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## Calendar 2006-2007

## Fall Semester 2006

Day and Evening Classes Begin
*Labor Day (Day and Evening)
Veteran's Day observed (staff holiday; classes held)
**Thanksgiving Break
Classes Resume
Final Instructional Day
Final Examination Period
Commencement
Final grades due
Spring Intersession (Winter Recess) Saturday-Saturday, Dec. 23, 2006-Jan. 13, 2007

## Spring Semester 2007

*Martin Luther King Day
Day and Evening Classes Begin
*Presidents' Day
Spring Recess
Classes resume
Final Instructional Day
Final Examination Period
Commencement
Final grades due
Law School Commencement

## Summer Session I 2007

Monday, Aug. 28
Monday, Sept. 4
Friday, Nov. 10
Thursday-Sunday, Nov. 23-26
Monday, Nov. 27
Sunday, Dec. 10
Monday-Sunday, Dec. 11-17
Saturday, Dec. 16
Tuesday, Dec. 19
an. 13, 200

Monday, Jan. 15
Tuesday, Jan. 16
Tuesday, Feb. 20
Monday-Sunday, March 19-25
Monday, March 26
Sunday, May 6
Monday-Sunday, May 7-13
Saturday-Sunday, May 12-13
Tuesday, May 15
Sunday, May 20

Day and Evening Classes Begin for first 5-week session
Day and Evening Classes Begin for first 8-week session
Day and Evening Classes Begin for 10-week session
*Memorial Day
Final Instruction Day for first 5-week session
Final grades due first 5-week session

Summer Session II 2007
Day and Evening Classes Begin for second 5-week session Day and Evening Classes Begin for second 8-week session *Independence Day
Final Instruction Day for first 8-week session
Final grades due first 8-week session
Final Instruction Day for 10-week session
Final Instruction Day for second 5-week session
Final grades due 10-week and second 5-week sessions
Final Instruction Day for second 8-week session
Commencement
Final grades due second 8-week session

Monday, May 21
Monday, May 21
Monday, May 21
Monday, May 28
Sunday, June 24
Tuesday, June 26

Monday, June 25
Monday, June 25
Wednesday, July 4
Sunday, July 15
Tuesday, July 17
Sunday, July 29
Sunday, July 29
Tuesday, July 31
Sunday, Aug. 19
Saturday, Aug. 25
Tuesday, Aug. 28

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## University Closing Policy

The president, or designee will determine when conditions - such as severe weather or a state of emergency - necessitate closing the entire University or canceling classes at the main campus and/or Wayne College in Orrville.
The Chief of University Police will promptly notify other designated University officials and members of the Department of Institutional Marketing, 330-972-7820, who will contact area media. University colleges/departments are encouraged to
establish a method for communicating the closing decision to department personnel. Closing information will be announced as early and as simply as possible to avoid confusion.

Cancellation of classes and closure announcements will be made as early as possible in the day and will clearly state the affected campus(es). Call 330-972-SNOW or 330-972-6238 (TDDNoice) for updated information.

## 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) 972-7077, or toll-free, (800) 655-4884. FAX (330) 972-7022.
Financial aid, scholarships, 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, residency requirements, and veteran's affairs 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 Learning Commission
A Commission of the North Central Association of Colleges and Schools
Steven D. Crow, 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 UNIVERSITY OF AKRON IS AN EQUAL EDUCATION AND EMPLOYMENT INSTITUTION.

Operating under nondiscrimination provisions of Titles VI, VII, of the Civil Rights Act of 1964 as 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 unlawful 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:
AA/EEO Office
Polsky Building, Room 326
Akron, OH 44325-4709
Phone: (330) 972-7300
Policy Information on Title IX may be obtained from
Title IX Coordinator
Polsky Building, 318-F
Akron, OH 44325-4732
Phone: (330) 972-6462

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## The University of Akron Undergraduate Bulletin (USPS 620-400)

POSTMASTER:
Important Phone NumbersUniversity Area Code (330)
All phone numbers are subject to change without noticeFor 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
The University of Akron-Wayne College ..... (800) 221-8308
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 ..... 972-7077
Toll-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 (CH208) ..... 972-5214
Reading Lab and Study Skills Center (CH217). ..... 972-6551
Tutorial Programs ..... 972-6552
Writing Lab (CH212). ..... 972-6548
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
Honors College ..... 972-7966
Information Centers
Polsky's High Street Info Center ..... 972-3531
Polsky's Main Street Info Center ..... 972-3532 ..... 972-3532
Student Union972-INFO (4636)
International Programs ..... 972-6349
Academic Advising ..... 972-6194
Immigration
Immigration Issues - Current Students ..... 972-6296
Immigration Issues — Prospective Students ..... 972-6740
H-1B Issues/Permanent Resident ..... 972-6493
J-1 Scholar Issues/SEVIS ..... 972-8391
International Undergraduate Admissions ..... 972-6934
Study, Work, Travel Abroad. ..... 972-7460
Intramural Sports ..... 972-6956
Leadership and Development ..... 972-7021
Libraries, University
Bierce Library .972-7236 or 972-7497
Law Library. ..... 972-7330
Photocopying, Bierce Library. ..... 972-6278
Science and Technology Library ..... 972-7195
University Archives ..... 972-7670
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
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, residency requirements, and veteran's affairs
Residence Life and Housing ..... $.972-7800$
ROTC
Army (Military Science) ..... 972-7454
Air Force (Aerospace Studies) ..... 672-2182
SOuRCe ..... 972-7021
Student Affairs, V.P. for ..... 972-7907
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 . ..... 972-7866
Student Life, Administration Office. .972-7866
Student Recreation and Wellness Center ..... 972-BFIT (2348)
Student Union, Information Center 972-INFO (4636)
Room Reservations. ..... 972-8689
Study Abroad ..... 972-7460
Ticketmaster. ..... 972-6684
Tours (of the University) ..... 972-7077
ZIPS Programming Network ..... 972-7014
Veterans Affairs Coordinator and Counselor ..... 972-7838
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 denominational 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 trustees 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 local 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 institution 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 enrollment 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 world'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 world'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, write 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 technologies 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 four 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 continuing 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 23,000 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, biomedical engineering, organizational psychology, educational technology, marketing, dance, intellectual property law and nursing. Alumni of the University number more than 133,000 and include scientists, engineers, artists, lawyers, educators, nurses, writers, business people, and other professionals at work in every state and throughout the world.
The 218-acre Akron campus, with 81 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, UA Steel Drum Band and Ohio Ballet the latter two in-residence on campus - perform at Thomas Hall. The University joined the Mid-American Conference in 1991 and participates on the NCAA Division I level in 18 sports.
In 2004, The University of Akron completed the first phase of a campus enhancement program, dubbed "New Landscape for Learning," that added 30 acres of green space and nine new buildings, including a Student Recreation and Wellness Center, Student Union, Honors Complex, classroom buildings and parking decks. This transformation continues today with construction of a 15th residence hall and an addition to the Fine and Applied Arts building.
For more than 136 years, The University of Akron has been an active participant in Akron's renaissance of commercial and artistic endeavor, a leader in the metropolitan area's intellectual and professional advancement, a center for internationally 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 talents, 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 northern 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 Northern 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 responsibilities 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 culture. 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, faculty are expected to respect the sanctity of the teaching/learning 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 rules 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, discriminatory, harassing, violent and/or threatening behavior is explicitly prohibited. Academic dishonesty will not be tolerated. Students are expected to to take responsibility for their own learning 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 name-calling 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.

## ACCREDITATION

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 accreditation 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 La Salle 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 nationa 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 earned at the University are respected and sought after by prospective employers.

## Institutional Accreditation:

The Higher Learning Commission of The North Central Association of Colleges and Schools

## Specialized Accreditations

AACSB-The International Association for Management Education
Accreditation Board for Engineering and Technology
American Association for Family and Consumer Sciences
American Association of Marriage and Family Therapy (provisional)
American Association of Nurse Anesthesia - Council on Accreditation
American Dietetic Association
American Psychological Association
American Speech-Language-Hearing Association
Association of Collegiate Business Schools and Programs
Commission on Collegiate Nursing Education
Committee on Allied Health Education and Accreditation of American Medical Association
Council for the Accreditation of Counseling and Related Educational Programs (provisional)
Council on Social Work Education
Foundation for Interior Design Education Research
International Fire Service Accreditation Congress
National Association of Education for Young Children
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 (NASPA)
National Athletic Training Association
National Certification 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 (SMT)
The School of Law is accredited by or holds membership in the following: America Bar Association
Association of American Law Schools
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 Colleges 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 (associate)
Midwestern Association of Graduate Schools
National Association of Graduate Admission Professionals
National Association of State Universities and Land-Grand Universities
North American 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 (USCA)
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 (two-year), 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.edu/gradsch.
Graduate School,
The University of Akron
Polsky Building, Room 469
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 e-mail at gradschool@uakron.edu or visit the World Wide Web site at http://www.uakron.edu/gradsch/for more information.

## Accounting

Accounting - Information Systems
Biology
Biomedical Engineering*
Business Administration
Electronic Business
Entrepreneurship
Finance
Global Sales Management
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 Engineering*
Chemistry*
Civil Engineering*
Communication
Computer Science
Counseling Psychology*
Counselor, Education and Supervision*
Classroom Guidance for Teachers
Community Counseling
Counselor Education ${ }^{\dagger}$
Marriage and Family Therapy*
School Counseling
Economics
Educational Administration*
Administrative Specialists
(admissions suspended)
Educational Research
Educational Staff Personnel
Administration
Instructional Services
Pupil Personnel Administration
School-Community Relations
Higher Education Administration
Principalship
Superintendent
(admissions currently suspended)

Educational Foundations
Educational Psychology
Instructional Technology
Research Methodology and Evaluation (admissions currently suspended)
Social/Philosophical Foundations
Electrical Engineering*
Elementary Education*
Engineering*
Applied Mathematics*
Applied Mathematics
Engineering - MD/PhD
English
Composition
Creative Writing
Literature
Family and Consumer Sciences
Child and Family Development
Child Life
Clothing, Textiles and Interiors
Food Science (admissions temporarily suspended)
Geography
Geographic Information Sciences
Urban Planning
Geology
Earth Science
Engineering Geology
Environmental Geology
Geophysics
History*
Management
Human Resources
Information Systems
Law/MSM-HR Joint Program
Mathematics
BS/MS Accelerated Program
Applied Mathematics*
Mechanical Engineering*
Modern Languages Spanish
Music
Accompanying
Choral
Composition
Education
History/Literature
Music Technology
Performance
Theory

Nursing*
Adult/Gerontological Health Nursing
Clinical Nursing Specialist
Adult/Gerontological Health
Nursing Nurse Practitioner
Behavioral Health Nursing Clinical Nurse Specialist
Behavioral Health Nurse Practitioner
Child/Adolescent Health Clinical Nurse Specialist
Child/Adolescent Health Nurse Practitioner
Nursing Anesthesia
Nursing Services Administration
Public Health
RN/MSN
Nutrition/Dietetics
Outdoor Education (admissions temporarily suspended)
Physical Education
Exercise Physiology and Adult Fitness
Sport Science and Coaching
Physics
Political Science
Applied Politics
Polymer Engineering*

Polymer Science ${ }^{*}$
Psychology*
Applied Cognitive Aging*
Counseling*
Industrial/Gerontological*
Industria//Organizational*
Public Administration and Urban Studies Law/Public Administration Joint Program
Public Administration
Urban Studies
Urban Studies and Public Affairs*
Secondary Education*
Social Work
Sociology*
Special Education
Speech-Language Pathology and Audiology Audiology ${ }^{\dagger}$
Speech-Language Pathology
Statistics
Taxation
Law/Taxation Joint Program
Technical Education
Instructional Technology
Teaching
Training
Theatre Arts
Arts Administration

The following graduate certificate programs are also available:

Acute Care Nurse Practitioner
Addiction Counseling
(admissions temporarily suspended)
Advanced Certificate in Family Conflict
Advanced Certificate in Global Conflict
Advanced Role Specialization in
Nursing Management and Business Adult/Gerontological Nurse Practitioner
Applied Politics
Behavioral Health Nurse Practitioner
Case Management for
Children and Families
Child/Adolescent Health Nurse
Practitioner
Composition
Divorce Mediation
E-Business
E-Learning
Environmental Engineering
Environmental Studies
Gender Conflict
Geographic Information Sciences

Geotechnical Engineering
Gerontology
Higher Education
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 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@uakron.edu.

Visit The University of Akron School of Law's home page at http://www.uakron.edu/law/ for more information.
Or you may write to:
Assistant Dean of Admissions and Financial Aid
School of Law
The University of Akron
Akron, OH 44325-2901
Law degree programs are listed below:

## Juris Doctor

Juris Doctor/Master in Business Administration
Juris Doctor/Master of Science in Management - Human Resource Management
Juris Doctor/Master in Taxation
Juris Doctor/Master in Public Administration
Juris Doctor/Master of Applied Politics
LL.M. in Intellectual Property Law

## Accountancy

Professional Accounting
Anthropology (Interdisciplinary Program)
Applied Mathematics
Art
Art Education
Ceramics
Graphic Design
Metalsmithing
Painting and Drawing
Photography
Printmaking
Sculpture
Studio Art
Art History
Automated Manufacturing
Engineering Technology
Biology
Animal Physiology
Botany
Ecology/Evolution
Microbiology
Zoology
Biomedical Engineering
Biomechanics Track
Instrumentation, Signals and Imaging
Track
Biomaterials and Tissue Engineering Track
Business Administration
Chemical and Biomolecular Engineering
Polymer Engineering Specialization
Biotechnology Specialization
Chemistry
Polymer Option
Civil Engineering
Classical Studies
Classical Civilization
Communication
Business and Organizational:
Organizational
Public Relations
Interpersonal and Public
Mass Media:
Media Production
News
Radio \& TV
Computer Engineering
Computer Information Systems Networking
Option
Computer Science
Construction Engineering Technology
Cytotechnology*
Dance
Dietetics
Economics
Labor Economics
Education
Adolescent to Young Adult Integrated Language Arts
Integrated Mathematics
Integrated Social Studies

Integrated Science Fields
Life Science and Chemistry
Life Science and Earth Science
Life Science and Physics
Earth Science and Chemistry
Earth Science and Physics
Physical Science (Chemistry \& Physics)
Early Childhood Education
Intervention Specialist
Early Childhood
Mild/Moderate
Moderate/Intensive
Middle Childhood
Reading \& Language Arts
Mathematics
Science
Social Studies
Multi-Age
Dance
Drama/Theatre
Foreign Languages French
German (Admissions suspended)
Latin (Admissions suspended) Spanish
Music
Physical Education
Visual Arts
Postsecondary Technical Education
Sports Science and Wellness Education
Athletic Training for Sports Medicine
Sport \& Exercise Science
Vocational Education
Family \& Consumer Sciences
Electrical Engineering
Electronic Engineering Technology
Emergency Management
Engineering
English
Family and Consumer Sciences
Dietetics Coordinated Program
Dietetics Didactic Program
Family and Child Development
Child Development
Child-Life Specialist
Family Development
Family and Consumer Sciences Teacher Education
Food and Consumer Sciences
Fashion Merchandising
Apparel Track
Home Furnishings Track
Fiber Arts Track
Interior Design
Finance
Corporate Financial Management
Financial Services
French
Geography and Planning
Geography Track
Planning Track
Geography/Geographic Information
Sciences
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Early Childhood Development
Electromechanical Service Technology (Inactive)
Electronic Engineering Technology (Step-Up)
Emergency Medical Services Technology
Fire Protection Technology
Geographic and Land Information Systems (GIS/LIS)

Paralegal Studies

Radiologic Technology
Real Estate (Inactive)
Respiratory Care
Surgical Technology
Surveying Engineering Technology (Step-Up)
continued

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## BACCALAUREATE <br> 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 studies 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 develops 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:

Geology

Engineering Geology

Geophysics

History

Humanities

Interdisciplinary Studies

Interior Design

International Business

Management

eBusiness Technologies

Human Resource Management

Industrial Accounting

Information Systems Management

Supply Chain/Operations

Management

Marketing

eMarketing and Advertising





























































































































































Composition
Natural Sciences
Combined B.S.M.D.
Divisional Major
Nursing
Philosophy
Physics
Political Science
American Politics
Criminal Justice
International/Comparative Politics
Law, Courts, and Politics
Psychology
Respiratory Therapy
Social Sciences
Social Sciences PPE Track

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## Wayne College Programs

Associate of Arts
Associate of Science
Associate of Technical Studies
Associate of Applied Business
Business Management Technology Accounting
Data Management: Software Data Mgmt: Novell Networking Data Mgmt: Microsoft Networking General Business

Health Care Office Management
Office Technology
Administrative Professional
Business Office Manager
Legal Administrative Assistant
Health Care Administrative Assistant
Associate of Applied Science
Computer Network Engineering Technology
Microsoft Networking
Novell Networking
Environmental Health and Safety Tech.
Social Services Technology (Step-Up)

## CERTIFICATE PROGRAIMS

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.

## Accounting Specialist

Addiction Services
Advertising
Aging Services
Applied Politics
Archaeology
Biotechnology Specialization
Business Management Technology
Canadian Studies
Child-Care Worker
CISCO Networking Technology
Computer Information Systems
Computer Physics
Computer Science
Conflict Management
Construction Management
Criminal Justice/Advanced Officers Training
Criminal Justice/Corrections
Criminal Justice/General
Criminal Justice/Security
Database Development
Digital Electronics and Microprocessors
Drafting and Computer Drafting Technology
Emergency Management
Entrepreneurship
Environmental Studies
Financial Planning
Fire Protection Technology
Geographic and Land Information Systems
Geographic Information Sciences and
Cartography
Gerontology
Heavy Construction
Health Care Selling
Home-Based Intervention
Hospitality Management:
Culinary Arts
Hotel/Lodging 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
Medical Transcriptionist
Office Software Specialist
Office Supervision
Pan-African Studies
Paralegal Studies
Parent and Family 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 Assurance
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
Victim Studies
Webmaster
Web Site Development
Women's Studies

## Wayne College Certificate Programs

Environmental Health and Safety Mgmt.
Gerontological Social Services
Information Processing Specialist
Legal Office Assistant
Medical Billing
Medical Transcription
Mental Health Social Services
Network Management Specialist
Office Software Specialist
Personal Computer Repair
Therapeutic 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 University's General Education Program, participates in a series of Honors Seminars (Colloquia), and creates a Senior Honors Project. The successful Honors College student is recognized at graduation with the designation of University Honors Scholar.

## INTERNATIONAL EDUCATION: Study, Work, Travel Abroad

Global awareness, international experience, and ability to appreciate languages and cultures are critical for the university graduate. Study abroad enhances the student's academic background; develops critical thinking and decision making skills; increases intercultural, political and economic understanding; and enhances self-esteem.
The University of Akron has Study Abroad direct exchanges and affiliations with universities in Denmark, France, Germany, Israel, Japan, Mexico, The Netherlands, the People's Republic of China, Peru, Romania, Russia, South Korea, and the United Kingdom. In addition, UA has affiliation agreements with AustraLearn, the Institute for Study Abroad at Butler University, Cultural Experiences Abroad (CEA), and the Ohio International Consortium. Programs are available to all students regardless of major, languages, training or financial means. Study Abroad may be undertaken for an academic year, a semester, or a summer, depending upon the host institution.
Short-term study abroad programs are also available through UA. Among these are departmental programs such as the "Summer Program in the Alps in France "(Modern Languages), "Health Care in Germany" (Nursing Instruction), "Study Abroad in Greece" (Marketing and International Business), "Art of Buddhist Japan" (Myers School of Art), "Teaching and Learning in China" (Education), "Three-Week China/Korea Study Tour" (International Programs), "Two-Week Geology of China Field Study Tour" (Geology), "Puerto Rico for Educators" (Curricular \& Instructional Studies), "Directed Spanish Study Abroad" in Spain (Modern Languages), "Public Relations in London" in the United Kingdom (School of Communication), "Study/Work in London" in the United Kingdom (Marketing and International Business), "Wayne College Abroad" at numerous destinations, and various field study programs in Biology.
Students receive elective credit towards graduation for all courses in which they earn a C- 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. Study Abroad credits are an automatic exception to the restriction of 18 total credit hour maximum for transient work.
International internships are available and are designed to provide an educational work experience to students who want to enhance academic and career preparations. 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 Study Abroad Library in the Office of International Programs houses details of nationally competitive scholarship awards as well as study, work, teach, volunteer, and travel abroad literature and international career information.
International Student/Teacher Identity Cards are available for purchase in the Office of International Programs. 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," a "Study Abroad Forum," or the annual "Study, Work, 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 www.uakron.edu/oip/StudyAbroad.
Official ISIC Issuing 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 earning a college degree. ROTC offers scholarships, leadership training, and many other experiences simply not available to your average college 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 discipline. 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 nine 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 Environmental Health and Safety Technology, Computer Network Engineering Technology, and Social Services Technology. Please refer to Section $\mathbf{4}$ in this Bulletin for more information about Wayne College programs.

## OFF-CAMPUS PROGRAMS

As an urban institution of higher learning, the University clearly 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 Professional Development Center opened in October 1998 to service the Medina County area. The Center, offering credit and noncredit courses year round, is equipped with the latest technology, including a distance learning room and computer laboratory. More information is available by calling the Center at (330) 764-4940.

## 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 parallel 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 College, 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, an advocate for equity and social justice, is to ensure that students of diverse ethnic, social and cultural backgrounds achieve their fullest potential, in an affirming 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, with an emphasis on preparing students to live and excel in a global society.
The Office of Multicultural Development strives to:

- Support the creation and establishment of high quality educational programs to a wide variety of diverse student populations
- Foster an environment conductive to teaching and learning
- Support and nurture in students' 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
- Prepare students to be successful in the world of work
- Prepare students for the pursuit of lifelong learning
- Present cultural, social and intellectual activities for campus and local community enrichment
- Provide all graduates with the skills and tools necessary to attain personal and professional fulfillment while stimulating intellectual abilities that will enable them to make informed and ethical decisions
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, academic 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 students 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 full-time 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 $\underline{\text { Akron }} \underline{\underline{S} t u d e n t s ~ f o r ~} \underline{\text { Success and }}$ Great Expectations. The PASSAGE program is a structured learning community experience that promotes the academic and social integration of students of color into the university. Through PASSAGE, we help students develop a strong affiliation with the academic culture of the university. The PASSAGE program promotes student learning and retention through collaborative and cooperative learning and promotes the use of learning technology.
The Four Phase Advising System (4PAS) is designed to assist conditionally admitted, baccalaureate students of color enrolled in The University of Akron. 4PAS provides personalized, continual, individual academic advisement by a professional staff member. The maximum number of students to a 4PAS advisor is 25. These advisors develop one-on-one advising relationships with each of their assigned students.
Peer Mentors are selected to support first-year students with an opportunity to be mentored by academically successful upper-class students. Additionally, Peer Mentors assist first-year students with developing effective strategies for educational advancement.

Students of any academic rank experience academic, personal, social, and cultural support through programs such as:
The Leadership Development Program (LEAD) assists college students in developing personal skills and competencies necessary for academic, co-curricular achievement, and community outreach/involvement to career settings.

The Ethnic and Peer Connection Groups (EPC 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.
- Brothers Talking to Brothers offers African-American males an opportunity to convene and discuss issues related to manhood, brotherhood, and the image of the black male. Brothers Talking to Brothers meet on the second Monday of each month.
- The Latin Circle provides first-year Latino/Latina students 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) 9726769.


## 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 Culture, 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. The Pan African Center for Community Studies is located in the Buckingham Center, Room 101. 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

Adult Focus is located in Carroll Hall, Room 55. Contact them at (330) 972-5793 or by e-mail at adultfocus@uakron.edu. Comprehensive information is located on their Web site at http://www.uakron.edu/uaaf.

## THE UNIVERSITY OF AKRON WORIFORCE 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 work force 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 work force learning. In addition, Work force 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 work force, professional and continuing education.
- Participate actively in technology transfer.
- Share in the significant discoveries of pure and applied scientific research conducted by University faculty.
- 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 http://www.uakron.edu/ce.

## SUMMER SESSIONS

The University's Summer Sessions provide educational opportunities for the student who wishes to attend college classes over the summer. Summer Sessions include work toward associate, baccalaureate, and advanced degrees as well as additional education in students' chosen professions.

## The Campus

Currently the Akron campus covers 218 acres and encompasses 81 buildings. Recent and continued growth with new academic, administrative and recreational spaces, in addition to major renovations to existing buildings, are attributable to the current Master Plan,"A New Landscape for Learning."

## 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 Turnpike) 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 International 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 Purchasing Department, Telecommunications Department, and the Office of the Vice President, Capital Planning and Facilities Management.
143 Union Street Building. This building provides temporary space for the offices of Resource Analysis and Budgeting, Payroll and Associate Vice President for Business and Finance. These departments will relocate to the Administrative Services Building at the beginning of Fall 2006 semester.
277 Broadway Street Building. This building houses the Department of Institutional Marketing.
Administrative Services Building. This building located at 185 East Mill Street houses the University Controller's and Auditor's offices as well as Human Resources which includes Benefits, Employment Services, Labor and Employee Relations, and Personnel Services. It will also house the Offices of Resource Analysis and Budgeting, Payroll, and Associate Vice President for Business and Finance upon completion of building renovations in late August 2006.
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.
College of Arts \& Sciences Building. 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.
Athletics 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 six-lane 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.
Auburn 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 Engineering Co-op Office; Mechanical, Electrical, and Civil Engineering; as well as the Science Technology Library and Department of Biology and Biology Research Facility.
Ayer 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.
Ballet Center. This center, located at 354 East Market Street, houses dance studios, a choreography laboratory, faculty offices, and offices for the School of Dance, the Ohio Ballet, and the Dance Institute.
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 Hall. Originally built in 1870, this structure was destroyed by fire in 1899 and rebuilt in 1901 (Buchtel Hall II). 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.
Buckingham 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.
Carroll Hall. This facility houses the offices of The Faculty Senate and Adult Focus, in addition to classrooms, laboratories, and offices for the departments of Counseling and Developmental Programs.
Center for Child Development. This former Girl 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, the Center for Environmental Studies, classrooms, and some of the College of Education offices.
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, which cost more than $\$ 13.9$ million, 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.
Folk Hall. This building, at 150 E. Exchange St., provides modern, well-equipped 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 co-ed 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 Learning 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 300seat recital hall.
James A. Rhodes Arena. This structure on Buchtel Common is connected to Memorial Hall by a pedestrian bridge and contains an intercollegiate 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 Center and Residence Hall. This newly constructed facility, located at 180 and 188 South College Street, is home of the Honors College and Residence Center.
Hower House. Located on Fir Hill, this 19th-century mansion has been designated a Historic Place by the National Park Service.
Knight Chemical Laboratory. This \$10 million complex is named in honor of Dr. 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 at a cost of $\$ 7.3$ million. 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. Located at 308 Buchtel Common, Leigh Hall is named in honor of Warren W. Leigh, first dean of the College of Business Administration. This newly renovated building is occupied by the Distance Education Center, Institute for Teaching and Learning, Center for Collaboration and Inquiry in addition to The John S. Knight Auditorium. Institutional Research will relocate from the Polsky Building to the 5th floor at the beginning of the Spring 2007 semester.
Paul E. Martin University Center. Located at 105 Fir Hill, 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 at a cost of $\$ 2.5$ million, it provides space for the law library, classrooms, moot courtroom, appellate-review office, seminar rooms, and faculty offices. A $\$ 2.8$ million addition provides library and support space, and a $\$ 1.5$ million 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. The natatorium houses an Olympic-size swimming pool with adjacent spectator seating area, and locker rooms and showers. The center also houses eight racquetball courts as well as weight room facilities. The natatorium is named for former Ohio State Senator Oliver Ocasek.
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, 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 College 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 at 248 East Buchtel Avenue has a cafeteria and dining room for students, as well as the campus infirmary, which provides health services for the University.
Rubber Bowl. 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 UA'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 the Counseling, Testing and Career Center (including Placement Services), some Civil and Mechanical Engineering faculty offices and research space, a College of Engineering minority students study area, the Biology lab \& Learning Resource Center, Engineering \& Science Tech Drafting labs, and general purpose classroom space. Schrank Hall South provides facilities for the School of Family and Consumer Sciences, the Summit College's Engineering and Science Technology Department, and the Army and ROTC
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, 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 Stitzlein, 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 facility, located at 382 Carroll Street, houses facilities and services for student recreation and wellness as well as the Intramural Sports Office. Amenities include a leisure pool, 30-person spa, $1 / 10$ walking/jogging track, $15,000 \mathrm{sq}$. ft. of cardiovascular and strength training equipment, five multi-functional gymnasiums, two group exercise studios, 53 climbing wall, bouldering cave and the Climbing Rock cafe.
Student Union. The Student Union, located in the center of campus, serves the students, faculty, and staff, and is one of the University's major assets in meeting the University-wide goal of public service. This facility houses various food service facilities, meeting rooms, a movie theater, Computer Solutions - The University of Akron's computer technology store, the DocuZip copy center, a bank, Ticketmaster/Film/Fax Center, the Information Center and a bookstore. Visit our Web site at http://www.uakron.edu/studentunion.
West Hall. This renovated structure on Wolf Ledges Parkway is part of the McDowell Law Center.
Whitby 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 and Biomolecular 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 facility houses the College 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 technol-ogy-enhanced demonstration classrooms, two computer-training classrooms, and a multi-media laboratory.

## FACILITIES AND EQUIPMENT

The University's addition of modern 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, controlled-environment chambers, an animal research facility, a molecular biology research center, modern 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, Internet 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 internet 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 www.chemistry.uakron.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. The lab includes an extensive suite of graphics software, three dual-monitor authoring workstations as well as desktop machines, flatbed and film scanners, and an accelerated 100 base-T local network connected to the University backbone. Digital investigation and creation are a regular part of most classes.

