 credits
An introductory course presenting the business firm throughout the world as an integrative unin that uses information from various functional fields in decision-making.

201 INTRODUCTION TO eBUSFESS 3 cTedits
Prerequisite: 24 credits. Provides a broad overview of e-business strategies, products and technologies. Discusses transformation of marketing, production and other business functions; and related legal, political, ethical and cultural issues.
495 INTERNSHP WN BUSINESS ADMINHSTRATION
3 credits
Prerequisite: Permission of designated faculty member. On-the-job experience with public or private sector organizations in the student's major field of study. Individual assignments are approved and supervised by the designated member of the feculty in the student's major field. Periodic reports and term papers are required.

497 HONORS PAOUECT AN BUSINESS ADMHMSTRATION
23 credits
Prerequisite: Senior standing in Honors College. Individual senior honors thesis or creative project relevant to the student's major field of study. Individual projects are approved and supervised by the designated member of the faculty in the student's major field.

499 INDEPENDENT STUDY IN BUSINESS ADMINISTRATION
3 credits
Prerequisite: Permission of designated faculty member. Provides a means for individualized study of a problem(s) or issue in the student's major field of study.

## FINANCE FOR

NON-BUSINESS STUDENTS

## 6140:

131 PERSONAL RNANCE
3 credits
(For non-College of Business Administration students.) A survey analysis of personal financial decisions related to budgeting, insurance, credit, and investments.
300 INTRODUCTION TO FNANCE 3 credits
(For non-Coliege of Business Administration students.) Studies the sources and uses of funds for business.
341 CONTEMPORARY INVESTMENTS
3 credits
(For non-College of Business Administration students.) Fundarnemtals of investing in stocks, bonds, derivatives, mutual funds, and closed-end investment companies for the individual investor.

## ACCOUNTANCY

## 6200:

201 ACCOUNTNNG PRINCIPLES I
3 credits
Prerequisite: $\mathbf{2 4}$ hours of college credit. Invoduction to accounting concepts and terminology Accounting for assets, liabilities, and equity.

202 ACCOUNTING PRINCAPLES II 3 credits
Prerequisite: 201. Information needs of management. Analysis of cash flow and financial statements. Suddy of product costing systems; standard costs; plenning, budgeting, and control systems; activity-based costing and activity-based management; cost-volume profit anehsis; relevant costing; and capital budgeting.
250 MICROCOMPUTER APPLICATIONS FOR BUSNESS
3 credits
Prerequisite: Computer proficiency and either 201 or 24 semester credit hours completed Introduces analysis, design and development of business information systerns. Provides handson expenence with microcomputer applications such as spreacsheets, database management systerns and Intemet applications development.
301 COST MANAGEMENT
Prerequisites: 3250:200, 250, and grades of not less than " C " in 201 and 202. Product cost accumulation, cost management strategies, performance evaluation, and role of cost in business decisions.

316 FNANCIAL APPLICATIONS DEVELOPMENT 3 credits
Prerequisite: 201, 6500:315. Analysis, design and development of financial and control applica tions. Integration of intelligent agents into financial information systems for nisk assessment, control and assurance of business processes.
320 ACCOUNTING INFORMATION SYSTEMS 3 credits
Prerequisites: 250, and grade of not less than "C" in 201. Covers AlS concepts, business modeling, accounting transaction cycles and internal control.
321 INTERMEDLATE ACCOUNTING I 3 credirs
Prerequisite: 201 or permission of instructor. Accounting for cash, receivables, inventories, property, plant and equipment, intangibles and liabilities.
322 NTEPMEDUATE ACCOUNTING II
3 credits
Prerequisite: 321 or permission of instructor. Accounting for owners' equity, investments, revenue
recognition, tax allocations, pensions, leases, accounting changes, cash flows, segments, and interim periods.
325 FNANCIAL ACCOUNTING SYSTEMS AND ENTERPPRSE RESOURCE PLANMNNG 3 credits Prerequisite: 321 and 320 (must be taken by accounting majors) or 6500:350. Evaluation, selection, implementation, validation, assurance and use of enterprise resource planning systems and the impact of these systems on the finance function in organizations.
408 INTERNATIONAL FNANCIAL REPORTING AND ANALYSIS
Prerequisites: 202 and 6400:301 or equivalent. Covers international accounting standards, analk sis of foreign financial statements, international tax issues, accounting for foreign currency, transfer pricing and international auditing. (Not to be used as an accounting elective.)

410 TAXATION FOR FNANCIAL PLANNNNG
3 credits
Provides students preparing for careers in financial pianning with the necessary knowiedge of federal tax law as applied to individuals and businesses. Not to be used as an accounting elective.
420/520 ADVANCED ACCOUNTING 3 credits
Prerequisite: 322. Examination of accounting theory emphasizing accounting for business combinations, partnerships, foreign operations, nonprofit entities and consolidated statements.
425 CURRENT DEVELOPMENTS IN ACCOUNTING
3 credits
Prerequisite: 322. Official pronouncements of Accounting Principles Board, Financial Accounting Standards Board and Securities and Exchange Commission, and other current developments in accounting theory.
430/530 TAXATION I
3 credits
Prerequisite: 321 or by permission of instructor. Federal tax law related to individuals. Master of
Taxation students will not be able to take this course to satisty tax electives in the Master of Taxation program.
431/531 TAXATION H
Prerequisite: $430 / 530$ or permission of instructor. Federal income tax law related to partnerships, corporations, trusts and estates; also includes an overview of federal estate and gift tax law.
440/540 AUDITNG
3 credits
Prerequisites: admission to the College of Business Administration and 320, 322, 430, and 6500:221. Examines auditing standards and procedures used by independent auditors in determining whether a firm has fairty represented its financial position.
441 WFORMATION SYSTEMS AUDIT AND CONIROL.
Prerequisite: 440 and 454 or permission of instructor. Leam the fundamental concepts and practices of information systems audit control. Use control objectives and standards by information systems control, audit and security organizations.

3 credits
Prerequisites: 202.250 and 320 (must be taken by accoumting majors prior to or concurrently with) or $6500: 310$. Focus on information systems risk and security in distributed business environments; develop policies, practices and systems for security of computers and data in business.

460 ADVANCED MANAGERIAL ACCOUNTING
Prerequisites: admission to the College of Business Administration and 301, 6500:330. The use of financial and non-financial information in decision making in both public and private sectors. Problem solving approach is emphasized.
470/570 GOVERNMENTAL AND INSTTTUTIONAL ACCOUNTING
3 crodits
Prerequisites: 321 or equivalent. Theory and procedures involved in application of fund accounting, budgetary control, appropriations and various accounting systems to govemmental units, educational, medical and other nonprofit institutions.

1-3 credits
Prerequisite: permission of instructor. Opportunity to study special topics and current issues in accounting. May be repeated with a change of subject.

## ENTREPRENEURSHIP

## 6300:

201 INTRODUCTION TO ENTREPRENEURSHIP
3 credits
Students are exposed to career options in entrepreneurship where they learn skills related to starting or buying a small business, working for fast growth business or corporation, family business and franchising. Open to all University students.

## 301 NEW VENTURE CREATION

3 credits
Prerequisite: 201 or by permission of instructor. Students work on the development of a business plan based on their chosen path in the field entrepreneurship istarting or buying a small business, working for fast growth business or corporation, new product family business or frarchising). Open to all University students.
330 FNANCING NEW VENTURES
3 cradits
Prerequisite: 201 or by permission of instructor. Exploration of financing, legal, taxation, and insurance issues involved with entrepreneurial ventures.
360 ENIREPRENEURIAL FELD PROJECT
3 credits
Prerequisites: 201 or by permission of the instructor. A practical field experience where students work in a consulting role on an actual entrepreneurial project involving a small business development center, a small business incubator, of an existing small business.

450 BUSINESS PLAN DEVELOPMENT
3 credits
Prerequisite: 301. Students will work independently, with mentoring from the instructor, on an entrepreneurial project. Students will gain hands-on experience in developing a business plan for starting, acquiring, or expanding a business.

## FINANCE

## 6400:

200 FOUNDATIONS IN PERSONAL FNANCE
3 credits
Prerequisite: 3250:200; 3450:141 or 3450:289 or 3450:145. Explores application of finance corr cepts in personal finance with emphasis on the personal financial planning process.
220 THE LEGAL AND SOCIAL ENVIRONMENT OF BUSINESS
3 credits
Prerequisite: completion of 32 credits. Explores the legal and social environment in which modern business must function. The legal system, public and private law, and contemporary social and ethical issues are addressed.
301 CORPORATE FIMANCE
3 credits
Prerequisites: $3250: 200 ; 3450: 141$ or $3450: 289 \mathrm{~A}$ or $3450: 145$. An overview of the financial system and the major decision areas of the financial manager such as capital budgeting, financing, and working capital management.

321 BUSNESS LAWI
3 credits
Prerequisite: completion of 64 credits. Discussions designed to develop legal reasoning within substantive areas of contractual obligation, agency relationships, partnerships, corporations, accountant's legal responsibility, federal securities regulation and antitrust law.
322 BUSNESS LAWII
3 credits
Prerequisite: completion of 64 credits. Applications of Uniform Commercial Code in sales, commercial paper and secured transactions. Additional discussions include property, wills, estates, trusts, bailments, insurance, suretyship, bankruptcy, and labor law.
323 INTERNATIONAL BUSINESS LAW
3 credits
The law and international commercial transactions. Among the subjects covered are sovereignty; treaties; agreements; antitrust practices; property rights; international arbitration.
338 FINANCLAL MARKETS AND INSTTTUTIONS
3 credits
Prerequisite: 200 and 301 or $6140: 300$ or permission of instructor. Studies the flows of funds. Analyzes major financial intermediaries. Money and capital markets reviewed with emphasis on interest rates and their impact upon administration of specific financial intermediaries.
343 INVESTMENTS
3 crodits
Prerequisites: 6500:221 and 200 and 301 or $\mathbf{6 1 4 0 : 3 0 0}$ or permission of instructor. Range of security investment media explored, alternative investment programs considered, and role of securities markets through which goals can be achieved studied.

## 379 ADVANCED CORPORATE FINANCE

3 credits
Prerequisite: 200,301, 6200:250 and 6500:222. Theory and application of capital budgeting, capital structure, leasing, working capital management, and dividend policy within the financial information system.
390 REAL ESTATE PRUNCIPLES: A VALUE APPROACH
3 credits
A study of real estate: the profession, the process, and the product. Emphasis is on real estate as a product and the valuation process. The measurement of value requires tool abilities in accounting, statistics and finance.
402 INCOME PROPERTY APPRAISAL
3 credits
Prerequisites: 200 and 301 or $6140: 300$; or permission of instructor. Advanced course in real property appraisal and valuation. Techniques and concepts will be covered along with the theory underlying such techniques.
403 REAL ESTATE RNANCE
3 credits
Prerequisites: 200 and 301 or $6140: 300$; or permission of instructor. Advanced course in real estate covering financing of and investment in real property. Included are investment techniques, methods, institutions, instruments, valuation, appraisal and poicy issues.

414 RISK MANAGEMENT: PROPERTY AND CASUALTY
3 credits
Prerequisite: 301 or permission of instructor. Addresses tcois for managing risk, legal concepts of insurance contracts, personal insurance and commercial property and casualty insurance policies as well as other risk issues.
415 RISK MANAGEMENT: UFE AND HEALTH HISURANCE 3 crodits
Prerequisite: 200 and 301 or $6140: 300$; or permission of instructor. Concepts of life and health insurance and risk management are addressed.
416 ENTERPRISE RISK: DERIVATIVES
3 credits
Prerequisite: 301 . Explores risk issues at the firm level with emphasis upon identification and management of nisk to enhance firm value.
417 RETIREMENT PLANNING
3 credits
Prerequisites: 200 and 301 or 6410:300 or permission of instructor. An in-depth examination of retirement and estate planning objectives, methods, and strategies inculuding the study of employee benefits plans, public and private pension funds, and lifetime strategies for maximization of estate assets.

424 LEGAL CONCEPTS OF REAL ESTATE
3 credits
Study of concepts of law governing the many interests in real estate including acquisition encumbrance, transfer, nights and obligations of parties, and the various state and federal regula tions. The legal concepts of the business of real estate are likewise examined. Emphasis is on a managerial approach utilizing the case method.
432 SEMINAR IN FINANCIAL PLANNING
3 credits
Prerequisites: 200 and 301 or $6140: 300$ or permission of instructor. Corequisites: 6200:410, 6200:430, 6400:343 and 6400:415. Explores financial planning function, including contact, data acquisition, plan development and implementation; addresses planning techniques and financial planning ethical issues.
436 COMMERCIAL BANK MANAGEMENT
3 credits
Prerequisite: 6200:250 and 200 and 301 or 6140:300; or permission of instructor. Study of administrative policy determination and decision making within the commercial bank. Analysis of policy making in areas of liquidity, loan and security investment and sources of funds.
438 INTERNATIONAL BANKING
3 credits
Prerequisite: 301 or permission of instructor. Examination of recent trends in the expansion' of international banking activities and associated revenue maximizing strategies.
447 SECURITY AND PORTFOLO ANALYSSS
3 credits
Prerequisite: 343 and 6200:250 or permission of instructor. Application of quantitative and quali tative techniques of analysis to fixed income and equity securities, and their composition weights in porticlios during different time periods.
473 FINANCIAL STATEMENT ANAIYSIS
3 credits
Prerequisites: 200 and 301or 6140:300 or permission of instructor. Analysis and interpretation of the financial position and performance of the business firm from the perspective of the credit and financial analyst. Emphasizes mechanics and art of financial analysis

481 INTERNATIONAL BUSINESS FINANCE 3 credits Prerequisite: 301 or $\mathbf{6 1 4 0 : 3 0 0}$ or permission of instructor. Theory and practice of financial weath maximization in the international business enterprise.
485 FINANCIAL STRATEGY 3 credits
Prerequisite: senior standing; 379. Capstone course with applications of financial management theories and tools to decisions in capital budgeting, capital structure, and working capital management.
490 SELECTED TOPICS IN FNANCE
$1-3$ credits
Prerequisite: 200 and 301 and $6200: 250$ or permission of instructor. Provides opportunity for study of special topics not covered in current finance courses.

## MANAGEMENT

## 6500:

221 QUANTITATIVE BUSINESS ANALYSISI
3 credits
Prerequisite: $3450: 145$ or $3450: 289$ or $3450: 141$. Descriptive statistics: probability; sampling distributions; interval estimation; single sample hypothesis testing and p-values. Case analysis with written individual and team reports will be used.
222 QUANTITATIVE BUSINESS ANALYSIS II 3 credits Prerequisite: 221. Two-sample hypothesis testing; ANOVA; Chisquare tests; simple and multiple linear regression; nonparametric procedures; forecasting. Case analysis with written indvidual and team reports will be used.
301 MANAGEMENT: PRINCIPLES AND CONCEPTS 3 crodits
Prerequisites: 48 completed credit hours. An interdisciplinary approsch to the study of the basic principles of general management theory and prectice.
302 ORGANIZATIONAL BEHAVIOR AND LEADERSHIP SKHLLS 3 credits
Prerequisite: 301. Investigation of applications of behavioral and social sciences as they relate to individual, group behevior in organizations.
310 BUSNESS INFORMATION SYSTEMS
3 credits
Prerequisites: 48 completed credit hours and $6200: 250$ or equivalent. Provides a technical and
organizational foundation for understanding the use and importance of information systems and information technology in today's business environment.
315 APPLICATIONS DEVELOPNENT FOR BUSINESS PROCESSES
3 credits
Prerequisite: 6200:250 and 48 completed hours. Analysis and automation of business operations and processes. Development of applications besed on a simulated enterprise-wide database.
324 DATA MANAGEMENT FOR INFOPMATION SYSTEMS
Prerequisites: 6200:250 and 48 completed hours. An introduction to database design and management, including data modeling, relational theory, Structured Query Language, and database applica tions, development, using database management systems.

325 ANALYSIS, DESIGN AND DEVELOPMENT OF INFOPMATION SYSTENS
3 credits Prerequisite: 324. An introcuction to the techniques of business modeling, systems design, and implementation, including the application of software engineering tools in support of modeling and code generation.
330 PPINCIPLES OF OPERATIONS MANAGEMENT
3 credits Prerequisites: 301 and 221 or equivalent. An overview of the terminotogy, fundamental concepts and functional scope of responsibility encountered in the field of operations management.
333 SUPPLY CHAN AND OPERATIONS ANALYSIS
3 credits
Prerequisites: 222 and 330 . Application of quantitative models in the anatysis and design of systems in the supply chain and in manufacturing and service operations environments.

334 EERVICE OPERATIONS MANAGEMENT
3 credits
Prerequisite: 330. An overview of the fundamental terminology, principles, concopts and problem solving methods encountered in the contemporary fieid of service operations management.
341 HUMAN RESSOURCE MANAGEMENT
3 credits
Prerequisites: one course in psychology or sociology. Corequisite: 301. Principles, policies, and practices in administering functions of recruiting, selecting, training, compensating, appraising human resources of orgenizations.

34 LABOR PEIATIONS
3 credits
Prerequisite: 64 complated credit hours. Corbquisite: 341 if not previously competed. Analysis of menagement, union and employee objectives, attitudes and strategy, as they affect conduct of business and economy. Stress placed on group assigned readings and reports
350 FUNDAMENTALS OF ENTERPPLSE RESOURCE PLANMMNG 3credits Prerequisites: 6200: 250 Computer Applications for Business and 48 completed credit hours. The enterprise wide process of decreasing operating costs, rationalizing the supply chain, improving management control, and decreasing cycle time by implementing ERP based solutions
390 PPINCIPLES OF SUPPLY CHAN MANAGEMENT
3 crodits
Prerequisite: completion of 48 credit hours. Coverage of the basic principles and concepts in supply chain management, including strategy, sourcing, distribution, performance metrics and technology.
410/510 SELECTED TOPMCS IN ENTREPRENEURSHIP
$1-3$ credits
Pterequisites: upper-college or graduate standing and 301 or 600 or equivalent. Faciitates comparative international study of entrepreneurship, introduction of entrepreneurship to large organizations, or application of student's entrepreneurial skills. Six hour limit.

420 MANAGEMENT OF DATA NETWORIS
3 credits
Prerequisites: 310 and 64 completed credit hours. Principles of the design and management of data networks for business communications.

421 OPERATIONS RESEARCH 3 credits Prerequisite: 330 . Examines the use of operations research techniques in managerial decisiormaking processes; constrained linear optimization, non-linear optimization, network analysis, queuing theory, simulation.
425 DECHSNON SUPPORT WIH DATA WAREHOUSNG AND DATA MINMG 3 credits Prerequisite: 324. Examines managenal and technical aspects of business decision-making based on the use of data warehouses, on-line analytical processing (OLAP) and data mining.
428 CBUSINESS APPLCATION DEVELOPNENT
3 credits
Prerequisite: 48 completed credit hours and 6200:250. Students will gain an understanding of issues and skills related to Web application design and development.
427 SYSTEMS WTEGRATION
3 credis
Prerequisite: 315. The course provides an understanding of issues and undertying application integration. Topics include a coverage of middieware technologies, B2B standards and XML.
433 SUPPLY CHAN LOGISTICS PLANNHNG
3 credits
Prerequisite: 64 completed credits and 390 . Emphasizes the importance of planning in the development of the domestic and global supoly chain logistics system that includes transportation, inventory, warehousing and procurement.
434 PRODUCTION PLANNWNG AND CONTROL
3 credits
Prerequisite: 64 completed credit hours and 333 . Coverage of materials management, production planning, scheduling and control. Integrates material from previous courses, provides overall framework including use of computer and quantitative methods.

435 QUALTY MANAGEMENT AND CONTROL
3 credits
Prerequisites: 64 completed credit hours and 330 . Emphasis on statistical techniques essential to controlling product quality for both measurement and attribute data. Includes control chart methods and acceptance sampling plans.

42 COMPENSATION MANAGEMENT
3 credits
Prerequisite: 64 completed credit hours and 341. Focus on the design, implementation and evalua tion of employee compensation and benefits programs.
443 HUMAN RESOURCES SELECTION AND STAFFNG
3 credits
Prerequisite: 64 completed credit hours and 341. Advanced study of selection and staffing within business organizations. Emphasis on current research and practice. Activities include projects, case studies, interaction with human resource professionals.
457 WIERNATOONAL MANAGEMENT
3 credits
Prerequisites: upper-coltege standing and 301 or equivalent. Management practices and techniques of intemetional business organizations. Focus on structure and processes of resource allocation, design and technology, and the impact of culture.
458 SELECTED TOPICS IN MANAGERIAL ABBTRATION, MEDATION
$1-3$ credits AND CONCILATION
Prerequisites: upper-college or graduate standing and 301 or 600 or equivalent. Study of the various methods and mechenisms by which management can understand and deal with intemal and extemai conflict. Six hour limit.

459 SELECTED TOPICS IN NNIERNATIONAL MANAGEMENT
$1-3$ credits
Prerequisites: upper-college standing; 301 or equivalent; and 457; or permission of instructor. Selected topics in intemational management focus on historical or contemporary managerial, pro duction and orgenizational issues. Includes intemational simulation game. Six hour limit.

460 SPECLAL TOPICS IN MANAGEMENT
3 credits
Exploration of advanced topics of interest both to the student and professor. Many special applications. case studies, outside speakers, projects in conjunction with local industries.
471/571 MANAGEMENT PROJECT
3 credits
Prerequisites: Admission to the College of Business Administration and 350. Human Resource Management Option: 342, 442 and 443*. Supply Chain/Operations Manegement Option: 333, 433 and $390^{*}$. Information Systems Management Option: 325, 420, 425, 427 and one from 333 or 341,426 and 6200:454**. 日-Business Technologies Option: 324, 420, 426, 6100:201 and two from: $341,425,390,6600: 425$ and 6200:454*. Students develop skills in field-based management problern solving, project management, and requirements analysis under conditions of uncertainty in a collaborative interdisciplinary team environment.
476 SUPPLY CHAIN SOURCING
3 cradits
Prerequisite: 390 . Introduces the student to fundamental sourcing concepts as well as the scope of responsibility and critical roles of the sourcing function within the principal organization in a supply chain network.
479 OPERATIONS SIMULATION
1 credit
Prerequisite: 333. Simulation of operations management prectices through computerized or experiential exercises.
480/580 WIRODUCTION TO HEALTH-CARE MANAGEMENT
3 credits
Prerequisites: upper-college or graduate standing (Students who are required to take 301 or 690 or have completed 301 or 600 or equivalent are ineligible to take this course for credit). Introductory course for health professionals covering principles and concepts of manegement applied to health services organizations. For those registered for graduate credit, a mejor paper is required.

482/582 HEALTH SERVICES OPERATIONS MANAGEMENT
3 credits
Prerequisites: upper-collfge standing and 301 or 480 or equivalents, or graduate standing and 580 or 600 or equivalent, or permission of instructor. (Students who have completed 330 are ineligible to take this course for credit). Application of production and operations management concepts and techniques in health services organizations.
485/505 SPECLAL TOPICS W HEALTH SERVICES ADMMNSTRATION
1.3 credits

Prerequisite: permission of instuctor. Special topics in health services administration (e.g., management) focusing on historical and/or contemporary managerial organzational and/or policy/strategy issues as related to health-care organizations and health-care systems. Separate topics may be repeated for a maximum of six credits. For those registered for graduate credit, a major research peper is required.
490 BUSINESS POLICY
3 credits
Prerequisites: 97 credits, admission to the College of Business Administration, and 330 , $6200: 202,250 ; 6400: 301,220$, or $321 ; 6500: 330 ; 6600: 300 ; 6800: 305$. Capstone course. integrates the core business disciplines (accounting, economics, finance, management, marketing) through the use of case analysis. Objective and strategy formulation from an administrative viewpoint and international dimension. Emphasis on oral and written communications.
491 WORKSHOP IN MANAGEMENT
13 credits
(May be repeated with permission of instructor or department) Group studies of special topics in management. May not be used to meet undergraduate major requirements in management. May be used for elective credits only.