The Interdisciplinary Anthropology Program laboratories contain hominid fossil casts, archeological collections, and a variety of equipment used in field research projects as well as computers for use with faculty and student research projects using ArchView and qualitative software packages. The Anthropology Program is affiliated with the Institute for Health and Social Policy. The Anthropology Web site is www.uakron.edu/anthro. It contains current course listings, the "Notes From the Field" Newsletter and information on research.
The Department of Computer Science is located on the second floor of the new College of Arts and Sciences Building. Students in Computer Science have access to a wide variety of computing facilities, 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 24 -node 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 dial-up 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 modern 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, journal articles, the latest economic data, etc., remotely from either Ohio Link or the World Wide Web. The lab is located in close proximity to the faculty offices which facilitates interaction between faculty and students, and enhances the students' educational experiences.
The Department of English offers freshmen the opportunity to take composition classes in its state-of-the-art Computer Classroom. The department faculty includes editors of the journals Composition Forum, Journal of Teaching Academic Survival Skills, Seventeenth Century News, and The Social History of Alcohol and Drugs. Students have the opportunity to submit written work for literary prizes every spring as well as apply for various English scholarships. Additional information about the department, the faculty and the programs is available on the department Web site at www.uakron.edu/english.
The Department of Geography and Planning has an instructional computer lab and specialized labs for research 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 diffractometer. An ion-coupled plasma spectrometer, atomic absorption spectrometer, ion chromatograph, and coal and sulfur analyzers support geochemical studies. Environmental magnetism and paleomagnetism of sediments are analyzed with an alternating gradient magnetometer, magnetic susceptibility equipment, spin magnetometer, alternating field demagnetizer, and a pulse magnetizer. Geophysical research is conducted with a gravimeter, field magnetometer, automated resistivity gear, seismicsurveying 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 drilling platform, 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 History occupies one wing on the second floor of the new College of Arts and Sciences Building. This new office complex includes a multimedia room for Web-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 Journal of Northeast Ohio History which offers both editorial experience and opportunities of scholarly 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: www3.uakron.edu/history.
The Department of Modern 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 multimedia computers have software for additional language practice and foreign language 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 internet at www.uakron.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 www.uakron.edu/philosophy/.
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. The department has an e-mail system and a Web page (http://www.physics.uakron.edu) for use by the faculty and physics students. Many instructors use this system to distribute course materials and entertain questions and feedback from students. 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 learning experience to the student in an attractive and hospitable environment.
The Department of Political Science maintains an instructional computer laboratory consisting of 16 computers. This laboratory is used by Political Science students assigned research tasks requiring improved computer and Internet skills.
The Department of Psychology is located on the third floor of the new 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 capabilities 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 psychology students. Additional information about the department, its faculty, and its programs, is available on the Internet at http://www.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 internet at http://www.uakron.edu/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, Room 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 Applied Mathematics is located on the second floor of the new 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 available for undergraduate students involved in research. The department home page at www.math.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 Hall 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 well-equipped 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 hotel/lodging 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 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 drafting 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 precision inspection and the study of robotics. 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 three laboratories; one laboratory for statics, dynamics and materials, a computer laboratory for strength of materials and project estimating, and a state-of the-art materials testing lab and moist cure room for concrete samples. 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 Technology 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 English-area 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 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 International - The Association to Advance Collegiate Schools of Business, the most prestigious accrediting agency for business schools

Tiered, amphitheater-style classrooms permit close contact between students and professors. The Milton and Henrietta Kushkin Computer Laboratory provides three computer classrooms, each equipped with 36 personal computers, and a homework laboratory for students with more than 75 computers. Each PC is equipped with current versions of word processors, spreadsheets, database managers, and multi-media software. All PC's are connected to the Internet.
The Carl V. and Clyde A. Fisher Sales Laboratory provides the college with six group lab rooms connected by one-way mirrors to a central monitoring and control room. Sophisticated videotape equipment permits the recording of activities in each lab room which can then be shown to students to provide immediate feedback. This facility 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 internet 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 meetings 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, Carroll Hall, Crouse Hall, the James A. Rhodes Health and Physical Education Building, and Memorial Hall.
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 required in all graduate education programs. They teach, advise, and supervise problems, theses, and dissertations of students in their degree-granting graduate programs, the master's programs in Educational Foundations, the master's and doctoral programs in Educational 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 for sports medicine, sport and exercise science, coaching and related recreational fields. There are laboratories for the study of exercise physiology, 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 (a classroom, a swimming pool, nine racquetball courts, and a weight room), and Lee Jackson Field (an outdoor running track and two softball fields). Each of these facilities and resources is used in the presentation of our undergraduate academic programs.
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/moderate/intensive), 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 specialization in each of two areas selected from reading/language 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 special 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 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 specialties in Counselor Education and Marriage 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..

## 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 Auburn Science and Engineering Center, Schrank Hall North, Whitby Hall, and the Olson Research Building.

The graduates from the College of Engineering's undergraduate programs regularly achieve the highest scores in the State of Ohio on the Fundamentals of Engineering 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 and Biomolecular Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Computer Engineering, Mechanical Polymer Engineering and the Cooperative Engineering 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 Engineering degree with specializations in Biomedical Engineering, Polymer Engineering, and Engineering Management.
The Doctor of Philosophy in Engineering is offered in the interdisciplinary fields of Environmental 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 biomaterials 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, telemanipulation, 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 nanotechnology. The tissue culture lab has equipment to investigate the interactions of cells and tissues with biomaterials and to develop tissue engineering 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 earn 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 12plate 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 apparatus, 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 UltraSparc 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 argon-ion laser, a vibration isolated optical bench, a Brookhaven correlation and probability analyzer, FTIR-Ramen, 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, Sorvall RC-5C refrigerated super centrifuge, Perkin-Elmer UVNIS spectrometer and LS-50B luminescence spectrophotometer, and on-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 vacuum 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 Magna-IR 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 $\mathrm{NO}, \mathrm{H} 2$, and CO , and in situ reaction studies.
The Multiphase and Solids Processing Laboratory is equipped to do research in filtration 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 learn to analyze water, wastewater and contaminated soils to assess its quality and to determine the most effective treatment techniques. Laboratory equipment includes UV-visible spectrophotometers, 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 calculations, 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 analyze 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 Ibs., 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 array 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 Tower of the Auburn Science and Engineering Center. The Department has an undergraduate program in Electrical Engineering and an undergraduate program in Computer Engineering. Both programs take advantage of the learning facilities that are available in the Department of Electrical and Computer Engineering which includes laboratories for the study of circuits, analog and digital electronics, control, computers, energy conversion, microprocessor interfacing, power electronics, and electromagnetics/microwaves. Laboratories follow instruction to help the student apply the material learned 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 laboratory is equipped with motors, generators and controllers, both digital and analog. Emphasis is placed on computer control of machines.
The microprocessor 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.
The senior design project laboratory provides bench space and instrumentation for assembly and test of team projects.
Additional laboratories in software engineering, 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 specialization 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, gasturbine, 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 dynamic 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 Stystems (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 facilities 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 and 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 Schiller 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 excellence 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-long 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 facility 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 onair assignments. A multimedia production/editing laboratory-classroom supports class instruction. News, publications, and other writing 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 upper-level 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. 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 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. Guzzetta 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 Sciences 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 Consumer Sciences Teacher Education, Dietetics, Food and Consumer Sciences, Fashion Merchandising, and Interior Design. Nine laboratories, including a Computer Center, are available for student learning 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 variety of certificate programs, including Divorce Mediation, Home Based Intervention and Case Management. 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 houses the Program for Nutrition Intervention which is the service learning, outreach, and research arm of the Division of Nutrition/Dietetics, and provides nutrition assessment and counseling services to the University community.
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 commitment 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 baccalaureate 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-the-art Learning Resource Center, including a computer laboratory exclusively for nursing students. The Center for Nursing within the College is closely 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 elders.
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-tern care facilities, 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 (RN/MSN option) may do so while meeting the baccalaureate requirements. Additional admission requirements and a graduate nursing research class (Inquiry I) are part of the RN/MSN option. Continuation in the graduate program is predicated on meeting graduate program requirements and acceptance into the graduate nursing program. The RN Advancement option is offered on the Akron 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 specialist, 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 specialties include adult/gerontological health nursing, behavioral health nursing, child and adolescent health nursing and nurse anesthesia. Postmasters certificate programs include adult/gerontological health nursing, behavioral health nursing, and child and adolescent health nursing and nurse anesthesia. Core courses in the Master of Science in nursing program are offered via distance learning 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 and Biomolecular 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 support fundamental and applied research in polymer chemistry, physics, and many aspects of polymer behavior. There are extensive laboratories for polymer synthetic chemistry and for the characterization of macromolecules and polymer morphology. The macromolecular modeling center provides state-of-the-art computer modeling capabilities for research, and provides a way to introduce chemistry students in local high schools to computer modeling. A nuclear magnetic resonance laboratory is maintained with several high-resolution instruments supervised by a professional staff. 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. The total value of major instrumentation 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 rheologi$\mathrm{cal} /$ 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 facilities 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, rheological 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.

## 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, user education, bibliographic instruction, and computer-based information searching. 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 11,000 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 libraries.
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 Visua Services also designs, installs, and maintains technology-enhanced general purpose classrooms, offering permanent in-room projection, sound reinforcement and a sophisticated media retrieval system.

## Information Technology Services Division

## Providing Information Technology (IT) 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 Solutions, a unit of DTS, is the central point of computer hardware and software acquisitions for students, faculty, staff, and departments.

Computer Solutions is a higher education reseller for computer hardware, software and many peripheral devices. Its customers are current accredited students, current employees and departments of The University of Akron. Educational pricing allows Computer Solutions to provide the lowest prices to its customers. Computer Solutions also offers a variety of services to students, faculty, staff and departments of the university.
State-of-the-art Apple, Dell, and Gateway desktops and wireless laptop computers can be purchased at Computer Solutions, located on the third floor in the new Student Union. The wireless laptops can be used in any on-campus building or outdoor green space by any University member.
Computer Solutions has licensing agreements with Microsoft, Adobe, SPSS, SAS, AutoDesk and many more. Several other education and business software products are also available at greatly reduced prices.

## Web page: www.uakron.edu/its/compstore

Location: Student Union, Room 307
Hours of operation: Monday-Thursday 8 a.m. -6 p.m.; Friday 8 a.m. - 5 p.m. Off-hour appointments available upon request

The Computing Help Desk, located in Bierce Library, Room 69, provides callin (330) 972-6888, e-mail helpdesk@uakron.edu and walk-in support for al students, faculty and staff.

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

Monday-Thursday 7:30 a.m. - midnight
Friday 7:30 a.m. - 9 p.m.
Saturday 9 a.m. - 8 p.m.
Sunday noon - midnight
Technology Learning Support Services (TLSS) provides the campus community with support services for computing hardware and peripherals, consultation in planning, development, and implementation of departmental computing labs, second level technical support for departmental computer labs, as well as hardware and software support for faculty, staff and student personal computing equipment.

Computer Labs: A combination of 270 Dell and IBM wireless laptops are available for two- and four-hour loans in Bierce Library, room 361, the Science \& Technology Library, Circulation desk and the Student Union, information desk. The wireless laptops can be used anywhere within the libraries and Student Union to access the internet, to get mail, or to do class assignments. Two general purpose computer labs for students are located in the Polsky Building, Room 267 and the College of Arts \& Sciences building, Room 103A. Each is equipped with 20 state of the art Windows desktop PCs, HP printers and scanning stations.

Both the wireless and general purpose labs have the same productivity tools such as Microsoft Office, Adobe e-Books, SPSS and SAS. All computers have internet and e-mail capabilities.

Internet Kiosks 35 strategically placed internet kiosks provide instant access to email and web registration on campus
Student Computer Support Services provides University of Akron students with knowledgeable assistance in the setup and operation of their personal computer equipment. SCSS 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 internet. SCSS will also provide hardware diagnostics, software diagnostics (within reason) and basic troubleshooting. SCSS 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, so that you can seek assistance from your hardware provider or service center. SCSS can also help you set up your dial-in access to the University Computer Network as well as direct network connections or wireless for residence hall students.

SCSS will install (you must have the original media) and troubleshoot the following software products:

- Microsoft Windows XP, XP Home, 2000, ME, 98
- Microsoft Office 2003, 2000, 98
- Microsoft Publisher
- Adobe Acrobat Reader
- Hummingbird Remote Job Entry
- McAfee Virus Scan software
- Dial-up support
**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. - 4 p.m. (after 4 p.m. and weekends with an appointment.)

Computer and Laptop Repair: The University of Akron Electronic Repair and the Bierce Laptop Service Center are the certified service centers for the IBM laptops as well as for Apple, Dell, Gateway, and HP computers products. Service for the laptops is provided as a carry in service. Electronic Repair is located in the Lincoln Building, Room 103, (330) 972-7626.
Hours of operation: Monday-Friday, 7:30 a.m. - 4 p.m.
Bierce Laptop Service Center is located in the Bierce Library, room 52C, (330) 972-2407.

## Hours of operation:

Monday-Friday, 1:30 p.m. - 9:30 p.m.
Saturday 9 a.m. - 6 p.m.
Sunday, 1 p.m. - 10 p.m.
Software Training Services develops web-based tutorials and documentation for student self-service applications, the portal (ZipLine), WebCT, and email (WebMail). For more information, visit Software Training Service's web site at http://www.uakron.edu/its/learning/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 located in Carroll Hall 325 and reservations for test appointments can be made at http://cbt.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. Out 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, WebCT.
- 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 and imaging, videotaping and editing and production for courses, other university initiatives and community partners.
- We offer live and on-demand video streaming and hosting.
- 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.

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

- To troubleshoot a WebCT issue on your own, navigate to https://www.uakron.edu/forms/webct/webctguide/webctguide.html.
- To request assistance with a WebCT issue, navigate to http://www.uakron.edu/help.
Distance Learning Services: Distance Learning 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 Learning Services at (330) 972-2720.
Audio Visual Services: Audio Visual Services is located on the ground floor of Bierce Library, Room 63.

- Students can locate DVDs, videotapes, compact discs and various other nonprint media in this location.
- 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.
- The Media Resource Center is a "mini store" which has blank VHS tapes, CDs, DVDs and audio tapes for sale. For a nominal fee, we will make copies of non-copyrighted materials, or will convert media from one format to another format.

Hours of operation during the Fall and Spring semesters:
Monday-Thursday 7:30 a.m. - 9:30 p.m.
Friday 7:30 a.m. - 5 p.m.
Saturday 9 a.m. - 5 p.m.
Sunday noon - 6 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 modem dial-in lines and 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 library catalog
- OhioLINK - the library catalogs of all State of Ohio universities and colleges
- Electronic Mail (e-mail)
- The Internet
- UAnet's web pages
- Network file storage and printing


## Student Affairs

# Campus Safety and Security Information Cocurricular Activities 

## 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.


## ACADEIVIC ACHIEVEIVENT 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-area 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 relationships, 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 facilitate 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 re-enrolling 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, college 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.

## 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 website at http://www.uakron.edu/counseling.

## Counseling 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 self-esteem. Biofeedback services are also available for stress management. ULifeline is an informative mental health and wellness link on the webpage.
- 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 webpage.
- 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, on-campus academic testing and learning disorder assessments are available.


## Outreach and Consulting Service

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


## 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 colleges, 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 fields before graduation through participation in the Career Advantage Network (CAN). Participation is crucial in order for students to gain first-hand 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 regardless of major. Experiential learning may include cooperative education, internships, practicums, clinical/fieldbased experiences, student teaching and/or service learning.
Currently the two most utilized programs within CAN are co-op and internships.
Cooperative Education (co-op) combines classroom learning with relevant work experience by integrating classroom theory with on-the-job 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 co-op course and outcomes are posted on transcripts as credit/non-credit. Co-op 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-op/internship, 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 fulltime students 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/ccm.
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.

## OFFICE OF ACCESSIBILITY

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 students with disabilities and work to end oppression by examining the social, cultural and instituional 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 welcoming environment for all students. For more information, call (330) 972-7928 or (330) 972-5764 (TTY), see our website at www.uakron.edulaccess, 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 international students as well as financial verification and immigration documents for graduate international students.
- To aid in the transition/integration of international 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 international 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@uakron.edu E-mail www.uakron.edu/oip/

## RESIDENCE LIFE AND HOUSING

The Department of Residence Life and Housing is administratively 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 living/learning environment which directly supports the educational, social, and personal development of each student.

## Freshman 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 all 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 Deadline.
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 seeking 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.
The Department of Residence Life and Housing supervises and manages 14 oncampus residence hall facilities accommodating approximately 2,400 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, transferring and graduate students for Contract cancellations received before May 15; the prepayment is forfeited 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 is assigned to each complex and selected upperclass students are appointed to serve as Resident Assistants (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 Ethernet connections for each student, except University Apartments. The University Apartments Ethernet system is wireless, not hardwired. University Apartment residents must provide their own wireless card to access the Ethernet system. Each residence hall is equipped with coinoperated 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 - 2006-2007

Residence hall room and board rates for 2006-2007 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 University Apartments and Townhouses.

Brown Street, Bulger, Gallucci, Orr, Ritchie,

Sisler-McFawn, Spanton
$. \$ 4,764.00$

Grant, Townhouses, University Apartments (multiple units)+ . .... .\$5,002.00

Honors Complex
. $\$ 5,331.00$

Honors Complex Single
. $\$ 6,603.00$

University Apartments (double rate)
. $\$ 6,202.00$

## BOARD PLANS

Required for all residence halls students except University Apartment and Townhouse residents.

| $\mathbf{1 0}$ Meal Traditional | $\$ 1,218.00$ |
| :--- | :--- |
| $\mathbf{1 0}$ Meal Gold | $\$ 1,319.00$ |
| $\mathbf{1 5}$ Meal Traditional | $\$ 1,286.00$ |
| $\mathbf{1 5}$ Meal Gold | $\$ 1,438.00$ |
| $\mathbf{1 9}$ Meal Traditional | $\$ 1,319.00$ |
| $\mathbf{1 9}$ Meal Gold | $\$ 1,496.00$ |

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

## Vacation Housing

Most University residence halls are closed for Thanksgiving break, Winter break, and Spring break. However, students anticipating the need for on campus housing during any or all of the academic year semester break periods should request assignment to Gallucci Hall, Grant Hall, Townhouses, or University Apartments. Vacation housing will be $\$ 14$ per night.

## Summer Housing

Residence hall housing is available during summer sessions on a limited basis. Summer 2006 room rates are $\$ 14$ per night. These rates do not include food service. Residence hall dining service is not available during summer sessions, but food service is available at the Student Union.

## Dining Service Meal Plans

All residence hall students are required to participate in the University Meal Plan options except residents of University Apartments and Townhouses. 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 Café, Zee's, Subway, Sizzling Zone, Martin Center, Rob's Express, Gallucci Halls 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 Meal Plans, Traditional Meal Plans are used exclusively at Robertson Cafe. Robertson Cafe offers all-you-can eat buffet style service Monday through Friday serving breakfast, lunch and dinner and Saturday through Sunday serving brunch and dinner. The total number of meals served per week is 19 meals. You can choose from the following dining plans:

- 19 Traditional Dining Plan entitles you to all meals served
- 15 Traditional Dining Plan entitles you to select any 15 of the 19 meals served
- 10 Traditional Dining Plan entitles you to select 10 of the 19 meals served The Traditional Dining Plan resets your Zip Card each week to the 19, 15 or 10 Traditional Dining Plan that you have chosen. There are no credits for meals missed during the week. Dining Plans are valid for one semester only. Door rates at Robertson Café are: Breakfast \$5.75, Lunch Brunch \$7.75 and Dinner \$8.95.
The Gold Meal Plans. We take the Traditional Plan and add a credit in Dining Dollars for missed meals at Robertson Café. This plan offers the same number of meals as the Traditional Plan, 10, 15 or 19. Dining Dollars may be used at numerous dining locations on and off campus. Dining Plans are valid for one semester only. The Dining Dollar credit rates are as follows: Breakfast \$1.86, Lunch/Brunch $\$ 2.52$ and Dinner \$3.17.


## Residence Hall Program Board

The Residence Hall Program Board (RHPB) is a student-administered 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, Little Sibs Weekend, Hall Fest, a 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 and 2003, 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 residence 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 hall environment and sponsoring programs and activities for residents.
Likewise, RHC is an award winning organization. This group and The University of Akron were named "School of the Year" for 2000 by the National Association of College and University Residence Halls (NACURH).

## University Residence Halls

Brown Street (men)
Bulger Hall (coed)
Gallucci Hall (coed)
Grant Hall (coed)
Honors Complex (coed)
Joey Hall (coed)
Orr Hall (coed)
Ritchie Hall (coed)
Sisler/McFawn (women)
Spanton Hall (coed)
Townhouses (coed)
Wallaby Hall (coed)
Wallaroo Hall (coed)

333 S. Union Street
265 Buchtel Common
200 E. Exchange Street
151 Wheeler Street
188 S. College Street
412 Vine Street
188 S. College Street
269 Buchtel Commons
211 Buchtel Commons
190 S. College Street
Sherman and Grant streets
323 S. Union Street
420 Vine Street

## 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, Honors Complex and Ritchie halls, where administrative offices are housed, all residence halls are locked on a continuous basis. During weekdays, Gallucci Hall is locked between 11 p.m. and 8 a.m. In addition, most residence halls operate 24 -hour reception areas. All residence halls except University Apartments 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 from University police on security and safety procedures and enforcement of residence hall regulations.
The Residence Life staff conduct educational programs for residents to heighten awareness of safety and security concerns. Sessions include topics from personal safety to sexual assault. The University police department patrols all residence halls during the evening and early morning 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 allows 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 governance 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) 972-7448 or (330) 972-8535.

## STUDENT FINANCIAL AID \& STUDENT EMPLOYMENT

The Office of Student Financial Aid \& Student Employment is located in Simmons Hall at 277 E Buchtel Ave. near the corner 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: http://ww.uakron.edu/finaid.
A detailed statement regarding all financial assistance programs can be found in Section 3 of this Bulletin.

## STUDENT HEALTH SERVICES

The goal of Health Services is to assist students to achieve their educational and personal goals by addressing their health care concerns while they are enrolled at The University of Akron. Student Health Services is located in the Student Recreation and Wellness Center.

The student who becomes seriously ill or suffers a serious injury on campus should be taken to an emergency room of one of the local hospitals without delay. Those persons present in this kind of emergency should call University Police or 911 immediately. 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 available to students enrolled for six or more credit hours. The student insurance provides coverage for such items as hospitalization, surgical benefits, and in-hospital 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 RECREATION AND WELLNESS CENTER \& OCASEK NATATORIUM

Live smart! BFIT (x2348)<br>Phone: (330) 972-2348<br>www.zipsrec.uakron.edu

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.
Amenities include: Leisure Pool, 30-person spa, 1/10 mile walking/jogging track, 15,000 square feet of cardiovascular and strength training equipment, 5 multifunction gymnasiums, 2 group exercise studios, 53.5 ft . climbing rock, bouldering cave, Outdoor Adventure gear rentals, 8 racquetball and wallyball courts in the Ocasek Natatorium 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, $25^{\prime}$ screen and sound systems are available in each area. A karaoke system, a staging system, sumo wrestling, inflatable jousting, adult tricycles, batting cages, golf nets, putting greens and table tennis tables are available for rental. The Leisure Pool area includes a wet classroom, lazy river, Vortex, 2 lap lanes, multi-bubblers and a basketball hoop.
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 lazy river. For more information call (330) 972-8280.

The Climbing Rock Café: 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 opportunities 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 high-energy motivation to the SRWC members in a correct and safe aerobics format. Group Exercise is provided through a variety of classes including yoga, kickboxing, 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 organized competitive atmosphere. Our activities include: basketball, tennis, inner tube water polo, dodge 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. Year round, the SRWC is free for currently enrolled main campus students to utilize and the ONAT remains free for all currently enrolled main campus students, staff and faculty. Membership \& Guest Pass opportunities are available for purchase at the Information/Sales Office. Cash, check, Master Card and Visa are accepted. For more information call (330) 972-7610.

The Outdoor Adventure Program invites you to experience vertical excitement on the $53.5^{\prime}$ 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, structured classes, seminars, a resource library, and a knowledgeable staff to supply a means for expanding health knowledge. Relaxation massage and nutritional guidance are new services now available. Student professional development through research, practice, and utilizing state of the art technology are also provided through Wellness Services. 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 corner 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 Student Affairs
> Phone: (330) 972-BFIT (x2348)
> Fax: (330) 972-6715
> Web site: www.zipsrec.uakron.edu

## THE STUDENT UNION FACILITY

The Student Union, located in the center of campus, is a facility that contains numerous functions of student life and student engagement, and serves the students, faculty, and staff. This facility also houses various food service facilities, meeting rooms, a movie theater, a game room, Computer Solutions - The University of Akron's computer technology store, a Zip Card office, the DocuZip copy center, a bank, a Ticketmaster outlet, the Information Center, Barnes \& Noble Bookstore, Planet Underground, a DVD and CD store, student organization offices and Starbucks Coffeehouse. Visit our Web site at http://www.uakron.edu/studentlife.

- Food Areas in the Student Union offer a variety of food items. On the first level is Zee's convenience store, which has a variety of items, including sundries items for the busy student. On the second level are Subway, the Sizzling Zone, the exciting Union Market and Starbucks Coffeehouse.
- The 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 and U.S. mail; literature distribution; and class support files.
- The Bookstore at The University of Akron, located on the first level, is operated as a service of Barnes \& Noble Bookstores, Inc. of New York City. Barnes \& Noble operates 300 other college stores. 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 Student Union Theatre, located on the second floor, screens first- and second-run movies as well as occasional sneak previews. The theater also hosts special events and performances.
- Ticketmaster Center, located on the second floor, sells tickets to most events in northern Ohio, including Blossom Music Center, Public Hall 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 during the normal building operating hours. The Information Center staff can answer questions regarding department and student organizations, on-campus events, the Metro buses and the University Bus Loop. Laptops can be checked out for use in the Union at the Information Center. The Information Center staff can also print student class schedules. Please call (330) 972-4636 if you need a question answered.
- 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 a video arcade. The bowling lanes feature Extreme glow-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

The University of Akron has the responsibility to protect the rights, health and safety of our academic community and to ensure that the members of our community may pursue their educational goals without undue interference. The goal is to bring about outcomes that are positive for all parties involved. To this end, students are expected to familiarize themselves with the identified standards for appropriate behavior and scholarship whenever on or affecting persons or property owned, leased, or operated by The University of Akron. 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. Student Judicial Affairs is the agent that receives and reviews complaints that allege violations of the University's Student Code of Conduct. Confidentiality is maintained and records of proceedings are released only upon receipt of written 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 advised to become aware of the disciplinary procedures published in the University Rules and Regulations Concerning Campus Conduct and Student Discipline Procedures (Student Code of Conduct). The Student Code of Conduct, can be accessed by visiting www.uakron.edu/studentlife/sja or visiting Student Judicial Affairs, Student Union 211. For more information regarding the Student Code of Conduct, please contact Student Judicial Affairs at (330) 972-7866.

## 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. Student Government works to assess and fulfill the special needs of students, including Town Hall meetings, free tax services, issue forums and co-sponsorship of campus lectures. Freshmen can also become involved as a Freshman Senator through elections that occur in September. At the All Campus Recognition and 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 awards. The ASG office is located in Student Union 133, (330) 972-7002, http://www.uakron.edu/asg.

## 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, ZipFest, Diversityfest, a Forum Series speaker, Student Center Entertainment, and other special events. The council is comprised of seven 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. For more information, call (330) 9727014 or visit our Web site at http://www.uakron.edu/studentlife/zpn.

## Greek Life

The Greek community at The University of Akron consists of a group of diversified men and women belonging to 21 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, co-curricular college experience.
At UA, we have three major governing Councils for Greek Life. The Interfraternity Council (IFC) represents 11 fraternities. The National Pan-Hellenic Council (NPHC) represents our six historically African-American fraternities and sororities, and the Panhellenic Council (PHC) represents five sororities.

Our fraternity and sorority members are often leaders in various areas of campus involvement, including Residence Life, New Student Orientation, Black United Students, 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 fraternity or sorority will provide life-long 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 www.uakron.edu/studentlife/greek/index.php.

## The SOuRCe (Student Organization Resource Center)

The SOuRCe is located on the first floor of the Student Union directly across from the game room in room 130. The SOuRCe 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 Tel-Buch (student yearbook). A SOuRCe liaison can assist students with contacting any of the student organization to help students become involved.

## 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 in room 130. 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 quiet place to study, an opportunity to read a magazine, enjoy the plasma televisions or connect with other commuters. Commuter Central also contains a kitchenette with a microwave, toaster and a sink. For more information, please contact Commuter Central at (330) 972-8690.

## Co-Curricular \& All Campus Programs

The Co-Curricular \& All Campus Programs office is located within the SOuRCe in room 130 on the first floor of the Student Union. These programs give students the opportunity to participate in activities and programs that connect what they are doing in class with real life. The Co-Curricular and All Campus Programs area has a purpose to provide each and every student with opportunities for hands-on experience outside the classroom that relate to what is being taught in class. Students will have fun while they learn! Please contact the Co-Curricular \& All Campus Programs office at (330) 972-7021.

# 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 security 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.

## UNIVERSITY POLICE

Campus law enforcement is primarily the responsibility of The University of Akron Department of Police. University police provide 24-hour-a-day patrol protection to the campus, parking lots, residence halls, and on-campus fraternity and sorority houses. The police station is located in the Physical Facilities Operation Center at the corner 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 so that both agencies receive pertinent information. Information is shared through personal contacts and by phone and radio. University and City of Akron police regularly 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 controlled 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 unrecoverable 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 assault/acquaintance 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 him/her 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 ..... 6866
Fire ..... 911
EMS/Medical ..... 911
Electrical/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 p.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 help 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 well-lighted, 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 http://www3.uakron.edu/police/ crimprev.htm. 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' college 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, university-wide programming committees, student government, 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.

## PERFORIMING 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 Ensembles, 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, which works closely with the world-renowned Ohio Ballet.
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 well-being 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 competes as a member of the Mid-American Conference in 18 NCAA Division I intercollegiate sports. The three seasons of participation include: Fall - football, men's soccer, women's soccer, men's and women'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 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 External Relations, James A. Rhodes Arena, Suite 76, (330) 972-7468.

## STUDENT PUBLICATIONS

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 Tel-Buch 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 journal 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 6 p.m. Monday through Friday. The program offers hourly flextime and halfday 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 school-aged 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 2006

## Communications/Publications

Akros Review
The Buchtelite
Tel-Buch

## Governing Bodies

Associated Student Government Interfraternity Council
National Pan-Hellenic Council (NPHC)
Panhellenic Council
Residence Hall Council

## Departmental/Professional

Accounting Association
Akron Council of Education Students
American Association of Family \& Consumer Science
American Choral Directors Association American Institute of Aeronautics and Astronautics
American Society of Civil Engineers Student Chapter
American Society of Interior Design
American Society of Mechanical Engineers
Anthropology Club
Biology Club
Biomedical Engineering Society
Chemistry Club
Chi Eta Phi Sorority, Inc.
Collegiate Nursing Club
Computer Science Club
Criminal Justice Association
Dean's Advisory Council
Doctoral Association of Arts and Sciences and Public Affairs
Economics Club
Engineering Student Council
Financial Management Association
Future Physician
Gathering of Potential Surveyors
Geography and Planning Association
Geology Club
Gerontology Association
Honors Club
Honors Delegates
Hospitality Club
Institute of Electrical \& Electronic Engineers (IEEE)
Institute of Management Accountants
International Association of
Administrative Professionals
International Business Association
International Emergency Management Student Association
Kappa Kappa Iota Chi Conclave
Kappa Kappa Psi
Literary Guild
National Association of Black Accountants
National Society of Black Engineers
Ohio Collegiate Music Education Association
Organization for Children's Health Care
Paralegal Student Association
Polymer Engineering Student Organization
Public Relations Student Society of America (PRSSA)
Respiratory Care Club
Society of Human Resource Management

## Political

College Democrats
College Republicans

## Programming

Residence Hall Program Board
Zips Programming Network

## Religious

Akron Chinese Christian Fellowship Alpha Omega Pentecostals
Baptist Collegiate Ministries
Campus Focus
Christian Zips
Friends Ministries
Hillel - Jewish Student Union
Impact Movement
Latter Day Saint Student Association (LDDSA)
Muslim Student Association
Under God Bible Study

## Social Fraternity

Alpha Phi Alpha Fraternity, Inc.
Alpha Sigma Phi
lota Phi Theta
Lambda Chi Alpha
Phi Beta Sigma
Phi Delta Theta
Phi Gamma Delta
Phi Kappa Tau
Phi Sigma Kappa
Pi Kappa Epsilon (Lone Star)
Sigma Nu
Tau Kappa Epsilon
Theta Chi

## Social Sororities

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

## Law

Akron Public Interest Law Society
Akron Sidebar
Alternate Dispute Resolution Society
Asian Latino Law Students Association
Association of Trial Lawyers of
America (ATLA)
Black Law Students Association
Environmental Law Society
Gay-Straight Law Alliance
Intellectual Property and Technology
Law Association
International Law Society
Law Association for Women
National Association of Criminal
Defense Lawyers
Phi Alpha Delta Law Fraternity
Phi Delta Phi
Pre-Law Club
Sports and Entertainment Law Society
Student Bar Association

## Graduate

Chi Sigma lota
Counseling Psychology Graduate Student Organization
Doctoral Association of Arts and Sciences and Pub. Aff.
Graduate Student Government Industrial/Organizational Psychology Graduate Student Club
Master Social Work Student Association (MSWSA)
Polymer Science Student Organization
Public Administration and Urban Studies Student Association
Society for the Advancement of Marriage and Family Counseling/Therapy
Student Association for Graduates in Education (S.A.G.E.)

## Special Interests

The 2380 Project
Akron Animation Association
Akron Badminton and Tennis Club
Akron Blades
Akron Ice Hockey Club
Akron Journal of Technology Transfer
Akron Ski and Snowboard Club
Alpha Phi Omega
Amateur Radio Club (W8UPD)
Ambassadors
Aquatics Club
Ballroom Dance Club
Black United Students
Campus Habitat for Humanity
Chinese Soccer Club
Circle K International
College Billiard Tour Association
E-Docs
Equestrian Club
Green Dragon Kung Fu Club
Guitar Club of Akron
Lesbian Gay Bisexual Transgender Union (LGBTU)
Northeast Ohio Clarinet Association
Northeas Ohio Flute Association
Outdoor Adventure Club
Speech and Debate Team
Student Athletic Advisory Council
Student Toastmasters
UA Adult Learners
University of Akron Gospel Choir
University Chess Club
University Medieval Society
Zip Recruiting Club

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# Admissions <br> Procedures and Requirements <br> Fees and Expenses <br> Financial Aid 

## 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. Special consideration for admissions and housing may be given to those applicants who provide The University of Akron with cultural, racial, economic, and geographic diversity, who possess outstanding talents, or whose previous academic performance may have been affected by physical, mental, or learning environment factors.

## CLASSIFICATION OF 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 earned the baccalaureate degree and is eligible to enroll in undergraduate-level credit courses.
- 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.
- Transfer Student - A student who has been attending another accredited institution but who wishes to complete a degree at The University of Akron.
- 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.
- Special Student - A special student is enrolled as a non-degree seeking student to participate in a special short-term program.
- Auditor - 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 the writing of examinations.
- 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 or Transient 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. (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.


## ADIMISSION 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 halls.

Admission procedures vary for different types of students. The various admissions categories include: recent high school graduate, transfer student, adult student, postbaccalaureate student, special student, guest student and postsecondary enrollment options student.

Please contact the Office of Admissions at (800) 655-4884 or (330) 972-7077 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 www.uakron.edu/admissions.

## Graduating High School Seniors

A student currently enrolled as a high school senior or a student who has graduated from high school not more than one year ago should apply for admission as follows:
The State of Ohio has adopted a policy stating that students must pass the Ohio Graduation Test in order to receive a diploma, except for those students who are exempt from taking the test. Therefore, The University of Akron requires successful completion of the Ohio Graduation Test for graduating high school seniors. The GED Certificate of High School Equivalency is recognized in lieu of the diploma.

- Obtain an application form from the Office of Admissions, either by calling (330) 972-7077, or (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Applications are available on the Web at www.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.
- Send a completed copy of the College Prep Core Curriculum form to the Office of Admissions at the time of application.
- 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.
- Take entrance tests. 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.
- Included with the letter of admission to the University, the student will receive direction regarding new student orientation and academic advising.
- 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 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.


## 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 home-schooled 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) 972-7077, or (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Applications also are available on the Web at www.uakron.edu/apply. Complete the application and return it as soon as possible with the 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 and academic advising.
- 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.


## Adult Students

An adult student who has graduated from a regionally accredited secondary school or has completed the GED test is eligible to enroll.
The following application procedures should be followed:

- Obtain an application form from the Office of Admissions, either by calling (330) 972-7077, or (800) 655-4484, or by writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Applications also are available on the Web at www.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.
- Send an official high school transcript or GED results to the Office of Admissions at the time of application.
- If the student is under 21 years of age at the beginning of the term for which they apply, the student also must submit results of either the ACT or SAT. (The University of Akron's Counseling, Testing and Career Center serves as a testing center for the ACT test.) These test scores are needed before an applicant is formally admitted to the University.
- In the letter of admission to the University, the student will receive direction regarding new student orientation, academic advising and registration.
- The Office of Adult Focus offers assistance with admissions process, advising and guidance concerning financial aid, scholarships, and scheduling/registration. Please call (330) 972-5793 to speak with an adviser.


## Transfer Students

A student applying for admission who has formerly attended another regionally accredited institution of higher learning may apply to transfer to The University of Akron. 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 should apply as follows:

- Obtain an application form from the Office of Admissions, either by calling (330) 972-7077, or (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Applications also are available on the Web at www.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 transfer applicant must request the official transcripts from the records office of all institutions previously attended. They should be mailed to the Office of Admissions.
- A student under 25 years of age and with fewer than 12 credits of accredited transfer work must submit a high school transcript or GED scores along with the college transcript(s). A student under 21 years of age and having fewer than 12 transfer credits must submit results from the ACT or SAT test in addition to a high school transcript or GED scores. These documents must be received and evaluated before any admission action can be taken by the University.
- Please note that failure to take the required test(s) prohibits enrollment in college level mathematics and/or English courses.
- Upon acceptance, transfer students must sign up for Transfer Transition, an orientation program specially designed to meet their needs. Students meet with administrators of the college to which they've been admitted, take required math, writing and reading placement tests (if required), obtain their student Zipcard (I.D.), UANetID and password, learn how to register online, meet with an academic adviser, register for classes and get the answers to other questions specific to transfer students.

Students are urged to sign up for Transfer Transition as early as possible in order to have a good selection of course options.

- 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 2004, permitted to enroll Spring of 2005.)


## Transfer Module

The Ohio Board of Regents, following the directive of the Ohio General Assembly, has developed a new statewide policy to facilitate movement of students and transfer credits from one Ohio public college or university to another. The purpose of the State Policy is to avoid duplication of course requirements and to enhance student mobility throughout Ohio's higher education system. Since independent colleges and universities in Ohio may or may not be participating in the transfer policy, students interested in transferring to an independent institution are encouraged to check with the college or university of their choice regarding transfer agreements.
The new Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a specific subset or the entire set of a college or university's general education requirements. The Transfer Module contains 54-60 quarter hours or 36-40 semester hours of specified course credits in English composition, mathematics, fine arts, humanities, social science, behavioral science, natural science, physical science, and interdisciplinary coursework.

A transfer module completed at one college or university will automatically meet the requirements of the transfer module at the receiving institution, once the student is accepted. Students may be required, however, to meet additional general education requirements that are not included in the Transfer Module.

## Conditions for Transfer Admission

Students meeting the requirements of the Transfer Module are subject to the following conditions:

1. The policy encourages receiving institutions to give preferential consideration for admission to students who complete the Transfer Module and either the Associate of Arts or the Associate of Science degrees. These students will be able to transfer all courses in which they received a passing grade of D or better. Students must have an overall grade point average of 2.0 to be given credit for the Transfer Module.
2. The policy also encourages receiving institutions to give preferential consideration for admission to students who complete the Transfer Module with a grade $C$ or better in each course and 90 quarter hours or 60 semester hours. Students must have an overall grade point average of 2.0 to be given credit for the Transfer Module and only courses in which a C or better has been earned will transfer.
3. The policy encourages receiving institutions to admit on a non-preferential consideration basis students who complete the Transfer Module with a grade of C or better in each course and less than 90 quarter hours or 60 semester hours. These students will be able to transfer all courses in which they received a grade of $D$ - or better.
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 that institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as all other 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 earned. All residency requirements must be successfully completed at the receiving institution prior to the granting of a degree.

## 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. 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

A student disagreeing with the application of transfer credit by the receiving institution shall have the right to appeal the decision. The student must submit the appeal in writing to the Dean of University College. A committee comprised of the Dean of University College, the Associate Dean from the degree-granting college of the student's academic major and the University Registrar shall review the appeal. If the student disagrees with the appeal committee's decision, he/she may appeal to the Associate Provost.
If a transfer student's appeal is denied by The University of Akron after all appeal levels within the institution have been exhausted, the student will be advised in writing of the availability and process of appeal to the state level Articulation and Transfer Appeals Review Committee.
The Appeals Review Committee shall review and recommend to institutions the resolution of individual cases of appeal from transfer students who have exhausted all local appeal mechanisms concerning applicability of transfer credits at receiving institutions.

## Transfer Module Course Requirements

The University of Akron Transfer Module requires a minimum of 38 semester credits in six areas as follows (NOTE: All courses marked with an asterisk (*) may lead toward an associate degree only.):

Credits

| I. English - $\mathbf{7}$ <br> credits <br> 2020:121 | English* <br> and |
| :---: | :---: |
| $2020: 222$ | Technical Report Writing* <br> or |
|  | English Composition I <br> and |
| $3300: 111$ | English Composition II |
| $3300: 112$ | Business Communications* |
| $2540: 263$ | Introduction to Public Speaking |
| $7600: 105$ | or |
| $7600: 106$ | Effective Oral Communication |

## II. Mathematics- $\mathbf{3}$ credits

2030:152, 153 Elements of Math II, III*
2030:161 Math for Modern Technology*
3450:113 Combinatorics and Probability
3450:114 Matrices
3450:115 Linear Programming
3450:127 Trigonometry
3450:138 Math of Finance
3450:145 College Algebra
3450:149 Pre-calculus Math
3450:210 Calculus with Business Applications
3450:215 Concepts of Calculus I
3450:221 Analytic Geometry-Calculus I
3470:260 Basic Statistics
3470:261 Introductory Statistics I
3470:262 Introductory Statistics II

## III. Arts/Humanities - $\mathbf{1 0}$ credits

The following is required of all students:
3400:210 Humanities in the Western Tradition I
Two courses from different sets are required from the following:
Set 1

| 7100:210 | Visual Arts Awareness |
| :--- | :--- |
| 7500:201 | Exploring Music: Bach to Rock |
| 7800:301 | Introduction to Theatre and Fllm |
| 7900:200 | Viewing Dance |
| Set 2 |  |
| 3200:220 | Introduction to the Ancient World |
| 3200:230 | Sports and Society in Ancient Greece and Rome |
| 3200:289 | Mythology of Ancient Greece |
| 3600:101 | Introduction to Philosophy |
| 3600:120 | Introduction to Ethics |
| 3600:170 | Introduction to Logic |
| Set 3 |  |
| 3200:361 | Literature of Greece |
| 3300:250 | Classic and Contemporary Literature |
| 3300:252 | Shakespeare and His World |
| 3580:350 | Literature of Spanish America in Translation |
| Set 5 |  |
| 3400:211 | Humanities in the Western Tradition II |


| IV. Social Science - $\mathbf{6}$ 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 |  |  |
| 2040:240 | American Urban Society* | 3 |
| 3700:100 | Government and Politics in the U.S. | 4 |
| 3700:150 | World Politics and Government | 3 |
| 2040:243 | Contemporary Global Issues | 3 |
| Set 4 |  |  |
| 2040:240 | Human Relations* | 3 |
| 2040:244 | Death and Dying | 2 |
| 3750:100 | Introduction to Psychology | 3 |
| Set 5 |  |  |
| 3230:150 | Cultural Anthropology | 4 |
| 3850:100 | Introduction to Sociology | 4 |
| 2040:256 | Diversity in American Society | 3 |

* Will apply toward the Transfer Module only for students enrolled in the Community and Technical

College.

| Set 6 |  | Credits |
| :--- | :--- | :---: |
| 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 |
| 3600:125 | Theory and Evidence | 3 |

## V. Natural Science - $\mathbf{8}$ credits

Select at least two different sciences, one of which must include a laboratory component:
2780:106 Anatomy and Physiology for Allied Health I 3

2780:107 Anatomy and Physiology for Allied Health II 3
2820:105 Basic Chemistry* ${ }^{*}$
2820:111 Introduction to Chemistry*
2820:112 Introductory and Analytical Chemistry*
2820:161 Technical Physics: Mechanics I*
2820:162 Technical Physics: Mechanics II*
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 I
3150:152 Principles of Chemistry Laboratory
3150:153 Principles of Chemistry II
3370:100 Earth Science
3370:103 Natural Science: Geology
3370:171 Introduction to the Oceans
3370:200 Environmental Geology
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
3650:160 Physics in Sports
VI. Interdisciplinary - $\mathbf{4}$ credits, two courses
$\begin{array}{ll}\text { 2040:254 } & \text { Black Experience from } 1619 \text { to } 1877\end{array}$

2040:254 Black Experience from 1619 to $1877 \quad 2$
2040:257 The Black Experience 1877 to 1954 2
3002.201 Introduction to Pan-African Studies

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
3400:387 World Civilizations: Southeast Asia 2
$-\quad 2$
3400:389 World Civilizations: Near East
3400:390 World Civilizations: Africa
3400:391 World Civilizations: Latin Americ
7600:325 Intercultural Communication
edits
4
2

$$
3
$$

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

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## 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) 972-7077, or (800) 655-4884, or writing the Office of Admissions, The University of Akron, Akron, OH 44325-2001. Complete the application and return it as soon as possible with the nonrefundable $\$ 30$ application fee (a onetime 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.
- In 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, attempt 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, The University of Akron, Akron, OH 44325-2001. Complete it and return 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 enroll.
- 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 traditional-aged entering freshmen. Traditional-aged 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 grade-point 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 the 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 under prepared will be admitted into Summit College under provisional admission status as general admit students. General admit students will begin their University of Akron academic careers as part of Summit College's College Success Program. As part of the College Success Program, 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 Success Program if they have less than a 2.3 GPA or lower than a 16 ACT/650 SAT score, or of 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 provisional 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) 972-7077 or by e-mail at admissions@uakron.edu

## Criteria for Direct Admission to Degree-Granting College

Each of the undergraduate programs has determined its specific requirements for direct admission. Students receive standard admission to the university if their credentials are above the requirements for provisional admission but below the requirements for direct admission to the academic program of their choice.

## 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 international 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 three sessions of the Summer semester (May/June/July). 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 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: international@uakron.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 legal residence. A copy of the passport page information should be enclosed. If you are currently in the United States, submit a copy of the visa page and both sides of the l-94. A $\$ 50.00$ onetime 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.

## 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 (GPA) 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: International students concerned about transfer credit may choose to have their credentials evaluated by a third party. One such service is the World Education Services (WES), P.O. Box 745, Old Chelsea Station, New York, NY 10113-0745, e-mail: info@wes.org [mailto:info@wes.org](mailto:info@wes.org), Web site: www.wes.org [http://www.wes.org](http://www.wes.org).

## 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 school/secondary school students must show proof of graduation before they will be permitted to register for their first semester. The same standards of authenticity for listed degrees/transcripts 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: ua-eli@uakron.edu [mailto:ua-eli@uakron.edu](mailto:ua-eli@uakron.edu) www: [http://www.uakron.edu/eli](http://www.uakron.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 Proficiency Test may have the TOEFL or IELTS requirement waived upon written request to and final approval from the Office of International Programs. However, they may be required to take math, English, or foreign language placement tests upon arrival.
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 www.collegeboard.com .
For general information, e-mail international@uakron.edu [mailto:international@uakron.edu](mailto:international@uakron.edu); for admission status information, e-mail intlsta@uakron.edu.

## Medical Insurance Coverage

All international students are required to provide proof of major medical health insurance coverage that meets the minimum established requirements set forth by 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

International students are required to attend an International Student Orientation program that takes place during the two weeks before 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: internationa@@uakron.edu [mailto:international@uakron.edu](mailto:international@uakron.edu)
Web site: www.uakron.edu/oip [http://www.uakron.edu/oip](http://www.uakron.edu/oip)
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 2006-2007 academic year will be approximately $\$ 26,500$. Tuition is subject to change.
Applicants planning to arrive to The University of Akron on student visa (F-1/J-1) 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 (I-20/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 I-20/DS-2019 will be issued upon submission of the documents proving their valid status and meeting requirements mentioned above. A new I-20/DS-2019 must be obtained before the first semester starts.

## 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 www.uakron.edu/oip.
Note: Prospective undergraduate students should apply for the "New Undergraduate International Student Award. " Continuing students should apply for the "International Understanding Award."

## Procedures and Requirements


#### Abstract

NEW STUDENT ORIENTATION All new freshmen, transfer students and students enrolled 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, campus safety and career planning. In addition, students will take any necessary placement tests, meet with an academic adviser and register for classes during orientation. The University Confirmation and Orientation Reservation Request Brochure is mailed to students after they are admitted to the University. Students must submit the University Confirmation fee at the same time they submit their Orientation Reservation Request. Multiple orientation sessions are available prior to each term and are filled on a first-come, first-served basis. Students should make their orientation reservations early for the best selection of program dates.


## ACADEIVIC 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. Students enrolling after the official continuing registration period or paying after the payment due date will be charged a nonrefundable late registration fee.

## 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 15th 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 15th 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 Registrar 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 www.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 | Quality 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 | Graduate courses only |
| D- | 0.7 | Incomplete |
| D- | 0.0 | In Progress |
| F | 0.0 | Audit |
| I | 0.0 | Credit |
| IP | 0.0 | Noncredit |
| AUD | 0.0 | Withdrawn |
| CR | 0.0 | No grade reported |
| NC | 0.0 | Invalid grade reported |
| WD | 0.0 | Permanent Incomplete |
| NGR | 0.0 | Repeat |
| INV | 0.0 |  |

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

## A student cannot raise a grade through re-examination.

I - Incomplete: 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 - Withdraw: Indicates that the student registered for the course but withdrew officially after the 15th day of the term.
NGR - No Grade 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 honoraries 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 dean 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 previously 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 "CR/NC" 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 "CR/NC" 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 approval.
- 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

An undergraduate student who has not attended The University of Akron for at least three calendar years and re-enrolls may be a candidate for Academic Reassessment. To be eligible, the student's cumulative grade point average during the previous enrollment period at The University of Akron has to have been less than 2.00, and the student must maintain a grade point, average of at least 2.00 or better for the first 24 letter graded ("A" through "F") associate and baccalaureate credits earned after re-enrollment while having a minimum of $50 \%$ of the total hours required for their degree program remaining. Upon meeting these requirements, the student may petition the University through their Dean to apply Academic Reassessment to their record according to established rules and policies.
Grades and credit hours associated with reassessed courses are forfeited and may not be used to satisfy any degree requirements. Only grades below "C" may be reassessed. Grades earned for courses reassessed are excluded for GPA calculations but remain on the student's official academic record and are part of the calculation in determining graduation with honors and class standing.
A student may utilize this academic reassessment policy only once. Grades of CR/NC and AUD are excluded from this calculation. A maximum of 30 credit hours in a baccalaureate program or 15 credits in an associate program may be reassessed.

## Academic Dishonesty

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 learning in a community so rich in diversity and achieving success toward our educational objectives requires high standards of academic integrity. Academic dishonesty 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/sja or in the Student Union 211 or contact Student Judicial Affairs at (330) 972-7866.

The University of Akron considers academic integrity an essential part of each student's personal and intellectual growth. Instances of academic dishonesty 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 dishonesty 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 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 dishonesty 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, an informal meeting will occur and, if substantial evidence exists, the office has the authority to take formal action against the student 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 degreegranting 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 transient 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 degreegranting 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 appropriate 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 | Required Score | Course | Credits |
| :---: | :---: | :---: | :---: |
| Art:Drawing | 5 | Art Studio Elective | 3 |
| Art History | 5 | 7100: 100 Survey of Art History I 7100: 101 Survey of Art History II | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| Art: 2-D Design | 5 | 7100:144 Foundation 2-D Design | 3 |
| Art: 3-D Design | 5 | 7100:145 Foundation 3-D Design | 3 |
| Biology | 5 | 3100:111 Principles of Biology | 4 |
|  |  | 3100:112 Principles of Biology | 4 |
| Biology | 5 | 3100:100 Introduction to Botany 3100:103 Natural Science Biology | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| Calculus AB or BC | 3,4 or 5 | 3450:149 Precalculus Mathematics 3450:221 Analytical Geometry - Calculus I 3450:222 Analytical Geometry - Calculus II | $\begin{aligned} & 4 \\ & 4 \\ & 4 \end{aligned}$ |
| Chemistry | 3 or 4 | 3150:151 Principles of Chemistry I <br> 3150:152 Principles of Chemistry I Lab | $3$ |
|  | 5 | 3150:151 Principles of Chemistry I 3150:152 Principles of Chemistry I Lab 3150:153 Principles of Chemistry II | $3$ |
| Computer Science | 3,4 or 5 | 3460:209 Introduction to Computer Science | 4 |
| Economics | 3,4 or 5 | 3250:200 Principles of Microeconomics OR 3250:201 Principles of Macroeconomics | 3 3 |
| English | 3 or 4 | 3300:111 English Composition I | 4 |
| English | 5 | 3300:111 English Composition I 3300:112 English Composition II | $\begin{aligned} & 4 \\ & 3 \end{aligned}$ |
| History/American | 4 or 5 | 3400:250 U.S. History to 1877 <br> 3400:251 U.S. History since 1877 | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| Latin | 3,4 or 5 | 3510:101 Beginning Latin I 3510:102 Beginning Latin II | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| Modern Languages | 3,4 or 5 | 3580:101 Beginning Spanish I 3580:102 Beginning Spanish II | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ |
| (French depends on Fo | rm/with consulta | OR <br> 3520:101 Beginning French I 3520:102 Beginning French II <br> 3530:101 Beginning German I 3530:102 Beginning German II | $\begin{aligned} & 4 \\ & 4 \\ & 4 \\ & 4 \end{aligned}$ |
| Music Theory | 4 | 7500:121 Theory and Musicianship I | 4 |
| Physics | 4 or 5 | 3650:261 Physics for the Life Sciences I 3650:262 Physics for the Life Sciences II OR <br> 3650:291 Elementary Classical Physics I 3650:292 Elementary Classical Physics II | $\begin{aligned} & 4 \\ & 4 \\ & 4 \\ & 4 \end{aligned}$ |
| Political Science/ | 4 or 5 | 3700:100 Government and Politics in the U.S. | 4 |

Discipline Required Score Course Credits
American Government
Political Science/ 4 or 5 3700:300 Comparative Politics Comparative Politics
$\begin{array}{lll}\text { Psychology } & 4 \text { or } 5 & 3750: 100 \text { Introduction to Psychology }\end{array}$
Statistics 3
4 or 5
3470:260 Basic Statistics
3
3470: 261 Introductory Statistics I 2
$3470 \cdot 262$ Introductor Statistics
2

## Bypassed Credit

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 cred$\mathrm{it} /$ noncredit, or by completing a course as repeat for change of grade.

| Discipline | Course | Prerequisite | Approved for Bypassed Credit |
| :---: | :---: | :---: | :---: |
| 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 | 2030:154 |
|  | 2030:356 | 2030:255 | 2030:154,255 |
| Office | 2540:151 | 2540:150 | 2540:150 |
| Administration | 2540:253 | 2540:151 | 2540:150,1 |
| Buchtel College 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 |
|  | 3350:495 | 3350:310 | 3350:310 |
| Theoretical and | 3450:210 | $3450: 145$ or 141 | 3450:141 |
| Applied Mathematics | 3450:215 | $3450: 145$ or 149 | 3450:145 |
|  | 3450:216 | 3450:215 | 3450:215 |
|  | 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 | 3500:102 | 3500:101 | 3500:101 |
| Languages | 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 |
|  | 3520:309,10,11 | 3520:202 | 3520:101,2,201,2 |
|  | 3520:312,351 | 3520:202 | 3520:101,2,201,2 |
|  | 3250:352 | 3520:351 | 3520:101,2,201,2 |
|  | 3520:402 | 3520:302 | 3520:101,2,201,2 |

[^3]|  |  |  | Approved for |
| :---: | :---: | :---: | :---: |
| Discipline Modern | Course 3520:403,4 | Prerequisite | Bypassed Credit 3520:101, 2,201, 2 |
| Modern | 3520:403,4 | 3520:302 | 3520:101,2,201,2 |
| Languages, cont. | 3520:413 | 3520:301 or 302 | 3520:101,2,201,2 |
|  | 3520:422 | 3520:202 | 3520:101,2,201,2 |
|  | 3520:427,450 | $\begin{aligned} & 3520: 305 \text { or } 306 \\ & \text { and } 302 \end{aligned}$ | 3520:101, 2,201,2 |
|  | 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 | 3580:101,2,201,2 |
|  | 3580:340 | two of group 3580:301,2,3 | 3580:101,2 |
|  | 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 |
|  | 3580:409,11,12,15, 16,18,19,22,23 |  |  |
|  | 25,27,30 | 3580:407 or 408 | 3580:101,2,201,2 |
|  | 3580:431,2 | two of group | 3580:101,2,201,2 |
|  |  | 3580:401,2,3 |  |
| 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

Sociology Requirement
3850:100 Intro to Sociology

## Macroeconomics

3250.201 Princ. of Macroeconomics

Credits

4
CLEP Examination in Freshman College Composition, plus essay. (Must receive minimum score of 60 on the subject examination and pass the essay.)

4
Clep Examination in Introductory Sociology.
(Must receive minimum score of 50 on the subject examination.)

Clep Examination in Introductory Macroeconomics. (Must receive minimum score of 50 on the subject examination.)

| General Education Course | Credits | CLEP Equivalent |
| :---: | :---: | :---: |
| Natural Science Requirement, Biology |  |  |
| 3100:103 Natural Science Biology | 4 | Clep examination in Biology. <br> (Must receive minimum score of 50 on the subject examination.) |
| Natural Science Requirement, Chemistry |  |  |
| 3150:100 Chemistry and Society or | 3 | CLEP examination in Chemistry. <br> (Must receive a minimum score of 50 |
| 3150:151 Principles of Chemistry I or | 4 | on the subject examination.) |
| 3150:110 Intro to General Organic and Biochemistry I | 4 |  |
| Mathematics Requirement |  |  |
| 3450:145 College Algebra | 4 | CLEP examination in College Algebra. <br> (Must receive a minimum scale of 50 on the subject examination.) |
| Psychology |  |  |
| 3750:100 Introduction to Psychology | 3 | CLEP examination in Psychology. <br> (Must receive a minimum score of 50 on the subject examination.) |

## Credit by Examination

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 (Veterans' Affairs) 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.edu.
Summit College students should submit their ACE transcript to the Transfer Specialist, Summit College Advising Office, Polsky Room 192 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.
Enrollment 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 Enrollment 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 10th 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.
- Applications for students that do not meet the required ACT and/or GPA will be reviewed on an individual basis by a Review Committee to determine admission to the 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 non-refundable 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.


## 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. College 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 college 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 skills 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 Kelly Herold, Tech Prep Director, at (330) 972-8832.

## Tech Prep Postsecondary Enrollment 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 "C-" 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.

Students who meet the requirements of the Transfer Module and receive an Associate of Arts or an Associate of Science degree with a cumulative grade point average of 2.00 or better will receive transfer credit for college-level coursework passed with a grade of "D" or better. Any "D" work earned after the awarding of the associate degree will not be accepted for transfer credit.
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 Alternative Credit Option in this Bulletin.
Note: Official transcripts and/or documentation for alternative credit can be obtained from the following Web sites:
www.acenet.edu
www.collegeboard.com
www.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 Doctoral-level courses
When approved 400-level 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 Registrar. If the candidate plans 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, 64 credits for an associate degree (some 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 calculate 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 earned 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 earned |
| Sophomore | $32-63.99$ credit hours earned |
| Freshman | $0-31.99$ credit hours earned |

## Requirements for Additional <br> Baccalaureate and Associate Degrees

- Meet requirements given in Section 3, Requirements for Baccalaureate and Associate Degrees.
- Earn a minimum of 32 credits after the awarding of the first baccalaureate degree or 16 credits after the awarding of the first 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.