## MARKETING

## 6600:

275 PROFESSIONAL SEUNG
3 credits
Prerequisite: 25 credits or permission from instuctor. Builds communication skills while leaming about
buyer needs, prospecting, making sales presentations, persuading, overcoming sales resistance, closing
sales, and building relationships.
300 MARKETING PRINCIPLES
3 credits
Prerequisite: 48 hours of college credit; 3250:200. A general survey of marketing activities
including analysis of markets, competition, consumer behavior, information systems, and the assessment of product, price, distribution, and promotion strategies.
335 MARIKETING RESEARCH AND ANAIYTICS
4 credits
Prerequisites: 300 and $6500: 221$. Student will gain hands-on experience in the understanding and use of appropriate toois and techniques for analyzing, interpreting and presenting informetion derived from marketing databases. Includes problem definition and solution approach to marketing research decisions.

340 MULTT-CHANNEL MARKETING
3 credits
Prerequisites: 300 and $6500: 221$. Study of exchange relationships that create customer value within a multiple channel context of store, electronic, direct response, direct selling, broadcast, intemet, event, telephone, etc.
350 INIEGRATED MARKETING COMMUNICATKONS
3 credits
Prerequisite: 300 . This is a survey of the communication tools used by marketing companies to reach and sustain contact with customers and prospects. The emphasis is on the strategic function of a market-driven "toolbox" of opportunities including advertising, sales promotion, online direct response, publicity (public relations), and face-to-face presentation. In this, the course stresses an integrative concept, using any combination of activities that fulfills an organization's core strategy.
355 BUYER BEHAVIOR
3 crodits
Pterequisite: 300 . Interdisciplinary approach to the analysis of the nature of consumer buying behavior. Economical, social, and psychological influences on consumers' decision-making processes are examined.

[^65]385 INTERNATONAL MARKETING
3 credits
Prerequisite: 300. Provides a basic understanding of the complexities of foreign marketing. It assumes knowledge of the basic intemational business course.
425 emarketing practices
3 credits
Prerequisite: 300 . The new processes and new media that have been ushered in by the electronic age are studied in the context of more traditional marketing practices. Marketing to consumers as well as other organizations and finding sources of information are considered.
440 PRODUCT AND BRAND MANAGEMENT
3 credits
Prerequisite: 300. Applied investigation into the management of new product development, product life cycle, product mix strategies, brand positioning, brand image, and brand equity.
445 CREATIVE MARIKETING LABORATORY
3 credits
Prerequisites: 335, 350, 425. Course focuses on the process of creating and producing ebased promotional campaigns within a Web-centric marketplace. This course will provide the student with hands-on experience in the development of strategies and Web-based creative material.

450 STRATEGIC RETAIL MANAGEMENT
3 credits
Prerequisite: 300 . Investigation of strategic and tactical retail decisions and issues through the use of case analysis, computer applications, experiential games, and field projects.
475 BUSNESS NEGOTIATIONS 3 credits
Prerequisite: $\mathbf{2 5}$ credits or permission from instructor. Examines business negotiation principles and practices, and builds skills in the process of negotiating business agreements within a global environment.
480 SALES MANAGEMENT
3 credits
Prerequisite: 300. Develops analytical and managerial skills through case studies and other leaming activities relating to the organization, selection, training, motivation, and control of a domestic or global saies force.
490 MARKETING STRATEGY
MARKETING STRATEGY
Prerequisites: 18 credits in 6600 (marketing) courses. Capstone course stressing integration of marketing functions through development of strategic thinking and analytical skills. Course employs case analysis, computer applications, and field projects.
491 WORKSHOP IN MARKETING
$1-3$ credits
Group studies in special topics in marketing. May not be used to meet major requirements in marketing.
492 DIRECT INTERACTIVE MARKETING PRACTICUM
3 credits
Prerequisites: 445, 490. A customized learning experience in formulating and implementing a direct interactive marketing project in conjunction with the student's field of interest or study using telernarketing, eMarketing, direct response marketing, direct selling, or other forms of interactive marketing.

496 SPECAAL TOPICS IN MARKETING
3 credits
Prerequisite: 300 . (May be repeated for a total of three credits) Provides an opportunity to examine special topics and/or current issues in the fields of marketing, sales retailing or advertising.

## INTERNATIONAL BUSINESS

## 6800:

305 INTERNATIONAL BUSINESS
3 credits
Prerequisite: 48 hours of college credit. A basic course in intemational business which can also provide a platform for more specialized intemational business courses.

405 MULTINATIONAL CORPORATIONS 3 credits
Prerequisite: 305 or permission of instructor. Course provides in-depth understanding of the functions, structures and strategic considerations governing the MNCs through theory and case study analysis.
421 INTERNATIONAL BUSINESS PRACTICES
3 credits
Prerequisite: 305 or permission of instructor. An examination and comparison of contemporary business practices around the world. Develops sensitivity to altemative business practices and includes a strong component of cross-culturai communications.
494 INTERNATIONAL BUSINESS PRACTICUM
3 credits
Prerequisite: 305 or permission of instructor. A customized group or individual activity designed to provide the student with a meaningful international experience. A qualified experience might include foreign travel, study abroad programs, international field studies, intemational exchange programs, or other customized international adventures. All practicums must be approved and supervised by the intemational business faculty and administration.

## 496 SPECLAL TOPICS IN INTERNATIONAL BUSINESS

(May be repeated for a total of three credits) Prerequisite: Permission of instructor. Provides the opportunity to study special topics and current issues in international business.

# College of Fine and Applied Arts 

## COOPERATIVE EDUCATION

## 7000:

## 301 COOPERATIVE EDUCATION

0 credits
(May be repeated) For cooperative education students only. Work experience in business, industry, or govemmental agency. Comprehensive performence evaluation and written report required.

## ART

## 7100:

100 SURVEY OF HISTORY OF ART I
4 credits
Architecture, sculpture, painting and minor arts from primitive sources through Gothic time period in Europe.
101 SURVEY OF HISTORY OF ART II 4 credits
Prerequisite: 100. Architecture, sculpture, painting and minor arts from Renaissance through more recent times, primarily in Westem art.
103 ARTS ORIENTATION Ocredits
Corequisite: 131. Orientation to the information and strategies necessary to aid new art students in their understanding of the field of art.
105 INTRODUCTION TO ART EDUCATION 3 credits
An introduction to the art teaching profession, this course covers historical and contemporary issues and practices in art education and in public schooting in the United States.
131 FOUNDATION DRAWING I
3 credits
Corequisite: 131. Introduction to drawing materials and techniques with an emphasis on observation, representation, and formal principles of composition and design.
132 INIRODUCTION TO DESIGN
3 credits
introductory course in design theory increases the graphic designers' ability to solve visual problems using both practical and theoretical approaches.

144 FOUNDATION 2-D DESIGN
3 credits
Fundamental information about the theory and practice of visual design as applied to suffaces, including composition, color and pictorial illusions with lecture and studio expenience.

145 FOUNDATION 3-D DESIGN
3 credits
Introduction to meaning of "design" and act of designing in real space. Study of naturally occurring form, structure and process.

184 TYPOGRAPHY 1
3 cradits
Prerequisite: 132. Studio experience in concept development and processes, tools and materials of graphic designers. Elementary design problems in graphic design.

185 INTRODUCTION TO COMPUTER GRAPHICS 3 credits
(May be repeated for a total of six credits) Prerequisites: 131 and 144 or permission of instructor. Introduction to the use of microcomputers as a creative tool for visual artists and designers.
210 VISUAL ARTS AWARENESS
3 credits
Prerequisite: 3400:210. Lecture course providing appreciation and understanding of arts of various types/periods with emphasis on topics end influences on societies, rather than historicai sequence
213 INTRODUCTION TO LTHHOGRAPHY
3 credits
Prerequisites: 131, 144. Use of lithographic stone and metal plate as printmaking media. Stone and plate preparation, lithographic drawing materials and techniques, paper registration and printing press covered. Emphasis on aesthetic theory, technique and related history.
214 INTRODUCTION TO SCREEN PRINTING
3 credits
Prerequisites: 131, 144. Silk screen printmaking. Theory and use of stencil process, positive and negative block-out techniques, photo stencil, registration and printing procedures. Emphasis on aesthetic theory. technique and related history.
215 INTRODUCTION TO RELEE PRINTING
3 credits
Prerequisites: 131, 144. Printmaking using found objects, synthetic matenals, as well as traditional woodcut and linoleum engraving. Emphasis on aesthetic theory, technique and related history.

216 INTRODUCTION TO WTAGLO PRINTING
3 credits
Prerequisites: 131, 144. Intaglio printmaking using drypoint engraving, aquatint and soft-ground techniques. Emphasis on eesthetic theory, technique and related history.

222 INTRODUCTION TO SCULPTURE
3 credits
Prerequisite: 145. Exploration of aesthetic factors influencing sculptural statements.
Development of proficiency in the use of tools, materials and techniques.
223 SCULPTURE: STONE
3 credits
Prerequisite: 222. Beginning-level lecture and studio course using both traditional hand tools for the creation of stone sculpture. History of the use of stone, evolution of stone working technology and contemporary artists working with stone.

224 INSTALATION ART
3 credits
Prerequisite: 222. Lecture and studio course introducing the student to the medium of installation art, a major emphasis in the contemporary art scene. The history and evolution of installation art and its use by contemporary artists.
231 INTERMEDIATE DRAWING
3 credits
Prerequisite: 131. Continued investigation of basic drawing concepts. Introduction to drawing in color with further development of observation, design, technique and conceptual skills.
233 FOUNDATION LIFE DRAWNG
3 credits
(May be repeated for a total of six credits) Prerequisite: 131. Perceptual problems in drawing from the life model. Study of skeletal, muscular, mechanical nature of human figure and application of this knowledge to the resolution of aesthetic problems.
234 ANATOMY FOR ARTSTS
3 credits
Prerequisite: 233. Studio/ecture experience in drawing and sculpture with an emphasis on human skeletal, muscular, and surface structure.
243 INTRODUCTION TO PANTING
3 credits
Prerequisites: 131, 144. Study of aesthetic and technical problems involved in painting
Emphasis on painting from observation, and understanding of color in painting.
244 COLOR CONCEPTS
3 credits
Prerequisites: 131 and 144. Lecture and studio experience giving information conceming per-
ception of color, additive color phenomena of light, subtractive color phenomena of pigments
and dyes, color notation systems and psychological effects of color.
246 INTRODUCTION TO WATER-BASED MEDA 3 credits
(May be repeated for a total of six credits) Prerequisites: 131, 144. Experimentation with waterbased media such as tempra, acrylic and gouache.
249 FGURE PANNTNG
3 credits
(May be repeated for a total of nine credits) Prerequisites: 233 and 246, or 248. Painting course with an emphasis on painting the figure from life.
250 FOUNDATION REVEEW
0 credits
Prerequisites: 131, 144, 145, 233: Credit/noncredit course. Fáculty review of art foundation stu dio work from prerequisite/corequisite courses.
253 CERANICS FOR NON-ART MANORS
3 credits
Hand-building, glazing and kiln loading. Link skills to personal experience, ceramic history and contemporary art and craft issues. No credit toward a major in art.
254 INTRODUCTION TO CERANICS
Prerequisites: 131, 144. Studio/lecture course exploning potentials of hand-building techniques in both sculptural and functional forms. Clay processing. glaze application and practical kiln firing.
268 INTRODUCTION TO METALSMTHHNG
3 credits
Prerequisite: 145, 144. Studio experience in which student is introduced to properties of metals, processes of siversmithing and design and production of jewelry.
268 COLOR IN METALS
Prerequisite: 266. Introduction to a variety of techniques to achieve and/or combine color in metals. Techniques such as anodizing aluminum, enameling and the application of color resins and plastics will be explored.
274 PHOTOGRAPHY I FOR NON-ART MANORS
3 credits
A study of photography through lecture, demonstration and studio work. An exploration and enrichment opportunity for the non-art mejor. No credit toward major in art.
275 INTRODUCTION TO PHOTOGRAPHY
3 credits
Prerequisites: 131, 144. Lecture, studio and laboratory course. Techniques and aesthetics are studied using both $4 \times 5$ and 35 mm cameras. A 35 mm camera with full manual control is required.
276 INIRODUCTION TO PROFESSIONAL PHOTOGRAPHY 3 credits
Prerequisite: 275. Students are introduced to the numerous commercial applications of studio and location photography while working through a series of ackertising related photographic projects.
280 DIGTTAL MAGING
3 credits
(May be repeated for a total of six credits) Prerequisite: 185 or 289 . An exploration of contemporary digital image capture, manipulation, output and distribetion, emphasizing digital image concepts, aesthetics and production.

281 WEB PAGE DESIGN
3 credits
(May be repeated for a total of six credits) Prerequisite: 280. Introduction to the process of Web page development. With an emphasis on creative exploration, students develop, format, and test content for internet distribution.

283 DRAWNG TECHNIOUES 3 credits
Prerequisites: 131 and 132. Includes atranced drawing and presentation techniques commonly used in graphic design. Various presentation and design problems will be encountered stressing use of selected drawing methods and processes.
288 TYPOGRAPHY 2
3 credits
Prerequisite: 184. Introduction to typographic design to communicate. Study of letterforms, history. comping skills, layout design and digital technotogy.
289 PRODUCTION I 3 credits
Prerequisite: 132. A computer-based course. Using industry-standard software, students focus on incorporating type and image to produce comprehensive design solutions.
300 ART SINCE 1945
3 credits
Prerequisite: 101 or permission of instructor. Consideration of significant developments in visual art forms since World War II in architecture, sculpture, printing, photography, metal, textile, ceramics, printmaking and graphic design.
301 MEDIEVAL ART
3 credits
Prerequisite: 101 or permission of instructor. Painting, mosaics, architecture, sculpture, and huxurv arts of medieval Europe from 4th through 14th centuries.
302 ART IN EUROPE DURING THE ITTH AND $18 T H$ CENTURIES
3 credits
Prerequisite: 101 or permission of instructor. Analysis of major European examples of architecture, landscape design, painting, prints and sculpture from beginning of the 17th Century until approximately 1850 .

303 ITALIAN RENAISSANCE AR
3 credits
Prerequisite: 101 or permission of instructor. Study of architecture, painting and sculpture of ltaly during 13th through 16th centuries.

304 19TH CENTURY ART 3 credits
Prerequisite: 101 or permission of instructor. Study and analysis of major developments in visual arts in Europe from 1800 to 1900.

306 RENAISSANCE ART IN NORTHERN EUROPE 3 credits
Prerequisite: 101 or permission of instructor. Painting, architecture, and sculpture of northern Europe from 14th through 16th centuries

## 07 HISTOAY OF GRAPHIC DESIGN

3 credits
Prerequisite: 101 or permission of instructor. A lecture course analyzing the development of graphic design as an art form from Neolithic sources to the present.
309 GREEK ART 3 credits
The course presents art and architecture of Ancient Greeks, and focuses on major monuments, myths, rituals, socio-political constructs, and methodological issues associated with Greek Art
317 PRINTMAKING II
3 credits
Prerequisites: 213 or 214 or 215 or 216 in the appropriate medium. Continuation of studio work in printmaking with concentration in intaglio, relief, lithography. or screen printing. May be repeated for a total of 12 credits with a different process.
318 PORTRAIT FASHION PHOTOGRAPHY
3 credits
Prerequisite: 276. The fundamentals of commercial portraiture and fashion photography are explored through the study of styling, posing, lighting, and working with people.
319 PRINTMAKING REVEW
0 credits
Prerequisites: 317. A committee of full-time faculty review portfolio of studio work completed in all printmaking courses.
320 ILLUSTRATION/ADVERTISNG PHOTOGRAPHY
3 credits
Prerequisite: 276. Professionally oriented photographic skills are further developed as students confront assignments closely related to current trends in illustration and advertising photography.
321 FIGURATIVE SCULPTURE
3 credits
(May be repeated for a total of six credits) Prerequisite: 233. Lecture/studio course exploring the use of the human figure as a sculptural subject. Individual interpretation of the figure using various media and techniques.
322 SCULPTURE II
3 credits
(May be repeated for a total of nine credits) Prerequisite: 222 or permission. Continuation of 222.
Addresses more advanced techniques. May include fabrication, casting, carving. or assemblage.
323 LOST WAX CASTING
3 credits
(May be repeated for a total of six credits) Prerequisites: 222 or 266. Bronze and aluminum casting using the lost wax process. Students learn foundry techniques and apply them to individual artistic statements.
335 NTTERMEDIATE LIFE DRAWHNG
3 credits
(May be repeated for a total of nine credits) Prerequisites: 231, 233. Continued development of the content established in Life Drawing with additionat emphasis on draped modeis, drawing materials and aesthetics.
348 INTERMEDIATE PAINTING
3 credits
(May be repeated for a total of six credits) Prerequisites: 243. Development of personal concepts and imagery through investigation of historical and contemporary styles and issues.
350 PAINIING/DRAWHG PORTFOLIO REVIEW
0 credits
Prerequisite: Two courses in 348. A committee of full-time faculty reviews portiolio of student work completed in prerequisite courses.
354 CERAMICS II
3 credits
Prerequisite: 254. Wheel throwing of both functional and scuiptural form. Experiments in glaze chemistry and firing experience with both gas and electric kilns. Emphasis on technique, studio procedures and critical evaluation of each student's progress.
366 METALSMTTHING II
3 credits
(May be repeated for a total of six credits) Prerequisite: 266. Continuation of experiences pre sented in 266 with further development of skills and expansion of technical knowledge.
368 COLOR IN METALS II
3 credits
(May be repeated for a total of 12 credits) Prerequisite: 268. Continuation of 268. Advanced pro-
jects designed to develop the student's aesthetic, values in color in metals. Emphasis on individual approach and experimentation.
370 HISTORY OF PHOTOGRAPHY 3 credits
Prerequisite: 101. A lecture course studying the history of photography from its invention to contemporary issues.
374 PHOTOGRAPHY H FOR NON-ART MAJORS 3 credits
Prerequisite; 274 . Continuation of 274 . A 35 mm camera with full manual controi is required. No credit for a major in art.
375 PHOTOGRAPHY II
3 credits
Prerequisite: 275. Projects utilizing photographic media and tools designed to expand student's awareness of visual qualities and order, both in the subject and photographic image. Student must own or have use of camera with controllable shutter, lens, diaphragm, focus and exposure metar.
381 DIGITAL IMAGING II
3 credits
Prerequisite: 280 . Advanced digital imaging development and manipulation with an emphasis on preparation and use of digital images in print, multimedia and Web applications.
383 MULTIMEDIA PRODUCTION
3 credits
(May be repeated for a total of six credits) Prerequisite: 285, Introduction to the theory and methods of contemporary mutimeda production. Exploration of the hardware/software employed in the organization, development and production of multimedia presentations.

384 PROFESSIONAL DESIGN PRACTICES
3 credits
Prerequisites: 250 and 288; Corequisite: 387 . Junior level review. Comprehensive overview of standard practices specific to the graphic design field. Prepares students to work in professional creative environments.

385 COMPUTER 3-D MODELING AND ANHMATION 3 credits
(May be repeated for a total of nine credits) Prerequisites: 145, 185 or permission. Advanced computer imaging course with an emphasis in three-dimensional modeling and animation.

## 387 TYPOGRAPHY 3

3 crodits
Prerequisites: 288. Corequisite: 384. Integration of typography, photography, copywiting and other visual elements into advertising and design. Students also build a juniortevel portolio.
388 PRODUCTION 2
3 credits
Prerequisites: 276, 387. More complex projects with emphasis given to mechanical preparation of finished art for various printing processes.
401 SPECLAL TOPICS IN HISTORY OF ART
$1-3$ credits
(May be repeated for credit when a different subject or level of investigation is indicated) Prerequisites: 101 or permission of instructor. Lecture course in which subject is specified each time course is offered. Focuses upon an art movement, time period, the production of a single artist or a specific art medium.
402 MUSEOLOGY
3 credits
Lecture course dealing with museum science, including museum history, staff structures, ar handling, storage, and presentation and exhibit preparation.
403 ART AND CRITICAL THEORY
3 credits
Prerequisite: 100, 101 or permission of the instructor. This course, designed for both studio and art history majors, surveys the major theoretical currents in comtemporary criticism and art history.
405 HISTORY OF ART SYMPOSIUM
13 credits
(May be repeated for credit when a different subject is indicated) Prerequisite: one ant history course beyond 101 or permission of instructor. Lecture, individual research and evaluation, group discussion related to a specific time period or to an artistic problem.

407 METHODS OF ART HISTORY
3 credits
Prerequisite: 101 or permission of the instructor. This course explores the history of the disch pline-and the permutations it has undergone since its establishment in the earty years of the nineteenth century.

409 TIME-BASED MEDA 3 credits
(May be repeated for a total of six credits) Prerequisite: 285. Through the development of increasingly complex projects, students explore the conceptual and aesthetic considerations of creating motion media based presentations.
410 METHODS OF TEACHING ELEMENTARY ART
3 credits
Prerequisite: $5500: 360$. A field based course presenting the necessary skills and knowledge to successfully implement, plan, instruct, and assess a diverse, ar:-based curriculum for the elementary school. No credits as electives or art majors.
411 METHODS OF TEACHING SECONDARY ART
3 crodits
Prerequisite: 5500:360. A field based course presenting the necessary skills and knowledge to successfully implement, plan, instruct, and assess a diverse, art-based curriculum for the elementary school. No credits as electives or art majors.
412 STUDENT TEACHING COLLOQUUM
1 credit
Prerequisite: Senior status, successful completion of field experience, and permission of instructor. Corequisite: 5300:495. Lecture course providing the skilis and knowledge necessary for art education licensure. Student will gain knowledge in resume building, licensure requirements, and practical pedagogical techniques.
418 ADVANCED PRINTMAKING 3 crodits
(May be repeated for a total of 18 credits) Prerequisites: 145 and 317 . Lectures, demonstrations and experiments with more sophisticated printmaking techniques and applications. Concentration in one process as follows: lithograpiy, screen printing, relief, intaglio.
420 SCULPTURE PORTFOLO REVIEW
0 credits
Prerequisites: the first 422; corequisite: the second 422. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses.
422 ADVANCED SCULPTURE 3 credits
(May be repeated for a total of 15 credits) Prerequisite: 250 and 322. Development of individual points of view and scuiptural statements.
450 ADVANCED LIFE DRAWNG 3 credits
(May be repeated for a total of nine credits) Prerequisites: 335 . Drawing from the live model, with an experimentation leading to an individual style.
452 SERVICE LEARNING IN ART
3 credits
(May be repeated up to six credits) Prerequisite: Senior Standing. An interdisciplinary, iecture/studio course that integrates fine ant and design to promote understanding of the importance of sustained community outreach and serving as arts advocates.
454 ADVANCED CERAMICS
3 credits
(May be repeated for a total of 18 credits) Prerequisite: 250 and 354. Emphasis on refinement of technique toward personal aesthetic statement in preparation for professional ar private sudio production. Student may choose a general survey of subject matter or a more concentrated area of study.
455 ADVANCED PAINTING
3 credits
(May be repeated for a total of 15 credits) Prerequisites: 231, 348. Exploration of aesthetic and cort ceptual issues involved in developing an individual stylistic approach to image making, leading to senior portfolio and BFA exhibition.

456 CERAMICS PORTFOLO REVIEW 0 credits
Prerequisites: 454. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite courses.

466 ADVANCED METALSMITHING
3 credits
(May be repeated for a total of 18 credits) Prerequisites: 250 and 366. Investigation in depth of aesthetic and technical problems of metalsmithing. Student works on individual projects under guidance from instructor.

## 467 METALSMITHING PORTFOLIO REVIEW

ocredits
Prerequisite: one 466; corequisite: 466 A committee of full-time faculty review portfolio of studio work completed in prerequisite courses.

474 ADVANCED PHOTOGRAPHY FOR NON-ART MANOAS
3 credits (May be repeated up to 18 hours.) Prerequisite: 374. This course will allow students outside of the Myers School of Art to take advanced photography coursework without completing the prerequisites and review process required of art majors.
475 ADVANCED PHOTOGRAPHY
3 credits (May be repeated for a total of 21 credits) Prorequisite: 250 and 375. Photographic media, light and photographic equipment manipulated experimentally to produce creative graphic images. Student works under guidance of instructor on advanced individual projects.
476 PHOTOGRAPHY PORTHOLIO REVIEW
0 credits Prerequisine: 475. A committe日 of full-time faculty reviews portfolio of studio work completed in prerequisitefcorequisite courses.
477 ADVANCED PHOTOGRAPHY: COLOR
3 credits
(May be repeated for a total of nine credits) Prerequisite: 475. Advanced leval lecture, studio, and lab experience in coior photography introducing students to technical, aesthetic, and conceptual issues of the medium.
479 PROFESSIONAL PHOTOGRAPHIC PRACTICES
3 credits
Prerequisites: 475 and 318 or 320 . Students confront the business and marketing practices unique to the commercial photography industry while producing a photographically oriented selfpromotional campaign.
480 ADVANCED GRAPHIC DESIGN
3 credits
(May be repeated for a total of nine credits) Prerequisita: 388 or permission of instructor. Student works on advancedHevel individual projects under supervision of instructor.

481 DESIGN X NINE
3 credits
(May be repeated for a total of nine credits) Prerequisite: 388 . Course focusing on professional bust ness practices. Students chosen by pontolio review in junior year. Practical experience gained through working with clients and outside sources.
482 CORPORATE IDENTITY AND GRAPHIC SYSTEMS
3 credits Prerequisite: 384 and 388 . Advanced projects, in corporate identity, graphic systems analysis, design. Problem solving for these specific areas of graphic design within mechanical limitations of art reproduction.
483 GRAPHIC DESIGN PRESENTATION
3 cradits
Prerequisite: 482. Students prepare a professional portfolio and resume. The course indudes project development, portfolio review and exhibition.
494 LLUSTRATION
3 credits
(May be repeated for a total of nine credits) Prerequisite: 283 or permission of instructor. Application of painting and drawing skills and aesthetic sensitivity to specific commercial illustiztion and $\begin{aligned} & \text { ditorial art assignments. }\end{aligned}$
485 ADVANCED ILLUSTRATION
3 credits
(May be repeated for a total of nine credits) Prerequisite: 484 or permission of instructor. Advanced projects designed to tune student's personal aesthetic to communicative imagery. A more individual approach to design. Drawing and painting emphasized as is experimentation with mutimedia.

406 INTERACTIVE MULTMMEDLA DEVELOPMENT
3 credits
(May be repeated for a total of six credits) Prerequisite: 383. Utilizing two-and three-dimensional computer imagery, animation, video and audio, students will plan, develop and evaluate multimedia presentations, emphasizing scripting, sequencing and interectivity.
487 PACKAGNG DESIGN
3 credits
Prerequisite: 482 . Synthesis of two-and three-dimensional visual thinking. Research in materials applicable to packaging of various products. Assignment of proiects stressing development of conventionsl and experimental package design.
438 TYPOGRAPHY 4
TYPOGRAPHY 4
PTerequisite: 387 . Senior level investigation of publication design, promotional brochures, and annur ai reports trom concept to presentation. Focus on good concepts and problem-solving design.
488 SPECLAL TOPICS IN STUDTO ART
3 credits
(May be repeated for credit when a different subject or level of investigation is indicated) Prerequisite: Varies by course. Group Investigation of Topics not offered elsewhere in curriculum.
490/590 WORKSHOP IN ART
1.4 credits
(May be repeated for credit when a different subject or level of investigation is indicated to maximum of eight credits: 590 to maximum of 12 creditsł Prerequisite: advanced standing in art or permission of instructor. Group investigation of a particular phase of art not offered by other courses in curiculum.
491/591 ARCHITECTURAL PRESENTATIONS I
3 credits
Prerequisites: 144. Studio practice in architectural design and presentation methods in residential and commercial interiors.

## 492/592 ARCHITECTURAL PRESENTATIONS II

3 credits
Prerequisites: 491/591. Contimuation of concepts covered in Architectural Presentations I with additional work in color rendering techniques. Emphasis on a variety of rendening mediums.
495 SENIOR EXHIBTION
0 credits
Prerequisite: senior standing and permission. Exit review of work from B.F.A. candidate's major courses.

494 SPECIAL TOFTCS: ART EDUCATION
13 credits
Prerequisites: varies by course. May be repeated for credit (up to 6 credits) when a different subject or level of investigation of topics of interest to the art education student is not covered else where in the curriculum.
496 ART INTERNSHIP/PROFESSIONAL EXPERIENCE requirement for completion of any art department major.) Prerequisites: junior level in major program and permission of Internship Director. In-depth professional training affording the intern onthe job experience in selected areas of specialization.

497/597 INDEPENDENT STUD

## 3 credits

(May be repeatable for 7 credits). Prerequisites for art majors: completion of at least one advanced course in the major with a grade of A or A - and permission of instructor. Investigation in depth of aesthetic and technical problems within a studioselected area of specialization. Student must present in witing a proposed study plan and time schedule for instuctor approval. Prerequisites for non-art majors: permission of instructor.
498/598 SPECIAL PROBLEMS IN HISTORY OF ART
1.3 credits
(May be repeated for credit when a different subject or level of investigation is indicated) Prerequisites: 14 credits in art history and permission of instructor. Individual research in art history centered around limited topic, such as specific time period, history of specific techniques, a single artist or movement in art history. No more than 10 credits will be counted toward major.
499 HONORS IN ART
3 credits
(May be repeated for a total of six credits) Prerequisites: senior standing in the Honors College. and approval of honors project by faculty preceptor. To be used for research in the Honors College estabished by student and his/her adviser(s).

## FAMILY AND CONSUMER SCIENCES

## 7400:

123 FUNDAMENTALS OF CONSTRUCTION 3 credits
Basic theory and application of construction fundamentals, including experiences with patterns and specialty fabrics

125 PRINCIPLES OF APPAREL DESIGN . 3 credits
The study of contemporary apparel design and the relationship of design elements and principles to persoral characteristics and socialprofessional orientation.

132 EARLY CHIDHOOD NUTRTION
3 credits
Emphasis on nutrition as component of Early Childhood programs. Nutrition principles discussed in relation to self and young children. Prenatal and infant nutrition studied. Food as learning experience, menu planning, purchasing, sanitation, food labeling, storage and parent involvement included. For Family and Child Development Option, and an educational technolpgy student.
133 NUTRTIION FUNDAMENTALS
3 credits
Study of basic nutrition concepts, contemporary issues, controversies; emphasis on macro/micro nutrient requirements for heathy individuals; analysis of a student's dietary intake.
139 THE FASHION AND FURNISHINGS INDUSTRIES 3 credits Overview of fashion and furnishings industries including production, distribution, promotion, and the impact of cuitural influences. Discussion of career cepportunities.
141 FOOD FOR THE FAMMLY 3 credits
Application of nutrition to meal planning: problems in selecting, budgeting and preparing food: meal service.
147 ORIENTATION TO PROFESSIONAL STUDIES IN FAMILY AND
1 credit CONSUMER SCIENCES
Survey of histoy and development of family and consumer sciences with emphasis on professional and career opportunities.

158 INTRODUCTION TO INTERIOR DESIGN 3 credits
Introduction to interior design studies with emphasis on developing basic skills and competencies required for residential design.
201 COURTSHIP, MARRIAGE AND THE FAMILY 3 credits Love, intimacy, relationship development, sexuality, marriage/child rearing are studied in lifespan perspective. Emphasis placed on individual relation to changing family/social/cultural demands.
219 DRESS AND CULTURE
3 credits
Study of cultural, social, psychological and economic aspects of ciothing. Emphasis on expression and use of clothing in relation to seff, society and culture. Lectureldiscussion.
225 TEXTILES
3 credits
Basic study of natural and manufactured fibers. Emphasis on physical properties, selection and care. Attention given to design and manufacture of textiles. Lecture/Laboratory.
226 TEXTILE EVALUATION
3 credits
Prerequisite: 225. Evaluating method, quality, and necessity of dyes, finishes, other coloration techniques and designs.
241 INTRODUCTION TO FAMILY AND CONSUMER SCIENCES EDUCATION 3 cradits Introduction to the teaching of Family and Consumer Sciences in the secondary schools. Emphasis on state standards, current trends, and societal factors affecting career-technical programs.
250 FOOD SCIENCE LECTURE AND LAB
4 credits
Prerequisites: 133; $3150: 110,111$. Study of the chemical and physical structure of food. Scientific and aesthetic principles involved in the selection, storage, and preparation of foods. Lecture and laboratory combined.
255 FATHERHOOD: THE PARENT ROLE
3 credits
Prerequisites: 201 or 265 . Historic evolution of the father role, its changing social definition, and father's potential effects on a child's development-birth through adolescence. (Online course)
257 AUTOCAD FOR INTERIOR DESIGN 3 credits
Prerequisites: 158 or permission from instructor. An introductory course in computer drafting as an attermative to conventional drafting for interior design applications.
258 LGGHTIN MANHADE ENVIRONMENTS
3 credits
Prerequisites: $\mathbf{3 3 1}$ and 2940:250. Comprehensive study of the essential principles of light in a threedimensional context for man-made environments.
259 FAMMY HOUSING
3 credits
A study of three basic aspects of family housing: physicaldesign, financiahegal, and sociological.

265 CHILD DEVELOPMENT
3 credits
Physical, cognitive, language, social, emotional, and personality development of the child from prenatal through age eight. Observation of children in early childhood educational settings.
270 THEORY AND GUIDANCE OF PLAY
3 credits Prerequisite: 265. Theory and guidance of play as primary vehicle and indicator of physical, intellectual, social, emotional development and leaming of children from bitth to kindergarten.
280 EARLY CHILDHOOD CURRICULUM METHODS
3 credits Prerequisite: 265. Planning, presenting, evaluating creative activities in art, music, movement, language arts, logico-mathematics and science. Space, time, materials and adult-child interaction are emphasized.
295 DIRECT EXPERIENCES IN THE HOSPTTAL
3 credits
PTerequisite; permission of adviser. Individual leaming expeniences for students with patients, their families and the hospital personnel in various hospital settings under the direction of hospi tal and University staff.

296 HOSPTAL BASED CHILD DFE
5 credits
Prerequisite: permission of adviser. This course focuses on the hospital setting, introducing the student to the role of the child life specialist in the hospital. May be repeated up to 2 credits.
300 LEGAL ENVIRONMENT OF FANHLLES
3 credits
introduction to legal terminology, reasoning and analysis, court systems and procedures within the context of family and consumer law.

301 CONSUMER EDUCATION 3 credits
Study of consumer needs, concerns and problems as related to individual consumer, to corsumers in the market economy and to the complex society in which families function.

## 303 CHIDPEN AS CONSUMERS

3 credits
Study of the consumer role of children three through eighteen years. Emphasizes research data on children as consumers and consumer education for children.

305 ADVANCED CONSTRUCTION AND TAHOPNG : 3 credits Prerequisite: 123. Advanced theory and principles in construction of couture garment. Construction of coat or suit jacket utilizing custom taikoring techniques. Two hours lecture, four hours laboratory.

310 FOOD SYSTEMS MANAGEMENT I
5 credits
Prerequisites: 250; 6200:201 or 2420:211 or permission; corequisite: 315. Basic theoretical concepts in the management of dietetic food service systems and the practical application of principles and procedures in quantity food production and service.
311 SEMMNAR WN FBER ARTS
3 credits
Exploration of a specific fiber arts technique such as needle arts, weaving, surface design, wearable art, or machine stitchery. (May be repeated for a total of nine credits)
315 FOOD SYSTENS MANACEMENTICLINCAL
2 credits Prerequisite: 250; corequisite: 310. Development of quantity food preparation and supervisory skills in community agencies; identification of functions and resources involved in the management of food service systems.
316 SCIENCE OF NUTRITON
4 credits Prerequisites: $3100: 202,3150: 113$, or instructor permission. In-depth characterization of composition, metabolism, physiological functions and interrelationships of nutrients. Analysis and interpreta tion of current literature; assessment of nutrition courseling techniques.
320 CAREER DECISIONS W NUTRTION
1 credit
Exploration of the nutition/dietetics profession, including academic/intemship routes, career opportunities, professional concepts and attributes. Self-assessment and goal setting with beginning portfolio development.
321 EXPERIMENTAL FOODS
3 crodits
Prerequisites: 250; 3150:110,111, 112, 113. Theory and methods in the experimental study of foods. Sensory evaluation and instrumental analysis of food quality. Individual research emphasized. Lecture/Laboratory.

328 NUTRTION N MEDICAL SCEENCEI
4 credits
Prerequisite: 133 or $316,426,443$ or by permission. Analysis of therapeutic health-care concepts. Consideration of nutritional irnplications of pathological conditions; construction of diets for specific disorders.
329 NUTRITION IN MEDICAL SCHENCE I CLINICAL 2 crodits (credit/honcredit) Prerequisites: 316 or 426. CP student only; corequisite: 328. Clinical experiences in area hospitals for application of principles of nutritional care leamed in 328.
331 NIERIOR DESIGN THEORY
3 credits
Prerequisites: 147,158,259; 7100:144. A comprehensive study of interior design theories and applit cation in the built environment.
333 PROGRANMING AND SPACE PLANNHNG
3 credits Prerequisites: $147,158,259,331 ; 7100: 144,491 ; 2940: 250$. A comprehensive study of space plarning principles and the programming phase of the design process.
334 SPECIFCATIONS FOR INTERIORS I
3 credits Prerequisites: 225,257,258,331,333: 7100:491,492: 2940:250. A comprehensive study of composition, characteristics, manufacture, dimensions and use, bi-products, installation, and specifications of interior construction materials.
335 SPECIFRCATIONS FOR INTERIORS 4
3 credits
Prerequisites: 334. A comprehensive study of interior finish material with emphasis on soft goods and textiles, selection criteria, estimating, and writing specifications.
336 PRRINCIPLES AND PRACTICES OF DESIGN
3 credits
Prerequisites: 333,334 . Study of the business of interior design to include initiating and maintaining a successful practice in residential or non-esidential design.
337 INTERIOR DESIGN CONTRACT DOCUMENTS
3 credits
Prerequisites: $225,257,258,331,333$ : 7100:491,492: 2940:250. A comprehensive study of contract documents and work drawings required for the design of interior spaces. Emphasis on threedirnersional representation.

340 MEAL MANAGEMENT
2 credits
Prerequisites: 250 or 141 . Emphasis is on meal design, etiquette, nutritional adequacy, and application of management principles. Resource management is applied to all course activities, including restricted financial and special diet situations.
352 STRATEGC MERCHANDISE PLANNENG 3 credits Prerequisite: General Math Requirement. The fashion buyer's role in merchandise management and decision making with spreadsheets and merchandise mathematics incorporated into computer simulations.
360 PARENT-CHILD RELATIONS
3 credits
Prerequisite: 265. The study of interactive parent-child relations from infancy through adult hood and the intemal and environmental forces which impect upon family dynamics. (Online course)
362 FANLLYLIFE MANAGEMENT
3 credits
introduction to management theories, processes and principles as applied to utilization of human and material resources in promotion of individual and family well-being.
365 INFANT, FAMILY AND SOCIETY
3 credits
Prerequisite: 265. In-depth examination of physical, cognitive, language, social and emotional development of the infant from prenatal through 24 months. Observation of infants in daycare settings.
400 NUTPRTION COMMUNICATION AND EDUCATION SKILLS
4 credits
Prerequisites: 133 or 316. Theory and development of communication and education skills essential to dietetics practice; interpersonal communication; interviewing; nutrition counseling; education techniques, media, and current technology.
401 AMERICAN FAMILES N POVERTY 3 credits
Overview of the issues, trends and social policies affecting American families living in poverty.
403 ADVANCED FOOD PREPARATION
3 credits
Prerequisite: 141 or $\mathbf{2 5 0}$ or permission of instructor. Study of advanced techniques of food preparation. Introduction to and interpretation of classic and foreign cuisines. Emphasis on individualized experience, skill development and evaluation of procedures and results.
404 MIDDLE CHIDHOOD AND ADOHESCENCE
3 credits
Prerequisites: 207, 265 or permission of instructor. The influences of middle childhood and adolescent behavior on the family and the influences of the family environment on middle childhood and adolescent development.
406 FAMILY FINANCIAL MANAGEMENT
3 credits
Analysis of the family as a financial unit including financial problems and their resolution, deci-sion-making pattems and financial practices behavior. Cases, exercises, probtems and computer analysis.
407 FCS OCCUPATIONAL EMPLOYNENT EXPERIENCE
4 credits
Provides student with knowledge of curent business and industrial practices at level minimally commensurate with employment expectations of graduates of vocational job training programs in Family and Consumer Sciences.
412 INSTITUTIONAL MANAGEMENT
3 credits
Organization and management in administration of food service systems; problems in administration of food service systems; problems in control of labor, time and cost. Field experience in food production.
413 FOOD SYSTEMS MANAGEMENT II
3 credits
Prerequisite: 310. Advanced concepts in management of dietetic service systems relating to achievement of nutritional care goals.

414 FOOD SYSTEMS MANAGEMENT H CLINICAL
3 credits (credit/noncredit) Prerequisite: 315; corequisite: 413. CP students only. Application of advanced food systems management concepts in community dietetic food service facilities; preparation for entry-level staff positions as administrative dietitians; clinical experience for 24 hours per week for 10 weeks of semester.
418 HISTORY OF INTERLOR DESIGN 1
4 credits
The study of furnishings, interiors, and architecture from antiquity through the eighteenth centlV , with emphasis on the sociat-cultural influences shaping their development.
419 HISTORY OF INTERIOR DESIGN II
4 credits
The study of 19th- and 20th-century fumishings, interiors, and architecture, with emphasis on the socialcultural influences shaping their development.
421 SPECLAL PROBLEMS IN FAMLY AND CONSUMER SCIENCES . $1-3$ credits Additional study or apprentice experience in specialized field or preparation; group and individual experimentation.
422 TEXTILES FOR INTERIORS 3 credits
Prerequisite: 225. Evaluation of physical, aesthetic, comfort, care and durability properties of textile products and testing procedures to determine suitability for interiors.
423 PROFESSIONAL IMAGE ANALYSIS
3 credits
Prerequisites: Senior status. Comparison of theories associated with projecting and maximizing an appropriate professional image consistent with career goals and objectives.
424 NUTRMION IN THE LFE CYCLE
3 credits
Prerequisite: 316 or 426, or permission of instructor. Study of the physiological basis for nutritional requirements; interrelating factors which affect growth, development, maturation and nutritional status from conception through the-elderty years.
425 TEXTILES FOR APPAREL
3 credits
Prerequisite: 225, 226. Evaluation of physical, aesthetic, comfort, care, and durability properties of textile products and testing procedures to determine suitability for desired end uses.
426 HUMAN NUTRITION
3 credits
Prerequisites: $133,3100: 202,203,3150: 112,113$, or instructor's permission. Corequisite: 443. Application of principles of nutrition, metabolism and assessment. Analyses and interpretation of current literature. Open to dietetics majors only.
427 GLOBAL ISSUES IN TEXTILES AND APPAREL
3 credits
Prerequisite: 139. Examines the global structure and scope of the textile and apparel industries emphasizing an economic perspective.

428 NUTRTTION IN MEDHCAL SCIENCE
5 credits
Prerequisite: 328. Continuation of 328 . Emphasizing nutritional implications of more complex metabolic and pathological conditions as well as nutrition support strategies.

429 NUTRITION IN MEDICAL SCIENCE II CLNICAL. 3 credits (credit/noncredit) Prerequisites: 329, CP students only; corequisite: 428. Clinical experience in hospitals; application of principles of nutritional care leamed in 428.
430 COMPUTER-ASSISTED FOOD SERVICE MANAGEMENT 3 credits Use of computer programs in application of management concepts for food service systems.

## 431 PROFESSIONAL PRESENTATION SKILLS

IN FANILY AND CONSUMER SCHENCE
3 crodits
Prerequisite: 141 or 250 . Emphasis on development of abilities and strengths in coordination of equipment, materiais, motion, speech, and presentation delivery relating to education and industry in Family and Consumer Sciences.
433 SENIOR DESICN STUDHO I
3 credits
Prerequisites: 334,335,336,337,422. A comprehensive study of residential design with emphasis on conceptual, analytical, and graphic skills.
434 SENOR DESIGN STUDNO H
3 credits
Prerequisites: $334,335,336,337,422$. Advanced space planning and problem solving experiences for application in nonresidential design.
435 DECORATIVE ELEMENTS WN INTERIOR DESIGN 1 credit
Prerequisites: $334,335,336,337,418,419,422$. The selection and application of decorative elements in the built environment.
436 TEXTILE CONSERVATION
3 credits
Prerequisites: 123,225 . Principles and practices of textile conservation with emphasis on proce dures appropriate for collectors and small historical agencies.
437 HISTORIC COSTUME
3 credits
Study of costume and textiles from antiquity through the 18 th century, with emphasis on social/cultural influences.
438 HISTORY OF FASHION
3 credits
Study of westem fashions, textiles, and designers with emphasis on social-cultural influences.
439 FASHION ANALYSIS
3 credits
Prerequisite: 125, 139. In-depth study of resources and processes for the analysis and forecasting of fashion trends. Emphasis on current designers and environmental forces that influence fashion.
440 FAMILY CRISIS
3 credits
Study of farrily stress and crisis inctuding internel and extemal variables and their influence on degree of disorganization, coping and recovery. Incuides theory, research and application dimensions.
441 FANHLY RELATIONSHIPS IN MIDDLE AND LATER YEARS
3 credits
Exploration of family and individual development of communication and education during the middle and later years of life. Emphasis on issues related to intimacy, economics, social policies, psychoological and biological changes.
442 HUMAN SEXUALITY
3 credits
Prerequisite: 201 or permission of instructor. Introduction to problems and values. Emphasis is on the role of values in intimate relationships, the diverse dimensions of sexual responsibility.
443 NUTRTION ASSESSMENT
3 credits
Prerequisites: 133, 3100:202, 203, 3150:112,113. Corequisite: 426 or instructor permission
Application of principles of nutrition and assessment. Analysis and interpretation of current litera ture. Open to dietetics majors only.

44 NUTRIION IN MEDICAL SCIENGE LONG-TERM CARE - CLINICAL 2 crodits Prerequisites: CP students only: 328 and 329 . Clinical experiences in long-tern care facilities for application of principles of nutritional care learned in 7400:328.

446 CULTURE, ETHNICTTY AND THE FAMILY
3 credits
Study of the roie of culture and ethnicity in adaptation of the family system to environment. Program applications considered.