## 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 in Interdisciplinary Studies | 128 | 2.00 |
| Bachelor of Science in Labor Economics | 128 | 2.00 |
| Bachelor of Science in Political Science/Criminal Justice | 131 | 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 and Biomolecular 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** |  |  |
| Bachelor of Arts in Education | 128 | 2.50 |
| Bachelor of Science in Education | 128 | 2.50 |
| Bachelor of Science in Technical Education | 128 | 2.50 |
| College of Business Administration*** |  |  |
| Bachelor of Science in Accounting | 128 | 2.30 |
| Bachelor of Science in Business Administration | 128 | 2.30 |
| Bachelor of Science in Business Administration/E-Marketing/Advertising | 128 | 2.30 |
| Bachelor of Science in Business Administration/Finance | 128 | 2.30 |
| Bachelor of Science in Business Administration/International Business | 128 | 2.30 |
| Bachelor of Science in Business Administration/Marketing | 128 | 2.30 |
| Bachelor of Science in Management | 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 Arts |  |  |
| 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 and Child Development | 128 | 2.00 |
| Food and Consumer Sciences | 128 | 2.00 |
| Child-Life Specialist | 131 | 3.00 |
| Bachelor of Arts in Fashion Merchandising |  |  |
| Apparel Track | 131 | 2.00 |
| Home Furnishings Track | 131 | 2.00 |
| Fiber Arts Track | 131 | 2.00 |
| Bachelor of Science in Dietetics | 132 | 2.00 |
| Bachelor of Arts in Family and Consumer Sciences Education | 131 | 2.50 |
| Bachelor of Arts in Interior Design | 136 | 2.00 |
| Bachelor of Arts in Music | 131 | 2.00 |
| Bachelor of Music |  |  |
| Performance | 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 | 2.00 |


| College of Fine and Applied Arts continued | Min. Cr. | Min. GradePoint Avg. Req. |
| :---: | :---: | :---: |
| Bachelor 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 Fine Arts 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 (inactive) | 64 | 2.00 |
| Associate of Applied Business in: |  |  |
| Business Management Technology in |  |  |
| Accounting | 69 | 2.00 |
| General Business Management | 68 | 2.00 |
| Small Business Development | 66 | 2.00 |
| Computer Information Systems 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 |
| Culinary Arts | 72 | 2.00 |
| Hotel/Lodging Management | 68 | 2.00 |
| Hotel Marketing/Sales | 69 | 2.00 |
| Marketing and Sales Technology in |  |  |
| Advertising | 66 | 2.00 |
| Fashion | 65 | 2.00 |
| Retailing | 66 | 2.00 |
| Sales | 69 | 2.00 |
| Office Administration in: |  |  |
| Administrative Assistant | 66 | 2.00 |
| International Secretarial | 68 | 2.00 |
| Medical Secretarial | 68 | 2.00 |
| Associate of Applied Science in: |  |  |
| Community Services Technology | 67 | 2.00 |
| Community Services Technology-Social Service Emphasis | 68 | 2.00 |
| Criminal Justice Technology | 64 | 2.00 |
| Criminal Justice Technology-Security | 64 | 2.00 |
| Drafting \& Computer Drafting Technology | 69 | 2.00 |
| Early Childhood Development | 64 | 2.00 |
| Electronic Engineering Technology | 68 | 2.00 |
| Fire Protection Technology | 65 | 2.00 |
| Geographic and Land Information Systems | 66 | 2.00 |
| Manufacturing Engineering Technology in: |  |  |
| Computer-Aided Manufacturing | 66 | 2.00 |
| Industrial Supervision | 68 | 2.00 |
| Mechanical Engineering Technology | 70 | 2.00 |
| Medical Assisting Technology | 65 | 2.00 |
| Paralegal Studies | 70 | 2.00 |
| Radiologic Technology | 74 | 2.00 |
| Respiratory Care | 65 | 2.00 |
| Surgical Technology | 67 | 2.00 |
| Surveying Engineering Technology | 68 | 2.00 |
| Construction and Engineering Technology | 68 | 2.00 |
| Bachelor of Arts in Interdisciplinary Studies | 128 | 2.00 |
| Bachelor of Science in |  |  |
| Automated Manufacturing Engineering Technology | 136 | 2.00 |
| Bachelor of Science in Computer Information Systems Networking Option (Step Up) | 130 | 2.00 |
| Bachelor of Science in Construction Engineering Technology | 136 | 2.00 |
| Bachelor of Science in Electronic Engineering Technology | 137 | 2.00 |
| Bachelor of Science in Emergency Management | 134-139 | 2.00 |
| Bachelor of Science in Mechanical Engineering Technology | 138 | 2.00 |
| Bachelor of Science in Surveying and Mapping | 136 | 2.00 |
| Bachelor of Science in Respiratory Therapy | 128 | 2.00 |

[^4]|  | Min. Cr. | Min. Grade Point Avg. Req. |
| :---: | :---: | :---: |
| Wayne College |  |  |
| Associate of Arts | 64 | 2.00 |
| Associate of Science | 64 | 2.00 |
| Associate of Technical Studies | 64 | 2.00 |
| Associate of Applied Business in: |  |  |
| Business Management Technology in: |  |  |
| Accounting Option | 69 | 2.00 |
| Data Management Option/Microsoft Networking | 68 | 2.00 |
| Data Management Option/Novell Networking | 66 | 2.00 |
| Data Management Option/Software | 65 | 2.00 |
| General Business Option | 65 | 2.00 |
| Health Care Office Management | 69 | 2.00 |
| Office Technology in: |  |  |
| Administrative Professional Option | 66 | 2.00 |
| Business Office Manager Option | 68 | 2.00 |
| Legal Administrative Assistant Option | 69 | 2.00 |
| Health Care Administrative Assistant Option | 67 | 2.00 |
| Associate of Applied Science in: |  |  |
| Computer Network Engineering Technology | 66 | 2.00 |
| Computer Network Engineering Technology/Microsoft Networking | 64 | 2.00 |
| Computer Network Engineering Technology/Novell Networking | 64 | 2.00 |
| Environmental Health and Safety Technology | 69 | 2.00 |
| Social Services Technology | 68 | 2.00 |

\section*{Graduation with Honors <br> 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. 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. <br> 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 <br> 

## 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 deadline. 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
\$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
$\$ 100.00$ per credit All others \$308.27 per credit
- General Service Fee:

Undergraduate
$\$ 29.97$ per credit to a maximum of
$\$ 359.64$ per semester

- 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
$\begin{array}{lr}1-11.5 \text { credits } & \$ 228.53 \text { per credit } \\ 12-15 \text { credits } & \$ 2742.36 \text { per semester }\end{array}$ $\$ 2742.36+\$ 228.53$ per credit over 15

- Tuition (Students enrolled Summer 2002 and after):

Undergraduate
$\begin{array}{lr}1-11.5 \text { credits } & \$ 245.50 \text { per credit } \\ 12-15 \text { credits } & \$ 2,946.00 \text { per semester }\end{array}$
Over 15 credits
$\$ 2,946.00+\$ 245.50$ per credit over 15

- Tuition Surcharge:
(Nonresidents of Ohio pay the surcharge in addition to the instructional fee)*
Reduced Surcharge for academically qualified students
$\$ 100.00$ per credit All others
$\$ 290.83$ per credit
- General Service Fee:

Undergraduate $\quad \$ 24.10$ per credit to a maximum of

- Facilities Fee:

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

## Admission Application Fee

(Nonrefundable)
Undergraduate \$30
Entering postbaccalaureate or graduate $\quad \$ 30$
(Note: fee deferred for recruited graduate minority students.)
Transient students (first enrollment only)
$\$ 30$
International Students \$50
Graduate Foreign Language Reading Proficiency Exam \$50

## Orientation Program Fees

New Student Orientation
University Confirmation (confirms new student intent to attend orientation $\$ 75$ and enroll in classes for next academic term)
Family Focus Orientation
International Student Orientation

## Placement Testing.

User Departments (New Student Orientation, English Language Institute, and International Programs)
Individual Re-testing and External Users

## Registration and Other Related Fees

Administrative Fee ..... \$12/term
Assessed each term (all students except high school students taking Universitycourses; transient, unclassified and special students; and undergraduate studentswho have completed 96 credits or more)
Late Payment Fee ..... $\$ 50$
(assessed to students who have not paid for fees by the invoice due date)
Transcripts
Additional "Speedy" Transcript Fee \$10
Co-op course fee \$55
International Program Fees
Visa Form (spouse and/or dependents) \$50
Practical Training (non-enrolled students) \$35
Study Abroad (non-refundable deposit) \$50

## Alternative Credit Fees

Bypassed credit, per credit
\$5
CLEP, per credit awarded $\quad \$ 15$ (plus ETS fee paid to ETS)
Credit by Examination (undergraduate and postbaccalaureate) per credit $\$ 21$

## 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.

```
Miscellaneous Fees
    Adult Focus
    Career Quest materials (one-time pre-admission testing fee) \$25
    Focus on Success Workshop materials (one-time fee for five workshops) \$25
Audiology and Speech Center
    Speech and Language Services
    Speech/Language Screening \$20
    Speech Evaluation
    \$125
    Office Consultion (per hour) \$125
    Speech/Language Individual Treatment (per hour) \$65
    Speech/Language Group Treatment (per hour) \$35
    Evaluation of Oral/Pharyngeal Swallowing Function \$200
    Therapy Service for Oral/Pharyngeal Swallowing Function (per hour) \$65
    Post-Cochlear mplant Therapy (per hour) \$65
    Cochlear Implant Services (per hour)
    Reprogram Cochlear Implant
    Assessment of Aphasia (per hour)
    Development/Cognitive Testing
    Modification of Speech/Voice Device
```



```
    Audiological Services
    Hearing Screening
    Audiology Evaluation
    Audion
    Audiological (Re)Habilitation Individual (per hour) \$65
    Audiological (Re)Habilitation Group (per hour) \$35
    Typmanometry
    Auditory Evoked Potentials Testing \$225
    Otoacoustic Emission Tests \$65
    Site of Lesion Tests (each) -
    Site of Lesion Tests (each)
Hearing Aids (Conventional)
    Acquisition cost* \({ }^{*} \times 2.8\)
    Hearing Aids (Programmable)
    Hearing Aids (Digital Signal Processing)
    Earmold Services (Swim Molds or Ear Plugs)
    Hearing Aids Accessories
    Assisted Listening Devices
    Hearing Aid Evaluation (no purchase)
    Hearing Aid Repair/Service
Career Advantage Services Fee
    Assessed to all sophomore, junior and senior level students \$2 per credit hour
Center for Child Development (Child care facility)
    Registration:
        Academic year \$55
        Summer sessions (annual)\(\$ 30\)
```

```Insurance:
```

\$25
Child, per academic year
\$15
\$15
Child, per summer (all ages) ..... \$155
University@ Full time, per week (after 45 hours, charged hourly) ..... \$160
Community Full time, per week (after 45 hours, charged hourly) ..... \$5.50

```Full-time Toddler Program, per week (up to 45 hours)University@
```

\$180
Community ..... \$183
Center for Nursing

```Initial Comprehensive Bio/Psycho/Social History\$20
```

Individual 50-minute Sessions (1/4, 1/2, and extended sessions all available)

```\(\$ 40\)
```

Group Sessions (per session, per member) ..... \$60
Family Sessions
$\$ 10$
$\$ 10$
Percent Body Fat Testing
Percent Body Fat Testing ..... $\$ 10$
Care
Specific Blood \& Laboratory Test ..... per contract with Lab Care
Lipid profile cholestech LDX; total cholesterol, HDL, cholestero and triglycerides Profile

```\(\$ 15\)
\(\$ 12\)
```

Total cholesterol, cholestech LDX, LDL and HDL
Massage therapy by licensed masso therapist 30 minutes ..... $\$ 30$
50 minutes

```\(\$ 50\)
\(\$ 2\)
```

College of Education, Department of Physical and Health Education Fitness Assessment Package

```\(\$ 15\)
```

UA Students
Faculty/Staff ..... $\$ 20$
Special Fitness Services
Exercise prescription ..... \$15
Hydrostatic weight

```
            BIA
            Skinfold\$5
```

EKG Stress Test ..... $\$ 60$
VO2 Max Test ..... \$60
VO2 Max Test with ECG ..... $\$ 100$
Lactate Thressment ..... $\$ 150$
Cardiovascular Rehabilitation Program — Monthly rate based on 2 sessions per week $\$ 40$

```or \(\$ 72 / 3 \mathrm{mos}\).
```



[^5]

## Parking Fees

Student (enrolled for any number of credits):
Per semester (Fall and Spring)
Per Summer (\$7/week or \$35/5-week session )
Temporary permit and one-day permits, per day,
(including workshops and conferences)
Commercial visitor:
per semester (Fall and Spring)
Summer sessions
Replacement parking permit service charge
Special University event parking, per vehicle, each event
Special non-University event parking, per vehicle, each event

## Visiting Parking:

meter, per hour (varies upon location)
pre-arranged permit for one day or more
Lot A, per quarter hour (\$5 max)
Motorcycle permit:
per semester (Fall, Spring and Summer)
Parking Fines:
Violations:
(1) Failure to display a valid permit
(2) Parking in a area for which permit is unauthorized and/or invalid
(3) Parking in a prohibited area marked by signs/markers
(4) Parking out of bounds

* Alumni who were enrolled and paid Facilities Fee for the Student Recreation Center may purchase a membership at half the cost of the faculty/staff/retiree level. Memberships must be activated within one year of graduation and will be valid for a period of time equal to the number of semesters that the Facilities Fee was paid.
$\wedge$ Acquisition Cost refers to single-unit cost.


32 Credits or More 3.20 per credit hour $\$ 16.25$ per credit hour

## Library Fees

Excluding Freshmen, Law School and Wayne students
Summit College and Graduate students
$\$ 2$ per credit hour
All other Undergraduate students
$\$ 3$ per credit hour

## Course Materials Fee Schedule*

For the following undergraduate courses, the fee noted will be assessed to cover the cost of instructional materials.

## Summit 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: Criminal Justice | 1 | \$5 |
| 2230:100 | Intro to Fire | 3 | \$20 |
| 2230:104 | Fire Investigation Methods | 4 | \$20 |
| 2230:205 | Fire Detection and Suppression Systems I | 3 | \$20 |
| 2230:206 | Fire Detection and Suppression Systems II | 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 Community 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 | Fundamentals of Food Preparation I | 4 | \$100 |
| 2280:122 | Fundamentals of Food Preparation II | 4 | \$100 |
| 2280:230 | Advanced Food Preparation | 4 | \$100 |
| 2280:232 | Dining Room Service and Training | 3 | \$15 |
| 2280:233 | Restaurant Operations and Management | 4 | \$100 |
| 2280:250 | Front Office Operations | 3 | \$25 |
| 2280:261 | Baking and Classical Desserts | 3 | \$100 |
| 2290:104 | Basic Legal Research and Writing | 3 | \$30 |
| 2290:204 | Advanced Legal Research | 3 | \$30 |
| 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 |  | \$5 |
| 2440:201 | Networking Basics | 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 | Client/Server Programming | 3 | \$5 |
| 2440:211 | Interactive Web Programming | 3 | \$5 |
| 2440:212 | Multimedia/Interactive 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 | Computer Applications Projects | 3 | \$5 |
| 2440:256 | C++ Programming | 3 | \$5 |
| 2440:257 | Microcomputer Projects | 3 | \$5 |


| Course <br> Number | Course Title | Credits | Course Fee | Course Number | Course Title | Credits | Course Fee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2440:267 | Micro Database Applications | 3 | \$5 | 2860:136 | Digital Fundamentals | 2 | \$5 |
| 2440:268 | Network Concepts | 3 | \$5 | 2860:206 | Personal Computer Maintenance | 4 | \$10 |
| 2440:290 | Special Topics | 2 | \$20 | 2860:217 | Survey of Digital Electronics | 4 | \$10 |
| 2440:290 | Special Topics | 3 | \$25 | 2860:225 | Applications of Electronic Devices | 4 | \$20 |
| 2440:301 | Advanced Routing | 4 | \$30 | 2860:231 | Control Principles (Inactive) | 3 | \$10 |
| 2440:302 | Remote Access | 4 | \$5 | 2860:237 | Digital Circuits | 4 | \$20 |
| 2440:310 | Wireless Networking | 3 | \$5 | 2860:238 | Microprocessor Applications | 4 | \$15 |
| 2440:338 | System Admin. I | 3 | \$5 | 2860:242 | Machinery and Controls | 3 | \$15 |
| 2440:388 | System Admin. II | 3 | \$5 | 2860:251 | Electronic Communications | 4 | \$15 |
| 2440:401 | Multilayer Switching | 4 | \$30 | 2860:255 | Electronic Design and Construction (Inactive) | 2 | \$25 |
| 2440:402 | Network Troubleshooting | 4 | \$5 | 2860:260 | Electronic Project | 2 | \$10 |
| 2440:410 | Network Authentication \& Security | 3 | \$5 | 2860:270 | Survey of Electronics I | 3 | \$10 |
| 2440:420 | Voice, Data \& Video | 3 | \$5 | 2860:271 | Survey of Electronics II | 3 | \$10 |
| 2440:430 | Networking Monitoring \& Management | 3 | \$5 | 2860:280 | Microprocessor Maintenance Pract/Sem | 3 | \$10 |
| 2440:480 | Current Topics in CIS | 3 | \$5 | 2860:352 | Microprocessor Systems | 4 | \$10 |
| 2530:241 | Health Information Management | 3 | \$5 | 2860:400 | Computer Simulations in Technology | 3 | \$10 |
| 2540:118 | Exploring the Internet | 2 | \$20 | 2860:453 | Control Systems | 4 | \$10 |
| 2540:121 | Introduction to Office Procedures | 3 | \$5 | 2870:311 | Facilities Planning | 3 | \$10 |
| 2540:129 | Information/Records Management | 3 | \$5 | 2870:348 | CNC Programming I | 3 | \$20 |
| 2540:140 | Keyboarding for Non-Majors | 2 | \$5 | 2870:448 | CNC Programming II | 3 | \$20 |
| 2540:143 | Microsoft Word Beginning | 2 | \$5 | 2880:130 | Work Meas. and Cost Est. | 3 | \$10 |
| 2540:144 | Microsoft Word Advanced | 2 | \$5 | 2880:201 | Robotics and Automated Manufacturing | 3 | \$20 |
| 2540:151 | Intermediate Word Processing | 3 | \$5 | 2880:241 | Introduction to Quality Assurance | 3 | \$5 |
| 2540:253 | Advanced Word Processing | 3 | \$5 | 2920:101 | Introduction to Mechanical Design | 3 | \$50 |
| 2540:255 | Legal Office Procedure I | 3 | \$20 | 2920:130 | Intro to Hydro and Pneum | 3 | \$25 |
| 2540:256 | Medical Office Procedures | 3 | \$25 | 2920:142 | Introduction to Materials Technology | 3 | \$50 |
| 2540:270 | Business Software Applications | 4 | \$5 | 2920:243 | Kinematics | 3 | \$50 |
| 2540:271 | Desktop Publishing | 3 | \$5 | 2920:245 | Mechanical Design II | 5 | \$50 |
| 2540:273 | Computer Based Graphic Presentation | 3 | \$5 | 2920:252 | Thermo-Fluids Lab | 1 | \$30 |
| 2540:281 | Edit/Proofread/Transcription | 3 | \$5 | 2920:346 | Mechanical Design III | 4 | \$50 |
| 2540:290 | Special Topics: Office Administration | .5-3 | \$20 | 2920:405 | Introduction to Industrial Machine Control | 3 | \$50 |
| 2540:290 | Special Topics: Voice Recognition Technology |  | \$30 | 2920:470 | Plastics Processing and Testing | 2 | \$50 |
| 2600:100 | Basic Electronics for Technicians | 5 | \$20 | 2940:121 | Technical Drawing I | 3 | \$25 |
| 2600:125 | Digital Electronics for Technicians | 4 | \$20 | 2940:122 | Technical Drawing II | 3 | \$30 |
| 2600:160 | Personal Computer Servicing | 4 | \$20 | 2940:170 | Surveying Drafting | 3 | \$25 |
| 2600:240 | Microsoft Networking I | 3 | \$75 | 2940:180 | Intro to CAD | 1 | \$30 |
| 2600:242 | Microsoft Networking II | 3 | \$75 | 2940:210 | Computer-Aided Drawing I | 3 | \$50 |
| 2600:244 | Microsoft Networking III | 3 | \$75 | 2940:211 | Computer-Aided Drawing II | 3 | \$50 |
| 2600:246 | Microsoft Networking IV | 3 | \$75 | 2940:245 | Structural Drafting | 2 | \$20 |
| 2600:252 | Microsoft Networking V | 3 | \$75 | 2940:250 | Architectural Drafting | 3 | \$10 |
| 2600:254 | Microsoft Networking VI | 3 | \$75 | 2980:101 | Basic Surveying I | 2 | \$30 |
| 2600:270 | Introduction to Network Technology | 3 | \$20 | 2980:102 | Basic Surveying II | 2 | \$30 |
| 2600:272 | Network Technology I | 3 | \$75 | 2980:122 | Elementary Surveying | 3 | \$30 |
| 2600:274 | Network Technology II | 3 | \$75 | 2980:123 | Surveying Field Practice | 2 | \$40 |
| 2600:275 | Digital Data Communication | 2 | \$10 | 2980:222 | Construction Surveying | 3 | \$40 |
| 2600:276 | Network Directory Struct. | 2 | \$50 | 2980:223 | Fundamentals of Map Production | 3 | \$30 |
| 2600:278 | Network Troubleshoot Technology | 3 | \$75 | 2980:225 | Advanced Surveying | 3 | \$30 |
| 2600:282 | Current Networking Topics | 2 | \$50 | 2980:227 | Intro to Geographic and Land Information Systems | 3 | \$30 |
| 2740:122 | Emergency Responder I | 3 | \$35 | 2980:228 | Boundary Surveying | 3 | \$30 |
| 2740:126 | Administrative Medical Assisting | 3 | \$25 | 2980:290 | Special Topics: Surveying and Construction Tech | 1-2 | \$30 |
| 2740:127 | Medical Assisting II | 3 | \$25 | 2980:310 | Survey Computations and Adjustments | 2 | \$20 |
| 2740:135 | Clinical Medical Assisting I | 4 | \$52.50 | 2980:315 | Boundary Control and Legal Principles | 3 | \$10 |
| 2740:226 | Medical Billing | 4 | \$25 | 2980:330 | Applied Photogrammetry | 2 | \$30 |
| 2740:235 | Clinical Medical Assisting II | 4 | \$50 | 2980:415 | Legal Aspects:Surveying | 3 | \$15 |
| 2740:240 | Medical Transcription I | 3 | \$25 | 2980:420 | Route Surveying | 3 | \$30 |
| 2770:221 | Surgical Assisting Procedure I | 3 | \$40 | 2980:421 | Subdivision Design | 3 | \$30 |
| 2770:231 | Clinical Application I | 2 | \$15 | 2980:422 | GPS Surveying | 2 | \$30 |
| 2770:233 | Clinical Application III | 5 | \$50 | 2980:425 | Land Navigation | 3 | \$30 |
| 2790:121 | Introduction to Respiratory Care | 3 | \$35 | 2980:430 | Surveying Project | 3 | \$30 |
| 2790:122 | Respiratory Patient Care | 3 | \$35 | 2980:445 | Applications in GIS Using GPS | 3 | \$30 |
| 2790:123 | Mechanical Ventilators | 3 | \$35 | 2980:489 | Special Topics: Surveying | 1-3 | \$30 |
| 2790:131 | Clinical Application I | 3 | \$15 | 2985:101 | Fund. of Geograp. Info Services | 3 | \$20 |
| 2790:134 | Clinical Application IV | 5 | \$15 | 2985:201 | Intermediate Geo. \& Land Info Systems | 3 | \$20 |
| 2790:210 | Resp. Therapy Procedures | 3 | \$35 | 2985:205 | Building Geodatabases | 3 | \$10 |
| 2790:223 | Advanced Respiratory Care | 3 | \$35 | 2985:290 | ST: Geo \& Land Info Systems | 1-6 | \$20 |
| 2790:224 | Pulmonary Rehabilitation and Respiratory Care | 2 | \$80 | 2990:131 | Building Construction | 2 | \$20 |
| 2800:200 | Internet: Physics Environ. Technology | 1 | \$25 | 2990:150 | Blueprint Reading | 2 | \$30 |
| 2800:210 | Occupational Safety and Risks | 3 | \$25 | 2990:237 | Materials Testing I | 2 | \$30 |
| 2800:230 | Water and Atmospheric Pollution | 3 | \$25 | 2990:238 | Materials Testing II | 2 | \$30 |
| 2800:232 | Environmental Sampling Lab | 2 | \$25 | 2990:241 | Strength of Materials | 3 | \$10 |
| 2820:105 | Basic Chemistry | 3 | \$30 | 2990:245 | Construction Estimating | 3 | \$20 |
| 2820:110 | Physical Science for Technicians | 3 | \$10 | 2990:310 | Residential Building Construction | 3 | \$30 |
| 2820:111 | Introductory Chemistry | 3 | \$25 | 2990:351 | Construction Quality Control | 2 | \$20 |
| 2820:112 | Introductory and Analytical Chemistry | 3 | \$25 | 2990:352 | Field Management and Scheduling | 2 | \$30 |
| 2820:121 | Technical Computations | 1 | \$15 | 2990:354 | Foundation Construction Methods | 3 | \$20 |
| 2820:131 | Software Applications for Tech. | 1 | \$20 | 2990:355 | Computer Applications in Construction | 3 | \$30 |
| 2820:161 | Technical Physics: Mechanics I | 2 | \$20 | 2990:358 | Advanced Estimating | 3 | \$30 |
| 2820:162 | Technical Physics: Mechanics II | 2 | \$20 | 2990:361 | Construction Form Work | 3 | \$20 |
| 2820:163 | Technical Physics: Electricity and Magnetism | 2 | \$10 | 2990:462 | Mechanical Service Systems | 3 | \$20 |
| 2820:164 | Technical Physics: Heat and Light | 2 | \$15 | 2990:463 | Electrical Service Systems | 3 | \$20 |
| 2820:310 | Programming for Technologists | 2 | \$30 | Buchtel College of Arts and Sciences |  |  |  |
| 2860:110 | Basic Electricity and Electronics | 4 | \$10 | 3006:490 | Workshop: Women Middle/Later Years | 1-3 | \$15 |
| 2860:120 | Circuit Fundamentals | 4 | \$20 | 3010:201 | Introduction to Environmental Science | 3 | \$5 |
| 2860:122 | AC Circuits | 3 | \$20 | 3010:401 | Seminar: Environmental Studies | 2 | \$5 |
| 2860:123 | Electronic Devices | 4 | \$20 | 3010:490 | Workshop in Environmental Studies |  | \$10 |
|  |  |  |  | 3010:495 | Field/Lab Studies Environmental Studies |  | \$10 |
|  |  |  |  | 3100:100 | Introduction to Botany | 4 | \$5 |
| $\begin{array}{llll}\text { Note: Additional workshops and special topics courses offered on a rotation basis may include fees not } & 3100: 101 & \text { Introduction to Zoology }\end{array}$ |  |  |  |  |  |  |  |