447 SENIOR SEMINAR: CRITICAL ISSUES WN PROFESSIONAL DEVELOPMENT 1 credit Prerequisites: 147 and senior standing. Consideration of family and consumer sciences as a profession and its impact on the quality of life of individuals, families and their environments. Analysis of challenges facing the profession and all home economists.
448 BEFORE AND AFTER SCHOOL CHILD CARE 2 credits
Study of the develiopment, implementation and evaluation of schoolage child-care programs for before and after school and vacation periods.
449 FLAT PATIERN DESIGN
3 credits
Prerequisite: 123. Theory and experience in clothing design using flat pattem techniques.
450 FAMILES, INDVIDUALS AND ENVIRONMENTS
3 credits
Prerequisite: Senior standing or completion of 90 credits. Integrative exploration of issues affecting the well-being of individuals, families, and communities in the multiple environments in which țhey function.
451 CHID IN THE HOSPITAL
4 credits
Prerequisite: 265, comparable course or permission of instructor. Seminar dealing with special needs and problems of hospitalized/ill child and family. Literature related to effects, seperation, illness and stress. Examination of strategies for coping.
452 CHID, ILLNESS AND LOSS
3 credits
Prerequisite: Senior level standing. This course examines the phenomena of illness, loss and bereavement in modem society with a special emphasis on children and families.
453 FACILTATRNG SUPPORT GPOUPS
.3 credits
Prerequisite: Senior level standing. Theories, strategies and skills needed to facilitate support groups for children and for adults are studied using a variety of approaches including participation in a support group.
455 PRACTICUM EXPERTENCE W A CHMD-UFE PROGRAM
Prerequisite: 451. Field experience in a child ${ }^{\text {life }}$ program and classroom activities including critcal analysis of a currently functioning program and program administration.

458 SENIOR DESIGN STUDIO II
3 credits
Prerequisites: $334,335,336,337,422$. A comprehensive study of the nonresidential design with emphasis on conceptual, analytical and graphic skills.

459 SENIOR DESIGN STUDIO IV 3 credits Prerequisites: 334,335,336,337,422. Advanced space planning and problem solving experiences for application in residential and nonresidential design.
460 ORGANIZATION AND SUPERVISION OF CHILD CARE CENTERS 3 crodits Theory, principles and procedures involved in establishing and operating centers for infants, toddlers, preschool and schootage children.
470 THE FOOD INDUSTRY: ANALYSLS AND FRELD STUDY 3 credits Prerequisite: 250 or permission. Role of technology in extending the food supply. Chemical, physical and biological effects of processing and storege, on-site tours of processing plants.
474 CULTURAL DHMENSIONS OF FOOD
3 credits
An examination of cultural, geographical and historical influences on development of food habits. Emphasis on evolution of diets; effects of religion, education, gender roles, media.
475 ANALYSIS OF FOOD
3 credits
Prerequisites: 250 and $3150: 113$. Theory and practice of food analysis by classical and modern chemical and instrumental methods. Principles illustrated by experimentation and demonstra tion.
476 DEVELOPMENTS IN FOOD SCIENCE
3 credits
Prerequisite: 250. Advanced study of the chemistry and physics of food components, affecting characieristics of foods. Critical evaluation of current besic and applied research emphasized.
478 SENIOR PORTFOLO REVIEW
1 credit
Prerequisites: permission. Corequisites: 434, 459. The development of the interior design portcio.
479 THE NCIDO EXAMINATION
1 credit
Prertquisites: permission. The course is designed to help candidates prepare for the National Council for for interior Design Qualification Examination..
460 COMMUNTY NUTRITION I LECTURE
3 credits
Perquisites: 316 or 426 . Corequisite: 481 for CP students only. Major food and nutrition related problems in the community. Emphasis on community assessment, program implementation and evaluation, and rationales for nutrition services.

481 COMMUNTY NUTRITION I CUNHCAL
1 credit (credit/noncredit)
Prerequisite: CP students only; 428. Corequisite: 480. Field placement in area agencies offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care.
482 COMMUNTY NUTRITION H LECTURE
3 credits
Prerequisite: 480 . Corequisite: 483 for CP students only. Activities engaged in by community nutritionist. Emphasis on controversies, cultural differences, educational approaches, grants manship, marketing, and working with the media.
483 COMMUNTTY NUTRITION H CLNICAL
1 credit (credithoncredit) Prerequisite: CP students only; 481. Corequisite: 482. A second field placement in an area agency offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care.
484 HOSPITAL SETTINGS, CHIDREN AND FAMILES 3 credits Prerequisite: 265, comparable course or permission of instructor. Focuses on hospital as a major social institution; introduces procedures and functions of the hospital; roles played by various hospital personnel plus cursory knowledge of medical terminology, common childhood diseases, illnesses and injuries.
485 SEMINAR IN FAMILY AND CONSUMER SCIENCES
1.3 credits Prerequisite: permission of instructor. Exploration and evaluation of current developments in selected areas.
486 STAFF REUEF: DIETETICS
1 credit (creditnoncredit) Prerequisites: 414, CP senior only. Opportunity to function as an entry-fevel diatitian in area of administrative, therapeutic or community dietetics. The graduating senior CUP student spends two 40 hour weeks in a mutually agreeable agency primarily under direction of staff dietitians or coordinators.
487 SPORTS NUTRITION
3 credits
Prerequisites: 133; 3100:202,203; 3150:112,113 or 203 or permission of instructor. In-depth study of energy metabolism and utilization before, during, and after exercise. Factors affecting nutrient needs and peak performance of different athletic populations are emphasized.
468 PRACTICUM IN DIETETICS
$1-3$ credits
Prerequisite: approval of adviser/instructor. Practical experience in application of the principles of nutrition.
489 PROFESSIONAL PREPARATION FOR DIETETICS
1 credit
Historical aspects of dietetics and where the profession is going. Specialty areas of dietetic practice are explored. Students prepare the application for dietetic internship.
490 WORKSHOP IN FAMILY AND CONSUMER SCHENCES 1.3 crodits Prerequisite: at least junior standing. Investigation on current issue or topic in selected areas of family and consumer sciences and family ecology. May be on off-campus study tour or an oncampus full-time group meeting.
491 CAREER-TECHNICAL FCS INSTRUCTIONAL STRATEGIES
3 crodits Prerequisite: Senior standing or permission of the instructor. Organization of Career-Technical Family and Consumer Sciences programs in public schools grades 4-12. Emphesis on strategies, compliance with state career-technical directives, student organizations, and program planning.
492 CAREER-TECHNICAL FCS JOB TRANHNG INSTRUCTIONAL STRATEGES 3 crodits Organization of Career-Technical Work Force Development Family end Consumer Sciences programs in public high schools and career-technical schools. Emphasis on strategies, compliance with state career-technical directives, students organizations, program planning, workplace replication and classroom observations.
493 NUTRITION FOR ATHLETES
3 credits
Study of metabolism before, during and after exercise. Factors affecting nutrient needs and peak performance of different athiletic populations are emphasized.

494 INTERNSHIP: FAMILY AND CONSUMER SCIENCES 1 credit
(May be repeated tor up to six credits) Prerequisite: permission of the instructor. In-depth field experience in business, industry, or community agencies relating to the student's area of specialization.
495 INTERNSHIP: GUIDED EXPERIENCES IN CHLD-LIFE PROGRAM 8 credits Prerequisite: 455. Field experience in a childifite program at an approved pediatric facility under the supervision of Child Life Specialists.
496 PARENT EDUCATION
3 credits
Prerequisite: 265, comparable course or permission of instructor. Practical application that reviews and analyzes various parenting techniques with major emphasis on the evaluation of parent education programs.
497 INTERNSHAP: FAMILY AND CONSUMER SCIENCES $\quad 2-6$ credits Prerequisite: pernission of instructor. In-depth field experience in business, industry or community agencies related to student's area of specialization.
498 STUDENT TEACHING SEMINAR
1 credit
Corequisite: 5300:495. Seminar for students currently enrolled in Family and Consumer Sciences student teaching. Emphasis on block and lesson plan development, licensure, portolio development, Praxis III, professional development, and student teaching reflections.
499 SENWOR HONORS PRONECT IN FAMILY AND CONSUMER SCIENCES
$1-3$ credits (May be repeated for a total of six credits) Prarequisites: senior standing in Honors College and approval of honors preceptor. Individual study supervised by adviser. Student and preceptor develop goals, objectives and methodotogy.

## MUSIC

## 7500:

100 FUNDAMENTALS OF MUSIC 2 credits Introduction of basic notation and development of functional music reading and keyboard skills. Conducted in electronic keyboard laboratory with computer-assisted instruction available. For non-music majors only, with little or no previous musical training.
101 INTRODUCTION TO MUSIC THEORY
2 credits Prerequisite: Undergraduate Theory Placement Examination. Designed for prospective music major to correct deficiencies in theory background as determined through department placement testing. Includes classroom instruction and computer-assisted instruction in basic notation, scales, meter, key signatures, ear training and basic familiarity with the keybosrd. Credit not applicable toward music degree.
102 MITRODUCTION TO MUSIC EDUCATION
2 credits
Prerequisites: 121, 154. Overview of the music teaching profession and its processes. Screening of degree candidates is built into the course along with clinical field experience.
103 TRENDS IN JAZZ
2 credits An overview of the first 100 years of jazz music with emphasis on major figures and styles cen tral to the development of jazz. This course is specifically designed for the non-music major.
104 CLASS PLANO I
2 credits
Prerequisite: 101 or permission of instructor. Designed for student with no previous keyboard experience to leam rudimentary keyboard skills such as playing scales, chords, arpeggios and melodic pattems as well as simple music.
105 CLASS PIANO il
Pterequisite: 104 or permission of instructor. Continuation of work begun in 104.
2 credits

2 credits
Prerequisite: 101 or permission of instructor. Minimum memorization and solo singing requirement: seven songs. Voice Jiterature emphasis; folk songs, ballads, spintuals, sacred songs and easy art songs in English.
108 CLASS VOICE H
2 credits
Prerequisite: 107. Minimum memorization and solo singing requirement: eight songs. Vocal literature emphasis: old Italian and English songs, art songs in English or foreign language if student is conversant with the language.
110 CLASS GUITAR . 1 credit Introduction to the guitar, its repertoire and techniques. Basic classical techniques and music reading, strums, finger-picking, accompaniment pattems, blues styles will be covered.
121 THEORY AND MUSICIANSHIP I
4 credits
Sequential. Prerequisite: Theory Placement Examination (65\%) or Introduction to Theory (70\%) Analysis, auraloral skills; Diatonic pitch materials, three clefs; simple-compound meters, thythmic divisions and subdivisions.
122 THEORY AND MUSICIANSHIP II
4 credits
Sequentiai. Prerequisite: 7500: 121, Theory and Musicianship I (70\%). Theory, analysis, aural/oral skills: Seventh chords, secondary function, four-part dictation; asymmetric meters, borrowed subdivision.
154,5 MUSNC UTERATURE I, II
2 credits aach
Sequential. Familiarization with large body of musical material from all branches of music witing; vocal, instrumental, symphonic and choral music literature. Special attention given to style, form and structural procedures of principal composers.
157 STUDENT RECTAL
0 credits
Required of all music majors until minimum requirement is met. Forum for student and faculty members providing lectures, recitals and opportunity for practice of various skills necessary for successtul music performance

201 EXPLORING MUSIC: BACH TO ROCK
3 credits
Prerequisite: $3400: 210$. This course provides non-music majors with the skills to evaluate a wide range of music.

210 JAZZ HAPROVISATION I
2 credits
Prerequisites: 262 and permission of instructor. Study and application of principles of jazz improvisation as they relate the chord-scale structures, motif development and styie.

211 JAZZ IMPROVISATION\#
2 credits
Prerequisite: 210. Advanced study in principles of jazz composition
212 THE MUSK INDUSTRY: A SURVEY OF PRACTICES AND OPPORTUNTRES 2 credits A study of current practices affecting the professional musician and a survey of career opportunities relating to the music industry.
221 THEORY AND MUSICIANSHP hil 4 credits
Sequential. Prerequisite: Theory and Musicianship H (70\%). Theory, analysis, and aural/oral skills: Chromatic hamony, dictation of mixed and irregular meters, syncopation, dotted ihythms, and ties.
222 THEORY AND MUSICIANSHIP IV
4 credits
Sequential. Prerequisite: Theory and Musicianship III ( $70 \%$ ). Theory, analysis, and aural/oral skills: Advanced chromaticism and rhythm, extended tonality, form, serial and non-serial atonality.
254 STRING METHODS I
1 credit
Prerequisites: 102, 155, 222, 262, 276, 277. Fundamentals of technique, tone production, methods, and materials pertaining to teaching violin, viola, cello and string bass in the public schools.

255 STRING METHODS II
1 credit
Prerequisites: 102, 155, 222, 254, 262, 276, 277. Continuation of the fundamentals of technique. tone production, methods, and materials pertaining to teaching violin, viola, cello and string bass in the public schools.

259 FRETBOARD HARMONY
2 credits
Prerequisite: 261 or permission of instructor. Essentials of basic theory and harmony as applied to the guitar fretboard: accompaniment, improvisation, transposition, modulation, figures bass, sight reading.
261,2 KEYBOARD HARMONY $I$, н
2 credits each Sequential. Prerequisites: 105 or equivalency and 122. Essentials of basic theory and harmony practically applied at keyboard; accompaniment, improvisation, transposition, modulation and sight-reading.
263 SERVICE PLAYING FOR ORGANISTS
2 credits
Prerequisites: 122 and 261. Practical course in basic keyboard skills needed by organist to play for religious services in various denominations. Hymn playing, anthem accompaniment and simple improvisation.
285,6 DICTION FOR SHNGERS I
2 credits each
Sequential. Prerequisite: permission. Study of diction of the four most used languages (Italian, German, French and English) in vocal performance and international phonetic alphabet. Designed for student who expects to function as vocal performers and/or choral and studio voice teachers.

268 GROUP VOCAL TECHNOUES FOR CHORAL MUSIC EDUCATION 2 credits Prerequisites: $\mathbf{7 5 1 0 : 1 2 0}$ or 121,$7520 ; 124$. Corequisite: 265. Foundational concepts of group vocal techniques. Designed for choral educators to learn physiology of the voice, besics of vocal production, and application for the Pre-K -12 choral classroom.
271 PLANO PEDAGOGY AND UTERATURE I 2 credits
Prerequisite: permission of instructor. Examination of musical content and pedagogical orientetion of beginning piano material to include appropriate teaching works, methods and ensemble pieces from a variety of historical periods.
272 PLANO PEDAGOGY AND UTERATURE \& 2 credits
Prerequisite: 7520:125 or permission of the instructor. A survey of piano literature at all levels of difficulty, with practical emphasis on its use for teaching.
276 TRUMPET AND FRENCH HORN METHODS 1 credit Prerequisite: 102. A comprehensive approach to the performance and pedagogy of the trumpet and French hom for the instrumental music education major in preparation for teaching music.
277 CLARINET/SAXOPHONE METHODS 1 credit Prerequisite: 276. A comprehensive approach to the performance and pedagogy of the clarinet and saxophone for the instrumental music education major in preparation for teaching music.
289 MUSIC EDUCATION DEPARTMENT JURY
0 credits
Prerequisites: minimum 2.5 acum, $C$ or higher in all freshman/sophomore music education coursework and a minimum 200 jury level. Sophomore exam for music education majors.

298 TECHNOLOGIES OF MUSAC EDUCATION
2 credits
Introductory hands-on experiences with a wide range of technology applications and strategies to integrate technology into the music curniculum.
305 MARCHING BAND ORGANIZATION AND TECHNIQUE
Prerequisite: Two semesters 7510:126; 289. A discussion of the marching band. Students leam to write complete half-ime show, administer marching band program. Required for instrumental music education majors.

307 TECHNOUES OF JAZZ ENSEMBLE PERFORMANCE AND DIRECTION
1-2 credits Prerequisite: 102, 155, 222, 252, 262, 276, 277, 305; permission of instructor. Basic experiences relating to conducting, rehearsal techniques, improvisation, performance, repertoire and other matters related to organization and direction of stage bands. Required for instrumental majors.

308 THE HISTORY AND LIERATURE OF JAZZ
3 credits
Prerequisite: permission of instructor. Study of origins of jazz music, its development and influence on today's culture. Investigates avolution of musical instruments as they pertain to jazz music, the artists who perform on them, and their music through live and recorded listening experiences.
309 JAZZ KEYBOARD TECHNLOUES 2 credits
Prerequisite: 262. Study of and familianization with basic jazz keyboard techniques as they relate to contemporary jazz harmony and theory.
310 JAZZ IMPROVISATION HI
2 credits
Prerequisite: 211. Advanced study in the principles of jazz improvisation.
311 JAZZ IMPROVISATION IV
2 credits

316 EOUTTY \& EXCELLENCE RN MUSIC EDUCATION
3 credits
Prerequisite: 289. Inquiry-based seminars and service learning field experiences for the music education major to develop competence implementing equity and excellence in a cuiturally pluralistic society.
320 MUSICAL THEATRE HISTORY AND LTERATURE I
2 credits
From the beginning of Musical Theatre through the 1800 s, musicals will be examined for emerg ing trends and styles in music, dance, and theatre.
325 RESEARCH IN MUSIC
2 credits
Prerequisites: $155,222,262$. Techniques of basic research methods; examination of selected music materials; field trips to specialized collections.
339 TEACHANG GENERAL MUSICI
2 credits ( 30 clinical hours, 20 field hours
Prerequisites: 222, 262, 289. Methods and materials for teaching general music in pre $K$ to 12th grade classrooms.
340 TEACHING GENERAL MUSIC : 2 credits ( 25 clinical hours, 10 field hours) Prerequisites: 289, 339. Advanced methods and materials for teaching general music with emphasis on Orff, Kodaly and Dalcroze methodologies.
341 JH/MS CHORAL METHODS
2 credits
Prerequisites: 289, 340. Methods and materials for teaching choral music at the JH/MS level Develops competencies in literature selection, rehearsal techniques and assessment of the adolescent voice.

344 SECONDARY CHORAL METHODS 2 credits
Prerequisites: 351, 361. Methods, techriques, and materials for teaching secondary choral music Develops competencies in literature, selection, rehearsal techniques, and programming methodology.

345 LOW BRASS METHODS
1 credits
Pterequisites: 222, 262,277,289. A comprehensive approach to the pedagogy and performance of the low brass for the instrumental music education major in preparation for teaching music.
346 FLUTE AND DOUBLE REED METHODS
1 credits
Prerequisites: 289, 339,345,351. A comprehensive approach to the pedagogy and performance of the flute and double reeds for the instrumental music education major in preparation for teaching music.
351,2 MUSC HSTORY I, H
3 credits each
Sequential. Prerequisites: 122, 155. Development of music from ancient to modern times; scores, recordings and live performances as illustrative material.
353 ELECTRONIC MUSIC 3 credits
Theory of electronically generated sound and practice of electronic music composition. Emphasis is on understanding digital and analog synthesizers in a MIDI recording studio.
381 CONDUCTING
2 credits
Prerequisites: All Majors - 155, 222, 262; Vocal - 289, 351 or permission; Instrumental 254, 346, 352, 454 or permission. Study and practice of conducting techniques; patterns, fermatas, tempo and dynemic chenge, attacks and releases, score reading, aural skills. One hour lab required.

363 INTERMEDIATE CONDUCTING: CHORAL
2 credits
Prerequisite: 361 or instructor permission. Introduction to choral conducting with emphasis on manual techniques, vocal skills, aural skills, and gaining conducting experience.

365 SONG UTERATURE
2 credits
Prerequisite: 222 or permission. Exposes student systematically to vocal literature, aiding in their ability to distinguish between various periods and styles of music through recordings and class participation.

368 GUTARSTYIES 2 credits
Prerequisite: 200 performanca level or permission of instructor. Techniques involved in performing musical styles other than those in classical guitar. Included are plectum styles such as blue grass, country and rock, as well as flamenco, folk, popular and jazz.
371 ANALYTICAL TECHMNOUES 2 credits Prerequisite: 222. Techniques for analysis of musical score from all eras of Western music his tory, with major emphasis on works of Baroque, Classical and Romantic periods.
372 TECHNQUES FOR THE ANALYSIS OF 20TH CENTURY MUSHC 2 credits Prerequisite: 222. Techniques for the analysis of musical scores from the 20th and 21st cen turies. Required of a composition major.
407 JAZZ ARRANGING AND SCORING
2 credits
Prerequisite: 454 and 309 . Study of jazz instrumentation from small groups to large ensembles.
432 TEACHING AND LTERATURE: PERCUSSION INSTRUMENTS
2 credits
To train undergraduate and graduate percussion students in techniques of percussion education Emphasis on research, literature, performance, and techniques from elementary through secondary levels.
442 INSTRUMENTAL METHODS
Prerequisites: 346, 352, 454, 254. Procedures for teaching instrumental music at all levels Special emphasis will be placed on classrocm management, recruitment, assessment, literature selection, scheduling and rehearsal organization. Clinical and field experience.

443 MSTRUMENTAL PRACTICUM
2 credits
Prerequisites: 442. Procedures for teaching instrumental music at all levels. Special emphasis will be placed on classroom management, recruitment, assessment. literature selection, scheduling and rehearsal organization. Clinical and field experience.

451 NTIRODUCTION TO MUSCOLOGY 2 credits Prerequisite: 352. Comparative musicology; acoustics; psychology and physiology of music; aesthetics; theory of music theory; historical musicology.
453 MUSIC SOFTWARE SURNEY AND USE 2 credits Prerequisite: 122 or permission of instructor. A survey and evaluation of available software in the various forms of musical instruction. Students will design a course suitable for submission to a programmer.

454 ORCHESTRATION
2 credits
Prerequisite: 222. Theory of instrumentation ranging from small ensembles to full band and orchestras.
455 ADVANCED CONDUCTING: INSTRUMENTAL
2 credits ( 30 clinical hours) Prerequisite: 361,442 or permission. Baton techniques and problems relating to practice, reading and preparation of scores; orgenization of ensembles; programming; conducting large instrumental ensembles. One hour lab required.
456 ADVANCED CONDUCTING: CHORAL
2 credits
Prerequisite: 363 . Conducting techniques to the choral ensemble, including feadership, error detection, tonal development, stylistic accuracy and analysis. One hour lab required.
457 SENHOR RECTTAL
0 credits
Permission of applied instructor is required for this course, which is taken only during the semester of the Senior Recital

56 PERCUSSION METHODS
1 credit
Prerequisites: 346, 352 and acceptance into Music Education Program. A comprehensine approach to the pedagogy and performance of the percussion instruments for the instrumental education major in preparation for teaching music.

462 REPERTOARE AND PEDAGOGY: ORGAN 3 ctedits
Prerequisita: permission of instructor. Survey of organ literature of all eras and styles, and of methods of teaching organ, applying principies to literature.

463 REPERTOARE AND PEDAGOGY: STRING INSTRUMENTS
3 crealits
Prerequisite: permission of instructor. Study in depth of the four bowed string instruments, their teaching and close relationship. Despite obvious difference in physical application of cello and bass from violin and viola, methods of bowing, sound production and coloring are closely related. Application of the instruments to solo, chamber and orchestral playing.
465 VOCAL PEDAGOGY
3 credits
Prerequisite: 300 or above students with permission of instructor. In depth study of subjects dealing with teaching voice: physiology of the vocal instrument, principles governing vocal production and application of vocal pedagogy.
467 GUITAR PEDAGOGY
2 creolits
Prerequisite: permission of instructor. A systematic analysis of prevailing schools of guitar pedagogy. Sound production physiology, method books and special problems in teaching addressed.
468 GUITAR ARRANGING
2 credits
Prerequisite: permission of instructor. After comparative analysiș of selected examples, students make original solo guitar arrangements of works written for other solo instruments and ensembles.

469 HISTORY AND LTERATURE OF THE GUITAR AND LUTE 2 credits
Prerequisite: permission of instructor. Study of plucked, fretted, string instruments from the 14th Century to the present: construction, notation, literature and performance practices. Modem editions and recordings evaluated.

471 COUNTERPOINT
2 credits
Prerequisite: permission of instructor. Designed to give student of theory-composition necessary knowledge and skills for understanding contrapuntal practices and procedures; emphasis on 20th-Century techniques.
490 WORKSHOP IN MUSTC
1-3 credits
Prerequisite: permission of instructor. Investigation of topics not offered in reguler curriculum. Graduate student must fulfill additional requirements
491 SPECIAL TOPICS IN MUSIC
2 credits
(May be repeated for a total of four credits) Group project related to a specific phase of music. Experimental course topics designed and implemented according to student interest. For elective credit only.
492 STUDENT TEACHING COLOOUIUM
1 credit
Prerequisite: restricted to students enrolled in Student Teaching in Music. For music education majors; certification, contracts, benefits, job market prospects and student teaching experience sharing.
497 INDEPENDENT STUDY IN MUSIC
1-2 credits
(May be repeated for a total of four credits) Prerequisites: senior standing and permission of department head. Music major only. Independent study under supervision of specially selected faculty members in subject erea bearing on student's own goals.

498 SENIOR HONORS PROJECT: MUSIC
1.3 crodits
(May be repeated for a total of six credits) Individually designed project demonstrating scholarship, analysis, advanced musicianship, research and/or creativity according to student interest. Restricted to University honors music student

## MUSICAL ORGANIZATIONS

## 7510:

102 AKRON SYMPHONY CHORUS
Open to University and community members by audition. Prospective members should contact
School of Music two weeks before semester begins. Performs with Akron Symphony
Orchestra.
103 UNFVERSITY SYMPHONY ORCHESTRA
Membership by audition. Organization devoted to study of orchestral literature. FulHength con-
certs as well as special University appearances. Major conducted ensemble.
104 SYMPHONIC BAND
Membership by audition. The University Symphonic Band is the most select band at the
University and performs the most demanding and challenging music available. Maior conducted
ensemble.
105 VOCAL CHAMBER ENSEMBLE
Membership open to those enrolled in applied voice study. Coeching and rehearsal of solo and
ensemble literature for voices from operatic, oratorio and lieder repertories.
106 BRASS ENSEMBLE
Membership by audition. Study and performance of literature for brass ensemble from all periods
of music history. Frequent public concerts. For advanced brass players.
107 STRING ENSEMBLE
Membership by audition. In-depth study of performance of chamber music literature with special
emphasis on string quartet and piano trio.
108 OPERA WORKSHOP
1 credit
Membership by audition. Musical and dramatic group study of excerpts from operatic repertoire. includes annual production of standard opera and/or contemporay chamber work with staging, costumes and scenery.

109 PERCUSSHN ENSEMBLE . 1 credit
Membership by audition. Study and performance of literature for various percussion groups; develops skill in ensemble performance.

110 WND CHOIR 1 credit
Membership by audition. Study, reading, and performance of major orchestral and serenade repertoire for wind instruments.

111 CHAMBER ORCHESTRA 1 credit
Membership by audition. Organization designed to study for performance the substantial repertoire for small orchestra. Open to student of advanced ability.

114 KEYBOARD ENSEMBLE 1 credit
In-depth study of ensemble playing. Eight semesters required for Keybaard majors, six semesters for Keytoard Music majors, and each semester for keyboard scholarship recipients.
115 JAZZ ENSEMBLE 1 credit
Membership by audition. Provides experience in jazz ensemble performance: Student is assumed to have knowledge of rudiments of music and some experience in jazz performance.
116 GUITAR ENSEMBLE
1 credit
Membership by audition. Provides experience in conducted ensemble performance for guitarists. Major conducted ensemble.
118 SMALL ENSEMBLE MIXED 1 credit
Chamber Ensemble, Baroque Ensemble and Contemporary Music Ensemble. Each is a group of diverse instruments which rehearses and performs a selected body of music.
120 CONCERT CHOIR
1 credit
Membership by audition. Highly select mixed choir. Performs classical literature from all periods. Campus, regional, and tour performances. "Major conducted ensemble" for vocal majors.
121 UNIVERSITY SINGERS
1 credit
Membership by audition. Mixed ensemble devoted to performance of a wide variety of choral literature from classical to popular. "Major conducted ensemble" for vocal majors.
123 MADRIGAL SINGERS 1 credit Membership by audition. Ensemble devoted to performance of vocal chamber music of the Renaissance. Presents madrigal feasts and concerts on and off campus. Fall semester.
125 CONCERT BAND 1 credit
Membership by audition. This ensemble performs the finest literature available for concert bands today. Major conducted ensemble.

## 126 MARCHING BAND

1 credit
Enrollment is open to all members of the University student body. This organization is noted for its high energy performances at University football games.

127 BLUE AND GOLD BRASS 1 credit
Membership by audition. The official band for Akron home men's basketball games.
128 UNIVERSTY BAND
1 credit
The University Band is open to all members of the University community and performs excellent standard band literature. Major conducted ensemble.

129 BLUE AND GOLD BRASS II 1 credit
Membership by audition. The official band for Akron home ladies basketball games.
130 SUMMER CONCERT BAND
1 credit
University of Akron Summer Concert Band is open to all wind and percussion musicians and performs the finest in band literature.

431 SUMMER DRUM CORPS EXPERIENCE
$1-4$ crealits
Prerequisite: permission of instructor. Summer Drum Corps Experience provides on credit for participation in a Junior Level - Division I. li or II Drum and Bugle Corps as part of the Drum Corps intemational Summer.

- Total repeats not to exceed eight credits.
(Noter: Students being paid salanies from Student Activity Funds are not eligible for credit.)


## APPLIED MUSIC

## 7520:

Prerequisite: Placement audition in the School of Music.Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represant an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition.

021-69 APPLIED MUSIC FOR NON-MANORS
2-4 credits each
Prerequisite: Permission of applied instructor. For students whose performance skills are not suff ficient for placement at the 100 ievel or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition.

| 021 | PERCUSSION | 037 | OBOE/ENGLSH HORN |
| :---: | :---: | :---: | :---: |
| 022 | CLASSICAL GUTTAR | 038 | CLARINET/BASS CLARINET |
| 023 | HARP | 039 | BASSOON/CONTTABASSOON |
| 024 | VOICE | 040 | SAXOPHOME |
| 025 | PIANO | 041 | HARPSICHORD |
| 026 | ORGAN | 042 | COMPOSTION |
| 027 | VIOLN | 061 | JAZZ PERCUSSION |
| 028 | VIOLA | 062 | JAZZ GUTAR |
| 029 | CELLO | 063 | JAZZ ELECTRIC BASS |
| 030 | STRING BASS | 064 | JAZZ PIANO |
| 031 | TRUMPET/CORNET | 065 | JAZZ TRUMPET |
| 032 | PRENCH HORN | 066 | JAZZ TROMBONE |
| 033 | TROMABONE | 067 | JAZZ SAXOPHONE |
| 034 | BARTTOME | 068 | JAZZ COMPOSTION |
| 035 | TUBA | 069 | JAZZ VOCAL STYLES |

## 136 FLUTE/PICCOLO

121-469/521-569 APPLIED MUSIC FOR MUSIC MAIORS
2 or 4 credits sach
The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usualy offered in the spring semester. NOTE: No more than eight credits at the 100 , 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level.
121-221-321-421/521 PERCUSSION
122-222-322-422/522 CLASSICAL GUITAR
123-223-323-423/523 HARP
124-224-324-424/524 VOICE
125-225-325-425/525 PLANO
126-226-326-426/526 ORGAN
127-227-327-427/527 VIOLIN
128-228-328-428/528 VIOLA
129-229-329-429/529 CELLO
130-230-330-430/530 STRING BASS
131-231-331-431/531 TRUMPET OR CORNET
132-232-332-432/532 RRENCH HORN
133-233-333-433/533 TROMBONE
134-234-334-434/534 BARTONE
135-235-335-435/535 TUBA
136-236-336-436/533 FLUTE OR PICCOLO
137-237-337-437/537 OBOE OR ENGUSH HORN
138-238-338-438/538 CLARINET OR BASS CLARINET
139-239-339-439/539 BASSOON OR CONTRABASSOON
140-240-340-440/540 SAXOPHONE
142-242-342-442 PRIVATE LESSONS IN MUSIC COMPOSTHON 24 credits each
(May be repeated) Prerequisites: 7500:252 and permission of instructor.
161-261-361-461 JAZ7 PERCUSSION
162-262-362-462 JAZZ GUTTAR
163-263-363-463 JA7Z ELECTRIC BASS
164-264-364-464 JAZZ PLANO
165-265-365-465 JAZZ TRUMPET
166-266-366-466 JAZZ TROMBONE
167-267-367-467 JAZZ SAXOPHONE
168-268-368-468 JAZZ COMPOSTION
169-269-369-469 JA7Z VOCAL STYLES

## COMMUNICATION

## 7600:

## 102 SURVEY OF MASS COMAMUNCATION

3 credits
Considers entire field of contemporary American mass communication. Presents and explains functions of agencies through which news, wiews and entertainment reach the general public.

105 INTHODUCTION TO PUBLLC SPEAKING
3 credits
Introduction to principles and practice of speaking by reading examples of speeches, studying techniques and methods employed and applying them in a variety of speaking situations.
106 EFFECTIVE ORAL COMMUMMCATION 3 crodits
Principles of communication in speaker-audience, group and informal settings, and application of the principles in speeches, group discussions and other oral and witten assignments.
115 SURVEY OF CONMUNCATION THEORY 3 credits
Presents models of major forms of speech communication and discusses elements of models, their interaction and their function in the human communication system.
225 LISTEMANG
1 credit
Techniques and approaches involved in understending the listening process and practice of listening improvement techniques.
228 INTERVIEWNG
3 credits
Study and practical application of selected interviewing concepts associated with job interviewing joumalistic interviewing, and life review interviewing.
227 NONVERBAL COMMUUNCATION
3 credits
Focused study of the principal aspects of norverbal communication in public, group and interpersonal settings.
228 TV PRODUCTION PRACTICUM
1 credit
Practical application of writing, directing, management, recording and editing skills in television production, done in cooperation with local television stations and prockuction companies.
230 WZPF- ${ }^{2}{ }^{2}$ (credit
231 FORENSICS*
1 credit
232 BUCHIELTE*
1 crodit
233 TEL-AUCH*
1 credit
235 NTERPERSONAL COMMUNCATION 3 credits
Theory and practice in interpersonal communication concepts and principles. Special topics in communication apprehension, assertive communication, communication dyads and triads, and transactional communication.
245 ARGUMENTATION
3 credits
Study of process of developing, preseming and defending inferences and argurments in oral communication setting. Includes study and practice of evidence, reasoning, case construction, refutation and rebuttal.
252 PERSUASION 3 credits Emphasis on understanding persuasion theory and practice. Includes information analysis of motivational appeals and introduction to propaganda analysis.
270 VIICE TRAINING FOR MEDVA
Effective techniques and development of skills for voicework in radio and television.
280 MEDA PRODUCTION TECHNROUES
3 credits

3 in the mass conits
ing, fundamentals of corveying messages on slide, film and video.
282 RADIO PRODUCTION
3 credits
Study of radio production tectniques and the functional operation of AM and FM radio stations. Includes practical production experience in studio.
283 STUDIO PRODUCTION
3 credits
Prerequisite: 280. Function, structure and influence of television as communication medium with practical experience in studio.
300 NEWSWRTMNG
3 credits
Prerequisite: ability to type; $3300: 111,112$ (with a grade of C or better) or permission. Writing and editing news stories with emphasis on deadline witing in a lab situation.
301 ADVANCED NEWSWRTTNG
3 credits
Prerequisite: $\mathbf{3 0 0}$. Advanced course in witing and editing news, teatures and analysis for print media. Behavioral approach to communication of information and ideas.

302 BAOADCAST NEWSWRTING 3 credits
Prerequisites: 300,280 . The course is designed to teach students how to write, prepare, and deliver broadcast news copy for radio and television.

303 PUBLIC RELATIONS WRITING 3 credits
Prerequisites: 300 , ability to type. Introduction of writing skills required by public relations practitionors emphesizing different approaches for specific publics and specific media.
304 EDTTNG 3 credits
Prerequisite: 300 . Copyreading, headline writing, proofreading, makeup, type and typography, printing machines and processes. newspaper methods and systems.
308 FEATURE WRTING 3 credits
Prerequisite: 300 . Short newspaper and magazine anticles, preparation of articles for publication, human interest situations, extensive witing with class discussion.
307 COMMMERCLAL ELECTRONEC PUBLSHMNG
3 credis
Prerequisite: 300 . Explore basic principles of magazine publishing in its broad definition, layout, type and typography, paint production of magazines.
309 PUBLLC RELATIONS PUBLCATIONS 3 credits
Preparation of publications used as communication tools in public relations, advertising and orga nizations. Emphasis upon design, layout and technology.

325 INTERCULTURAL COMMUNCATION
3 credits
Study of effect on oral communication process of existence of cultural barriers. Includes study of verbal and nonverbal communication in transracial, informal intermational and diplomatic communicative settings.
344 GROUP DECHION MAKING
3 credits
Study of communication and decision making in small groups. Practice in techniques of group deci-sion-making. Introduction to theory of group communication.
345 BUSINESS AND PROFESSIONAL SPEAKING 3 credits
Prerequisite: 7600:105 or 106. Practical improvement in speaking skills used in business settings.
346 ADVANCED PUBLIC SPEAKING
3 credits
Prerequisite: 7600:105 or 106. Theory and practice of public speaking: auxdience analysis; advanced methods for organizing persuasive speeches; techniques of research, styie, and delivery; protessional speech writing; extensive speaking practice.

3 credits
356 FREEDOM OF SPEECH 3 credits
Discussion and analysis of the Constitution's free speech guarantee; comtemporary issues in free dom of communication; role of the media in free speech issues.

368 BASIC AUDIO AND VIDEO EDITNG
3 credits
Prerequisite: 280 . Basic audio and video editing theory and practice. Introduction to $A B$ roll and computerized editing systems.

372 SINGLE CAMERA PRODUCTION 3 credits Prerequisites: 280, 368. Principles of electronic image recording; field carnera operation; field location lighting practice.

375 COMMMNCATION TECHNOLOGY AND CHANGE 3 credits Prerequisite: 102 or permission. Study of technological innovation and change in electronic media. Evaluation of communication policy issues and the impact of technological change in elactronic media. Evaluation of communication policy issues and the impact of technological change on corrsumers and industries.
384 COMMUNUCATION RESEARCH
3 credits
Prerequisites: 102, 115 (with a grade of C or better).; completion of General Education math requirement. Fundamental concepts of communication research methods, and the analrsis, applcation and interpretation of data in communication and in media operations.
385 AMERICAN FLM HISTORY: THE BEGINNING TO 1945
3 credits
Acquaints undergraduate student with historical developments of film and film concepts; ends with films of 1945.
386 AMERICAN FLM HLSTORY: 1945 TO THE PRESENT
3 credits
Continuation of student's survey of film history and film concepts begun in 385.
387 RADIO AND TV WRTTING
3 credits
Prerecuisite: 300. Practical application of broadcast witing principles and tectriques used in commercials, PSAs, promotions, as well as scripts for comedy, drama, documentaries, business and education.

388 HISTORY OF BROADCASTING 3 credits
Prerequisite: 102. Growth of broadcasting in America; historical evolution of radio, television, and cable industries; contributions of inventors, entrepreneurs and talent.

396 RADF/TV PROGRAMMING
3 credits
Prerequiste: 102. Examines programming processes in radio and television; programming philosophies, schedules, feature and syndication acquistion, local productions, issues of staffing and funding.
400 HISTORY OF JOURNALLSM IN AMERICA
3 credits
A review and analysis of the historical evolution of joumalism in America, focusing primarily on newspapers, magazines, radio, television.
403 PUBLC RELATIONS STRATEGES 3 credits Selected communication theories used to analyze and implement effective public relations programs with emphasis placed upon research, planning, promotional messages and evaluation of program.
404 PUBLIC RELATIONS CASES 3 credits
Prerequisite or corequisite: 403 . Continuation of 403 . Application of principies of public relations profession in an actual organizational setting.
405 MEDIA COPYWRITNG 3 credits
Prerequisite: 309. Selected communication theories and research techniques used to plan, write and anolyze commercial messages. Emphasis will be placed on sefection of aucience, medium. appeal, witing style and evaluation of efforts.
406 CONTEMPORARY PUBLIC RELATIONS 3 credits Study and practical application of communication concepts, theories and skills relevant to public relations programs in businesses and nonprofit organizations.

408 WOMEN, MINORIIES AND NEWS 3 credits Study of images of women in U.S. news, along with the power women and minorities have as decision-makers in the news industry.
410 JOURNALSM MANAGEMENT 3 credits This course is designed to educate students in the management of joumalistic operations, inclucing the magazine and newspaper industries.
416 NEW MEDIA WRTING 3 credits
Prerequisite: 300 . This class will look at how today's professionals practice on-tine publishing. Students will work on writing and reporting skills needed in this new media.
417 NEW MEDA PRODUCTION 3 credits
Prerequisites: 416. Covers practical application of softwares to create on-line multimedia documents and explores design ideas for New Media Joumalism content.
420 MAGAZINE WRTING
3 credits
Prerequisites: 300,308 . An advanced witing course designed to develop the specialized researching, reporting, and writing skills needed in consurner and specialized business magazines tocary.
425 COMMERCYAL ELECTRONAC PUBLSHING
3 credits
Prerequisite: 300 . Explore basic principies of magazine publishing in its broad definition, tayout type and typography, paint production of magazines.

435 COMMUNLCATION IN ORGANIZATIONS
3 credits
Overview of theories and approaches for understanding communication flow and practices in orga nizations, including interdepartmental, networks, superior-subordinate, formal and informal communication.
436 ANALYZNG ORGANIZATIONAL COMMUNCATION
3 credits
Prerequisites: 344, 384 and 435 . or permission. Methodology for in-depth analysis and applica tion of communication in organizations; team building; conflict management, communication flow. Individual and group projects; simulations.

437 TRANMNG METHODS NN COMMUMCATION 3 credits Prerequisite: 345 or pemission. Principles and concepts in the design and delivery of communication training programs; integration of theory and methodology, presentation skills; matching methods and leamer needs.

438 HEALTH COMMUNCATIONS 3 credits
The course presents an overview of health communication theory and research issues in interper sonal, small group, organizationel, public relations, and mass media contexts.
439 INDEPENDENT STUDY 1-12 credits
(May be repeated for a total of 12 credits) Prerequisite: permission of faculty. Directed independent readings, research, projects and productions. Written proposal must be submitted before pernis sion is granted. Appropiate documentation of work required.
46 WOMEN, MHNORTIES \& MEDA
3 credits
Examination of the media's portrayal of white women and people of color and the roles of media decision-makers as powerful counterparts to these images.
450 SPECIAL TOPICS IN COMMUNICATION
3 credits
(May be repeated for a total of nine credits) Special interest topics in mass communication, joumal ism, or communication, supplementing courses listed in University Bulletin. See department for current listing of offerings.
454 THEORY OF GROUP PROCESSES
3 credits
Group communication theory and conference leadership as applied to individual projects and seminar reports.
457 PUBLLC SPEAKING IN AMERICA 3 credits Survey and critical analysis of major speakers, speeches and speech movements in American history. Examines how stye and content of American speaking infiuenced events and reflected their times.
4 ER LEADERSHP \& COMMUNCATION
3 credits
Theories of leadership and communication across putlic, organizational, small group, interpersonal, and political contexts. Assessments tools provided. Guest speakers.
462 ADVANCED MEDIA WRITNG 3 credits Prerequisites: 280, 300, 387 or equivalent. Practical applications of script writing principles and tectriques, focusing on the skills and discipline required to finish an entire script.
468 ADVANCED AUDNO AND VIDEO EDITNG
3 credits
Prerequisite: $280,368,372$. Advanced computerized multitrack audio and video editing. Theory and practice of multi-rack sound mix for video productions.
470 ANALYSIS OF PUBLLC DISCOURSE 3 credits
Idemitifies principal textual and contextual elements of pudlic discourse and presents various theo nies and models to be applied in studying finetorical acts.
471/571 THEORIES OF RHETORIC 3 credits
Study of key figures in history of metorical theory, stressing interrelationships among theories of thetoric, intellectual climetes and social dimates.
475 POLTICAL COMMUNICATION 3 credits Students explore the relationship between politicians, citizens, and media. Topics include media coverage, campaign technologies, advertising, debates, engagement, metoric, and attitudes. Theories and methodologies discussed.
480 COMMUNCATION INTERNSHIP
$1-8$ credits
(May be repeated for a total of eight credits) Prerequisites: 24 credits in departmental courses, 2.5 overall GPA, and permission. Provides student with supervised experience and on-thejob training. Written pernission must be obtained from the School prior to the term for which credit is to be received.
481 FLM AS ART: AN INTRODUCTION TO THE FLM FORM
3 credits
Explores the formal laws that govem a film acquainting the students with the film narrative and stylistic elements.
484 REGULATIONS EN MASS MEDA
3 creoits
Concentration on govemment regulations and selfregulatory bodies in broadcasting, film and print media.

485 SENIOR HONORS PRONECT IN COMMUNHCATION
1.6 credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College: approval of honors preceptor. Independent study project leading to completion of senior honors thesis or other original work.

486 BROADCAST SALES AND MANAGEMENT 3 credits Prerequisite: 384 . Using simulation and case history techriques, this course examines the soles and decisior-making processes of a broadcast station.
490 COMMUNICATION WORKSHOP $1-3$ credits
(May be repeated for a total of six credits) Group study or group profects investigating a particular phase of media not covered by other courses in curriculum.
493 PRODUCTION PRACTICUM 3 credits Prerequisite: permission. Practical application of writing, directing, management, recording, and editing skills in problems in electronic media production.

## SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY <br> 7700:

101 AMERICAN SIGN LANGUAGEI
3 credits
Introduction to American Sign Language: vocabulary building, beginning development of fingerspelling skills, receptive/expressive conversational skills.
102 AMERICAN SIGN LANGUAGE II
3 credits
Prerequisite: 101. Continued development of skills in American Sign Language: vocabulary builoing, beginning development of fingerspelling skills, receptive/expressive conversational skills.
110 INTRODUCTION TO DISORDERS OF COMMUNICATION
3 credits
Overview of various types of speech disorders; their incidence, etiology and characteristics. Basic concepts and principles underlying speech pathology.
120 INTRODUGTION TO AUDIOLOGY/AURAL REHABLLTATION
(Not open to speech-language pethology and audiology major) Introduction to field of audiology including physics of sound, anatomy and physiology of auditory system, measurement of hearing impairment, nature and causes of hearing disorders and habilitation of persons with hearing impairment.