| Course <br> Number | Course Title | Credits | Course Fee | Course <br> Number | Course Title | Credits | Course Fee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3100:103 | Natural Science: Biology | 4 | \$15 | 3350:496 | Field Research Methods | 3 | \$35 |
| 3100:111 | Principles of Biology I | 4 | \$25 | 3350:497 | Regional Field Studies | 1-3 | \$15 |
| 3100:112 | Principles of Biology II | 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 I | 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 Disposal | , | \$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 |
| 3100:212 | 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 Ice Age and Ohio | 1 | \$5 |
| 3100:363 | Animal Physiology | 4 | \$40 | 3370:128 | Geology of Ohio | 1 | \$5 |
| 3100:365 | Histology I | 3 | \$15 | 3370:129 | Medical Geology | 1 | \$5 |
| 3100:366 | Histology II | 3 | \$20 | 3370:130 | Geologic Record - Climate Change | 1 | \$5 |
| 3100:400 | Food PLants | 2 | \$10 | 3370:131 | Geology \& Society | 11 | \$5 |
| 3100:418 | Field Ecology | 4 | \$15 | 3370:132 | Gemstones 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 Oceans | 1 | \$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 | \$5 |
| 3100:444 | Field Marine Phycology | 3 | \$50 | 3370:201 | Exercises in Environmental Geology I | 1 | \$10 |
| 3100:449 | Borehole Geophysics | 3 | \$15 | 3370:202 | Geology of National Parks | 3 | \$10 |
| 3100:451 | General Entomology | 4 | \$15 | 3370:203 | Exercises in Environmental Geology II | 1 | \$10 |
| 3100:453 | Invertebrate Zoology | 4 | \$25 | 3370:230 | Crystallography and Non-Silicate Mineralogy | 3 | \$20 |
| 3100:454 | Parasitology | 4 | \$15 | 3370:231 | Silicate Mineralogy and Petrology | 3 | \$20 |
| 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 | \$60 | 3370:360 | Introductory Invertebrate Paleontology | 4 | \$25 |
| 3100:471 | Physiological Genetics | 4 | \$50 | 3370:371 | Oceanography | 4 | \$25 |
| 3100:480 | Molecular Biology | 3 | \$15 | 3370:405 | Archaeological Geology | 3 | \$25 |
| 3100:485 | Cell Physiology | 4 | \$60 | 3370:410 | Regional Geology of North America | 3 | \$25 |
| 3100:494 | Workshop: Basic Cell Tech and Res | 1-3 | \$10 | 3370:411 | Glacial Geology | 3 | \$25 |
| 3100:494 | Workshop: Molecular Biology High School Teaching | 1-3 | \$15 | 3370:421 | Coastal Geology | 3 | \$25 |
| 3100:494 | Workshop: Radiation Safety Instr and Comp | 1-3 | \$10 | 3370:425 | Principles in Sedimentary Basin Analysis | 3 | \$25 |
| 3100:494 | Workshop: Tropical Biology-Jamaica | 1-3 | \$175 | 3370:432 | Optical Mineralogy 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 | \$25 |
| 3150:110/111 | Introduction to General, Organic and Biochemistry/Lab | 4 | \$30 | 3370:436 | Coal Geology | 3 | \$25 |
| 3150:112/113 | Introduction to General, Organic and Biochemistry/Lab | 4 | \$30 | 3370:437 | Economic Geology | 3 | \$25 |
| 3150:151/152 | Principles of Chemistry 1/Lab | 4 | \$30 | 3370:441 | Fundamentals of Geophysics | 3 | \$15 |
| 3150:153 | Principles of Chemistry II | 3 | \$15 | 3370:444 | Environmental Magnetism | 3 | \$20 |
| 3150:154 | Qualitative Analysis | 2 | \$40 | 3370:446 | Exploration Geophysics | 3 | \$15 |
| 3150:265 | Organic Chemistry Laboratory I | 2 | \$45 | 3370:449 | Borehole Geophysics | 3 | \$15 |
| 3150:266 | Organic Chemistry Laboratory II | 2 | \$45 | 3370:450 | Advanced Structural Geology | 3 | \$25 |
| 3150:380 | Advanced Chemistry Lab I | 2 | \$40 | 3370:462 | Advanced Paleontology | 3 | \$25 |
| 3150:381 | Advanced Chemistry Lab II | 2 | \$40 | 3370:463 | Micropaleontology | 3 | \$25 |
| 3150:480 | Analytical Chemistry Laboratory III | 2 | \$40 | 3370:470 | Geochemistry | 3 | \$25 |
| 3150:481 | Advanced Chemistry Lab IV | 2 | \$30 | 3370:472 | Stable Isotope Geochemistry | 3 | \$25 |
| 3230:151 | Human Evolution | 4 | \$10 | 3370:474 | Groundwater Hydrology | 3 | \$25 |
| 3240:250 | Introduction to Archaeology | 3 | \$5 | 3370:481 | Analytical Methods in Geology | 2 | \$10 |
| 3240:440 | Archaeological Laboratory Methods | 3 | \$10 | 3370:484 | Geoscience Information Acquisition and Management | 1 | \$5 |
| 3240:450 | Archaeological Field School | 3-5 | \$10 | 3450:100 | Intermediate Algebra | 3 | \$10 |
| 3250:226 | Computer Skills for Economic Analysis | 3 | \$25 | 3450:140 | Math for Elem. Schl. Teachl | 3 | \$10 |
| 3250:426 | Econometric Methods and Applications | 3 | \$20 | 3450:141 | Algebra with Business Applications | 3 | \$10 |
| 3250:427 | Economic Forecasting | 3 | \$20 | 3450:145 | College Algebra | 4 | \$10 |
| 3300:111 | English Composition I | 4 | \$20 | 3450:210 | Calculus with Business Applications | 3 | \$10 |
| 3300:112 | English Composition II | 3 | \$20 | 3450:221 | Analytical Geometry and Calculus l-Honors | 4 | \$5 |
| 3350:305 | Maps and Map Reading | 3 | \$10 | 3450:222 | Analytical Geometry and Calculus II-Honors | 4 | \$5 |
| 3350:306 | Mapping the Earth | 3 | \$10 | 3450:223 | Analytical Geometry Calculus III | 4 | \$5 |
| 3350:310 | Physical and Environmental Geography | 3 | \$10 | 3450:260 | Math for Elementary Teacher II | 3 | \$10 |
| 3350:314 | Climatology | 3 | \$10 | 3450:289 | ST: Analytical Geometry and Calculus III Lab | 1-3 | \$5 |
| 3350:340 | Cartography | 3 | \$10 | 3450:312 | Linear Algebra | 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 I | 3 | \$5 |
| 3350:353 | Latin America | 3 | \$5 | 3450:428 | Applied Numerical Methods II | 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 | Mathematical Models | 3 | \$5 |
| 3350:405 | Geographic Information Systems | 3 | \$10 | 3450:441 | Concepts in Geometry | 4 | \$10 |
| 3350:407 | Advanced Geographic Information Systems | 3 | \$10 | 3450:489 | Topics in Mathematics | 1-4 | \$15 |
| 3350:442 | Thematic Cartography | 3 | \$10 | 3460:125 | Descriptive Computer Science | 2 | \$10 |
| 3350:444 | Apps. in Cartography and Geographic Info. Systems | 3 | \$10 | 3460:126 | Introduction to Visual Basic Programming | 3 | \$10 |
| 3350:447 | Remote Sensing | 3 | \$10 | 3460:208 | Introduction to $\mathrm{C}++$ | 3 | \$10 |
| 3350:448 | Advanced Cartography | 3 | \$10 | 3460:209 | Introduction Computer Science | 4 | \$15 |
| 3350:449 | Advanced Remote Sensing | 3 | \$10 | 3460:210 | Data Structures and Algorithms I | 4 | \$10 |
| 3350:481 | Spatial Analysis | 3 | \$20 | 3460:289 | ST: Computer Science | 1 | \$10 |
| 3350:489 | ST: Geography | 1-3 | \$5 | 3460:302 | Programming Applications with Cobol | 3 | \$10 |
| 3350:490 | Workshop: Creat. Geog. Res., K-12 | 1-3 | \$25 | 3460:306 | Assembly Language Programming | 4 | \$15 |
| 3350:490 | Workshop: Field Trips for Educators | 1-3 | \$10 | 3460:307 | Applied Systems Programming | 3 | \$10 |
| 3350:495 | Soil and Water Field Studies | 3 | \$35 | 3460:316 | Data Structures and Algorithms II | 3 | \$10 |
|  |  |  |  | 3460:389 | IT: Computer Science | 1 | \$10 |
| ote: Additional w | shops and special topics courses offered on a rotation ba | sis may in | ude fees | 3460:401 | Fundamentals of Data Structures | 3 | \$10 |
| ted here. Consult | ppropriate department for course material and computing fees | es for thos | classes. | 3460:406 | Intro to C and UNIX | 3 | \$10 |


| Course Number | Course Title | Credits | Course Fee | Course <br> Number | Course Title | Credits | Course Fee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3460:408 | Windows Programming | 3 | \$10 | 3700:477 | Lobbying | 3 | \$10 |
| 3460:418 | Introduction Discrete Structures | 3 | \$10 | 3700:480 | Policy Problems: Criminal Justice | 3 | \$10 |
| 3460:421 | Introduction to Object-Oriented Programming | 3 | \$10 | 3750:110 | Quantitative Methods in Psychology | 4 | \$10 |
| 3460:426 | Operating Systems | 3 | \$10 | 3750:220 | Introduction to Experimental Psychology | 4 | \$10 |
| 3460:428 | UNIX System Programming | 3 | \$10 | College of Engineering |  |  |  |
| 3460:430 | Theory Programming Languages | 3 | \$10 |  |  |  |  |
| 3460:435 | Analysis of Algorithms | 3 | \$10 | 4200:101 | Tools for Chemical Engineering | 3 | \$55 |
| 3460:440 | Compiler Design | 3 | \$10 | 4200:110 | Project Management and Teamwork I | 1 | \$20 |
| 3460:445 | Bioinformatics | 3 | \$10 | 4200:210 | Project Management and Teamwork II | 1 | \$20 |
| 3460:455 | Data Communications and Computer Networks | 3 | \$10 | 4200:294 | Chemical Engineering Design II | 1-2 | \$33 |
| 3460:457 | Computer Graphics | 3 | \$10 | 4200:310 | Project Management and Teamwork I | 1 | \$20 |
| 3460:460 | Artificial Intelligence and Heuristic Programming | 3 | \$10 | 4200:351 | Fluid and Thermal Operations | 3 | \$4 |
| 3460:465 | Computer Organization | 3 | \$10 | 4200:353 | Mass Transfer Operations | 3 | \$11 |
| 3460:467 | Microprocessor Programming and Interfacing | 3 | \$10 | 4200:360 | Chemical Engineering Lab | 3 | \$55 |
| 3460:470 | Automata, Computability, and Formal Languages | 3 | \$10 | 4200:394 | Chemical Engineering Design III | 1-3 | \$33 |
| 3460:475 | Database Management | 3 | \$15 | 4200:410 | Project Management and Teamwork | 1 | \$20 |
| 3460:477 | Introduction to Parallel Processing | 3 | \$15 | 4200:441 | Process Design | 3 | \$11 |
| 3460:480 | Introduction: Software Engineering \& Form Methods | 3 | \$10 | 4200:442 | Process II | 3 | \$11 |
| 3460:489 | ST: Computer Science | 1-3 | \$10 | 4200:494 | Design Project | 3 | \$33 |
| 3460:490 | Senior Seminar | 3 | \$25 | 4200:497 | Honors Project | 1-3 | \$33 |
| 3470:250 | Statistics for Everyday Life | 4 | \$15 | 4200:499 | Research Project | 1-3 | \$33 |
| 3470:260 | Basic Statistics | 3 | \$15 | 4300:101 | Tools for Civil Engineering | 3 | \$55 |
| 3470:261 | Introductory Statistics \| | 2 | \$5 | 4300:230 | Surveying | 3 | \$22 |
| 3470:262 | Introductory Statistics II | 2 | \$5 | 4300:314 | Geotechnical Engineering | 3 | \$55 |
| 3470:401 | Probability \& Stat for Engineers | 2 | \$5 | 4300:341 | Hydraulic Engineering | 4 | \$55 |
| 3470:460 | Statistical Methods | 4 | \$10 | 4300:380 | Engineering Materials Lab | 3 | \$55 |
| 3470:461 | Applied Statistics I | 4 | \$10 | 4300:423 | Chemistry for Environmental Engineers | 3 | \$55 |
| 3470:462 | Applied Statistics II | 4 | \$10 | 4300:466 | Traffic Engineering | 3 | \$55 |
| 3470:475 | Foundation of Stat Quality Control | 3 | \$5 | 4300:468 | Highway Materials | 3 | \$55 |
| 3470:480 | Statistical Computer Applications | 3 | \$20 | 4300:482 | Special Projects | 1-3 | \$55 |
| 3500:101 | Beginning Modern Language I | 4 | \$10 | 4300:490 | Senior Design | 3 | \$55 |
| 3500:102 | Beginning Modern Language II | 4 | \$10 | 4400:101 | Tools for Electrical Engineering | 3 | \$55 |
| 3500:201 | Intermediate Modern Language I | 3 | \$10 | 4400:230 | Circuits I Laboratory | 1 | \$55 |
| 3500:202 | Intermediate Modern Language II | 3 | \$10 | 4400:263 | Switching \& Logic | 4 | \$55 |
| 3520:101 | Beginning French I | 4 | \$10 | 4400:320 | Basic Electrical Engineering | 4 | \$55 |
| 3520:102 | Beginning French II | 4 | \$10 | 4400:330 | Circuits II Laboratory | 1 | \$55 |
| 3520:201 | Intermediate French I | 3 | \$10 | 4400:361 | Electronic Design | 4 | \$55 |
| 3520:202 | Intermediate French II | 3 | \$10 | 4400:371 | Control Systems I | 4 | \$55 |
| 3520:309 | French Culture \& Civilization |  | \$10 | 4400:381 | Energy Conversion | 3 | \$55 |
| 3520:310 | French Culture \& Civilization | 3 | \$10 | 4400:401 | Senior Project I | 2 | \$75 |
| 3520:315 | French Phonetics |  | \$10 | 4400:402 | Senior Project II | 2 | \$75 |
| 3530:101 | Beginning German I | 4 | \$10 | 4400:455 | Microwaves | 4 | \$55 |
| 3530:102 | Beginning German II | 4 | \$10 | 4400:465 | Programmable Logic | 3 | \$55 |
| 3530:201 | Intermediate German I | 3 | \$10 | 4400:470 | Microprocessor Interfacing | 3 | \$55 |
| 3530:202 | Intermediate German II | 3 | \$10 | 4400:472 | Control Systems II | 4 | \$55 |
| 3550:101 | Beginning Italian I | 4 | \$10 | 4400:485 | Electric Motor Drives | 3 | \$55 |
| 3550:102 | Beginning Italian \|| | 4 | \$10 | 4600:165 | Tools for Mechanical Engineering | 3 | \$63 |
| 3550:201 | Intermediate Italian I | 3 | \$10 | 4600:401 | Design of Energy Systems | 2 | \$101 |
| 3550:202 | Intermediate Italian \|| | 3 | \$10 | 4600:460 | Concepts of Design | 3 | \$37 |
| 3560:101/102 | Beginning Japanese I, II |  | \$10 | 4600:461 | Design of Mechanical Systems | 2 | \$101 |
| 3560:201/202 | Intermediate Japanese I, II | 3 | \$10 | 4600:483 | Mechanical Engineering Measurements Laboratory | 2 | \$101 |
| 3560:304 | Japanese Culture through Film | 2 | \$10 | 4600:484 | Mechanical Engineering Laboratory | 2 | \$101 |
| 3560:422 | ST: Adv. Jap Lang-Film | 3 | \$10 | 4800:101 | Tools for Biomedical Engineering | 3 | \$55 |
| 3570:101 | Beginning Russian 1 | 4 | \$10 | 4800:111 | Introduction to Biomedical Engineering Design | 2 | \$55 |
| 3570:102 | Beginning Russian II | 4 | \$10 | 4800:305 | Introduction to Biophysical Measurements | 3 | \$55 |
| 3570:201 | Intermediate Russian I | 3 | \$10 | 4800:365 | Mechanics of Bio Tissues | 3 | \$55 |
| 3570:202 | Intermediate Russian II | 3 | \$10 | 4800:422 | Physiological Control Systems | 3 | \$55 |
| 3580:101 | Beginning Spanish I | 4 | \$10 | 4800:460 | Experimental Methods in Biomaterials | 3 | \$55 |
| 3580:102 | Beginning Spanish II | 4 | \$10 | 4800:485 | Advanced Biomaterials \& Laboratory | 1-3 | \$60 |
| 3580:201 | Intermediate Spanish I | 3 | \$10 | 4800:491 | Biomedical Engineering Design I | 2 | \$55 |
| 3580:202 | Intermediate Spanish \|| | 3 | \$10 | 4800:492 | Biomedical Engineering Design II | 2 | \$55 |
| 3580:301 | Spanish Conversation | 3 | \$10 | College of Education |  |  |  |
| 3580:302 | Spanish Composition | 3 | \$10 |  |  |  |  |
| 3580:401 | Advanced Conversation | 3 | \$10 | 5100:480 | ST: Educational Media Technology | 1-4 | \$35 |
| 3580:402 | Advanced Composition | 3 | \$10 | 5100:490 | Workshop: Education Foundations and Leadership | 1-3 | \$15 |
| 3580:405 | Spanish Linguistics: Phonology | 4 | \$10 | 5100:490 | Workshop: Photography for Educators | 1-3 | \$50 |
| 3650:130 | Descriptive Astronomy | 4 | \$20 | 5100:490 | Workshop: Video Production for Educators | $1-3$ | \$35 |
| 3650:133 | Music, Sound and Physics | 4 | \$20 | 5200:319 | Integrated Expres Arts in Early Childhood | 3 | \$45 |
| 3650:137 | Light | 4 | \$20 | 5200:325 | Advanced Early Childhood Curriculum | 4 | \$10 |
| 3650:261 | Physics for Life Sciences I | 4 | \$20 | 5200:370 | Early Childhood Center Lab | 2 | \$20 |
| 3650:262 | Physics for Life Sciences II | 4 | \$20 | 5200:420 | Integrated Primary Curriculum | 4 | \$15 |
| 3650:291 | Elementary Classical Physics I | 4 | \$20 | 5200:425 | Adv Int Primary Curr | 4 | \$15 |
| 3650:292 | Elementary Classical Physics II | 4 | \$20 | $5200: 450$ $5200: 480$ | Integrated Curriculum Applications | 3 $1-4$ | \$15 |
| 3650:322 | Intermediate Lab I | 3 | \$25 | 5200:480 | Special Topics: Teaching Elementary School Math Workshop: Elementary Education | $1-4$ $1-3$ | $\$ 5$ $\$ 5$ |
| 3650:323 | Intermediate Lab II | 3 | \$25 | 5200:490 | Workshop: Elementary Education Workshop: Actual Problem Solving \& Hand Cal. | $1-3$ $1-3$ | \$5 |
| 3650:401 | Everyday Physics | 4 | \$15 | 5200:490 | Workshop: Actual Problem Solving \& Hand Cal. | 1-3 | \$5 |
| 3650:451 | Advanced Laboratory I | 3 | \$25 | 5200:490 | Workshop: Dev. Appr. Pract/Ear Child | $1-3$ | \$15 |
| 3650:452 | Advanced Laboratory II | 3 | \$25 | 5200:490 | Workshop: Establishing a Balanced Reading Program | $1-3$ | \$10 |
| 3700:201 | Introduction to Political Research | 3 | \$10 | 5200:490 | Workshop: Evaluating Language-Based Instruction | 1-3 | \$10 |
| 3700:370 | Public Administration: Concepts and Practices | 4 | \$10 | 5200:490 | Workshop: Getting Ready Classroom | 1-3 | \$10 |
| 3700:334 | Law, Mediation and Violence | 3 | \$10 | $5200: 490$ $5200: 490$ | Workshop: Integrating Comm. Resource | $1-3$ $1-3$ | $\$ 15$ $\$ 10$ |
| 3700:440 | Survey Research Methods | 3 | \$10 | $5200: 490$ $5200: 490$ | Workshop: Literature in the Classroom Workshop: Making Language Learning Come Alive | $1-3$ $1-3$ | $\$ 10$ $\$ 10$ |
| 3700:361 | Politics of Criminal Justice | 3 | \$10 | 5200:490 | Workshop: Making Language Learning Come Alive Workshop: Phonics Instruction for Today | $1-3$ $1-3$ | $\$ 10$ $\$ 20$ |
| 3700:402 | Politics and the Media | 3 | \$10 | 5200:490 | Workshop: Phonics Instruction for Today | $1-3$ $1-3$ | \$20 |
| 3700:442 | Methods of Policy Analysis | 3 | \$10 | 5200:490 | Workshop: Shared Reading in Primary Grades | $1-3$ $1-3$ | \$10 |
| 3700:473 | Voter Contact and Elections | 3 | \$10 | 5200:490 | Workshop: Surviving Substitute Teaching K-8 | 1-3 | \$10 |
|  |  |  |  | 5200:490 | Workshop: Teaching Beyond Text | 1-3 | \$10 |
| Note: Additional workshops and special topics courses offered on a rotation basis may include fees no |  |  |  | 5200:490 | Workshop: Child Abuse and Neglect | $1-3$ | \$30 |
|  |  |  |  | 5200:490 | Workshop: Use Lit. Dev. Integ. Instr. | $1-3$ | \$10 |


| Course |  |  | Course | Course |  |  | Course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Course Title | Credits | Fee | Number | Course Title | Credits | Fee |
| 5200:490 | Workshop: Language \& Literature Multi Settings | 1-3 | \$15 | 5550:490 | Workshop: Encourage At-Risk Child | 1-3 | \$6 |
| 5200:495 | Student Teaching Elementary Education | 4 | \$25 | 5500:490 | Workshop: Enhance Self-Esteem Child | 1-3 | \$6 |
| 5200:496 | Student Teaching Elementary Education | 4 | \$25 | 5550:490 | Workshop: Enhance Teacher Perf./Esteem | 1-3 | \$6 |
| 5250:333 | Teaching Science to Middle Level Learners | 4 | \$40 | 5550:490 | Workshop: Enhancing Athletic Performance | 1-3 | \$6 |
| 5250:338 | Teaching Social Studies to Middle Level Learners | 3 | \$10 | 5550:490 | Workshop: Ethical Issues - Sports | 1-3 | \$10 |
| 5250:342 | Teaching Math to Middle Level Learners | 3 | \$10 | 5550:490 | Workshop: Health Ed. Update | 1-3 | \$7 |
| 5250:350 | Integrating Language Arts and Media | 3 | \$20 | 5550:490 | Workshop: HIV/AIDS Update | 1-3 | \$7 |
| 5250:495 | Student Teaching: Grades 4-6 | 6 | \$25 | 5550:490 | Workshop: LawNan: Violence and the Unruly | 1-3 | \$6 |
| 5250:496 | Student Teaching: Grades 7-9 | 6 | \$25 | 5550:490 | Workshop: Leg. Pit. Teacher/Coach Avoi | 1-3 | \$6 |
| 5300:311 | Instr Tech:Secondary Education Math | 5 | \$15 | 5550:490 | Workshop: Leg. Rights of Profession | 1-3 | \$6 |
| 5300:490 | Workshop: Adv. Instructional Techniques for Language | 1-3 | \$20 | 5550:490 | Workshop: Legal Update - Educators | 1-3 | \$5 |
| 5300:490 | Workshop: Costa Rica - Educators | 1-3 | \$75 | 5550:490 | Workshop: Maximizing Athletic Performance | 1-3 | \$5 |
| 5300:490 | Workshop: Educational Strategies Urban Schl. Environ. | 1-3 | \$5 | 5550:490 | Workshop: Max Ind Spt/Mot Performance | 1-3 | \$6 |
| 5300:490 | Workshop: French Language Immersion | 1-3 | \$25 | 5550:490 | Workshop: Mental Strategies for Peak Performance | 1-3 | \$6 |
| 5300:490 | Workshop: Improving 9th Grade Math Prof. Scores | 1-3 | \$5 | 5550:490 | Workshop: Methods of Teaching Health Ed. Update | 1-3 | \$6 |
| 5300:490 | Workshop: Teaching Film/TV Survival Skills | 1-3 | \$50 | 5550:490 | Workshop: Motivational Strategies: Sports/Exercise | 1-3 | \$7 |
| 5300:490 | Workshop: Tech. \& Instr. In Foreign Languages | 1-3 | \$15 | 5550:490 | Workshop: Motivating the At-Risk Child | 1-3 | \$6 |
| 5300:490 | Workshop: Whole Language Teaching Teachers | 1-3 | \$25 | 5550:490 | Workshop: Motivation, Lang. and Arts | 1-3 | \$6 |
| 5300:490 | Workshop: Lng. Art Eng. Tch. Best Pr. | 1-3 | \$25 | 5550:490 | Workshop: New Games, Init, Co-op Games | 1-3 | \$6 |
| 5300:495 | Student Teaching | 4-11 | \$50 | 5550:490 | Workshop: Nurture Success Children | 1-3 | \$5 |
| 5400:490 | Workshop: Diversity in the Workplace | 1-3 | \$20 | 5550:490 | Workshop: Personal Watercraft | 1-3 | \$5 |
| 5400:490 | Workshop:School to Work K-Adult | 1-3 | \$10 | 5550:490 | Workshop: Psych Aspects of Coaching | 1-3 | \$8 |
| 5500:286 | Teaching Multiple Texts through Genre | 3 | \$10 | 5550:490 | Workshop: Rehab. and Adv. Taping Techniques | 1-3 | \$6 |
| 5500:360 | Educational Planning | 3 | \$20 | 5550:490 | Workshop: Sport Perf. Enhance I | 1-3 | \$12 |
| 5500:370 | Educational Implementation | 3 | \$20 | 5550:490 | Workshop: Sport Perf. Enhance II | $1-3$ | \$10 |
| 5500:440 | Dev Reading Content Area - E/MC | 3 | \$10 | 5550:490 | Workshop: Strategies for Classroom Mgt. | 1-3 | \$10 |
| 5500:445 | Evaluating Language Literacy | 3 | \$20 | 5500:490 | Workshop: Strength/Conditioning Fundamentals | 1-3 | \$10 |
| 5500:475 | Instructional Technology Applications | 3 | \$20 | 5550:490 | Workshop: Stress in Child's World | 1-3 | \$6 |
| 5540:120 | Archery | . 5 | \$5 | 5550:490 | Workshop: Tai Chi and Stress Reduction | 1-3 | \$3 |
| 5540:123 | Bowling | . 5 | \$25 | 5550:490 | Workshop: Teaching 3 R's Movt. | 1-3 | \$6 |
| 5540:124 | Canoeing | . 5 | \$15 | 5550:490 | Workshop: Teacher's Role/Disruptive Student | 1-3 | \$10 |
| 5540:126 | Fitness and Wellness | 1 | \$5 | 5550:490 | Workshop: Teachers Should Know About Law | 1-3 | \$6 |
| 5540:127 | Golf | 1 | \$45 | 5550:490 | Workshop: Techniques for Develop Peace School | 1-3 | \$6 |
| 5540:133 | Lifeguard Training | 2 | \$40 | 5550:490 | Workshop: Tow Mor. Success Child | 1-3 | \$6 |
| 5540:135 | Racquetball | 5 | \$5 | 5550:490 | Workshop: Violence Prevention Strategies | 1-3 | \$5 |
| 5540:137 | Sailing | . 5 | \$10 | 5550:490 | Workshop: Water Safety Skills: Sailing | 1-3 | \$10 |
| 5540:150 | Tennis (Beginning) | . 5 | \$5 | 5550:490 | Workshop: Water Safety Skills: Canoe | 1-3 | \$10 |
| 5540:155 | Basic Kayaking | 1 | \$15 | 5550:490 | Workshop: World Health Issues | 1-3 | \$5 |
| 5540:190 | Special Topics: Water Safety Instruction | .5-2 | \$15 | 5550:495 | Student Teaching for Physical and Health Education | 10 | \$50 |
| 5540:190 | Special Topics: Billiards | .5-2 | \$25 | 5560:454 | Resident Outdoor Education | 2 | \$40 |
| 5540:206 | Orienteering | 1 | \$20 | 5560:490 | Workshop: Co-op Learning Resident OE | 1-3 | \$12 |
| 5540:207 | Introduction to Rock Climbing | 1 | \$20 | 5560:490 | Workshop: Inst: Self/Conc Enhance | 1-3 | \$12 |
| 5540:208 | Backpacking | 1 | \$20 | 5560:490 | Workshop: OE the Sea Coast Environ. | 1-3 | \$7 |
| 5540:209 | Flatwater Canoe Tripping | 1 | \$20 | 5560:494 | Workshop: African Safari | 4 | \$2,600 |
| 5550:102 | PE Act. I:Fitness/Cont. Act. | 2 | \$25 | 5570:101 | Personal Health | 2 | \$5 |
| 5550:150 | Concepts in Health and Fitness | 3 | \$10 | 5570:202 | Stress, Life-Style, and Health | 3 | \$10 |
| 5550:193 | Orientation of Teaching Physical Educations | 3 | \$15 | 5610:403 | Student Teaching Colloquium | 1 | \$20 |
| 5550:201 | Kinesiology | 2 | \$10 | 5610:463 | Assessment in Special Education | 3 | \$25 |
| 5550:202 | Diagnosis of Motor Skills | 2 | \$15 | 5610:470 | Clinical Practicum in Special Education | 3 | \$25 |
| 5550:211 | First Aid and CPR | 2 | \$25 | 5610:485 | Student Teaching: Special Education | 8 | \$50 |
| 5550:212 | First Aid/CPR for Professional Rescuer | 2 | \$30 | 5610:490 | Workshop: Assess and Eval:EC SE | 1-3 | \$25 |
| 5550:235 | Concepts of Motor Learning and Development | 3 | \$10 | College of Business Administration |  |  |  |
| 5550:240 | Care and Prevention of Athletic Injury | 3 | \$20 |  |  |  |  |
| 5550:245 | Adapted Physical Education | 3 | \$10 | All courses at the undergraduate level in the College of Business Administration are assessed a fee of $\$ 2$ for one-credit classes, $\$ 3.50$ for two-credit classes, or $\$ 5$ for three- or four-credit classes. |  |  |  |
| 5550:260 | Sports Rules and Regulations | 1 | \$20 |  |  |  |  |
| 5550:302 | Physiology of Exercise | 3 | \$20 | College of Fine and Applied Arts |  |  |  |
| 5550:334 | Games/Rhythms Elementary School Child | 3 | \$5 |  |  |  |  |
| 5550:335 | Movement Experience for the Elementary Child | 3 | \$5 | 7100:101 | Survey History of Art I Survey History of Art II | 4 | \$20 $\$ 20$ |
| 5550:336 | Motor Learning and Development Early Child | 2 | \$10 |  | Survey History of Art II | 4 | \$20 |
| 5550:340 | Care and Prevention: Athletic Injury | 3 | \$20 | 7100:131 | Introduction to Drawing | 3 | \$10 |
| 5550:345 | Instr. Techniques for Children in PE | 3 | \$25 | 7100:132 | Introduction to Design | 3 | \$75 |
| 5550:403 | Exercise Testing | 3 | \$15 | 7100:144 | Foundation 2-D Design | 3 | \$15 |
| 5550:404 | Exercise Prescription | 3 | \$15 |  | Foundation 3-D Design | 3 | \$50 |
| 5550:432 | Therapeutic Exercise: UE | 3 | \$10 | 7100:145 | Fundamentals of Graphic Design | 3 | \$75 |
| 5550:442 | Therapeutic Modalities \& Pharmacology | 3 | \$10 | 7100:184 | Typography I | 3 | \$75 |
| 5550:445 | Therapeutic Exercise: UE | 3 | \$10 | 7100:185 | Introduction to Computer Graphics | 3 | \$75 |
| 5550:450 | O\&A Physical Education, Intramurals and Athletics | 3 | \$5 |  | Visual Arts Awareness | 3 | \$20 |
| 5550:480 | Special Topics: Musculoskeletel Anatomy I | 1-4 | \$10 | 7100:210 | Introduction to Lithography Introduction to Screen Printing | 3 | \$65 |
| 5550:480 | Special Topics: Musculoskeletel Anatomy II | 1-4 | \$10 | $7100: 213$ <br> $7100: 214$ <br> 700215 | Introduction to Screen Printing | 3 | \$65 |
| 5550:490 | Workshop: Alternative Healing Exercises | 1-3 | \$3 | 7100:215 | Introduction to Relief Printing | 3 | \$65 |
| 5550:490 | Workshop: Bonding Music/Physical Education | 1-3 | \$40 | 7100:216 | Introduction to Intaglio Printing | 3 | \$65 |
| 5550:490 | Workshop: Child at Risk | 1-3 | \$10 | $7100: 222$ $7100: 223$ | Introduction to Sculpture | 3 | \$100 |
| 5550:490 | Workshop: Child in Sport I | 1-3 | \$10 | $7100: 223$ $7100 \cdot 224$ | Sculpture: Stone | 3 | \$100 |
| 5550:490 | Workshop: Child in Sport II | 1-3 | \$10 | 7100:224 | Installation Art | 3 | \$75 |
| 5550:490 | Workshop: Child in Sport: Psych CNOS | 1-3 | \$6 | 7100:231 | Intermediate Drawing | 3 | \$10 |
| 5550:490 | Workshop: Cl: Health/Wellness | 1-3 | \$5 |  | Foundation Life Drawing | 3 | \$5 |
| 5550:490 | Workshop: Classroom Learning/Mgt. I | 1-3 | \$6 | 7100:233 | Introduction to Painting | 3 | \$30 |
| 5550:490 | Workshop: Classroom Problems | 1-3 | \$5 | $\begin{aligned} & 7100: 243 \\ & 7100: 246 \end{aligned}$ | Water-based Media | 3 | \$25 |
| 5550:490 | Workshop: Coaching Effect | 1-3 | \$10 | $\begin{aligned} & 7100: 246 \\ & 7100: 249 \end{aligned}$ | Figure Painting | 3 | \$30 |
| 5550:490 | Workshop: Concepts Strength Training | 1-3 | \$5 |  | Introduction to Ceramics | 3 | \$57 |
| 5550:490 | Workshop: Co-op/Creative Thinking | 1-3 | \$10 | $\begin{aligned} & 7100: 254 \\ & 7100: 266 \end{aligned}$ | Introduction to Metalsmithing Color in Metalsmithing | 3 | \$80 |
| 5550:490 | Workshop: Current Concepts in Strength Training | 1-3 | \$5 | 7100:268 | Color in Metalsmithing | 3 | \$75 |
| 5550:490 | Workshop: Dev. Successful Child I | 1-3 | \$6 | 7100:274 | Photography I for Non-Art Majors | 3 | \$25 |
| 5550:490 | Workshop: Easing Stress: $\mathrm{CH} / \mathrm{TCH}$ I | 1-3 | \$6 | 7100:275 | Introduction to Photography | 3 | \$35 |
| 5550:490 | Workshop: Education for Healthy Heart | 1-3 | \$6 | 7100:276 | Introduction: Professional Photography | 3 | \$45 |
| 5550:490 | Workshop: Education Healthy Heart | 1-3 | \$6 | $\begin{aligned} & \text { 7100:280 } \\ & 7100: 281 \end{aligned}$ | Digital ImagingWeb Page Design | 3 | \$75 |
|  |  |  |  |  |  | 3 | \$75 |
|  |  |  |  | 7100:281 <br> 7100:283 <br> 7100:285 | Drawing Techniques | 3 | \$75 |
| : Add | and | s may |  |  | Digital Imaging | 3 | \$75 |