121 ASPECTS OF AMERICAN SIGN LANGUAGE 2 credits Prerequisite: 102. Study of selected aspects of American Sign Language, including, but not limited to fingerspeling and number systems.
201 AMERICAN SIGN LANGUAGE H: 3 credits Prerequisite: 102. Continued development of skills in American Sign Language: vocabulary building, beginning development of fingerspelling skills, receptive/expressive conversational skills.
202 AMERICAN SIGN LANGUAGE IV
3 credits
Prerequisite: 201. Further practice in developing expressive/receptive communication, fingerspelling and fluency: Study of linguistic aspects of various manual communication systems.
210 INTRODUCTION TO CUNMCAL PHONETICS
4 credits
Introduction to Intemational Phonetic Alphabet. Transcription of normal speech. Overview of articulatory and acoustic phonetics. Introduction to distinctive features.
215 INTRODUCTION TO HEARING AND SPEECH SCIENCE
4 credits
Prerequisite: 210. Introductory course covering the human hearing system and acoustics of hearing as well as principles involved in the production, transmission and reception of the speech signal.
222 SURVEY OF DEAF CULTURE IN AMERICA
2 credits
The deaf experience in America including educational, legel, social, and occupational developments.
230 LANGUAGE SCIENCE AND ACOUISTION
4 credits
Prerequisite: For Speech-Language Pathology and Audiology majors only. An introduction to larguage science and the study of the language acquisition process. The charactenstics and expla nations of language development will be presented.
235 PRINCIPLES OF AUDIOLOGY
4 credits
Prerequisite: 215. Introduction to basic audiometric tests, principles of speech audiometry. masking and impedance audiometry, "test battery" approach.
240 AUDIOLOGICAL REHABMLTATION
4 credits
Prerequisite: 215. Introduction to philosophy and methods of aural rehabilitation for children and adults. Includes methods of speech reading, auditory training, speech conservation, hearing aid use and combined visual and auditory approaches.

265 ANATOMY AND PHYSHOLOGY OF SPEECH AND HEARING 3 credits Prerequisites: $\mathbf{3 1 0 0} \mathbf{2 6 5}$. Corequisites: 266. Study of the anatomy and physiology of organs directly and indirecty responsible for production of speech and perception of acoustical signals.
266 ANATONY AND PHYSIOLOGY LABORATOAY
1 credits Corequisites: 265. Laboratory to accompany lecture, inctudes hands-on experience with a variety of laboratory materials, primarily models and virual dissection.
321 ARTICULATORY AND PHONOLOGIC DISORDERS
4 credits Prerequisites: 110, 210. Study of disorders of articulation/phonology, including normal phonological development, and assessment and remediation of phonological disorders.
322 ORGANIC DISORDERS OF COMMUNLCATION
4 credits
Prerequisites: 110 and $3100: 265$, or permission of instructor. Surveys communication disorders that accompeny acquired neurological impairments and neurodevelopmental syndromes. Introduces neurological and genetic models, classification systems, diagnostic and treatment procedures.
330 LANGUAGE DISORDERS
4 credits
Prerequisite: 230. Etiology, identification, evaluation, intervention, remediation of symbolic, cognitive, interpersonal language disorders of chiidren. Disorders viewed as correlates or sequelae of central nervous system dysfunction or emotional disturbence.

## 430 ASPECTS OF NORMAL LANGUAGE DEVELOPMENT

3 credits
(Not open to speech-language pathology and audiology majors) Introduction to acquisition and development of comprehension and production of language phonologically, semantically and syntactically. Relates language acquisition to perceptual development of child and looks at funcsyntacticaly. Relates language acquistion to pe
tion of language in individual, famity and school.

440 AUGMENTATIVE COMMUNICATION
3 credits Prerequisites: 330 or 430 or permission of instructor. Overviews augmentative communication systems-candidates, symbol systems, devices, vocabulary, funding. Considers interdisciplinary issues in assessmentintervention.

445 MULTICULTURAL CONSIDERATIONS FOR AUDIOLOGISTS
3 credits AND SPEECH-LANGUAGE PATHOLOGISTS
Prerequisites: 110 or graduate standing. This course introduces the multicultural considerations faced by audiologists and speechtanguage pathologists providing services to families and individuals with communication disorders.

446 OBSERVATION AND CLINICAL TECHNBOUES
4 credits
Prerequisites: " B " average in 235, 321, and 330 and overall GPA of at least 3.2. Introduction to concepts and processes of clinical practice in speech-language pathology and audiology. Includes clinical observation and case study.
460 SPEECH-LANGUAGE AND HEARING DISORDERS IN THE PUBLLC SCHOOLS 2 credits (Not open to speech-language pathology and audiology maior) Nature, causes and treatment of speech, hearing and languege disorders in public schools. Special reference to rote of classroom teacher in identifying and referiing student with suspected probbems and in working with school clinician.
480 SEMINAR IN SPEECH-LANGUAGE PATHOLOGY AND/OR AUDIOLOGY
2 credits Prerequisite: senior standing. Provides a vehicle for detailed study and discussion of various communicative disorders.
481 SPECLAL PROJECTS: SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY $1-3$ credits (May be repeated for a total of four credits) Prerequisite: permission of instructor. Individual or group projects related to any of the problems of communicative disorders.
485 TEACHING \& LEARNING STRATEGIES IN SPEECH-LANGUAGE PATHOLOGY 2 credits Current practice related to clinical intervention designed for individuals with developmental disabilities. Explores the use of the natural environment and the computer as intervention tools.
490 WORKSHOP: SPEECH-LANGUAGE PATHOLOGY AND AUDHLOGY $1-3$ credits (May be repeated for a total of four credits) Prerequisite: permission. Group investigation of particular phase of speech pathology and/or audiology not offered by other courses.
496 SEMOR HONORS PROIECT: SPEECH-LANGUAGE PATHOLOGY
1.3 credits AND AUDIOLOGY
(May be repeated for a total of six credits) Prerequisites: enrollment in the Honors Coliege. senior standing and mejor in speechtanguage pathology and audiology.

## SOCIAL WORK

## 7750:

270 POVERTY AND MMNORTTY ISSUES
3 credits
introductory course explores issues related to poverty and minority issues as they relate to atnisk populations.
276 INTRODUCTION TO SOCLAL WELFARE
Survey of field of social welfare; place of social work profession within human services institutions of United States. Introduction of basic concepts relating social welfare institutions and social work to society.

401 SOCLAL WORK PRACTICEI 3 crodits
Prerequisite: Social Work major; Corequisite 405. Basic concepts and methods of Generalist social work practice, with an emphasis on understanding and working with individuals.
402 SOCLAL WORK PRACTICE E
3 credits Prerequisite: 401 and 405; or permission of instructor. Concepts and methods of social work practice particularty relating to understanding and working with groups in various settings in our society.
403 SOCAAL WORK PRACTICE UII
3 credits
Prerequisite: 401 and 405, or permission of instructor. Development of understanding and practice methods for utilization of community organization and social planning as social work process in assessing problems and developing program to meet needs.
404 SOCIAL WORK PRACTICE N
3 credits
Prerequisite: 401, 405, or permission of instructor. Proiessional social work practice with fami lies in social services; the dynemics of family systems, assessment of family function and dysfunction, professional helping processes.
405 PRACTICEISKILSLAB 3 credits
Prerequisites: 3100:103, 3850:100, 7750:276, 270, 427, 3250:100 OR 3250:200 OR 2040:247, $3700: 100,3750: 100$. Corequisite: 401. Prepares students for beginning generalist social work practice and proves a context to apply and evaluate generic knowledge base, values, ethics, and skills common to practice with client systems.

411 WOMEN'S ISSUES IN SOCLAL WORK PRACTICE 3 credits Prerequisite: 401 or perrnission of instructor. Social work practice, knowledge and skill, social wel fare institutions and social policy in relation to women's issues and concerns in the United States.
421 RELD EXPERIENCE SEAMINARI
1 credit
Prerequisites: 401, and permission of instructor. Corequisite: 493. The first of two consecutive courses that assists students in making the transition from classroom learning to experiential tearning in the field practicum.
422 FIELD EXPERUENCE SEMINAR II
1 credit
Prerequisite: 421 and 493. Corequisite: 494. The second of two consecutive courses, this course assists students in integrating, synthesizing, and applying classroom leaming to field experiences and assignments.
425 SOCIAL WORK ETHICS
3 credits
Prerequisite: Social Work major, permission of instructor. Social Worker's code of ethics as applied to practices, problems and issues in social work.
427 HUMAN BEHAVIOR AND SOCIAL ENVRDNMENT I
3 credits
Social work perspective on human development across the life cycle. Human diversity approach consistent with the needs of social work students prepaning for practice.

430 HUMAN BEHAVIOR AND SOCIAL ENVIRONMENT II
3 credits
Prerequisite: Social Work major, 427, or permission of instructor. Examination of larger social systems including families, groups, neighborhoods, and organizations. Focuses on the unique systemic characteristics of each system and its development.
440 SOCIAL WORK RESEARCH I
3 cradits
Prerequisites: Social Work major or permission of instructor. Overview of scientific inquiry and the research process as it applies to the field of social work. Emphasis is pleced on the various social worker roles in relation to research.
441 SOCLAL WORK RESEARCH II
3 credits
Prerequisite: 440 or permission of instructor. A continuation of Social Work Research I with a focus on applying research concepts. Includes content on the evaluation of practice outcomes and the use of computers in data analysis.
445 SOCIAL POLICY ANALYSIS FOR SOCIAL WORKERS
3 credits
Prerequisite: Social Work major, permission of instructor. Description, analysis and construction of social policy in social services; to understanding forces and processes which establish or change social policies, to predict consequences of social policies and to establish goals for social policy development; integrated into effective social work methodology.

## 450 SOCLAL NEEDS AND SERVICES: AGING

3 credits
3 credits
Prerequisite: $\mathbf{4 0 1}$ or permission of instructor. Application of knowledge and principles of proiessional social work practice to understanding, development and provision of social services to meet needs of aging and later mature individuals, families and communities and institutions serving them and their relatives.
451 SOCLAL WORK IN CHILD WELFARE
3 credits
Prerequisite: 401 or permission of instructor. In-depth exploration of structure and functioning of social services designed to help children, and of practice of social work in child-welfare settings. Consideration of supportive, supplementary and substitutive services.
452 SOCLAL WORK IN MENTAL HEALTH
3 credits
Prerequisite: 401 or permission of instructor. Issues, organization, development and methodologies of current professional social work practice in mentalhealth settings.
454 SOCIAL WORK IN JUVENILE JUSTICE
3 credits
Prerequisite: 401 or permission of instructor. The theory and practice of social work in the juvenile justice systems of the United States. Traditional procedures and recent developments, prevention, diversion and community outreach, legal concems, case management, institutional functioning.

## 455 BLACK FAMILY ISSUES

3 cradits
Prerequisite: 401 or permission of instructor. Contemporary problems facing black families; male-female relationships, single parent households, black teens and elderly, public policy, theoretical models, explaining development of the black family.
456 SOCLAL WORK IN HEALTH SERYVCES
3 credits
Prerequisite: 401 or permission of instructor. Policies, programs and practice in health-care settings: short-term, intermediate and long-term hospitals, out-patient services, emergency services. clinics, visiting nurse services, nursing homes, pediatric services, self-help organizations.
458 ADULT DAY CARE
3 credits
Prerequisite: 401 or permission of instructor. Planning. development, implementing, evaluating and delivery of adult day-care services.
459 SOCIAL WORK WITH THE MENTALLY RETARDED
3 credits
Prerequisite: 401 or permission of instructor. Application of social work principles in the provision of social services to meet the needs of the mentally retarded and developmentally disabled and their families.
465 ADMINHSTRATION AND SUPERYISION IN SOCLAL WORE
3 credits
Prerequisite: 401 or permission of instructor. Preparation for use of supervision, staff development, and program planning in a social work agency. Examines the social work/welfare agency in its community as it affects its organizational goal-serting and programimplementation problerns.
470 LAW FOR SOCIAL WORKERS 3 credits
Prerequisite: 401 or permission of instructor. Basic terminology, theories, principles, organization and procedures of law will be explored along with the relationships between social work and law and comparisons of the theoretical bases of the two professions.
475 SUBSTANCE ABUSE AND SOCLAL WORK PRACTICE 3 crodits
Prerequisites: 401 or permission of instructor. Provides students with the essential knowledge and skill for successful social work practice with people involved in substance abuse.
480 SPECIAL TOPICS IN SOCIAL WORK AND SOCIAL WELFARE
$1-3$ credits
Prerequisite: permission of instructor. Analysis of current social work and social welfare theory and policy, settings, innovative interventions, and trends in delivery systems in relation to selectand policy, settings, innovative interventions, and
ed areas of concern. Topics and credits variable.
493 FELD EXPERIENCE: SOCLAL AGENCY I 4 credits
Prerequisites: 401, 427, and permission of instructor. Corequisite: 421. First of two consecutive courses of supervised internship in a social senvice setting. Facilitates acquisition of generalist courses of supervised internship in a social senvice seting. Faciliates acquisition of generalist
practice skills. Student must receive permission to take the course with the Field Coordinator during early part of semester preceding enrollment. For senior social work majors.
494 FIELD EXPERIENCE: SOCLAL AGENCY II
4 credits
Prerequisites: 493, 421 and permission of instructor. Corequisite: 422 . Second of twa consecutive courses of supervised internship in a social service seitting. Facilitates the continued acquisition of generalist practice skills. For senior social work majors only.
497 INDIVIDUAL INVESTIGATION IN SOCIAL WORK
1.3 credits

Prerequisites: permission and prearrangement with instructor. Individual readings, research or projects in area of interest in social welfare theory or institutional operations or in social work practice under guidance of social work faculty member. Preparation of report paper appropriate to nature of topic. For social work major.
499 SENOR HONORS PROJECT IN SOCLAL WORK
$1-3$ credits
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and approval of honors preceptor in department. Open only to social work major ensolled in Honofs College. Independent study leading to completion of senior honors thesis or other original work resulting in writing of research paper in proper scholarty form, supervised by student's honors project adviser within the department.

## THEATRE

## 7800:

100 EXPERIENCNG THEATRE
3 credits
Experience the theatre as a live, dymamic art form through an exposure to and participation in University productions.
103 THEATRE ORIENTATION Ocredits
Orientation to the information and strategies necessary to aid new theatre students in their understanding of the field of theatre
108 INTRODUCTION TO THE VISUAL ARTS OF THEATRE 3 credits Introduction to the design theory of scenic, costume, lighting and imagery of the theatre. The course includes application of these principles to multimedia.
145 MOVEMENT TRAINNG 3 credis Specialized physical traning for the actor.
151 VOICE AND DICTION
3 credits
Speech improvement as it specifically applies to the stage. This course is concemed with the proper tectriques and principles of vocal production in their practical application to stage performance.

170 NTRODUCTION TO ACTMG FOR NONMANORS
3 credits
Introduction to Acting for Non-Majors is a course designed for the beginning student to develop an understanding of basic acting techniques.
172 ACTNGI 3 credits
Introductory fundamentals of acting through the investigation of the bocy as an instrument for the stage, improvisation and basic scene study.
200 THEATRE ORGANIZATION AND PRODUCTION MANAGEMENT 3 credits Suudy of successful methods of theatre organization and production stage manegement of professional and non-professional performing arts operations.
262 STAGE MAKEUP 3 credits
Theory and practice in the apolication of stage makeup from jivenile to character. Lectureh.ab.

## 263 SCENE PAINTING

3 credits
The development of skills and knowledge of stage scenic painting required for the theatre designer and technician. Laboratory required.
264 PLAYSCRIPT AND PERFORMANCE ANALYSIS 3 credits An introduction to various methods of how to read and analyze a playscript for theatre production, utilizing theories and tools from Aristote to today.
265 BASIC STAGECRAFT • . 3 credits Basic stagecratt induding equipment construction and handifing of two-dimensional scenery and the atical hardware. Laboratory required.
274 DIETAL TECHNOLOGY FOR THEATRE 3 credits Hands-on exploration of theories and methods used in electronic development of promotional and creative materials. Activities indude still and motion image capture, editing and distribution.
301 INTHODUCTION TO THEATRE THROUGH FLM 3 credits Prerequiste: $3400: 210$. A study of the Theatre with emphasis on its cultural and social influences on our society.
308 STAGE COSTUME DESIGN
3 credits
Prerequisites: 108, 264. An introduction to various methods of how to read and analhze a playscripi for theatre production, utilizing theories and tools from Aristole to today.
307 ADVANCED STAGE COSTUME DESIGN 3 credits
Prerequisite: 306. Specialized construction techniques for costurnes, armor, masks, jewely, millinery. and footwear.
321 MUSICAL THEATPE HSTORY A
2 credits
Concentrating on the 20th century, musicals from each decade will be examined for emerging trends and styles in music, dance, theatre and libretti.
325 HISTORY OF THE THEATREI
3 credits
Theatre history from the Greeks to the Restoration with emphasis on the physical theatre, stage corventions and theatre architecture of each period.
330 DRAMATIC LTERATUREI
3 credits
Prerequisites: 230 or permission of instructor. An in-depth exploration of stage plays from the Classical Greek period to 1800 , with emphasis on the relationship of pleys to various cultures.

335 HISTORY OF THEATRE AND DRAMATIC ITTERATURE I
3 credits
Prerequisite: 100. The history and theory of dramatic literature and theatre practices from the Greeks through the Restoration, including select nor-westem theatre tradtions.

336 SCENC DESIGN
3 credits
Prerequisites: 108,264. The theory of scenic design and imegery of the theatre. The course may include the application of these principles to other media.
351 ADVANCED VOICE AND MOVEMENT
3 credits
Prerequisites: 145, 151. Advanced training in movement techniques and vocal work, integrating the performer's physizal and vocal instrument.

355 STAGE LGFTING DESIGN 3 credits
Prerequisites: 100, 265. The ant and technique of stage lighting design: light plotting, color theory, and optical effects.

370 DRRECTING I 3 credits
Prerequisites: 100, 172, 264. Emphasizes fundamentals of pley directing, induding responsiblitities of director, stage nomenclature, play selection, character anaysis and rehearsat tectriques

373 ACTING:
3 creatis
Prerequisite: 172. Continuation of 172 . Further emphasis on the psychology of the actor and development of performing techniques through scene study.

374 ACTNGIII
3 creatis
Prerequisite: 373 . Further in-depth actor training with emphasis on the language and interpretation of classic plays including Shakespeare.
403 SPECLAL TOPICS N THEATRE ARTS
$1-4$ credits
(May be repeated as different subject areas are covered, but no more than 10 credits may be applied toward B.A degree.. Prerequiste: permission. Traditonal and nontraditional topics in theatre arts, supplementing courses listed in the General Bulletin.

421 MUSICAL THEATRE PRODUCTION
3 credits
Designed to make the theatre student aware of the total creative procoss involved in mounting a stage musical.

425 HISTORY OF THE THEATRE I
3 credits
Prerequisites: 325 or permission of the instructor. Theatre history from the 18 th century to the pre sent with emphasis of the physical theatre, stage conventions, and theatre architecture of each period.
430 DRAMATIC LTERATURE I 3 credts
Prersquisite: 330 or permission of instructor. An in-depth exploration of stage plays from the 19 th Century to modern times with an emphesis on the relationship of plays to various cultures.
435 HISTORY OF THEATRE AND DRAMATIC LTERATURE II 3 credits Prerequisite: 335. The history and theory of dramatic literature and thearte practices from the 18 th century through the present, induding select non-westem theatre traditions.
436 STYLES OF SCENIC DESIGN
3 credits
Prerequisite: 365. Theatrical styles and periods in scenic design and scenography.
461 DPRECTNGः 3 credits Prerequisites: 370 . Emphasizes fundamentals of play directing, induding responsibilitios of director, stage nomenclature, play selection, analysis, and rehearsal techniques.
467 CONTEMPORARY THEATRE STYLES
3 credits
A detailed examination of representative plays of the comtemporary theatre with an emphasis on plaps of the 1980s and 1990s.
470 THEATRE N EDUCATION
3 credits
Prerequisites: 100, 172. An in-depth experience with current theories, methods, and materials in P-12
theatre education and process drama techniques. Field experience provided when possible.
471 SENLOR SEM MAR
1 credit
Prerequisite: upper class standing and permission from the theatre adviser. A forum to develop professional skills to make the transition to a theatre career: artistic, academic, business and professional.
472 METHODS OF TEACHNG EL EMENTARY THEATRE ARTS 3 credits
Prerequisites: 100 and 172 . This course presents skills, knowledge and experiences essential to teaching inrovative and creative theatre arts in secondary school through current theories, methoos and materials.

473 MEIHODS OF TEACHING SECONDAFY THHEATRE AFTS
3 credits
Prerequisites: 100 and 172 . This course provides skills, knowledge and experiences essential to teaching effective and creative theatre arts in elementary school through current theories, methods and materials.

475 ACTING FOR THE MUSICAL THEATRE 3 credits
Prerequisites: 172 or permission of instuctor. A scene study course in analyzing and performing roles in American musicals. Accompanist provided.
480 NDEPENDENT STUDY 13 credits
Practice, study, andor research in selected elements of theatre ants and production including preparation and presentation of creative and technological projects.

480 WORIKSHOP IN THEATRE ARTS
13 credits
(May be repeated for up to six credits) Prerequisite: Advancead standing or permission. Group study or group projects investigating particular phases of theatre arts not covered by other course in cunticurhum.

## THEATRE ORGANIZATIONS

## 7810:

100 PRODUCTION LABORATORY-DESHGN/TECHNOLOGYF* 1 credit
(May be repeated for a total of 12 credits) Prerequisite: permission of instructor. Provides student with practical experience in technical aspects of theatre.

110 PERFORMANCE LABORATORY*: 1 credit
(May be repeated for a total of 12 credits) Prerequisites: permission of instuctor: Provides student with practical performance experience theatre productions.

200 PRODUCTION LABORATOPY-DESIGN/TECHNOLOGY** 1 credit
(May be repeated for a total of 12 credits) Prerequisite: permission of instructor. Provides student with practical experience in tectnical aspects of theatre.

210 PERFORMANCE LABORATOFY* 1 credit
(May be repeated for a total of 12 credits) Prerequisites: permission of instuctor. Provides student with practical performance experience in theatre productions.
300 PRODUCTIONLABORATORY-DESKGN/TECHNOLOGYғ* 1 credit
(May be repeated for a total of 12 credits) Prerequisite: permission of instuctor. Provides student with practical experience in technical aspects of theatre.

- Required of all theatre majors.
$\ddagger$ Majors are required to enroll in at least one credit production lab every semester they are in
residence.
* Course may be repeated for credit Total credit for graduation may not exceed 12 credits. All courses are by audition only.

310 PERFORMANCE LABORATORY"
1 credit
(May be repeated for a total of 12 credits) Prerequisites: permission of instructor. Provides student with practical performance experience in theatre productions.
400 PRODUCTION LABORATORY-DESIGN/TECHNOLOGY*
1 credit
(May be repeated for a total of 12 credits) Prerequisite: permission of instuctor. Provides student with practical experience in technical aspects of theatre.

## 410 PERFOPMANCE LABOPATORY*

1 credit
(May be repeated for a total of 12 credits) Prerequisite: permission of instructor. Provides student with practical performance experience in theatte productions.