|  |  |  | Course |  |  |  | Course |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | Course Title | Credits | Fee | Number | Course Title | Credits | Fee |
| 7100:288 | Typography 2 | 3 | \$75 | 7400:301 | Consumer Education | 3 | \$5 |
| 7100:289 | Production I | 3 | \$75 | 7400:303 | Children As Consumers | 3 | \$5 |
| 7100:300 | Art Since 1945 | 3 | \$20 | 7400:305 | Advanced Construction and Tailoring | 3 | \$35 |
| 7100:301 | Medieval Art | 3 | \$20 | 7400:310 | Food Systems Management I | 5 | \$20 |
| 7100:302 | Art in Europe - 17th-18th Century | 3 | \$20 | 7400:311 | Studies in Fiber Art | 3 | \$35 |
| 7100:303 | Renaissance Art in Italy | 3 | \$20 | 7400:315 | Food Systems Management I - Clinical | 2 | \$20 |
| 7100:304 | Art in Europe - 19th Century | 3 | \$20 | 7400:316 | Science of Nutrition | 4 | \$10 |
| 7100:305 | Art in Europe from 1900-1945 | 3 | \$20 | 7400:320 | Career Decisions in Nutrition | 1 | \$15 |
| 7100:306 | Renaissance Art in Northern Europe | 3 | \$20 | 7400:328 | Nutrition in Medical Science I | 4 | \$10 |
| 7100:307 | History of Graphic Design | 3 | \$20 | 7400:329 | Nutrition in Medical Science I-Clinical | 2 | \$50 |
| 7100:317 | Printmaking II | 3 | \$65 | 7400:331 | Interior Design Theory | 3 | \$20 |
| 7100:318 | Portrait/Fashion Photography | 3 | \$45 | 7400:333 | Space Planning and Programming | 3 | \$25 |
| 7100:319 | Printmaking Review | 0 | \$55 | 7400:334 | Specifications for Interiors I | 3 | \$25 |
| 7100:320 | Illustration/Advertising Photography | 3 | \$45 | 7400:335 | Specifications for Interiors II | 3 | \$25 |
| 7100:321 | Figurative Sculpture | 3 | \$75 | 7400:336 | Principle and Practice: Interior Design | 3 | \$20 |
| 7100:322 | Sculpture II | 3 | \$100 | 7400:337 | Interior Design Contract Documents | 3 | \$25 |
| 7100:323 | Lost Wax Casting | 3 | \$100 | 7400:340 | Meal Service | 2 | \$35 |
| 7100:335 | Intermediate Life Drawing | 3 | \$5 | 7400:352 | Strategic Merchandise Plan | 3 | \$8 |
| 7100:348 | Intermediate Painting \|| | 3 | \$30 | 7400:360 | Parent-Child Relations | 3 | \$10 |
| 7100:349 | Intermediate Painting/Drawing | 3 | \$30 | 7400:362 | Family Life Management | 3 | \$5 |
| 7100:354 | Ceramics II | 3 | \$62 | 7400:390 | Family Relationships Mid and Later Years | 3 | \$5 |
| 7100:366 | Metalsmithing II | 3 | \$60 | 7400:400 | Nutrition Comm. \& Ed. Skills | 4 | \$15 |
| 7100:368 | Colors in Metals II | 3 | \$75 | 7400:401 | American Families in Poverty | 3 | \$5 |
| 7100:370 | History of Photography | 3 | \$20 | 7400:403 | Advanced Food Preparation | 3 | \$25 |
| 7100:374 | Photo II for Non-Art Majors | 3 | \$55 | 7400:413 | Food Systems Management II | 3 | \$5 |
| 7100:375 | Photography II | 3 | \$55 | 7400:414 | Food Systems Management II - Clinical | 3 | \$120 |
| 7100:381 | Digital Imaging II | 3 | \$75 | 7400:418 | History of Furniture and Interiors I | 3 | \$10 |
| 7100:383 | Multimedia Production | 3 | \$75 | 7400:419 | History of Furniture and Interiors II | 3 | \$10 |
| 7100:385 | Computer 3D Modeling and Animation | 3 | \$75 | 7400:422 | Textiles for Interiors | 3 | \$25 |
| 7100:387 | Typography 3 | 3 | \$75 | 7400:423 | Professional Image Analysis | 3 | \$12 |
| 7100:388 | Production 2 | 3 | \$75 | 7400:424 | Nutrition in Life Cycle | 3 | \$10 |
| 7100:400 | Art in US Before WWVII | 3 | \$20 | 7400:425 | Textiles for Apparel | 3 | \$25 |
| 7100:401 | ST: History of Art | 1 | \$20 | 7400:426 | Human Nutrition | 5 | \$15 |
| 7100:402 | Museology | 3 | \$20 | 7400:427 | Global Issues: Text \& Apparel | 3 | \$8 |
| 7100:405 | History of Art Symposium | 1 | \$20 | 7400:428 | Nutrition in Medical Science II | 5 | \$10 |
| 7100:409 | Time-Based Media | 3 | \$75 | 7400:429 | Nutrition in Medical Science II - Clinical | 3 | \$120 |
| 7100:410 | Methods of Teaching Elementary Art | 3 | \$35 | 7400:431 | History of Textiles \& Furnishings | 3 | \$10 |
| 7100:411 | Methods of Teaching Secondary Art | 3 | \$35 | 7400:433 | Senior Design Studio I | 3 | \$30 |
| 7100:418 | Advanced Printmaking | 3 | \$65 | 7400:434 | Senior Design Studio III | 3 | \$30 |
| 7100:422 | Advanced Sculpture | 3 | \$75 | 7400:435 | Decorative Elements in Interior Design | 1 | \$15 |
| 7100:450 | Advanced Life Drawing | 3 | \$5 | 7400:436 | Textile Conservation | 3 | \$15 |
| 7100:454 | Advanced Ceramics | 3 | \$150 | 7400:437 | Historic Costume | 3 | \$10 |
| 7100:455 | Advanced Painting | 3 | \$30 | 7400:438 | History of Fashion | 3 | \$10 |
| 7100:466 | Advanced Metalsmithing | 3 | \$60 | 7400:439 | Fashion Analysis | 3 | \$10 |
| 7100:474 | Advanced Photography for Non-Art Majors | 3 | \$35 | 7400:446 | Culture, Ethnicity and the Family | 3 | \$4 |
| 7100:475 | Advanced Photography | 3 | \$35 | 7400:447 | Senior Seminar: Critical Issues in Prof. Development | 1 | \$10 |
| 7100:477 | Advanced Photography: Color | 3 | \$50 | 7400:449 | Flat Pattern Design | 3 | \$12 |
| 7100:478 | Advanced Commercial Photography | 3 | \$45 | 7400:451 | Child in the Hospital | 4 | \$30 |
| 7100:480 | Advanced Graphic Design | 3 | \$75 | 7400:455 | Practicum Experience in a Child-Life Program | 3 | \$25 |
| 7100:481 | Design $X$ Nine | 3 | \$75 | 7400:458 | Senior Design Studio II | 3 | \$30 |
| 7100:482 | Corporate Identity and Graphic Systems | 3 | \$75 | 7400:459 | Senior Design Studio IV | 3 | \$30 |
| 7100:483 | Graphic Design Presentation | 3 | \$75 | 7400:470 | Food Industry: Analysis and Field Study | 3 | \$10 |
| 7100:484 | Illustration | 3 | \$75 | 7400:474 | Cultural Dimensions: Food | 3 | \$10 |
| 7100:485 | Advanced Illustration | 3 | \$75 | 7400:475 | Analysis of Food | 3 | \$30 |
| 7100:486 | Interactive Multimedia Development | 3 | \$75 | 7400:476 | Developments in Food Science | 3 | \$10 |
| 7100:488 | Typography 4 | 3 | \$75 | 7400:478 | Senior Portfolio Review | 1 | \$10 |
| 7100:489 | Special Topic: Studio Art | 3 | \$40 | 7400:479 | The NCIDQ Examination | 1 | \$10 |
| 7100:490 | Workshop: Cross Cultural Ceramics | 3 | \$100 | 7400:480 | Community Nutrition I | 3 | \$35 |
| 7100:490 | Workshop: Art - Web Page Design | 1 | \$25 | 7400:481 | Community Nutrition I-Clinical | 1 | \$40 |
| 7100:490 | Workshop: Art - Flash Animation | 1 | \$25 | 7400:482 | Community Nutrition II | 3 | \$10 |
| 7100:490 | Workshop: Art - Video Installation | 3 | \$75 | 7400:483 | Community Nutrition II - Clinical | 1 | \$40 |
| 7100:490 | Workshop: Art - Woodworking Techniques | 3 | \$75 | 7400:484 | Hospital Settings, Children and Families | 3 | \$20 |
| 7100:490 | Workshop: Art | 1 | \$75 | 7400:485 | Seminar: AutoCAD for Interior Designers | 1-3 | \$40 |
| 7100:491 | Architectural Presentations I | 3 | \$5 | 7400:485 | Seminar: Art and Science of Wine | 1-3 | \$30 |
| 7100:492 | Architectural Presentations II | 3 | \$5 | 7400:485 | Seminar: Child and Family Health | 1-3 | \$10 |
| 7100:497 | Independent Study | 3 | \$75 | 7400:485 | Seminar: Children \& Loss | 1 | \$7 |
| 7100:498 | SP: History of Art | 1 | \$20 | 7400:485 | Seminar: Children \& Stress | 1 | \$7 |
| 7400:123 | Fundamentals of Construction | 3 | \$35 | 7400:485 | Seminar: Comm \& Ed Skills Dietetics | 1-3 | \$15 |
| 7400:125 | Principles for Apparel Design | 3 | \$15 | 7400:485 | Seminar: Computer Applications in FC | 1-3 | \$5 |
| 7400:132 | Early Childhood Nutrition | 2 | \$5 | 7400:485 | Seminar: Coping with Chronic Illness | 1-3 | \$7 |
| 7400:133 | Nutrition Fundamentals | 3 | \$5 | 7400:485 | Seminar: Dec. Elementary Interior Design | 1-3 | \$10 |
| 7400:139 | Fashion and Furnishing Industry | 3 | \$8 | 7400:485 | Seminar: Equipment and Demonstration Tech. | 1-3 | \$15 |
| 7400:141 | Food for the Family | 3 | \$60 | 7400:485 | Seminar: FCS RSH Methods | 1-3 | \$10 |
| 7400:147 | Orient. Prof. Studies in Family and Consumer Sciences | 1 | \$10 | 7400:485 | Seminar: FD Chem. and Disease | 1-3 | \$5 |
| 7400:158 | Introduction to Interior Design | 3 | \$25 | 7400:485 | Seminar: Food Safety: Microb IS | 1-3 | \$5 |
| 7400:219 | Clothing Communication | 3 | \$8 | 7400:485 | Seminar: Food Safety Overview | 1-3 | \$5 |
| 7400:225 | Textiles | 3 | \$15 | 7400:485 | Seminar: Food Theory and Application | 1-3 | \$60 |
| 7400:226 | Textile Evaluation | 3 | \$25 | 7400:485 | Seminar: Human Factors and Interior Space | 1-3 | \$15 |
| 7400:250 | Food Science | 4 | \$60 | 7400:485 | Seminar: Images for Success | 1 | \$12 |
| 7400:257 | AutoCAD for Interior Design | 3 | \$90 | 7400:485 | Seminar: Interior Design Theories | 1-3 | \$10 |
| 7400:258 | Light in Man-Made Environments | 3 | \$25 | 7400:485 | Seminar: Introduction to French Cuisine | 1-3 | \$25 |
| 7400:259 | Family Housing | 3 | \$10 | 7400:485 | Seminar: Introduction to Italian Cuisine | 1-3 | \$25 |
| 7400:265 | Child Development | 3 | \$5 | 7400:485 | Seminar: Landscape Architecture | 1-3 | \$20 |
| 7400:270 | Theory and Guidance of Play | 3 | \$10 | 7400:485 | Seminar: NCIDQ Prep | 1-3 | \$10 |
| 7400:280 | Early Childhood Curriculum Methods | 4 | \$20 | 7400:485 | Seminar: Office Design | 1-3 | \$15 |
| 7400:295 | Direct Experiences in the Hospital | 2 | \$10 | 7400:485 | Seminar: Orientation to CP | 1-3 | \$25 |
|  |  |  |  | 7400:485 | Seminar: Orientation to Nutrition/Dietetics | 1-3 | \$15 |
| Note: Additional workshops and special topics courses offered on a rotation basis may include fees not  $7400: 485$  Seminar: Professional Preparation $1-3$ <br> listed here. Consult appropriate department for course material and computing fees for those classes.  $7400: 485$  Seminar: Quantity Meals  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |


| Course Number | Course Title | Credits | Course Fee | Course Number | Course Title C | Credits | Course Fee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7400:485 | Seminar: Senior Design Synthesis | 1-3 | \$15 | 7500:490 | Workshop: Comp MIDI for Musician | 1-3 | \$40 |
| 7400:485 | Seminar: Senior Design Studio I | 1-3 | \$20 | 7500:490 | Workshop: Comp MIDI Synth for Ed | 1-3 | \$40 |
| 7400:485 | Seminar: Senior Design Studio II | 1-3 | \$20 | 7500:490 | Workshop: Comp Skills Nocal Tchrs | 1-3 | \$15 |
| 7400:485 | Seminar: Senior Design Studio II | 1-3 | \$20 | 7500:490 | Workshop: Computerized Drill Design | 1-3 | \$15 |
| 7400:485 | Seminar: Senior Design Studio IV | 1-3 | \$20 | 7500:490 | Workshop: Cond Gest: Inf Chor Tone | 1-3 | \$25 |
| 7400:485 | Seminar: Single Parenting | 1 | \$7 | 7500:490 | Workshop: Development of MS \& HS Jazz Band | 1-3 | \$20 |
| 7400:485 | Seminar: Spec. for Interior Design | 1-3 | \$10 | 7500:490 | Workshop: Early Childhood: Philosophy | 1-3 | \$20 |
| 7400:485 | Seminar: Teenagers as Parents | 1 | \$7 | 7500:490 | Workshop: Elementary Choral Workshop | 1-3 | \$30 |
| 7400:485 | Seminar: Update - FD Additives | 1-3 | \$5 | 7500:490 | Workshop: Enhanced Con Amer Lit/Music | 1-3 | \$15 |
| 7400:485 | Seminar: Update - Fat Substitute | 1-3 | 5 | 7500:490 | Workshop: Excellence in Perf I | 1-3 | \$150 |
| 7400:485 | Seminar: Visual Merchandising | 1-3 | \$12 | 7500:490 | Workshop: Excellence in Perf II | 1-3 | \$190 |
| 7400:485 | Seminar: Vocational H E Teaching Methods | 1-3 | \$29 | 7500:490 | Workshop: Finale Music Typeset | 1-3 | \$40 |
| 7400:485 | Seminar: Vocational Methods: Job Training | 1-3 | \$6 | 7500:490 | Workshop: Handbell Techniques | 1-3 | \$10 |
| 7400:485 | Seminar: Women and Food | 1-3 | \$10 | 7500:490 | Workshop: Health Dyn. Class. Speak | 1-3 | \$20 |
| 7400:485 | Seminar:Equipment and Demonstration Techniques |  |  | 7500:490 | Workshop: Healthful Classroom Spe | 1-3 | \$5 |
| 7400:486 | Staff Relief: Dietetics | 1 | \$25 | 7500:490 | Workshop: Junior High Inst. Techniques | 1-3 | \$10 |
| 7400:487 | Sports Nutrition | 3 | \$8 | 7500:490 | Workshop: Junior High/Middle School Choral | 1-3 | \$30 |
| 7400:488 | Practicum in Dietetics | 1-3 | \$10 | 7500:490 | Workshop: Kodaly IA | 1-3 | \$20 |
| 7400:490 | Workshop: Balancing Work and Family | 1 | \$5 | 7500:490 | Workshop: Kodaly IB | 1-3 | \$20 |
| 7400:490 | Workshop: Children, Families and Trauma | 1 | \$5 | 7500:490 | Workshop: March Band Techniques | 1-3 | \$15 |
| 7400:490 | Workshop: Children and Loss | 1 | \$7 | 7500:490 | Workshop: March Band Workshop | 1-3 | \$25 |
| 7400:490 | Workshop: Children and Stress | 1 | \$7 | 7500:490 | Workshop: Middle School General Music: Chal. | 1-3 | \$20 |
| 7400:490 | Workshop: Commuter Marriage | 1 | \$6 | 7500:490 | Workshop: Multi Story Telling | 1-3 | \$10 |
| 7400:490 | Workshop: Conflict Resolution | 1 | \$5 | 7500:490 | Workshop: Music for Holistic Living | 1-3 | \$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 Esteem | 1 | \$4 | 7500:490 | Workshop: Music - Instrumental Ped, Review | 1-3 | \$20 |
| 7400:490 | Workshop: Ecology of Trauma | 1 | \$4 | 7500:490 | Workshop: Music - Marching Band Adj. Perspective | 1-3 | \$20 |
| 7400:490 | Workshop: Family Stress/Coping | 1 | \$30 | 7500:490 | Workshop: Music - Elementary Choral | 1-3 | \$20 |
| 7400:490 | Workshop: Functional/Dysfunctional Families | 1 | \$4 | 7500:490 | Workshop: Music - Summer String | 1-3 | \$20 |
| 7400:490 | Workshop: Helping Adolescent Sex Offenders | 1 | \$4 | 7500:490 | Workshop: ORFF Level IIA | 1-3 | \$20 |
| 7400:490 | Workshop: Images for Success | 1 | \$12 | 7500:490 | Workshop: ORFF Level IIB | 1-3 | \$20 |
| 7400:490 | Workshop: Marriage and Divorce | 1 | \$4 | 7500:490 | Workshop: Percussion for Band Directors | 1-3 | \$10 |
| 7400:490 | Workshop: Obesity - An American Epidemic | 1 | \$5 | 7500:490 | Workshop: Rehearsal Strategies for Band | 1-3 | \$20 |
| 7400:490 | Workshop: Parent/Adolescent Communication | 1 | \$4 | 7500:490 | Workshop: Summer Brass Performance for High School | 1-3 | \$6 |
| 7400:490 | Workshop: Relationship Building | 1 | \$4 | 7500:490 | Workshop: Summer Clarinet Instrument | 1-3 | \$20 |
| 7400:490 | Workshop: Single Parenting | 1 | \$5 | 7500:490 | Workshop: Teaching Music - Early Childhood | 1-3 | \$20 |
| 7400:490 | Workshop: Stress Management | 1 | \$4 | 7500:490 | Workshop: Teaching Young Singers | 1-3 | \$20 |
| 7400:490 | Workshop: Successful Parenting | 1 | \$6 | 7500:490 | Workshop: Techniques for Beginning Bands | 1-3 | \$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 | 1-3 | \$20 |
| 7400:490 | Workshop: Working with Elderly and Families | 1 | \$6 | 7500:490 | Workshop: Woodwinds 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 | 7520:021-069 | Applied Music for Non-Majors | 2 | \$125 |
| 7400:496 | Parent Education | 3 | \$10 | 7520:021-069 | 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 | Internship: 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 |
| 7500:101 | Introduction to Music Theory | 2 | \$25 | 7600:115 | Survey of Communication Theory | 3 | \$5 |
| 7500:102 | Introduction to Music Education | 2 | \$15 | 7600:270 | Voice Training for Media | 3 | \$15 |
| 7500:104 | Classic Piano I | 2 | \$20 | 7600:280 | 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 I | 2 | \$25 | 7600:302 | Broadcast Newswriting | 3 | \$15 |
| 7500:255 | String Methods II | 2 | \$25 | 7600:303 | Public Relations Writing | 3 | \$15 |
| 7500:261 | Keyboard Harmony I | 2 | \$20 | 7600:304 | Editing | 3 | \$20 |
| 7500:262 | Keyboard Harmony II | 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 French Horn Methods | 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 I | 2 | \$45 | 7600:375 | Communication Technology \& Chg | 3 | \$15 |
| 7500:340 | Teaching General Music II | 2 | \$40 | 7600:387 | Radio \& TV Writing | 3 | \$15 |
| 7500:341 | JR/MS Choral Methods | 3 | \$20 | 7600:405 | Media Copywriting | 3 | \$5 |
| 7500:345 | Low Brass Methods | 1 | \$40 | 7600:416 | New Media Writing | 3 | \$15 |
| 7500:346 | Flute and Double Reed Methods | 1 | \$40 | 7600:417 | New Media Production | 3 | \$40 |
| 7500:351 | Music History I | 3 | \$15 | 7600:420 | Magazine Writing | 3 | \$5 |
| 7500:352 | Music History II | 3 | \$15 | 7600:425 | Commercial Electronic Publishing | 3 | \$20 |
| 7500:353 | Electronic Music | 3 | \$30 | 7600:468 | Nonlinear Video Editing | 3 | \$40 |
| 7500:442 | Instrumental Methods | 2 | \$35 | 7600:472 | Single Camera Production | 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 | 1-3 | \$10 | 7700:201 | American Sign Language III | 3 | \$10 |
| 7500:490 | Workshop: Adv. MIDI Applications | 1-3 | \$40 | 7700:202 | American Sign Language IV | 3 | \$10 |
| 7500:490 | Workshop: Alexander Technique | 1-3 | \$50 | 7700:222 | Survey Deaf Culture in America | 2 | \$10 |
| 7500:490 | Workshop: Appalachian Clog and Dance | 1-3 | \$11 | 7700:266 | Anatomy \& Physiology Lab | 1 | \$30 |
| 7500:490 | Workshop: Art of Steel Drum Making | 1-3 | \$12 | 7700:420 | Senior Clinical Experience | 3 | \$25 |
| 7500:490 | Workshop: Band Literature Selection | 1-3 | \$33 | 7700:440 | Augmentative Communication | 3 | \$10 |
| 7500:490 | Workshop: Beginning Band Basics | 1-3 | \$20 | 7700:450 | Assessment of Communicative Disorders | 3 | \$15 |
| 7500:490 | Workshop: Brass Teach Techniques for Pu Se | 1-3 | \$10 | 7700:461 | O\&A: Public School Speech-Lang. and Hr. Pr. | 2 | \$5 |
| 7500:490 | Workshop: Choral Reading Session | 1-3 | \$20 | 7800:106 | Intro to Scenic Design | 3 | \$10 |
| 7500:490 | Workshop: Class Guitar Career Fest | 1-3 | \$30 | 7800:107 | Introduction to Stage Costuming | 3 | \$12 |
| 7500:490 | Workshop: Comp Drl Dsgn Impr Perc | 1-3 | \$15 | 7800:172 | Acting I | 3 | \$3 |
|  |  |  |  | 7800:263 | Scene Painting | 3 | \$5 |
| ote: Additiona ed here. Co | shops and special topics courses offered on a rotation propriate department for course material and computing | sis may in es for thos | ude fees classes. | 7800:265 | Basic Stagecraft Introduction to Theatre/Film | 3 | $\$ 10$ $\$ 3$ |

Course
Number
7800:307
7800:355
7800:480
7810:100
7810:110
7810:200
7810:210
7810:300
7810:310
7810:400
7810:410
7900:115
7900:119
7900:120
7900:124
7900:125
7900:130
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7920:498

## College of Nursing

8200:211 Foundations of Nursing Practice I
8200:212 Foundations of Nursing Practice II
8200:215 Professional Role Development
8200:225 Health Assessment
8200:315 Pathophysiology: Nurses
8200:330
$8200 \cdot 350$
8200:360
8200:370
8200:410
8200:430
8200:435
8200:440
8200:446
8200:450
Course Title
Advanced Stage Costuming
Stage Lighting Desig
Independent Study
Production/Performance Lab
Production/Performance Lab
Production/Performance Lab Production/Performance Lab
Production/Performance Lab Production/Performance Lab
Production/Performance Lab Production/Performance Lab Dance as an Art Form
Modern I
Modern II
Ballet I
Ballet II
Jazz Dance I
Tap Dance
Tap Dance II
Viewing Dance
Modern III
Modern IV
Ballet III
Ballet IV
Jazz Dance II
Special Topics: Dance
Dance Workshop
Classical Ballet Ensemble
Character Ballet Ensemble
Contemporary Dance Ensemble
Jazz Dance Ensemble
Musical Comedy Ensemble
Opera Dance Ensemble
Experimental Dance Ensemble
Choreographer's Workshop
Ethnic Dance Ensemble
Period Dance Ensemble
Touring Ensemble
Ballet V
Pointe I
Ballet VI
Modern V
Modern VI
Pointe II
Tap Dance III
Musical Theatre Dance Techniques
Choreography I
Choreography II
Movement Fundamentals
Ballet VII
Modern VII
Modern VIII
Pas De Deux I
Pointe III
Tap Dance IV
Jazz Dance III
Learning Theory for Dance
Special Topics: Dance
Choreography III
Choreography IV
Ballet VIII
Jazz Dance IV
Workshop in Dance
Workshop in Dance
Independent Study in Dance
Senior Honors Project in Dance

Nursing Pharmacology
Nursing of the Childbearing Family
Nursing Care of Adults
Nursing Care of Older Adults
Nursing Families with Children
Nursing in Complex/Critical Situations
Nursing Research
Nursing of Communities
Professional Nursing Leadership Senior Nursing Practicum

Credits 3
3 1-3 1-3

## 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 Plan

This plan is designed to spread tuition and University housing fees into installments. To begin the Payment Plan, a non-refundable service charge of $\$ 30$ and down payment are 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 "Current Student." Choose "Student Financials," "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 and/or application fee, along with the signed application. Your balance will be divided into equal installments up to a maximum of four, 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 and insurance available through Health Services. For information about this plan, please visit the insurance administrator's Web site at http://www.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.
- Laboratory breakage and late service deposit.
- 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 during 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 in 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., hospital 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 returned 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 Contract for Housing Accommodations and Food Services at The University of Akron which is terminated by the student, or otherwise terminated by The University of Akron, is subject to the following refund provisions:
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 pre payment which shall be forfeited). The prepayment will be refunded for new entering students and new transfer 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 returns all appropriate keys (room and apartment keys) to UNIVERSITY staff and satisfied 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 administrative 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 UNIVERSITY, in its sole discretion, terminates the Contract:

- For reasons related to the orderly operation of the residence halls, or for reasons relating to the health, physical, or emotional safety and well-being 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.
- 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 http://www.uakron.edu/ registrar/ResRulesandRegs.php.

## 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 college 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 University of Akron Scholarship Application, 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 Identification 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 Internet 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 online.

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, www.fafsa.ed.gov, 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." Follow 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 e-mail 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.

Paper Filing: The traditional paper FAFSA is still available. Though this option can during peak processing times, take up to 6 weeks to complete, it remains an excellent option if you do not have online access or are uncomfortable submitting information even to a secured online site. If the student provides an e-mail address on the paper FAFSA 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 spamcatcher or other system that diverts such e-mail away from your normal e-mail inbox, 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. The paper FAFSA is available through this office or through your high school counselor.