## DANCE

## 7900:

103 DANCE ORIENTATION
Ocredits
Orientation to the dence program and field. Must be taken by all dance maiors and minors in their first semester of study. Dance Orientation is a degree requirement and is offered on a credit/noncredit basis.
115 DANCE AS AN ART FORMM
2 credits
Survey of dance for novice observer: aesthetics, philosophies, methods of training. Lecture and discussion of readings, viewing of film, videotape and live performances.
119 MODERNI
2 credits
(May be repeated for a total of four credits) Exploring the basic principles of modem dance with an emphasis on body alignment and muscular awareness.
120 MODERN II
2 credits
(Mey be repeated for a total of four credits) Prerequisite: permission or a grade of B or better for one semester in 7900:119. Continuation of 119. Increasing movement vocabulary, muscular strength and coordination of modem dance.
124 BALLET 1 (May be repeated for a total of four credits) Emphasis on body placement, muscuiar awareness.
125 BALITT II
2 credits
(May be repeated for a total of four credits) Prerequisite: permission or a grade of B or better for one semester in $7900: 124$. Continuation of 124 . Basic exercises of classical baliet.
130 JAZZ DANCEI
2 credits
(May be repeated for a total of four credits) Basic jazz dance technique and jazz dance crigins.
144 TAP DANCEI
2 credins
(May be repeated for a total of four credits) Basic tap dance technique and terminology.
115 TAP DANCE $\|$
2 credits
(May be repeated for a total of four credits) Prerequisite: permission or a grade of B or better for one semester in 7900:144. Refinement of Tap technique and styistic range of Tap dance.
150 BALROOM DANCEI
1 credit
(May be repeated for a total of four credits) Introduction to the basic patterns and techniques of major ballroom dances.
200 VIEWING DANCE 3 credits
Prerequisite: $3400: 210$. To explore dance as an art form through experiential activities, dance literature, film and live performance for non-dance majors.
219 MODERN III
2 credits
(May be repeated for a total of four credits) Prerequisite: permission or a grade of $B$ or better for one semester in 7900:120. Continuation of 120. Introduction to current modem dance styles and techniques.
220 MODERNIV 2 credits
(May be repeated for a total of four credits) Prerequisite: permission or a grade of B or better for one semester in 7920:219. Continuation of 219. Application of basic modern dance theory of current modern dance styles and techniques.
224 BALIFT ill 3 credits
(May be repeated for a total of six credits) Prerequisite: permission or a grade of B or better for one semester in 7900:125. Continuation of 125. Emphasis on barre and developing strength.
225 BALITIV
3 credits
(May be repeated for a total of 12 credits Prerequisite: permission or a grade of B or better for one semester in 7900:224. Continuation of 224 . Emphasis on the increase of strength and flexiblity.
230 JAZZ DANCE: 2 credits
(May be repeated for a total of four credits) Prerequisite: permission or a grade of B or better for one semester in 7900:130. Continuation of basic jazz technique and stylistic range of jazz dance.
403 SPECIAL TOPICS IN DANCE
$1-4$ credits
(May be repeated as different subject areas are covered, but no more than 10 credits may be applied toward B.A. degree) Traditional and nor-traditional topics in dance, supplementing courses listed in General Bulletin.

## DANCE ORGANIZATIONS

## 7910:

101 CLASSICAL BALET ENSEMBLE**
1 credit
By audition only. Participation in rehearsal and preparation for public periormance of classical bal let repertoire.
102 CHARACTER BALET ENSEMBLF**
1 credit
By audition only. Participation in rehearsal and preparation for public performance of character ballet repertoire.
103 CONTEMPORARY DANCE ENSEMBLE**
1 crodit
By audition only. Participation in rehearsal and preparation for public performance of contemporary dance repertoire.
104 JAZZ DANCE ENSEMBLE**
1 credit
By audition only. Participation in rehearsal and preparation for public periormance of jazz dance repertoire.
105 MUSICAL COMEDY ENSEMBLE** 1 credit
By audition only. Participation in rehearsal and preparation for public performance of dance production numbers in a musical comedy.
106 OPERA DANCE ENSEMBLE** 1 credit
By audition only. Participation in rehearsal and preparation for public performance of dance sequences in an opera.

107 EXPERIMENTAL DANCE ENSEMBLE** 1 credit
By audition only. Participation in rehearsal and preparation for public performance of avant-garde dances.

108 CHOREOGRAPHER'S WORKSHOP** 1 credit
By audition only. Participation in rehearsal and preparation for public performance of student dances.

109 ETHNIC DANCE ENSEMBLE** 1 credit
By audition only. Participation in rehearsal and preparation for public performance of ethnic dance repertoire.

110 PERIOD DANCE ENSEMBLE** 1 credit
By audition only. Participation in rehearsal and preparation for public performance of dances from specific historical periods such as the Renaissance or Baroque eras.

111 TOURING ENSEMBLE*** 1 credit
By audition only. Participation in rehearsal and preparation for public performance of any dances prepared for touring purposes.
112 DANCE PRODUCTION ENSEMBLF** 1 credit By permission only. Participation in technical assistance, preparation and performance of student dance productions: theory and laboratory.
113 DANCE ORGANIZATION: WORIKSHOP
1 credit
Prerequisite: by permission only. Participation in a dance workshop as a volunteer, perticipant and/or presenter that forwards and augments the student's dance education and networking skills.
200 BFA AUDITION
Prerequisite: 201 or permission. Passing the BFA Audition is a requisite for becoming a BFA dance major. It is also a degree requirement. It may not be taken more than twice. Offered on a credit/noncredit basis.
201 FFESHMAN JURY AND INTERVIEW
The passing of the Freshman Jury and interview is a requisite for becoming a BA dance major. It is also a degree requirement. Students may take the Freshman Jury and Interview the following semester if failed the first time. It may not be taken more than twice. Offered on a credithoncredit basis.

- Required of all theatre maiors.
\# Maiors are requifed to enroll in at least one credit production lab every semester they are in residence.
** Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. Al courses are by audition only.


## SOMATICS AND WORLD DANCE

## 7915:

101 DANCE SOMATICS: YOGA
1 credit
Prerequisite: $7900: 120$ or $\mathbf{7 9 0 0}: 125$, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study.

102 DANCE SOMATICS: PILATES
1 credit
Prerequisite: 7900:219 or 7900:224, or higher levels of baliet or modern dance technique. Exploration of altemative movernent disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study.
103 DANCE SOMATICS: ALEXANDER TECHNHOUE
1 credit
Prerequisite: 7900:120 or 7900:125, or higher levels of ballet or modern dance technique. Exploration of ahternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study.
104 DANCE SOMATICS: GYROKINESSS
1 credit
Prerequisite: 7900:120 or 7900:125, or higher levels of ballet or modern dance technique. Exploration of ahernative movement disciplines aimed at increasing body-mind awareness and dancer heath. Must be taken by dance majors in first two years of study.
111 WORLD DANCE: AFPICA
1 credit
Prerequisite: $7900: 120$ or $7900: 125$, or higher fevels of ballet or modem dance technique. Exploration of various dance genres from word and historical traditions of Africa.
112 WORLD DANCE: ASIA
1 credit
Prerequisite: $7900: 120$ or $7900: 125$, or higher levels of ballet or modern dance technique. Exploration of various dance genres from world and historical traditions of Asia.
113 WORLD DANCE: EUROPE 1 credit Prerequisite: 7900:120 or 7900:125, or higher levels of ballet or modern dance technique. Exploration of various dance genres from world and historical traditions of Europe.
114 WORLD DANCE: PACIFIC RIM
1 credit
Prerequisite: 7900:120 or $7900: 125$, or higher levels of ballet or modern dance technique. Exploration of vanious dance genres from world and historical traditions of the Pacific Rim.
115 WORLD DANCE: RENAISSANCE
1 credit
Prerequisite: 7900:120 or 7900:125, or higher levels of ballet or modern dance technique. Exploration of various dance genres from world and historical traditions of the Renaissance.

## 116 WORLD DANCE: BAROQUE

1 credit
Prerequisite: 7900:120 or 7900:125, or higher levels of ballet or modern dance technique. Exploration of various dance genres from world and historical traditions of the Baroque period.

## 117 WORLD DANCE: SPANN

1 credit
Prerequisite: $7900: 120$ or $7900: 125$, or higher levels of ballet or modem dance technique. Exploration of various dance genres from world and historical traditions of Spain.
403 sPECAAL TOPICS IN WORLD OR SOMATIC DANCE 1 - 3 credits (May be repeated for up to six credits) Prerequisite: 7900:120 or 7900:125. Projects or classes in World or Somatic Dance not covered by present course offerings.

## DANCE PERFORMANCE

## 7920:

116 PHYSICAL ANALYSIS FOR DANCEI
2 credits
Prerequisites: 3100:200, 201 and 7400:133. Required for all dance majors. Recommended to be taken in first two years. Lecture/aboratory. Skeletal and muscular analysis for dance technique.
117 PHYSICAL ANALYSLS FOR DANCE i 2 credits
Prerequisite: 116. Support systems, conditioning injury prevention, rehabilitation, nutrition for dancers.
122 BALIETV 4 credits
(May be repeated far a total of 16 credits) Prerequisite: permission or a grade of B or better for one semester in 7900:225. Theory, vocabulary, structure, placement. Concurrent enrollment in pointe class recommended.
141 PONTEI
2 credits
(May be repeated for a total of eight credits) Prerequisite: permission and 112 or above.
Reinforcement of selection principles for pointe shoes, proper holding of foot musculaty and control of heel while ascending and descending from pointe.
222 BALIET V
(May be repeeted for a total of 16 credits) Prerequisite: permission or a grade of B or better for
(May be repeated for a total of 16 credits) Prerequisite: permission or a grade of B or better for
one semester in $7920: 122$. Continuation of 122 , expanding theory on vocabulary, structure, placerment. Concurrent enroliment in pointe class recommended.

228 MODERN V
3 credits
(May be repeated for a totel of six credits) Pterequisite: permission or a grade of B or better for one semester in 7920:220. The intermediate study of modern dance styles and techniques through the application of more complex movement theories, mythmic patterns and improvisational studies.
229 MODERN VI
3 credits
(May be repeated for a total of six credits) Prerequisite: permission or a grade of B or better for one semester in 7920:228. Introduction to intermediate theory of current modem dance styles and techniques.
241 PONTE H
2 credits
(May be repeated for a total of 12 credits) Prerequisite: permission or a grade of B or better for one semester in 7920:141. Continuation of 141. Continued development of strength, coordination and endurance of holding foot muscularty. Further development and emphasis on principles of weight transier.

246 TAP DANCE HI
2 credits
(May be repeated for a total of four credits) Prerequisite: permission or a grade of B or better for one semester in 7900:145. Advencement of Tap dance technique through the use of complex combinations, syncopation, routines, and styles.

270 MUSICAL THEATRE DANCE TECHNOUES 3 credits
Prerequisites: 7900:119, 7900:124, 7900:130, 7900:144, 7900:230; or permission. Precision, line and vemacular dance; couple and solo dance work for musical theatre.

## 274 DIGTAL TECHNOLOGY FOR DANCE

3 credits
Hands-on exploration of theories and methods used in electronic development of promotional and creative materiais. Activities include still and motion image capture, editing and distribution.
316 CHOREOGRAPHYI
2 credits
Prerequisite: permission or $7900: 220$ or above. Theoretical and practical introduction to principles of choreography: space, time, energy.
317 CHOREOGRAPHY II 2 credits
Prerequisite: 316 and permission. Continuation of 316. Emphasis on musical choices and finding movement specific to the individual choreographer.
320 MOVENENT FUNDANENTALS 2 credits
Beginning study of Labanotation method of recording movement, and Laban's theories of effort, space, and shape.
321 RHYTHMIC ANALYSES FOR DANCE 2 credits
By permission only. Not open to new freshmen. Lecture and application of basic riythmic structures used in dance and dance instruction.
322 BALIETVH
BALLET VI
(May be repeated for a total of 24 credits) Prerequisite: permission or a grade of B+ or better for one semester in 7920:222. Continuation of 222. Emphasis on technique, style, line. Concurrent enrolment in pointe class recommended.
328 MODERN VII
3 credits
(May be repeated for a total of 12 credits) Prerequisite: permission or a grade of $B$ or better for one semester in 7920:229. Refinement and and stylization of modem techniques for performance for modern dance.

329 MODERN VH
3 credits
(May be repeated for a total of 12 creoits) Prerequisite: permission or a grade of B or better for one semester in 7920:328. Application of ackvanced modern dance technique and styles.
333 PARTNERING
2 credits
Prerequisite: 7920:122 and 7920:228, or higher levels of ballet and modern dance technique, or permission. An exploration of the fundamentals of dance partnering: weight sharing, centering, safety via contact improvisation.
334 PAS DE DEUXI
2 credits
(May be repeated for a total of eight credits) Prerequisites: permission; concurrent enrollment in a pointe class recommended. Provides student with the beginning understanding and practice of pas de deux.
341 PONTE IH
2 credits
(May be repeated for a total of 16 credits) Prerequisite: permission or a grade of B or better for one semester in 7920:241. Continuation of 241. Advancement, development and application of principles of classical ballet technique through work on small variations, codas, enchainements and tour de force exercises.

347 TAP DANCE IV
2 credits
(May be repeated for a total of eight credits) Prerequisite: permission or a grade of B or better for one semester in 7920:246. Advanced tap combinations, styles, routines.
351 JAZZ DANCE III
2 credits
(May be repeated for a total of four credits) Prerequisite: permission or a grade of B or better for one semester in 7900:230. Intermediate jaz dance technique and the jazz erss.
361 LEARNNG THEORY FOR DANCE
2 credits
Prerequisites: 7900:115, 224; 3750:100 or permission of instructor. Theories of learning and their use in teaching dance.
362 INSTRUCTIONAL STRATEGIES FOR DANCE
2 credits
Prerequisite: 361. Practical work and development of teaching skills in dance for public and private settings.
403 SPECLAL TOPICS IN DANCE
14 credits
(May be repeated. No more than 10 credits may be applied toward the B.F.A. or B.A.) Prerequisite: Permission. Traditional and nontraditional topics in dance.

418 CHOREOGRAPHY H1 2 credits
Prerequisite: 317 and permission. Continuation of 317. Emphasis on form and choreographic analysis.

417 CHOREOGRAPHYIV 2 credits Prerequisite: $\mathbf{4 1 6}$ and permission. Continuation of 416. Expanding into group choreography and longer works.

422 BALLTT VH 4 credits (May be repeated for a total of 32 credits) Prerequisite: permission or a grade of $B+$ or better for one semester in 7920:322. Continuation of 322 . Advanced level of technique. Concurrent enrolt ment in pointe class recommended.
430 . HISTOFY OF MUSICAL THEATRE IN DANCE
2 credits Prerequisite: 7900:115. Focus on dance styles and choreographers in Musical Theatre from a historical perspective.
432 HISTORY OF BALET
2 credits Prerequisite: 7900:115 or permission. Development of dance beginning with its origins in French Courts through the Romantic and Diaghilev Eras to current times.

433 DANCE HISTORY: 20th CENTUAY 2 credits
Prerequisite: 115 or permission. Development of modem dance as an art form and the further evolution of ballet and concert dance.
445 DANCE PHILOSOPHY AND CRTICISM 3 credits
Prerequisites: $3400: 210,3600: 101,7900: 115$ and 7920:432 or 433 . Review of historical dance philosophies, performance, attributes, choreographic and theatrical elements of dance and criticism.

451 JAZZ DANCE N
2 credits
(May be repeated for a total of eight credits) Prerequisite: permission or a grade of B or better for one semester in 7920:351. Advanced jazz dance technique and styles for the professional dancer.

## 461 SEMINAR AND FELD EXPERIENCE IN DANCE EDUCATION

2 credits
Prerequisite: 362 . Supervised observation and taaching experience in dance education in the field. Concurrent enrollment in 7910:108 Choreographers' Workshop.
462 PROFESSIONAL ISSUES IN DANCE EDUCATION
2 credits
Prerequisite: 461. An examination of current issues and goals in dance education. Concurrent enrollment in 7910:108 Choreographers' Workshop.
471 SENIOR SEMINAR
1 credit
Prerequisite: senior standing or permission. A forum to develop professional skills to make the transition to a dance career: artistic, academic, or business.
490/590 WORKSHOP IN DANCE
(May be repeated for a total of eight credits) Prerequisite: permission. Group study/projects (May be repeated for a total of eight credits) Prerequisite: permission. Group study/projects investigating a particular field of dance not covered by other courses.
497 INDEPENDENT STUDY IN DANCE
13 credits
(May be repeated for a total of four credits) Prerequisite: Permission and prearrangement with instructor. Individual creative project, research or readings in dance with faculty adviser.
498 SENIOR HONORS PROJECT IN DANCE
1.3 credits
(May be repeated for a total of six credits) Prerequistes: Senior standing in Honors College and approval of department preceptor. Creative project or research supervised by dance preceptor.

## College of Nursing

## COOPERATIVE EDUCATION 8000:

301 COOPERATIVE EDUCATION
0 credits
(May be repeated). For cooperative education students only. Work experience in business, indus
try, or govemmental agency. Comprehensive performance evaluation and witten report required.

## NURSING

## 8200:

100 INTRODUCTION TO NURSING
1 credit
Introduces students to influences of past, present, and future political, legal, social, and cultural processes on the nursing profession and the roles of nurses.

## 211 FOUNDATIONS OF NURSING PRACTICE

5 credits
Prerequisite: Admission to the College. This course focuses on basic concepts and skills needed by novice nursing students in order to care for clients. This course will focus on nurse-client relationships, communication, nursing process, psychomotor skills and beginning pharmacology. Clinical experiences will reflect these concepts and skills.
212 FOUNDATIONS OF NURSING PRACTICE II
5 credits
Prerequisite: 211. Builds on Foundations of Nursing Practice I focusing on promoting holistic well being across the lifespan. Clinicals are with children and adults, acute and non-acute settings.
215 PROFESSIONAL ROLE DEVELOPMENT
2 credits
Prerequisite: Admission to the College. This foundational course explores the professional role of the nurse and nursing's impact on multiple levels of health care and health outcomes. An overview of the art and science of nursing are discussed along with strategic nursing initiatives.
216 TRANSITION TO BACCALAUREATE NURSING
3 credits
Prerequisite: Admission to College of Nursing. This course emphasizes the transition from Licensed Practical Nurse to professional nurse. The LPN is introduced to the discipline of nursing from a baccalaureate perspective.

217 PATHOPHYSIOLOGY FOR NURSES
3 credits
Prerequisite: Satisfactory completion of first-year prerequisite courses for the BSN program. Develop understanding of basic concepts related to pathophysiologic mechanism of health, illness as applied to nursing. Emphasis on application to nursing using the nursing process.

## 225 HEALTH ASSESSMENT

3 credits
Prerequisite: Admission to the College. The skills of taking heath histories and performance of basic physical assessment. Supervised practice in the Leaming Resource Center.

## 230 NURSING PHARMACOLOGY

3 credits
Prerequisite: Satisfactory completion of first-year prerequisite courses for the BSN program. Emphasis on fundamental concepts of pharmacology as applied to major drug classes, actions, and effects. Application of nursing process to drug therapy across life span.
325 CULTURAL DIMENSIONS OF NURSING
2 credits
Prerequisites: Satisfactory completion of all required Sophomore-evel nursing courses. Nursing care of clients of diverse ethnicities is emphasized. Special attention is given to selected ethnic groups' communication pattems, spirituality, heath beliefs and practices.
336 CONCEPTS OF PROFESSIONAL NURSING/RN ONLY
4 credits
Prerequisite: Admission to the RN/BSN sequence. Introduces the RN to baccalaureate nursing. Focuses on the relationship of concepts and theories to the role of the professional nurse. Offered Summer only.

337 HEALTH ASSESSMENT/RN ONLY
3 credits
Prerequisite: admission to the RN program. This three hour health assessment course is designed for the registered nurse. The course consists of both theory and supervised clinical laboratory practice.

350 NURSING OF THE CHILDBEARING FAMILY
5 credits
Prerequisite: Satisfactory completion of Sophomore-level nursing courses. A theoretical and clinical basis for care of the childbearing family in varying degrees of health and in a variety of settings.
360 NURSING CARE OF ADULTS
5 credits
Prerequisite: Satisfactory completion of Sophomorelevel nursing courses. Acute nursing care of adults with nutrition, elimination, metaboic, sexual, reproductive, and immunological concerns. Includes theory and practice at the advanced beginner level.
370 NURSING CARE OF OLDER ADULTS
5 crodits
Prerequisite: Satisfactory completion of Sophomore-evel nursing courses. Acute nursing care of older adults with mobility, perception, circulation, and oxygenation concerns. Includes theory and practice at the advanced beginner level.
380 MENTAL HEALTH NURSING
5 credits Prerequisite: Satisfactory completion of Sophomorelevel nursing courses. Assists students in developing knowledge and skills for providing care to individuals with mental health needs in a variety of settings.

405 NURSING CARE OF HEALTHY MDMDUALS/FAMILES/RN ONLY
3 credits
Prerequisite: 336, 337. Health care concepts across the lifespan with emphasis on health promotion and ithess prevention for individuals, families, and groups are discussed.
406 PAULATIVE NURSING CARE
2 credits
Prerequisite: 336. Dimensions of end of life nursing care, including family dynamics, grief and loss, ethical considerations, physiologic changes and community resources are examined.
409 INTERNATIONAL HEALTH
2-3 credits
Prerequisite: Junior standing. Study in an intemational location. Focuses on comparisons of education, ethics, govemment, demography and geography on health care and nursing roles and responsibilities.
410 NURSING OF FAMILES WTTH CHILDREN
5 credits
Prerequisite: Satisfactory completion of Junior-level nursing courses. Theoretical and clinical nursing course focused on the child within a family context. Health problems of both acute and chronic nature are explored.

415 COMPLEX CARE FOR AGING FAMILIES/RN ONLY
3 credits
Prerequisites: $336,337,405,445$. Complex nursing issues related to care of aging individuals and families are explored. The nurse's role in physiological, emotional and psychosocial care is discussed.

430 NURSING IN COMPLEX AND CRITICAL STUATIONS
5 credits
Prerequisite: Satisfactory completion of all Junior-level nursing courses. Introduces advanced beginners to the complexity of nursing care in acute complex and critical situations of patients with multr-system failures.
435 NURSNG RESEARCH
2 credits
Prerequisite: Satisfactory completion of all Junior-level nursing courses. Exploration of the effects of nursing research on the profession, become a knowledgeable consumer of research.
436 NURSNG RESEARCH/RN ONLY
3 credits
Prerequisite: 336. Exploration of the effects of nursing research on the profession, becoming a knowledgeable consurner of research.
40 NURSING OF COMMUNTIES
5 credits
Prerequisite: Satisfactory completion of all Junior-level nursing courses. A synthesis of nursing skills applied among various community populations. Health and illness care strategies within diverse health care systems to promote the health of groups.
44 NURSING OF COMMUNTRES PRACTICUM/RN ONLY 2 credits
This clinical practicum provides experiences related to community heath nursing in a variety of traditional and nortraditional community environments.

445 NURSING OF COMMUNTIES/RN ONLY
3 credits
Prerequisites: 336,337,405. This course provides Aa theoretical foundation for community, including public heatth nursing, to individuals and families in a variety of settings' to diverse popurlations.

446 PROFESSIONAL NURSING LEADERSHIP/RN ONLY 3 credits
Prerequisite: 445 . Issues related to nursing leadership, management, policy, and economic issues within the health care system that influence nursing practice are discussed.
447 PROFESSIONAL NURSING LEADERSHIP PRACTICUM/RN ONLY 2 credits
This clinical course offers the opportunity to implement leadership and management skills in a heath care setting.
448 PROFESSIONAL NURSHNG CAPSTONE/RN ONLY
Prerequisites: 415, 446. Opportunities to synthesize information and reflect on ethical, legal, cultural, and political dimensions of employment and patient care within the health care system are provided.
450 NURSING PRACTICUM \& LEADERSHIP
5 credits
Prerequisite: Completion of all Junior-level courses. This course focuses on the application of leadership and management principles to the practice of nursing. Political, social, cultural, legal and ethical issues are explored.
453/553 SCHOOL NURSE PRACTICUM I
5 credits
Prerequisite: $5570: 421 / 521,5570: 423 / 523,225$ or 650 . Corequisites: 225 or 650 if not previously completed. Emphasis on clinical primary health care nursing to enhance positive health behavior outcomes of well children and adolescents with minor conditions on family, community, school contexts.