## 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 pro-ration of the Pell Grant is required.

## Federal Supplemental Educational Opportunity Grant (FSEOG)

This is a grant that is offered to undergraduate students who have exceptional need as determined by the U.S. Department of Education. These grants are only 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 full-time 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 (after 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.
This is a recently established aid program, and final guidance from the U.S. Department of Education regarding its administration and eligibility requirements was not available at the time of printing. For more information regarding this program contact the Office of Student Financial Aid \& Student Employment.


## 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.
This is a recently established aid program, and final guidance from the U.S. Department of Education regarding its administration and eligibility requirements (including the list of eligible majors) was not available at the time of printing. For more information regarding this program contact the Office of Student Financial Aid \& Student Employment.


## 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 eligible 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 government 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.

## Nursing Student Loan

The Nursing Student Loan Program offers low-interest, long-term loans for eligible students. Eligibility and loan amounts are determined through early application (March 1), a 2.00 grade point average, minimum enrollment of six (6) credit hours, and need. The federal loan must be repaid beginning nine months after ceasing to be enrolled for the minimum credit hour requirement. The current interest rate is $5 \%$ and is calculated at the time repayment of the loan begins.

## 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.

## 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 attendance of college as a fully admitted college student occurs during or after the 0607 academic year. This is a recently established aid program, and final guidance from the Ohio Board of Regents regarding its administration and eligibility requirements was not available at the time of printing. For more information regarding this program contact the Office of Student Financial Aid \& Student Employment.

## Ohio Instructional Grant (OIG)

The OIG is available to an eligible undergraduate student who is an 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 Departments.

## 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 enrollment) 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 financial 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. $\dagger$
- 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: www.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) 8331133 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.

## Alternative Loans

Alternative/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 www.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.

## 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.

Scholarships for Excellence are awarded to the top entering freshmen from the State of Ohio. Recipients are selected from among applicants who meet the following minimum requirements: high school grade point average of 3.50 , class rank in the top $10 \%$ and national test score of at least 26 ACT/1160 SAT. It is renewable, with a maximum of eight semesters of eligibility.
Presidential Scholarships are awarded to entering freshmen selected from among the top students remaining in the Scholarship for Excellence pool after the Scholarship for Excellence recipients have been selected. These scholarships are renewable, with a maximum of eight semesters of eligibility.
The University 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. Candidates are selected by the University Honors Council. Essay and interview required.

Jim and Vanita Oelschlager Leadership Awards are focused on the long-term potential of talented entering freshmen from northeast Ohio and parts of Pennsylvania who have demonstrated leadership, scholarship and service. Documentation of leadership and/or service is required. Scholarships are prorated for less than full-time enrollment. These scholarships are renewable, with a maximum of eight full-time semesters of eligibility.
National Merit Finalists are offered freshmen scholarships covering the full cost of Ohio tuition, fees, room and meal plan. For the remaining three years, the scholarship covers full tuition and fees. These scholarships are renewable, with a maximum of eight semesters of eligibility.
Academic Scholarships are awarded to continuing and outstanding high school students. Students with the strongest credentials qualify until funds are exhausted. These scholarships are renewable based on the terms provided to recipients upon awarding.
ROTC Scholarships are available to qualified students who demonstrate academic and leadership potential. Special incentives are available for students majoring in nursing and engineering. Contact the Army or Air Force 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 Akron Tuition Incentive for Students from Out-of-State including U.S. Territories

Akron Advantage Blue Award - 60\% reduction of the non-resident surcharge (per academic year).
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 Advantage Gold Award - Full reduction of the non-resident surcharge (per academic year).

- 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 6 th 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. territories)
- Full-time status (at least 12 credit hours per semester - Fall and Spring)
- Remain in good academic standing
- Renewable up to four academic years
- All students are encouraged to file a Free Application for Federal Student Aid (FAFSA) and complete a freshman scholarship application.


## 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 http://www.uakron.edu/finaid
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 regulations of their volunteer agency. For more details call (330) 972-7405.

## Computation of Financial Aid

Government 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 family contribution are as follows:

- Family income
- Number of family members in college
- Family 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 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. 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 necessitate 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 begun.

Ohio Instructional Grant (OIG): OIG is based on full-time enrollment. If enrollment drops below full-time during the university's $100 \%$ refund period, then $100 \%$ of the grant will be cancelled. If enrollment drops below full-time 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 cancelled, 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 Title IV Refund Policy)

This policy is used to determine the amount of federal student aid that must be returned 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 following refund policy will apply:

The refund/repayment policy is a pro-ration of earned versus unearned financial aid. The earned 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 earned aid from aid that was awarded and disbursed gives you the amount of unearned aid that must be returned. The responsibility to repay unearned 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 unearned 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 following 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 academic enrollment 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 earned.

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 transferring 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 his/her 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 transfer. 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 help 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) 972-7032 or (800) 621-3847. The Office of Student Financial Aid is located in the Student Services Building at the corner 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.

## Family Education Rights and Privacy Act (FERPA)

## A student has a right to:

- Inspect and review education records pertaining to the student;
- Request an amendment to the student's records; and
- Request a hearing (if the request for an amendment is denied) to challenge the contents of the education records on the grounds that the records are inaccurate, misleading, or violate the rights of the student.


## The parent or eligible student has a right to:

- Inspect and review the student's education records;
- Request the amendment of the student's education records to ensure they are not inaccurate, misleading, or otherwise in violation of the student's privacy or other rights.
- Consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.
- File with the U.S. Department of Education a complaint concerning alleged failures by the school to comply with the requirements of FERPA; and
- Obtain a copy of the school's FERPA policy.


## Disclosure of Personally Identifiable Information

- FERPA regulations list conditions under which "personally identifiable information" from a student's education record may be disclosed without the student's prior consent.
- Disclosure may be made to authorized representatives of the U.S. Department of Education, the Office of Inspector General, or state and local education authorities. These officials may have access to education records as a part of an audit or program review, or to ensure compliance with Student Financial Assistance program requirements. (Representatives of the Department include research firms that are under contract with the Department to conduct studies of financial aid procedures, using student information provided by the schools selected for the study. The term also includes the Student Financial Assistance program public inquiry contractor.)
- Disclosure may be made if it is in connection with financial aid that the student may receive, a request from the Immigration and Naturalization Service (INS) or the Federal Bureau of Investigation (FBI) for access to a student's records. Such a request may be granted only if the student information is needed to determine the amount of the aid, the conditions for the aid, the student's eligibility for the aid, or to enforce the terms or conditions of the aid.
- Disclosure may be made to the student's parent, if the student is dependent on the parent, as defined by the Internal Revenue Service. If the student receives more than half of his or her support from the parent, under the IRS definition, the student is a dependent of the parent. (Note that the IRS definition is quite different from the rules governing dependency status for the Student Financial Assistance programs.)
- Disclosure may be made to organizations that are conducting studies concerning the administration of student aid programs on behalf of educational agencies or institutions.


## Undergraduate Academic Programs

# Summit College 

Stanley B. Silverman, M.A., Dean
Michael J. Jalbert, J.D., Interim Associate Dean
Don Laconi, M.Ed., 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, government 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 college provides educational opportunities for the student no matter the age, background and need; full- 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 cooperative 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 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, mathematics, and chemistry. (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 modern 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:

2440:101 Fundamental Computer Concepts $\quad 1$
2440:102 Introduction to Windows 1
2440:103 Software Fundamentals 2
2540:140 Keyboarding for Non-majors 2
2020:121 English 4
2030:151 Elements of Mathematics I 2
and
2030:152
Elements of Mathematics II
or
2030:161
Math for Modern Technology
4
2020:222 Technical Report Writing 3
2040:240 Human Relations 3
Survey of Basic Economics
2420:103 Essentials of Management Technology
2420:104 Intro to Business in the Global Environment
2420:211 Basic Accounting I
2420:212 Basic Accounting II
2420:202 Elements of Human Resource Management
2820:161 Technical Physics: Mechanics I
2820:163 Technical Physics: Electricity \& Magnetism
2440:140 Internet Tools
2440:141 Web Site Administration
2440:145 Operating Systems
2440:201
or
2600:240
Networking Basics
Microsoft Networking I
3
2440:202
or
2600:242
Router and Routing Basics

2440:203
Microsoft Networking II
3
or
Microsoft Networking III
2440:204 WAN Technologies 4
2440:240 Computer Information Systems Internship 3
2440:247 Hardware Support 3
2440:248 Advanced Hardware Support 3
2440:268 Network Concepts 3
2440:301 Advanced Routing
2440:302 Remote Access
2440:310 Wireless Networking
2440:338 System Administration I
2440:388 System Administration II
2440:401 Multilayer Switching
2440:402 Network Troubleshooting
2440:410 Network Authentication and Security
2440:420 Voice, Data, Video
2440:430 Network Monitoring and Management
2440:480 Current Topics in Computer Information Systems
3300:112 English Composition II
3400:210 Humanities in the Western Tradition I
3600:120 Introduction to Ethics
Area Studies (200 level see list 3)
Natural Science Elective (list 1)
Area Studies 300 level (see list 3)
Physical Education Elective
Humanities Elective (list 2)
7600:105 Introduction to Public Speaking
or
7600:106
Effective Oral Communication

## 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 | Principles in Emergency Management | 3 |
| 2235:380 | Disaster Victims: Casualties and Recovery | 3 |
| 2235:490 | Current Topics in Emergency Management | 3 |
| 3300:112 | English Composition | 3 |
| 3350:310 | Physical and Environmental Geography | 3 |
| 3370:200 | Environmental Geology | 3 |
| 3370:201 | Exercises in Environmental Geology Lab | $\frac{1}{16}$ |
| Spring Semester |  |  |
| 2235:350 | Emergency Response Preparedness and Planning | 3 |
| 3350:305 | Maps and Map Reading | 3 |
| 3400:210 | Humanities in Western Traditions I | 4 |
| 3370:xxx | Natural Science | 1 |
| 5540:xxx | Physical Education | 1 |
|  | Area Studies \& Cultural Diversity | 2 |
|  |  | 17 |
| Fourth Year |  |  |
| Fall Semester |  |  |
| 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 Planning | 3 |
| 3600:120 | Introduction to Ethics | 3 |
|  |  | 22 |
| Spring Semester |  |  |
| 2235:410 | Disaster Relief and Recovery | 3 |
| 2235:495 | Internship: Emergency Management | 1-4 |
|  | Technical Electives | 2-5 |
|  | Area Studies \& 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
1-4
2235:497 Independent Study: Emergency Management 1-4
2980:425
and Nory: Emergency Management
1-4
Land Navigation
3
2985:101 Introduction to Geographic and Land Information 3
3100:105
3250:385 Economics of Natural Resources and the Environment
3350:305 Maps and Map Reading
3350:340 Cartography
3350:314 Climatology
3350:320 Economic Geography
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 Concepts and Practices
3850:428 The Victim in Society
7600:303 Public Relations Writing
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 colleges 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 providing 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. During 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 Bulletin.
- 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 |  |
| :--- | :--- | :--- |
| $x x x x: x x x$ | Humanities Requirement (see adviser) |  |
| $x x x x: x x x$ | Area Studies/Cultural Diversity Requirement (see adviser) | 4 |
| $2030: 154$ | Elements of 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 Quality 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 Western Tradition I | 4 |
| $6500: 221$ | Quantitative Business Analysis | 3 |
| $6500: 301$ | Management: Principles 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

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: |  |
| :--- | :--- |
| $3300: 112$ | English Composition |
| $3400: 210$ | Humanities in the Western Tradition I |
| xxxx:xxx | Humanities Requirement (see adviser) |
| xxxx:xxx | Area Studies/Cultural Diversity Requirement (see adviser) |
| xxxx:xxx | Computer Programming Elective |
| $2030: 345$ | Technical Data Analysis |
| $2030: 356$ | Technical Calculus II |
| $2820: 111$ | Introductory Chemistry |
| $2860: 350$ | Advanced Circuit Theory |
| $2860: 352$ | Microprocessor Systems |
| $2860: 354$ | Advanced Circuit Applications |
| $2860: 400$ | Computer Simulations in Technology |
| $2860: 406$ | Communication Systems |
| $2860: 453$ | Control Systems |
| $2920: 310$ | Economics of Technology |
| $5400: x x x$ | Physical Education |
| $6500: 301$ | Management Principles and Concepts |
| $6500: 330$ | Principles of Operations Management |
| $7600: 106$ | Effective Oral Communication |
|  | Technical Electives |
| Electronic Engineering Technology Electives: |  |
| $2860: 451$ | Industrial Electronic Systems |
| $2860: 420$ | or |
|  | Biomedical Electronic Instrumentation |
| $2860: 430$ | or |3

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

| Third- and fourth-year requirements: |  |
| :--- | :--- |
| 2030:356 | Technical Calculus II |
| 2040:247 | Survey of Basic Economics |
| 2820:310 | Programming for Technologists |
| 2820:111 | Introductory Chemistry |
| 2820:112 | Introductory and Analytical Chemistry |
| 2860:270 | Survey of Electronics I |
| $2860: 271$ | Survey of Electronics II |
| 2880:241 | Intro to Quality Assurance |
| $2920: 310$ | Economics of Technology |
| $2920: 344$ | Dynamics |
| $2920: 346$ | Mechanical Design III |
| $2920: 347$ | Production Machinery and Processes |
| $2920: 365$ | Applied Thermal Energy II |
| $2920: 370$ | Plastics Design and Processing |
| $2920: 402$ | Mechanical Projects |
| $2920: 405$ | Industrial Machine Control |
| $2920: 470$ | Plastics Processing and Testing |
| $3300: 112$ | English Composition |
| $3400: 210$ | Humanities in the Western Tradition I |
| xxxx:xxx | Humanities Requirement (see adviser) |
| xxxx:xxx | Area Studies/Cultural Diversity Requirement (see adviser) |
| xxxx:xx | Technical Elective |

Prior to enrolling in the program, a student must have completed at least 45 credits 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, Baltimore, 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.

## 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 co-op requirement.

## Requirements for Graduation

- 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 |  |
| :--- | :--- |
| $x x x: x x x$ | Humanities Requirement (see adviser) |
| $x x x: x x x$ | Area Studies/Cultural Diversity Requirements (see adviser) |
| $2030: 345$ | Technical Data Analysis |
| $2030: 356$ | Technical Calculus II |
| $2420: 103$ | Essentials of Management Technology |
| $2420: 211$ | Basic Accounting I |
| $2820: 310$ | Programming for Technologists |
| $2980: 310$ | Survey Computations \& Adjustments |
| $2980: 315$ | Boundary Control \& Legal Irinciples |
| $2980: 415$ | Legal Aspects of Surveying |
| $2980: 421$ | Subdivision Design |

xxxx:xxx Humanities Requirement (see adviser)
xxxx:xxx Area Studies/Cultural Diversity Requirements (see adviser)
Technical Data Analysis
2420:103 Essentials of Management Technology
2420:211 Basic Accounting I
Programming for Technologists
2980:315
Surveying
Subdivision Design

|  |  | Credits |
| :--- | :--- | :---: |
| $2980: 422$ | GPS Surveying | 2 |
| $2980: 427$ | Ohio Lands | 2 |
| $2980: 430$ | Surveying Project | 3 |
| $3300: 112$ | English Composition II | 3 |
| $3350: 447$ | Remote Sensing | 3 |
| $3370: 100$ | Earth Science | 3 |
| $3400: 210$ | Humanities in the Western Tradition I | 4 |
| $3600: 120$ | Introduction to Ethics | 3 |
| $5550: 211$ | First Aid and Cardiopulmonary Resuscitation | 2 |
|  | Technical Electives | 6 |
|  | Surveying Electives | 6 |

## Bachelor of Science in 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.

## 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 coursework.
- 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 co-op).
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 136 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 requirements.

| Third and Fifth Year Requirements: | Credits |  |
| :--- | :--- | :---: |
| 2030:356 | Technical 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 |
| $2990: 463$ | Electrical Service Systems | 3 |
| $2990: 466$ | Hydraulics | 3 |
| $2990: 468$ | Construction Management | 3 |
| $3300: 112$ | English Composition II | 3 |
| $3370: 101$ | Introductory Physical Geology | 4 |
| $3400: 210$ | Humanities in the Western Tradition | 4 |
| $5550: 211$ | First Aid and Cardiopulmonary Resuscitating | 2 |
| $6200: 201$ | Acrounting Prirciples I | 3 |
|  | Area Studies and Cultural Diversity | 4 |
|  | Humanities Requirement | 6 |
|  | Technical Electives | 6 |

## 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 |
| :---: | :---: |
| 2020:222 | Technical Report Writing or |
| 3300:112 | English Composition II |
| 2030:161 | Math for Modern Technology |
| 2040:242 | American Urban Society |
| 2040:240 | Human Relations |
| 2040:256 | Diversity in American Society |
| 2440:102 | Introduction to Windows |
| 2740:120 | Medical Terminology |
| 2780:106 | Anatomy \& Physiology for Allied Health I or |
| 3100:200 | Human Anatomy \& Physiology I and |
| 3100:201 | Human Anatomy \& Physiology Laboratory I |
| 2780:107 | Anatomy \& Physiology for Allied Health II or |
| 3100:202 | Human Anatomy \& Physiology II and |
| 3100:203 | Human Anatomy \& Physiology Laboratory II |
| 2790:100 | Concepts in Respiratory Therapy |
| 2790:210 | Respiratory Therapy Procedures I lab |
| 2790:215 | Respiratory Therapy Pharmacology |
| 2790:301 | Cardiopulmonary Assessment Techniques lab |
| 2790:302 | Cardiopulmonary Anatomy \& Physiology |
| 2790:340 | Application of Clinical Concepts |
| 2790:311 | Respiratory Therapy Procedures II lab |
| 2790:312 | Diagnostics I |
| 2790:303 | Cardiopulmonary Pathology |
| 2790:320 | Neonatal/pediatrics for Respiratory Therapy I |
| 2790:341 | RT Clinical Experience I |
| 2790:313 | Diagnostics II |
| 2790:315 | Advanced Pharmacology for Respiratory Therapy |
| 2790:325 | Mechanical Ventilation lab |
| 2790:342 | RT Clinical Experience II |
| 2790:420 | Neonatal/pediatrics for Respiratory Therapy II |
| 2790:443 | RT Clinical Experience III |
| 2790:404 | Polysomnography I |
| 2790:421 | ACLS \& PALS |
| 2790:444 | RT Clinical Experience IV |
| 2790:430 | Problems in Respiratory Therapy |
| 2790:413 | Respiratory Therapy in Alternate Settings lab |
| 2790:405 | Polysomnography II |
| 3100:130 | Principles of Microbiology |

3150:110
3150:111
3400:210
3600:120
3600:361
3470:260
2420:202 7600:106
Intro to General, Organic \& Biochemistry Intro to General, Organic \& Biochemistry lab Humanities in the Western Tradition I
Introduction to Ethics
Biomedical Ethics
Basic Statistics
Elements of Human Resource Management Effective Oral Communication Humanities Requirement (see Bulletin, page 94) Area Studies Requirement (see Bulletin, page 94) Physical Education Requirement (see Bulletin, page 94)

## 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 earn 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: Credits

## 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 all 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 earn 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, medical transcription, 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.

| 2020:121 | English |
| :--- | :--- |
| 2030:130 | Mathematics for Allied health |
| 2040:240 | Human Relations |
| 2040:256 | Diversity in American Society |
| $2440: 103$ | Software Fundamentals |
| 2540:119 | Business English |
| $2540: 140$ | Keyboarding for Non-Majors |
| $2740: 120$ | Medical Terminology |
| $2740: 121$ | Study of Disease Processes |
| $2740: 122$ | Emergency Responder I |
| $2740: 126$ | Administrative Medical Assisting I |
| $2740: 127$ | Administrative Medical Assisting II |
| $2740: 135$ | Clinical Medical Assisting I |
| $2740: 226$ | Medical Billing |
| $2740: 230$ | Basic Pharmacology |
| $2740: 235$ | Clinical Medical Assisting II |
| $2740: 240$ | Medical Transcription I |
| $2740: 245$ | Medical Externship |
| $2780: 106,7$ | Anatomy and Physiology for Allied Health I, II |
| $7600: 105$ | Introduction to Public Speaking |
| $7600: 106$ | or |
| 7 | Effective Oral Communication |4

2030:130 Mathematics for Allied health 3
2040:240
2040:256
2440.103

2540:119

270:140

2740:121
2740:122
2740:126
2740.127

2740:135
2740:226
270.230

2740:240

2780:106,7
7600:105

7600:106

2020:121 English 4
2030:130 Mathematics for Allied Health 3
2040:240 Human Relations 3
2740:120 Medical Terminology 3
2780:106 Anatomy and Physiology for Allied Health I 3
or
Human Anatomy and Physiology I, Lab 4
Anatomy and Physiology for Allied Health II
or
Human Anatomy and Physiology II, Lab 4
Physical Science for Radiologic Technology I 2
Radiographic Principles 3
Physical Science for Radiologic Technology II 3
Physical Education Effective Oral Communication 1

General Electives
Credits for Hospital Program

Radiology schools at the following hospitals are affiliated with the University: Children's Hospital Medical Center of Akron

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.)

| $2020: 121$ | English** |
| :--- | :--- |
| $2030: 130$ | Mathematics for Allied Health** |
| $2040: 240$ | Human Relations** |
| $2040: 242$ | American Urban Society** |
| $2740: 120$ | 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 II |
| $2770: 231$ | Clinical Application I |
| $2770: 232$ | Clinical Application II |
| $2770: 233$ | Clinical Application III |
| $2770: 248$ | Surgical Anatomy I |
| $2770: 249$ | Surgical Anatomy II |
| $2780: 106,107$ | Anatomy and Physiology for Allied Health I, II** |
| $2820: 105$ | Basic Chemistry** |
| $3100: 130$ | Principles of Microbiology** |
| $7600: 106$ | Effective Oral Communication** |
|  | General Elective** |

4
3
3

3100:130 Principles of Microbiology** 3
7600:106 Effective Oral Communication**
General Elective**

[^6]
## 2790: Respiratory Care *

This program prepares persons, under the supervision of a physician, to administer medical gases, medications and operate equipment in the medical care of patients with respiratory disorders. Selective admission. This program will be offered for one more two-year cycle starting Fall 2006

| 2020:121 | English |
| :--- | :--- |
| 2030:130 | Mathematics for Allied Health |
| 2040:240 | Human Relations |
| 2040:242 | American Urban Society |
| 2780:106,7 | Anatomy and Physiology for Allied Health I, II |
| 2790:121 | Introduction to Respiratory Care |
| 2790:122 | Respiratory Patient Care |
| 2790:123 | Mechanical Ventilators |
| 2790:131 | Clinical Application I |
| 2790:132 | Clinical Application II |
| 2790:133 | Clinical Application III |
| 2790:134 | Clinical Application IV |
| 2790:141 | Pharmacology |
| 2790:242 | Pathology for Respiratory Care |
| 2790:201 | Anatomy and Physiology of Cardiopulmonary System |
| 2790:223 | Advanced Respiratory Care |
| 2790:224 | Pulmonary Rehabilitation and the Respiratory Care Department |
| 2820:105 | Basic Chemistry |
| 3100:130 | Principles of Microbiology |
| 7600:106 | Effective Oral Communication |

2020:121 English
4
3
2020240 Hum Rest
3
American Urban Society
3
Anatomy and Physiology for Allied Health I, II
6
Introduction to Respiratory Care
790:123
2790:131 Clinical Application
2790:132 Clinical Application II
Clinical Application III
2790:141 Pharmacology
Pathology for Respiratory Care
2790:223 Advanced Respiratory Care
Pulmonary Rehabilitation and the Respiratory Care Department
3100:130 Principles of Microbiology

Respiratory Care will be replaced by the B.S. option starting Fall 2007.

## 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.


## 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.

| Bridge Courses | Credits |  |
| :---: | :--- | :---: |
| $2440: 105$ | Introduction to Computers and Application Software | 3 |
| $2540: 140$ | Keyboarding for Non-Majors | 2 |

## Options

Culinary Arts
2020:121 English 4

2030:161 Mathematics for Modern Technology $\quad 4$
2040:240 Human Relations 3
2280:101
2280:120
2280:121
2280:122
2280:160
2280:230
2280:232
2280:237
2280:233
2280:245
2280:256
2280:261
2420:104
2420:211
2540:270
3350:375

2040:256

2040:257
7400:133 7600:105

7600:106

| Restaurant Management |  |
| :---: | :---: |
| 2020:121 | English |
| 2030:161 | Mathematics for Modern Technology |
| 2040:240 | Human Relations |
| 2040:247 | Survey of Basic Economics |
| 2280:101 | Introduction to Hospitality |
| 2280:120 | Safety and Sanitation |
| 2280:121 | Fundamentals of Food Preparation I |
| 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 | Internship |
| 2280:240 | Systems Management and Personnel |
| 2280:243 | Food Equipment and Plant Operations |
| 2280:245 | Menu, Purchasing and Cost Control |
| 2280:256 | Hospitality Law |
| 2280:278 | Hotel Catering and Marketing |
| 2420:104 | Introduction to Business in the Global Environment |
| 2420:211 | Basic Accounting I |
| 2540:270 | Business Software Applications |
| 3350:375 | Geography of Cultural Diversity |
|  | or |
| 2040:256 | Diversity in American Society |
|  | or |
| 2040:257 | The Black Experience 1877 to 1954 |
| 7600:105 | Introduction to Public Speaking or |
| 7600:106 | Effective Oral Communication |


| Hotel Marketing and Sales |  | Credits |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2030:161 | Mathematics for Modern Technology | 4 |
| 2040:240 | Human Relations | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2280:101 | Introduction to Hospitality | 3 |
| 2280:120 | Safety and Sanitation | 2 |
| 2280:121 | Fundamentals of Food Preparation I | 4 |
| 2280:232 | Dining Room Service and Training | 3 |
| 2280:237 | Internship | 2 |
| 2280:240 | Systems Management and Personnel | 3 |
| 2280:250 | Front Office Operations | 3 |
| 2280:256 | Hospitality Law | 3 |
| 2280:268 | Revenue Centers | 3 |
| 2280:278 | Hotel Catering and Marketing | 3 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2520:203 | Principles of Advertising | 3 |
| 2520:206 | Retail Promotion and Advertising | 3 |
| 2520:212 | Principles of Sales | 3 |
| 2540:143 | Microsoft Word Beginning | 2 |
| 2540:270 | Business Software Applications | 4 |
| 3350:375 | Geography of Cultural Diversity or | 2 |
| 2040:256 | Diversity in American Society or | 2 |
| 2040:257 | The Black Experience 1877 to 1954 | 2 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |

## 2420: Business Management Technology

This program provides comprehensive training in varied business activities which prepare for beginning management or supervisory-level positions in business, industry or self-employed management.