454/554 SCHOOL NURSE PRACTICUM II
5 credits
Prerequisite: 5570:421/521,5570:423/523, 225 or $650,453 / 553$ or waiver. Emphasis on primery health care nursing to enhance positive health behavior outcomes of children/adolescents with minor common health or behavioral problems and chronic illnesses.
480 SENIOR HONORS PROJECT . 1.3 credits
Prerequisites: Senior standing in Honors College and nursing major. Completion and presentetion of an original investigation of a significant topic or creative work which must meet high standards of scholarship.
489/589 SPECLAL TOPICS: NURSING
$1-4$ credits
(May be repeated as new topics are presented) Group studies of special topics in nursing. May not be used to meet requirements for the major in nursing. May be used for elective credit.
493/593 WORIKSHOPS
$1-4$ credits
(May be repeated as new topics are presented) Selected topics in nursing. May be used to meet undergraduate or graduate major requirements at the discretion of the college.
497 INDEPENDENT STUDY
1.3 credits

Prerequisite: permission of Assistant Dean Academic Nursing Programs, and good academic standing. Provides opportunity to develop greater depth in an area of nursing through methodology specific to discipline of nursing.

## College of Polymer Science and Polymer Engineering

## INTERDISCIPLINARY COURSES:

POLYMER SCIENCE AND POLYMER ENGINEERING

## 9821:

281 POLYMER SCIENCE FOR ENGINEERS
2 Credits Prerequisites: 3150:151 and 152. Chemical bonds and structure of organic molecules, polymer chain structure, amorphous and crystalline morphology ard structurai characterization, polymerize tion and copolymerization, experimental demponstrations, typical solid-state and flow properties.
381 POLYMER MORPHOLOGY FOR ENGINEERS
3 Credits Prerequisites: 281, 3150:151, 3650:292. Fundamental understanding of solid structure, crrstal lography and morphology, processed polymers, co-polymers and their blends.

## POLYMER ENGINEERING

## 9841:

## 321 POLYMER FLUID MECHANICS

3 Credits
Prerequisite: 4600:310 or equivalent. Rheological properties and flow characteristics of polymer fluid systems; non-Newtonian viscosity, viscoelasticity.

422 POLYMER PROCESSING 3 Credits Prerequisites: 321 and 4600:315 or equivalent. Polymer processing technology. Basic studies of flow in extrusion, molding; and other processing methods.
425/525 INTRODUCTION TO BLENDING AND COMPOUNDING OF POLYMERS 3 credits Prerequisites: 4200:321 or 4600:310 or permission. Nature of polymer blends and compounds and their applications. Preparation and technology using batch and continuous mixers, mixing mechanisms.
427/527 MOLD DESIGN
3 credits
Prerequisites: 4200:321 or 4600:310 or permission. Molding methods to manufacture polymeric products. Machinery, materials, molds, equipment, computer-aided design.
450/550 ENGINE ERING PROPERTES OF POLYMERS 3 credits
Prerequisites: $4600: 336$ or permission. Introduction to engineering properties and polymer processing. Analyzing mechanical polymer tests in glassy, rubbery, and fluid states. Product design, meology, rheometry and polymer processing concepts.
451/551 POLYMER ENGINEERING LABORATORY
23 Credits
Prerequisite: 4200: 321. Corequisite: 422. Laboratory experiments on the meological characterization of polymer melts, fabrication of engineening products, structural investigation of polymeric parts.

497 HONORS PROJECT 2 credits
Prerequisite: Senior standing in the Honors College. Individual creative project in mechanical polymer engineering, supervised by faculty member of the department. This course must be design oriented if used in place of 4700:499.
499 POLYMER ENGINEERING DESKGN PROJECT
2 crodits Corequisite: 4600:400 or permission of instructor. Analysis and design of mechanical polymer systems.

## POLYMER SCIENCE

## 9871:

401/501 INTRODUCTION TO ELASTOMERS 3 credits
Prerequisites: physical chemistry (or equivalent) or permission. An introduction to the science and technology of elastomeric materials. Lecture and laboratory.
402/502 INTRODUCTION TO PLASTICS
3 credits
Prerequisite: physical chemistry for equivalentl) or permission. An introduction to the science and technology of plastic materials. Lecture and laboretory.
407/507 POLYMER SCIENCE
4 crodits
Prerequisite: $3150: 314$ or $3650: 301$ or permission. Principles of polymerization processes and relationships between molecular structures and physical behavior of polymers. Molecular weight distributions of macromolecules discussed and methods of determining molecular weights utilized. Lecture and laboratory.
499 RESEARCH PROBLEMS IN POLYMER SCIENCE
Prerequisite: permission. Faculty-supervised undergraduate research problems in polymer science, culminating in a written report.

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gustavo adolfo CarRI, Associate Professor of Poivmer Science (2000) B.S., University Nancional de La Plata; M.S., Case Western Reserve University; M.S., Ph.D., University of Massachusetts-Amherst, 2000.
STEPHEN 2. CHENG, Dean of the College of Pohmer Science and Polymer Enginearing; Robert C. Musson Professor of Polymer Science; Profassor of Polymer Science; Trustees Professor of Polymer Science (1987) B.S., East China Normal University; M.S., East China Institute of Science and Technology: Ph.D. Rensselaer Polytechnic Institute, 1985.
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All dhino.wala, Professor of Polymer Science; H. A. Morton Professor of Polymer Science (1997) Ph.D., Northwestern University, 1994.

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DARRELL H. RENEKER, Professor of Polymer Science (1989) B.S., Iowa State University; M.Sc., Ph.D., University of Chicago, 1959.
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ALEXI P. SOKOLOV, Thomas A. Knowles Professor of Polymer Science (1998) M.S., Novosibirsk State University: Ph.D., USSR Academy of Sciences; Habilitation (Dr. Sciences), Russian Academy of Sciences, 1994.
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CHRYS WESDEMIOTIS, Distinguished Professor of Chemistry (1989) B.S., M.S., Ph.D., Technical University of Berlin, 1979.
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## Department of Polymer Engineering

RODERIC P. QUIRK, interim Director, Institute of Polymer Science; Distinguished Professor of Polymer Science; Kumho Distinguished Professor of Potymer Science (1983) B.S., Rensselaer Polytechnic Institute; M.S., Ph. D., University of llinois, 1967.
KYONSUKUM. CAKMAK, Associate Professor of Polymer Engineering (1983) B.Eng., M.Eng, Kyoto Institute of Technology; Ph. D., University of Tennessee, 1984
MUKERREM CAKMAK, Professor of Polymer Engineering (1983) B.S., Technical University of Istanbut; M.S., Ph.D., University of Tennessee, 1984.
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CHANG D. HAN, Benjamin Franklin Goodrich Endowed Professor of Polymer Engineering (1993) B.S., Seoul National University; M.S., Newark College of Engineering; M.S., New York University; M.S., Sc.D., Massachusetts Institute of Technology 1964;:
HENDRIK HEINZ, Assistant Professor of Polvmer Engineering (2006) B.S., University of Heidelberg: M.Sc., Ph.D., ETH Zurich, 2003.
AVRAAM I. ISAYEV, Distinguished Professor of Polymer Engineering (1983) M.Sc., Azerbaijan Institute of Oil and Chemistry; M.Sc., Moscow Institute of Electronic Machine Building; Ph.D., USSR Academy of Sciences, 1970.
SADHAN C. JANA, Professor of Polymer Engineering; Department Chair of Polymer Engineering (1998) B.Tech., University of Calcutta; M.Tech, IIT, Kanpur; Ph.D., Northwestern University. 1993.

THEN KYU, Distinguished Professor of Polymer Engineering (1983) B.Eng., Kyoto Institute of Technology; M.Eng., D.Eng., Kyoto University, 1980.
ARKADV I. LEONOV, Professor of Potymer Engineering (1988) B.S., Moscow Institute of Chemical Engineering; M.S., Moscow State University; Ph.D., USSR Academy of Sciences; Ph.D., Karpov PhysicoChemical Research institute. Moscow USSR, 1969.
EROL SANKATAR, Professor of Polymer Engineering (1996) B.S., Robert College, istanbul (now Bosphorus University); M.S., Ph.D., Virginia Polytechnic Institute and State University, 1979.
MARK D. SOUCEK, Associate Professor of Polymer Engineering; Associate Professor of Chemistry (2001) B. S., Eastem llinois University; M.S., Illinois State University; Ph.D., University of Texas, 1990.
JAMES L. WHITE, Harold A. Morton Professor of Polymer Engineering (1983) B.S.Ch.E., Polytechnic Institute of Brooklyn; M.S.Ch.E., Ph.D., University of Delaware, 1965.

## Institute of Biomedical Engineering Research

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DALE H. MUGLER, Dean of the Honors College; Professor of Biomedical Engineering; Professor of Applied Mathematics (1989) B.A., University of Colorado; M.A., Ph.D., Northwestern University, 1974.

GLEN O. NJUS, Research Associate, Biomedical Engineering (1986) B.S., M.S., Ph.D., University of lowa, 1985.
NARENDER P. REDDY, Professor of Biomedical Engineering (1981) B.E., Osmania University: M.S., University of Mississippi; Ph.D., Texas A\&M University, 1974.

DANMEL B. SHEFFER, Associate Professor of Biomedical Engineering; Associate Professor of BiologV: Department Chair of Biomedical Engineering; Director, Biostereometrics Lab, Institute of Biomedical Engineering Research (1980) B.S., M.Ed., Northwestern State College; Ph.D., Texas A\&M University, 1976.
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MARY C. VERSTRAETE, Asscciate Professor of Biomedical Engineering; Coordinator, Bachelor of Science in Biomedical Engineering Program (1988) B.S., M.S., Ph.D., Michigan State University, 1988.

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MARION A. RUEBEL, 1978-1989, Ph.D.
NANCY K. GRANT, 1989-1990, Ph.D. (acting)
THOMAS J. VUKOVICH. 1990-1993, Ph.D. (acting)
KARLA T. MUGIER, 1993- Ph.D.

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[^0]:    * Classes Canceled (day and evening).
    *- Classes canceled from Wednesday at 5 p.m. until Monday at 6:45 a.m.

[^1]:    - An ACT English score of 28 or an SAT verbal score of 610 is needed to enroll in $3300: 112$ without the prerequisite.

[^2]:    * 128 crecits for students grachuating from the RN advancement option.
    ** minimum GPA of 2.30 in all nursing courses; 2.00 overall.
    *** A seperate 2.00 is required in the major and a seperate 2.00 is required in all business and economics courses.
    $\dagger$ Grade point average of 2.00 overalt, and a separate GPA of 2.30 in all courses taken in the Schoot of Communication.
    (92 Minimum GPA of 2.50 in all Sociai Work courses; 2.30 overall.

[^3]:    Note: A sficing scale, or the Health and Human Services guidelines on poverty, will be used if the cient

[^4]:    

[^5]:    - RJPectronic Engineoing Technology Elactivess Please note that each of the following chasses may be offered only once duing the vear, induding the summer session. Consult the Schecdule of Classes Buletin or with an academic aoviser for exact scheduling of classes.
    **Technicell Erectives Techrical electives are defined as courses outside of the Electronic Engineering Technology Program that support a studert's career interest. The following ist shows approved technical electives. Some courses isted may involve prerequisites. Aroy course taken that is not on the following list must be approved by the Program Director in witing in order to be considered a technical elective.

[^6]:    Courses not transferable to College of Business Administration

[^7]:    Or
    Effective Oral Communication

[^8]:    ** Some associate degree courses can be applied toward a four-year businass education or technical education degree.

    - 2040 students can take a minimum of two credits of any of the Area Studies/Cultural Diversity courses aporoved for general education. 3370: students can take a minimum of theee credits of ary of the Natural Science courses approved for general education.

[^9]:    - 2040 students can take a minimum of two credits of any of the Aree Studies_Cultural Diversity courses approved for general education. 3370: students can take a minimum of three credits of any of the Natural Science courses approved for general education.

[^10]:    * Students completing NTMA Journeyman's Machinist Program receives bypass credit for these courses. Those not completing the entire program or who have completed the program prior to 1/1/66, see an adviser

[^11]:    tt Changes by subject each semester. Must be taken twice for a total of six credits.
    ** The following ere recommended: 139, Life Seving; 155, Swimming; 173, Seff-Defense; or 174, Karals.

[^12]:    * Gracuates of an Ohio Basic Police Officers Training Acaderny may recsive crecin for 2220500

[^13]:    - These courses are Webbesed.
    -* These courses are offered in the clessroom or Web-based.

[^14]:    1 Students must heve completed a minimum of 32 semester creofits and heve completed 3300:112 Engish Composition II before enrolfing for this course. An additional six crectits of tumenities must also be completed. Please consult an adviser for specific options.
    2 Sudents must complete two courses totating four credits from the area sucdiesfoutural diversity options. The engineering student is required to take only one course. Please consult an adviser for specific aptions.
    3 The mathernatics requirement varies by department. Pleese consint an adviser for specific requirements.
    4 A minimum of eight credits of natural science are required. One course must heve a leboratory component. However, depertimental requirements may vary. Please consult an adviser for specific information.
    5 Students mey satisfy the General Education Requirement in the social sciences area by completing two courses totaling six creot's from two offerent sets in the sociel science group. Please consitit an adviser for specific information.

    - In the arts program, a student is free to choose any electives, but they must be in some logical sequence. They should lead to some uppercollege degree program, i.e., arts and sciences, education, or fine and esplied arts.
    7 In the science program, a student is free to choose ary electives. However, at least two-thirds of the credits must be in the natural sciences; mathematics, statistics or computer science, engineering; business administretion; or mursing department; and should lead to some upper-college degree abjective.

[^15]:    "Students are required two semesters of practicum experience. Those who are pursuinghave completed the Gerontological Social' Services or Therapeutic Activities certificate can use 2260:287 Practicum in Therapeutic Activities and Long-term Care (1) or 2260:289 Practicum in Gerontological Social Services (1)

[^16]:    - Certain courses not currently available at Wayne College may also need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.
    * Gecphysics maiors must take 3650:291 and 292, Elementary Classical Physics I and II thring the second year insteed of the humanities crecits.

[^17]:    * Certain courses not currently available at Wayne College may atso need to be completed in the first two yeers of selected University programs to assure proper course sequencing and timely completion of degree requirements.
    ** Geophysics majors must take 3650:291 and 292, Elementary Classical Physics I and Il during the second year instead of the humanities credits.

[^18]:    * Certain courses not currently avilable at Wayne College mey also need to be completed in the first two yeers of selected University programs to assure proper course sequencing and timely complation of degree requirements.

[^19]:    - Certain courses not currenty available at Wayme Collage may aso need to be completed in the first two years of selected University programs to assure proper course sequencing and timely completion of degree requirements.

[^20]:    - Certain courses not arrerity ovaiabie at Wayrie College may also need to be comploted in the
    first two yeers of selected University prograns to assure proper course sequencing and timely completion of degree requirements.

[^21]:    *This track relates to professional degrees like Law, MBA or Public Policy as well as Economics. Those wishing to become professional economists through grachuate work in economics (MA or Ph.D) are encouraged to take more calculus (eg. 3450:221, 222, 223) and further mathematics (eg 3450:312).

[^22]:    Geography and Planning Electives - at least 12 additional credits from 3350 courses

[^23]:    $t$ Additional physics courses are usually necessary to satisfy the admission requirements of graduate schools for advanced work in physics or certain other physical sciences.
    $\ddagger$ Only one of the introductory sequences 291,2 or 261,2 is applicable toward the required 40 credits. Courses $3650: 130,133,137$ are not appicable towerd the required 40 credits of plysics.

[^24]:    * The College requirement of 47 upper level credits is waived for B.S.M.D. students promoted to

    Phase Il in two years. Those who leave the program or take a third yeer must satisty this
    requirement. See adviser for clarification.

    + These seven crecits will substitute for seven of the required free electives.

[^25]:    * Electrical engineering majors must actieve C-or better in 4400:231 Circuits I to take 4400:332 Circuits II.
    + Electrical enǵineering majors must have completad all required 300 tevel courses

[^26]:    + Computer engineering majors must have completed all required 300tevel courses.
    * Computer engineering majors must achieve C-or better in 4400:231 Ciccuits I to take 4400:332 Circuits II.

[^27]:    * These requirements do not apply to non-teacher licensure degree programs. See specific program requirements for those areas.

[^28]:    © Varitions will cocur in P -12 licensure fields. See Program Plen sheets for speciic courses,

[^29]:    - Required for admission to College of Education.
    (2) This program hes been suspended untif further notice due to low enrollment
    \#. These courses are not required of Athletic Training iNATAMon- NATA
    - Student must eem a "C" or better in all Physical Education courses to be recommended for licensure.

[^30]:    Required for admission to College of Education.
    1 Take these courses togather
    2 Take these courses togather

[^31]:    - Course requires cinical sport rotation.

[^32]:    * Course requires clinical sport rotation.
    * Course requires clinical hours
    * To qualify for practicum placement in exercise science, student must have a 2.50 average overal

[^33]:    (a) Candidates interested in physical therapy or occupational therapy schools should investigate academic entrance requirements at schools in which they may be interested and then tailor their program to meer those requirements; and keep in mind that most physical therapy/occupational therapy schools requre a minimum GPA of 3.0 and cinical hours prior to admission into a physical therapy or occupational therapy program.

[^34]:    - Requined for admission to the College of Education. Total of 29 credits.

[^35]:    **Those receriving less than a " $B$ " must take the PFFAXS I and pass for admission

    - Required for admission to the College of Education. Total of 29 credis.

[^36]:    *" Those receiving less than a " $B$ " must take the PRAXIS I and pess for admission.

[^37]:    * During the phase-in of these courses, students who have completed 3450:145 College Agebra ( 4 credits) mey complete 3450:210 Calculus with Business Applications to satisfy their requirement.
    *     * Students contemplating and/or committed to going on to graduate school are recommended to complete 3450:215 Concepts of Calculus.

[^38]:    \# Accountancy majors may take either 6400:321,2 or 6400:220. Accountancy majors planning to become Certified Public Accountants (CPAs) should take 6400:321, 2. Other majors take 6400:220.

[^39]:    - Sudents should consider dual options in the Bachelor of Science in Management degree. With the careful selection of electives, students could combine two of the above four options with a minimum number of additional credits. Check with your CBA adviser or the Department of Management web page at htto:/hwwuakronedu/cha/manage to determine the specific

[^40]:    - Students should give careful consideration to the pursuit of a dual major. By adding a limited number of credit hours, students can receive a dual major in sales management and marketing management, sales management and e marketing/advertising, or sales management and international business. Dual majors are one of the best methods for expanding your career specializations and opportunities. Check with your CBA adviser to detemine the specific requirements for the dual major of your choice.
    ** To complete this program as a second major, the student must take at least 12 credit hours of 6600 courses in addition to the requiraments for any other major, minor, or certificate that hes been eamed.

[^41]:    * Students should give careful consideration to the pursuit of a dual major. By adding a limited number of credit hours, students can receive a dual major in söles management and marketing management, sales management and e marketingfadvertising, or sales management and intemational business. Dual majors are one of the best methods for expanding your career specializations and opportunities. Check with your CBA adviser to determine the specific requirements for the dual major of your choice.
    *- To complete this program as a second meior, the student must take at least 12 credit hours of 6600 courses in addition to the requirements for any other maio, minor, or certificate that has been eamed

[^42]:    * The second year of a foreign language is an optional requirement for the School of Family and Consumer Sciences. Please consult with an adviser in the the proper degree area for options available.
    ** The University College's General Education requirement for the Bachelor of Science in Dietetics and the Bachelor of Arts in Food and Consumer Sciences is 45 credits. The additional three crectis come from the use of $3150: 129,30$ General Chemistry ( 8 credits) to meet the natural sciences requirements, and from the use of 3850:100 Introduction to Sociology (4 credits) and 3250:100 Introduction to Economics ( 3 credits) to meet the social sciences requirements. The abovementioned courses meet the American Diatetic Association requirements.

[^43]:    - Students who wish to apply for the Coordinated Program must have completed, or be currently taking, all of the prereapuisite courses indicated by an asterisk (")
    $\not{ }^{*}$ In order to eam a DPD Verification Statement, students graduating from any of the three options leading to a B.S. in Dietetics must obtain a grade of "C" or better in this course.

[^44]:    - Students who wish to apply for the Coordinated Program must have completed, or be currently taking, all of the prerequisite courses indicated by an asterisk (*)
    $\ddagger$ In order to earm a DPD Verification Statement, students graduating from any of the three options leading to a B.S. in Dietetics must cotain a grade of " C " or better in this course.

[^45]:    Students who wish to apply for the Coordinated Progrem must have completed, or be currentry taking all of the prerequisite courses incicated by an asterisk ( ${ }^{( }$)
    $\ddagger$ In order to eam a DPD Verification Statement, students graduating from any of the three options leading to a B.S. in Dietetics must obtrin a grade of "C" or better in this course.

[^46]:    * Eight semesters in a major conducted ensemble.
    ** Acceptance in the Jazz Program is by permission of the coordinator of Jazz Studies.

[^47]:    - Courses in the Departmem of Biology (3100:265) and Speech-Language Pathology and Audiology (7700:265, 266) are required to futfit the natural sciences requiremem. A.BA in Speech-Language Pathology and Audiology substitutes a core of courses in psychology and related disciplines for the foreign languages (see Undergraduate Coordinator for specific courses).
    - Note: Effective Spring 2009, the clinicalhon-cinical options will be eliminated and 77:420 will no longer be offered.

[^48]:    ** Sign Language may be taken in plece of a foreign language.

[^49]:    Total mininum creatis for graduation:

[^50]:    5

[^51]:    $t$ Fulfills General Education requirements.

    * Part-ime option course sequence is currently under revision.

[^52]:    * Offered as a Webbbased course
    ** Offered as a Web-based course or in the ctassroom.

[^53]:    * See school director for placement
    ** This course does not meet the general education hurmanities requirement for dance minors or dance maiors.

[^54]:    * Can also be used for General Education credt
    \# NOTE: Cennot overtap more than 6 credts if obtaining both a Philosophy maior and a Philosopty minor or it obtaining two Philosopty minors.

[^55]:    ** 3650:261, 2, Physics for the Life Sciences, may be substituted for 3650:291,2, in whole or in part.

    - Courses not applicable to the minor in physics without witten permission by a faculty committee
    are $3650-399,488,490,497$ and 498.
    * A maximum of 3 crecits of internship can be applied to minor.

[^56]:    - A maximum of 3 credits of internship can be applied to minor.
    \# (Must be in a Criminal Justice related field.) A maximum of 4 creolts of internship can be applied to minor.

[^57]:    ** Only one World Civ class will be counted toward the certificate credits unless the course involves travel abroad. World Civ classes do fulfill a GenEd requirement.

[^58]:    Construction Engineering Technology Program Director
    Summit College
    The University of Akron
    Akron, OH 44325-6104
    (330) 972-2055
    http://sc.uakron.edu

[^59]:    **. Students may fulfill the language requirement by demonstrating basic competency in either Spanish Oor Portuguese at the FS-1 level (United State Department of State) or equivalent level.
    \# Course substitutions may be made with the approval of the director of the certificate program. Study abroed credits eamed through The University of Akron are especially appropriate for such course substitutions.

[^60]:    * Suıdents may use this course only at the discretion of the Director, based on the neture of the internship

[^61]:    - Undergraduate students must dottain permission to take this course.

[^62]:    $t$ The awarding of this certificate is not contingent upon completion of a degree program. Undergraduate certificate programs require a 2.00 gradepoint average; graduate certificate programs require a 3.00 grade-point average
    ** Choice to be decided in consultation with the program director.

[^63]:    ** Load hours do not carry acadernic credit toward a degree program but do count in computing a suident's course load for financial aid or student employment, and are used in probation and dismissal decisions.

[^64]:    *Students must be in the College of Education to take $300 / 400$ level courses.

[^65]:    * A student who has completed all but one of the required course prerequisites may enroll in the last required course concurrently with 471 with permission from the department of management chair. A student who has completed all but two of the required course prerequisites may enroll in those last two required course concurrently with 471 with permission from the department of management chair.