- 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 | 3 |
| 2540:140 | Keyboarding for Non-Majors | 2 |
| Options |  |  |
| General |  |  |
| 2020:121 | English | 4 |
| 2030:161 | Math for Modern Technology or | 4 |
| 3450:145 | College Algebra | 4 |
| 2040:240 | Human Relations | 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 | 2 |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:125 | Essentials to Personal Finance | 3 |
| 2420:170 | Applied Mathematics for Business | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2420:110 | Principles of Transportation or | 3 |
| 2880:232 | Labor Management Relations | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:212 | Basic Accounting II | 3 |
| 2420:213 | Essentials of Management Accounting | 3 |
| 2420:243 | Survey in Finance | 3 |
| 2420:250 | Problems in Business Management | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2440:247 | Survey of Basic Economics <br> or | 3 |
| 3250:200 | Principles of Microeconomics | 3 |
| 2520:101 | Essentials of Marketing Technology | 3 |
| 2520:203 | Principles of Advertising or | 3 |
| 2520:212 | Principles of Sales | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
| 2540:270 | Business Software Applications | 4 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |


| Accounting |  |
| :---: | :---: |
| 2020:121 | English |
| 2030:161 | Math for Modern Technology or |
| 3450:145 | College Algebra |
| 2040:240 | Human Relations |
| 2040:247 | Survey of Basic Economics |
| 2040:254 | The Black Experience from 1619 to 1877 |
| 2040:256 | Diversity in American Society |
| 2040:257 | The Black Experience 1877 to 1954 |
| 2520:101 | Essentials of Marketing Technology or |
| 2420:202 | Elements of Human Resource Management |
| 2420:103 | Essentials of Management Technology |
| 2420:104 | Introduction to Business in the Global Environment |
| 2420:125 | Essentials to Personal Finance |
| 2420:170 | Applied Mathematics for Business |
| 2420:211,12 | Basic Accounting I, II |
| 2420:213 | Essentials of Management Accounting |
| 2420:215 | Computer Applications for Accounting Cycles |
| 2420:216 | Survey of Cost Accounting* |
| 2420:217 | Survey of Taxation* |
| 2420:250 | Problems in Business Management or |
| 2420:227 | Entrepreneurship Projects |
| 2420:243 | Survey in Finance |
| 2420:245 | Business Management Accounting Internship or |
| 2420:220 | Applied Accounting* |
| 2420:280 | Essentials of Business Law |
| 2540:270 | Business Software Applications |
| 7600:105 | Introduction to Public Speaking or |
| 7600:106 | Effective Oral Communication |
| Small Business Management |  |
| 2020:121 | English |
| $\begin{aligned} & \text { 2030:161 } \\ & \text { or } \end{aligned}$ | Math for Modern Technology |
| 3450:145 | College Algebra |
| 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 |
| 2420:103 | Essentials of Management Technology |
| 2420:104 | Introduction to Business in the Global Environment |
| 2420:117 | Small Business Development |
| 2420:125 | Essentials to Personal Finance |
| 2420:170 | Applied Mathematics for Business |
| 2420:202 | Elements of Human Resource Management |
| 2420:211 | Basic Accounting I |
| 2420:212 | Basic Accounting II |
| 2420:217 | Survey of Taxation |
| 2420:227 | Entrepreneurship Projects |
| 2420:243 | Survey in Finance |
| 2420:280 | Essentials of Business Law |
| 2520:101 | Essentials of Marketing Technology |
| 2520:203 | Principles of Advertising or |
| 2520:212 | Principles of Sales |
| 2540:270 | Business Software Applications |
| 7600:105 | Introduction to Public Speaking or |
| 7600:106 | Effective Oral Communication |

2420:103 Essentials of Management Technology
Introduction to Business in the Global Environment
Small Business Development
2420:170 Applied Mathematics for Business
2420:202 Elements of Human Resource Management
Basic Accounting 1
Basic Accounting II
2420:217 Survey of Taxation
ntrepreneurship Projects

2420:280 Essentials of Business Law
2520:101 Essentials of Marketing Technology
2520:203 Principles of Advertising
Principles of Sales
Business Software Applications
or
7600:106 Effective Oral Communication

## 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 graduates 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.

|  |  | Credits |
| :--- | :--- | :---: |
| 2440:105 | Introduction to Computers and Applications Software | 3 |
| Programming | Specialist |  |
| 2020:121 | English | 4 |
| $2030: 151$ | Technical Mathematics I | 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 |
|  | or |  |
| $2040: 256$ | Diversity in American Society | 2 |
|  | or |  |
| $2040: 257$ | The Black Experience 1877 to 1954 | 2 |
|  | or |  |
| $2040: 258$ | 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 |
| $2440: 140$ | Internet Tools | 3 |
| $2440: 145$ | Operating Systems | 3 |
| $2440: 160$ | Java Programming | 3 |
| $2440: 170$ | Visual BASIC | 3 |
| $2440: 180$ | Database Concepts | 3 |
| $2440: 210$ | Client/Server Programming | 3 |
| $2440: 234$ | Advanced Business Programming | 3 |
| $2440: 241$ | Systems Analysis and Design | 3 |
| $2440: 251$ | Computer Applications Project | 3 |
| $2440: 256$ | C++ Programming | 3 |
| $2540: 119$ | Business English | 3 |
| $2540: 263$ | Professional Communications \& Presentations | 3 |
| $7600: 105$ | or | Introduction to Public Speaking |
| $7600: 106$ | or |  |
|  | Effective Oral Communication | 3 |


| Microcomputer Specialist |  |  |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2030:151 | Technical Mathematics I | 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 |
|  | or |  |
| 2040:256 | Diversity in American Society | 2 |
|  | or |  |
| 2040:257 | The Black Experience 1877 to 1954 | 2 |
|  | or |  |
| 2040:258 | The Black Experience 1954 to Present | 2 |
| 2420:104 | Introduction to Business in the Global Environment |  |
| 2420:211,12 | Basic Accounting I, II | 6 |
| 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 |
| 2440:210 | Client/Server Programming | 3 |
| 2440:241 | Systems Analysis and Design | 3 |
| 2440:247 | Hardware Support** | 3 |
| 2440:257 | Microcomputer Projects | 3 |
| 2440:267 | Microcomputer Database Applications | 3 |
| 2440:268 | Network Concepts** | 3 |
| 2540:119 | Business English | 3 |
| 2540:263 | Professional Communications \& Presentations or | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Effective Oral Communication | 3 |

[^7]
## Computer Maintenance and Networking

- Students must pass department placement exam, complete Bridge Course (as needed as a result of the department placement exam) or gain permission from program director before enrolling in Computer Information Systems courses.
Bridge Course:
Credits
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 I |
| 2030:152 | and |
|  | Technical Mathematics II |
| 2030:161 | or |
| 2020:222 | Math for Modern Technology |
| 2040:240 | Human Relations |
| 2040:247 | Survey of Basic Economics |
| 2420:103 | Essentials of Management Technology |
| 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 |
| 2600:240 | or |
| Microsoft Networking I |  |
| 2440:202 | Router and Routing Basics |
| 2600:242 | or |
| Microsoft Networking II |  |
| 2440:203 | Switching Basics and Intermediate Routing |
| 2600:244 | or |
| Microsoft Networking III |  |
| 2440:204 | WAN Technologies |
| 2440:240 | Computer Information Systems Internship |
| 2440:247 | Hardware Support |
| 2440:248 | Advance Hardware Support |
| 2440:268 | Network Concepts (Microsoft option) |
| 2540:263 | Professional Communications \& Presentations |
| 7600:105 | or |
| Introduction to Public Speaking |  |
| 7600:106 | or |
|  | 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 |
|  | or |
| $2020: 222$ | Technical Report Writing |
| $2440: 241$ | Systems Analysis and Design |
| $2440: 211$ | Interactive Web Programming |
| $2440: 212$ | Multimedia and Interactive Web Elements |
| $2040: 240$ | Human Relations |
| $7600: 105$ | Introduction to Public Speaking |
|  | or |
| $7600: 106$ | Effective Oral Communications |
| $2540: 263$ | or |
| $2040: 247$ | Professional Communications \& Presentations |
| $2440: 141$ | Survey of Basic Economics |
| $2440: 251$ | Web Site Administration |
| $2040: 254$ | Computer Applications Projects |
| $2040: 256$ | The Black Experience from 1619 to 1877 |
| $2040: 257$ | or |
|  | Thersity in American Society |

## 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.
Bridge Courses
2440:105 Introduction to Computers and Application Software 3
2540:140 Keyboarding for Non-Majors 2


## Options

Advertising
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 3
3250:200 Principles of Microeconomics 3
2040:256 Piversity in American Society
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
2520:221 Advertising Campaign
2520:240 Marketing Internship
$\begin{array}{ll}\text { 2540:263 Professional Communications and Presentations } & 3 \\ 3\end{array}$
2020:222 Technical Report Writing
2540:270 Business Software Applications $\quad 4$
2540:271 Desktop Publishing 3
or
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
or
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
2420:280 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
2520:206 Retail Promotion and Advertising
2520:212 Principles of Sales
2540:263 Professional Communications and Presentations or
2020:222 Technical Report Writing
2540:270 Business Software Applications
7400:139 The Fashion and Furnishings Industry
7400:219 Clothing Communications
7400:225 Textiles
7400:226 Textile Evaluation
7600:105 Introduction to Public Speaking

## Retailing

2020:121
2020:224
2030:161
2040:240
2040:247
3250:200
2040:256
2420:211
2420:280

2420:104 Introduction to Business in the Global Environment
English
Writing for Advertising
Math for Modern Technology
Human Relations
Survey of Basic Economics
or
Principles of Microeconomics

Basic Accounting I
Essentials of Business Law

2
$\qquad$

|  |  | Credits |
| :--- | :--- | :---: |
| 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 | 3 |
|  | or |  |
| 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 | 3 |
| 3250:200 | Pr |  |
| 2040:256 | Principles of Microeconomics | 3 |
| 2420:104 | Introduction to Business in in the Global Environment | 2 |
| 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 Internship | 3 |
| 2520:254 | Sales Management Technology | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
| 2020:222 | or | 3 |
| 2540:270 | Technical Report Writing | 3 |
| $7600: 105$ | Business Software Applications | 3 |
| 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

2440:105 Introduction to Computers and Application Software 3
2540:140 Keyboarding for Non-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 |
| 2540:143 | 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 | Women 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 | 1 |
| 2740:126 | Administrative Medical Assisting I | 4 |
| 2740:127 | Administrative Medical Assisting II | 4 |
| 2740:226 | Medical Billing | 4 |
| 2740:240 | Medical Transcription I | 3 |
| 2740:245 | Medical Externship and Seminar | 4 |
|  | Natural Science elective | 3 |

[^8]| International | Secretarial* | Credits |
| :---: | :--- | :---: |
| $2020: 121$ | English | 4 |
| $2040: 240$ | Human Relations | 3 |
| $2040: 247$ | Survey of Basic Economics | 3 |
| $2420: 104$ | Introduction to Business in the Global Environment | 3 |
| $2420: 170$ | Applied Mathematics for Business | 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 |
| $2540: 270$ | Business Software Applications | 4 |
| $2540: 273$ | Microsoft PowerPoint | 2 |
| $2540: 281$ | Editing/Proofreading/Transcription | 3 |
| $3500: \times x x$ | Beginning Foreign Language I and II | 8 |
| $3500: x x x$ | Intermediate Foreign Language I and II | 6 |
|  | 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 | 2 |
|  | or | 2 |
| 2040:256 | Diversity in American Society |  |
|  | or | 2 |
| 2040:257 | The Black Experience 1877 to 1954 | 3 |
| 2420:103 | Essentials 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 | 2 |
| 2540:143 | Microsoft Word Beginning | 3 |
| 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 | Women in Management | 4 |
| 2540:270 | Business Software Applications | 3 |
| 2540:271 | Desktop Publishing | 2 |
| 2540:273 | Microsoft PowerPoint | 3 |
| 2540:281 | Editing/Proofreading/Transcription |  |

[^9]
## 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 | 4 |
| 2020:222 | Technical Report Writing | 3 |
| 2030:152 | Technical Mathematics II | 2 |
| 2030:153 | Technical Mathematics III | 2 |
| 2030:154 | Technical Mathematics IV | 3 |
| 2030:255 | Technical Calculus I | 3 |
| 2040:240 | Human Relations | 3 |
| 2040:242 | American Urban Society or |  |
| 2040:247 | Survey of Basic Economics | 3 |
| 2820:161 | Technical Physics: Mechanics I | 2 |
| 2820:162 | Technical Physics: Mechanics II | 2 |
| 2820:164 | Technical Physics: Heat \& Light | 2 |
| 2860:120 | Circuit Fundamentals | 4 |
| 2860:121 | Introduction to Electronics and Computers | 2 |
| 2860:123 | Electronic Devices | 4 |
| 2860:136 | Digital Fundamentals | 2 |
| 2860:225 | Applications of Electronic Devices | 4 |
| 2860:237 | Digital Circuits | 4 |
| 2860:238 | Microprocessor Applications | 4 |
| 2860:242 | Machinery and Controls | 3 |
| 2860:251 | Electronic Communications | 4 |
| 2860:260 | Electronic Project | 2 |
| 2870:301 | Computer Control of Automated Systems | 3 |
| 2940:210 | Computer Aided Drawing I | 3 |

## 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-Aided Manufacturing Option |  |
| :---: | :---: |
| 2020:121 | English |
| 2030:151 | Technical Mathematics I* |
| 2030:152 | Technical Mathematics $\\|^{*}$ |
| 2030:153 | Technical Mathematics III |
| 2040:240 | Human Relations |
| 2820:131 | Software Applications for Technology |
| 2820:161 | Technical Physics: Mechanics I |
| 2820:162 | Technical Physics: Mechanics II |
| 2820:163 | Technical Physics: Electricity and Magnetism* |
| 2860:270 | Survey of Electronics I |
| 2870:348 | CNC Programming ${ }^{*}$ |
| 2880:100 | Basic Principles of Manufacturing Management* |
| 2880:110 | Manufacturing Processes* |
| 2880:130 | Work Measurement and Cost Estimating |
| 2880:151 | Industrial Safety and Environmental Protection* |
| 2880:201 | Robotics and Automated Manufacturing |
| 2880:211 | Computerized Manufacturing Control |
| 2880:232 | Labor-Management Relations |
| 2880:241 | Introduction to Quality Assurance |
| 2920:130 | Introduction to Hydraulics and Pneumatics* |
| 2940:210 | Computer Aided Drawing I |
| 5540:xxx | Physical Education |
| 7600:106 | Effective Oral Communication |
|  | Technical Electives |
|  | General Elective |

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3
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4
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3
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1

[^10] $1 / 1 / 96$, see an adviser.

| Industrial Supervision Option |  | Credits |
| :---: | :---: | :---: |
| 2020:121 | English | 4 |
| 2020:222 | Technical Report Writing | 3 |
| 2030:151 | Technical Mathematics I* | 2 |
| 2030:152 | Technical Mathematics II | 2 |
| 2040:247 | Survey of Basic Economics | 3 |
| 2040:251 | Human Behavior at Work | 3 |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:202 | Elements of Human 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 Technology | 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:xxx | 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 Urban Society | 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.

2020:121 English 4
2020:222 Technical Report Writing 3
2030:152 Technical Mathematics II 2
2030:153 Technical Mathematics III 2
2030:154 Technical Mathematics IV 3
2030:255 Technical Calculus I 3
2040:240 Human Relations 3
2040:242 American Urban Society 3
2820:131 Software Applications 1
2820:161 Technical 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
2870:348 CNC Programming I 3
2920:101 Introduction to Mechanical Design 3
2920:142 Introduction to Material Technology 3
2920:243 Kinematics
2920:245 Mechanical Design II
2920.249 . 5

Applied Thermal Energy
2920:252 Thermo-Fluids Laboratory
2940:121 Technical Drawing I
2940:210 Computer Aided Drawing I
2990:125 Statics
2990:241 Strength of Materials
5540:xxx Physical Education
7600:106 Effective Oral Communication

[^11]
## 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.

Credits

| 2020:121 | English |
| :--- | :--- |
| 2020:222 | Technical Report Writing |
| $2030: 151$ | Technical Mathematics I |
| 2030:152 | Technical Mathematics II |
| 2040:240 | Human Relations |
| $2820: 131$ | Software Applications for Technology |
| $2820: 161$ | Technical Physics: Mechanics I |
| $2870: 348$ | CNC Programming I |
| $2880: 110$ | Manufacturing Processes |
| $2940: 121$ | Technical Drawing I |
| $2940: 122$ | Technical Drawing II |
| $2940: 150$ | Drafting Design Problems |
| $2940: 170$ | Surveying Drafting |
| $2940: 200$ | Advanced Drafting |
| $2940: 210$ | Computer Aided Drawing I |
| $2940: 211$ | Computer Aided Drawing II |
| $2940: 230$ | Mechanical Systems Drafting |
| $2940: 240$ | Electrical and Electronic Drafting |
| $2940: 245$ | Structural Drafting |
| $2940: 250$ | Architectural Drafting |
| $2940: 260$ | Drafting Technology Project |
| $2980: 223$ | Fundamentals of Map Production |
| $2990: 131$ | Building Construction |
| $5540: \times x x$ | Physical Education |
| $7600: 106$ | Effective Oral Communication |
|  | Social Science Electives |

2020:222 Technical Report Writing
Technical Mathematics
2040:240 Human Relations
Software Applications for Technology
Technical Physics: Mechanics 1
2880:110 Manufacturing Processes
2940:121 Technical Drawing
2940:122 Technical Drawing II
2940:150 Drafting Design Problems
290:170 Advang Drating
2940:210 Computer Aided Drawing I

- Computer Aided Drawing

2940:240 Electrical and Electronic Drafting
2940:245 Structural Drafting
2940:250 Architectural Drafting
2940:260 Drafting Technology Project
2980:223 Fundamentals of Map Production

7600:106 Effective Oral Communication Social Science Electives
Social Science Electives:

| $2040: 242$ | American Urban Society | 3 |
| :--- | :--- | :--- |
| $2040: 247$ | Survey of Basic Economics | 3 |
| $3350: 100$ | Introduction to Geography | 3 |
| $3750: 100$ | Introduction to Psychology | 3 |

## 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, physics and communication skills as well as the surveying skills necessary to become a Certified Surveying technician under the National Society of Professional Surveyors' (NSPS) testing program.

| 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 |
| $2040: 247$ | Survey of Basic Economics |
| $2820: 131$ | Software Applications for Technology |
| $2820: 161$ | Technical Physics: Mechanics I |
| $2820: 162$ | Technical Physics: Mechanics II |
| $2820: 163$ | Technical Physics: Electricity and Magnetism |
|  | or |
| $2820: 164$ | Technical Physics: Heat and Light |
| $2940: 170$ | Surveying Drafting |
| $2940: 210$ | Computer Aided Drawing I |
| $2980: 100$ | Introduction to Geomatics |
| $2980: 101$ | Basic Surveying I |
| $2980: 102$ | Basic Surveying II |
| $2980: 123$ | Surveying Field Practice |
| $2980: 222$ | Construction Surveying |
| $2980: 223$ | Fundamentals of Map Production |
| $2980: 225$ | Advanced Surveying |
| $2980: 228$ | Boundary Surveying |
| $2980: 355$ | Computer Applications in Surveying |
| $2980: x x x$ | Surveying Elective |
| $2985: 101$ | Introduction to Geographic and Land Information |
| $3350: 100$ | Introduction to Geography |
|  |  |


|  |  | Credit |
| :--- | :--- | :---: |
| $7600: 105$ | Introduction to Public Speaking | 3 |
| $7600: 106$ | or | 3 |
|  | Effective Oral Communications | 3 |

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

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 | 4 |
| :--- | :--- | ---: |
| 2020:222 | Technical Report Writing | 3 |
| 2030:152 | Technical Mathematics II | 2 |
| 2030:153 | Technical Mathematics III | 2 |
| 2030:154 | Technical Mathematics IV | 3 |
| 2040:256 | Diversity in American Society | 2 |
| 2820:131 | Software Applications for Technology | 1 |
| 2940:210 | Computer Aided Drawing I | 3 |
| 2980:xxx | Surveying Elective | 3 |
| 2980:100 | Introduction to Geomatics | 2 |
| 2980:101 | Basic Surveying I | 2 |
| 2980:102 | Basic Surveying II | 2 |
| 2980:228 | Boundary Surveying | 3 |
| 2980:330 | Applied Photogrammetry | 2 |
| 2985:xxx | GIS/LIS Elective(s) | 6 |
| 2985:101 | Introduction to Geographic Info. Systems (GIS/LIS) | 3 |
| 2985:201 | Intermediate Geog. \& Land Info. Systems (GIS/LIS) | 3 |
| 2985:205 | Building Geodatabases | 3 |
| 2985:210 | Geographic and Land Info. Systems Project (GIS/LIS) | 3 |
| 2985:280 | Topics in Professional Practice | 2 |
| 2985:291 | Geographic and Land Info. Sys. Internship | 3 |
| 3350:100 | Introduction to Geography | 3 |
| 3370:100 | Earth Science | 3 |
| 7600:105 | Introduction to Public Speaking |  |
| 7600:106 | or |  |
| Teffective Oral Communications | 3 |  |
| Technical Electives |  |  |
| 2980:123 | Surveying Field Practice | 2 |
| 2980:223 | Fundamentals of Map Production | 3 |
| 2980:422 | GPS Surveying | 3 |
| 2985:290 | ST: Geographic and Land Information Systems |  |
| 2985:295 | Workshop in Geographic \& Land Information Systems | $1-3$ |
| 2985:299 | Independent Study | $1-3$ |

## 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, technical graphics, surveying, construction methods and estimating, and communication skills, this program allows increased application of these areas in order to build an in-depth background in construction.

| 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 |
| 2040:242 | American Urban Society |
| $2820: 131$ | Survey of Basic Economics |
| $2820: 161$ | Software Applications for Technology |
| $2820: 162$ | Technical Physics: Mechanics I |
| $2820: 163$ | Technical Physics: Mechanics II |
| $2820: 164$ | Technical Physics: Electricity and Magnetism |
| $2940: 210$ | Compural Physics: Heat and Light |
| $2980: 101$ | Basic Surveying I |
| $2980: 102$ | Basic Surveying II |
| $2990: 125$ | Statics |
| $2990: 150$ | Blueprint Reading |
| $2980: 222$ | Construction Surveying |
| $2990: 131$ | Building Construction |
| $2990: 234$ | Elements of Structures |
| $2990: 237$ | Materials Testing I |
| $2990: 238$ | Materials Testing II |
| $2990: 241$ | Strength of Materials |
| $2990: 245$ | Construction Estimating |
| $2990: x x x$ | Technical Elective |
| $7600: 105$ | Introduction to Public Speaking |
| $7600: 106$ | or |
|  | Effective Oral Communications |

## 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 College.
- 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.

| 2020:121 | English | Credits |
| :--- | :--- | :---: |
| 2030:161 | Math for Modern Technology | 4 |
|  | or | 4 |
| 3450:140 | Math for Elementary Teachers I | 3 |
| $2040: 240$ | Human Relations | 3 |
| $2040: 242$ | American Urban Society | 3 |
| $2200: 110$ | Foundations in Early Childhood Education | 3 |
| $2200: 245$ | Infant/Toddller Day-Care Programs | 3 |
| $2200: 250$ | Observing and Recording Children's Behavior | 3 |
| $2200: 246$ | Multicultural Issues in Child Care | 3 |
| $2200: 247$ | Diversity in Early Childhood Literacy | 3 |
| $2200: 295$ | Early Childhood Practicum | 5 |
| $5200: 360$ | Teaching in the Early Childhood Center | 2 |
| $5200: 370$ | Early Childhood Center Laboratory | 2 |
| $5550: 211$ | First Aid, CPR | 2 |
| $5610: 450$ | Special Education Programming: Early Childhood | 3 |
| $7400: 132$ | Early Childhood Nutrition | 2 |
| $7400: 265$ | Child Development | 3 |
| $7400: 270$ | Theory and Guidance of Play | 3 |
| $7400: 280$ | Early Childhood Curriculum Methods | 3 |
| $7400: 448$ | Before and After School Care | 2 |
| $7400: 460$ | Organization and Supervision of Child Care Centers | 3 |
| $7600: 106$ | Effective Oral Communication | 3 |
|  | General Elective |  |

Pre-Kindergarten Associate Certification is available. See program adviser for other requirements for certification.

## 2220: Criminal Justice Technology

This program provides the student with a professional perspective of criminal justice through skills and technical functions and offers courses designed to develop a better understanding of our rapidly changing society.

| $2020: 121$ | English |
| :--- | :--- |
| $2020: 222$ | Technical Report Writing |
| $2030: 161$ | Math for Modern Technology |
| $2040: 240$ | Human Relations |
| $2040: 242$ | American Urban 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 |
| $2220: 225$ | The Police Experience |
| $2220: 250$ | Criminal Case Management |
| $2220: 260$ | Critical Incident Interventions for Criminal Justice |
| $2220: 296$ | Current Topics in Criminal Justice ${ }^{\dagger t}$ |
| $2220: 298$ | Applied Ethics in Criminal Justice |
| $2820: 105$ | Basic Chemistry |
| $3850: 100$ | Introduction to Sociology |
| $5540: x x x$ | Physical Education ** |
| $7600: 106$ | Effective Oral Communication |4

3
4
3
3
3
3
3
3
3
6
3
6
3
3
4
1
3

[^12]| Security Administration |  |
| :--- | :--- |
| $2020: 121$ | English |
| $2020: 222$ | Technical Report Writing |
| $2030: 161$ | Math for Modern Technology |
| $2040: 240$ | Human Relations |
| $2040: 242$ | American Urban Society |
| $2220: 101$ | Introduction to Proprietary Safety |
| $2220: 104$ | Evidence and Criminal Legal Procedure |
| $2220: 120$ | Crime Prevention: Theory, Practice and Management |
| $2220: 230$ | Corporate and Industrial Facility Integrity |
| $2220: 235$ | School Crime and Violence Prevention |
| $2220: 250$ | Criminal Case Management |
| $2220: 280$ | Cybercrime |
| $2230: 250$ | Hazardous Materials |
| $2230: 257$ | Fire and Safety Issues for Business and Industry |
| $2420: 104$ | Introduction to Business in the Global Environment |
| $2440: 103$ | Software Fundamentals |
| $2820: 105$ | Basic Chemistry |
| $5540: x x x$ | Physical Education ** |
| $7600: 106$ | Effective Oral Communication |
| $2220: x x x$ | Technical Elective*** |

2220:101 Introduction to Proprietary Safety
2220:104 Evidence and Criminal Legal Procedure
Crime Prevention: Theory, Practice and Management
2220:235 School Crime and Violence Prevention 3
Case Management
2230:250 Hazardous Materials
2230:257 Fire and Safety Issues for Business and Industry

- Itroduction Business in the Global Environment

2820:105 Basic Chemistry
Physical Education **

A student with a particular interest in corrections may vary the program of study by making the following substitutions: 3850:330 Criminology, three credits; 2220:270 Community Corrections, three credits; or 2260:278 Techniques of Community Work, four credits; and 3850:431 Corrections, three credits, for courses: 2220:250 Criminal Case Management, six credits. Students must complete electives to equal the 64 -credit program requirement.

## 2230: Fire Protection Technology

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

| $2020: 121$ | English | 4 |
| :--- | :--- | ---: |
| $2020: 222$ | Technical Report Writing | 3 |
| $2030: 161$ | Math for Modern Technology | 4 |
| $2040: 240$ | Human Relations | 3 |
| $2040: 242$ | American Urban Society | 3 |
| $2230: 100$ | Introduction to Fire Protection | 3 |
| $2230: 102$ | Fire Safety in Building Design and Construction | 3 |
| $2230: 104$ | Fire Investigation Methods | 4 |
| $2230: 204$ | Fire Hazards Recognition | 3 |
| $2230: 202$ | Incident Management for Emergency Responders | 4 |
| $2230: 205$ | Fire Detection and Suppression Systems I | 3 |
| $2230: 206$ | Fire Detection and Suppression Systems II | 3 |
| $2230: 250$ | Hazardous Materials | 4 |
| $2230: 254$ | Fire Codes and Standards | 3 |
| $2230: 257$ | Fire and Safety Issues for Business and Industry | 3 |
| $2230: 280$ | Fire Service Administration | 4 |
| $2820: 105$ | Basic Chemistry | 3 |
| $2940: 180$ | Introduction to Computer Aided Drafting | 1 |
| $7600: 105$ | Introduction to Public Speaking | 3 |
| $2230: x x x$ | Technical Electives | 4 |
| Recommended | Technical Electives: |  |
| $2230: 290$ | Special Topics in Fire Protection | $1-2$ |
| $2230: 294$ | Advanced Fire Investigation Methods | 3 |
| $2230: 295$ | Fire Protection Internship | 4 |
| $2230: 297$ | Independent Study | $1-4$ |

[^13]
## 2240: Emergency Medical Services Technology

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

| 2020:121 | English | Credits |
| :--- | :--- | :---: |
| 2030:161 | Math for Modern Technology | 4 |
| 2040:240 | Human Relations | 4 |
| 2230:202 | Incident Management for First Responders | 3 |
| 2230:257 | Fire and Safety Issues for Business and Industry | 4 |
| 2235:305 | Principles of Emergency Management | 3 |
| 2740:120 | Medical Terminology | 3 |
| 2740:130 | Basic Pharmacology | 3 |
| 2780:107 | Anatomy and Physiology for Allied Health I | 3 |
| 2780:108 | Anatomy and Physiology for Allied Health II | 3 |
| 7600:106 | Effective Oral Communications | 3 |

- 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 development as a Fire/Medic

| $2020: 121$ | English |
| :--- | :--- |
| $2030: 161$ | Math for Modern Technology |
| $2040: 240$ | Human Relations |
| $2230: 254$ | Fire Codes and Standards |
| $2230: 297$ | Independent Study |
| $2235: 305$ | Principles of Emergency Management |
| $2740: 120$ | Medical Terminology |
| $2740: 230$ | Basic Pharmacology |
| $2780: 106$ | Anatomy and Physiology for Allied Health I |
| $2780: 107$ | Anatomy and Physiology for Allied 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

This program prepares individuals for employment supportive of social work and of other professional community service personnel providing social services for individuals, families, groups and communities.

## General Program

## 2020:121 English

2020:222 Technical Report Writing
or
3300:112 English Composition II or
2540:119 Business English
2030:161 Math for Modern Technology
2040:240 Human Relations
2040:242 American Urban Society
2040:254 The Black Experience from 1619 to 1877
2260:100 Introduction to Community Services
2260:150 Introduction to Gerontological Services
2260:240 Drug Use and Abuse
2260:260 Introduction to Addiction
2260:262 Basic Helping Skills
2260:277 Case Management in Community Services
2260:278 Techniques of Community Work
2260:279 Technical Experience: Community and Social Services
2440:105 Introduction to Computers and Application Software
3850:100 Introduction to Sociology
7600:106 Effective Oral Communication
7750:276 Introduction to Social Welfare
2260:xxx Technical electives
2260:xxx General electives

## Options

| Addiction Services |  | Credits |
| :---: | :---: | :---: |
| 2260:240 | Drug Use and Abuse | 3 |
| 2260:260 | Introduction to Addiction | 3 |
| 2260:261 | Addiction Treatment | 4 |
| 2260:263 | Group Principles in Addiction | 4 |
| Select three credits from the following: |  |  |
| 2260:264 | Addiction and the Family | 3 |
| 2260:265 | Women and Addiction | 3 |
| 2260:267 | Addiction Assessment and Treatment Planning | 3 |
| 2260:268 | Co-Occurring Disorders | 3 |
| 2260:269 | Criminal Justice and Addiction | 3 |
| 2260:270 | Relapse Prevention | 3 |
| 2260:271 | Non-chemical Addictions and Dependencies | 3 |
| Gerontology |  |  |
| 1850:450 | Interdisciplinary Seminar in Gerontology | 2 |
| 1850:486 | Retirement Specialist | 2 |
| 2040:244 | Death and Dying | 2 |
| 7400:390 | Family Relationships in Middle and Later Years | 3 |
|  | Gerontology Electives | 4 |
| Social Services Emphasis $\dagger$ |  |  |
| 2020:121 | English | 4 |
| 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 |
| 2260:100 | Introduction to Community Services | 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 Community Services | 3 |
| 2260:278 | Techniques of Community Work | 4 |
| 2260:279 | Technical Experience: Community and Social Service | 5 |
| 3100:103 | Natural Science: Biology | 4 |
| 3300:112 | English Composition II |  |
| 3750:100 | Introduction to Psychology | 3 |
| 3850:100 | Introduction to Sociology | 4 |
| 7600:106 | Effective Oral Communication |  |
| 7750:270 | Poverty in the United States | 3 |
| 7750:276 | Introduction to Social Welfare | 4 |
| 7750:427 | Human Behavior and Social Environment I | 3 |

## 2290: Paralegal Studies

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

| 2020:121 | English | 4 |
| :--- | :--- | ---: |
| 2020:222 | Technical Report Writing | 3 |
| 2030:161 | Math for Modern Technology | 4 |
| 2040:240 | Human Relations | 3 |
| 2220:104 | Evidence and Criminal Legal Process | 3 |
| 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 |
| 2290:110 | Tort Law | 3 |
| 2290:112 | Family Law | 3 |
| 2290:118 | Probate Administration | 4 |
| 2290:204 | Advanced Legal Research | 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 |
| 2440:103 | Software Fundamentals | 2 |
| 5540:xxx | Physical Education | 1 |
| 7600:106 | Effective Oral Communication | 3 |
|  | General Elective | 3 |
| Recommended Electives | 3 |  |
| 2040:243 | Contemporary Global Issues |  |
| 2040:247 | Survey of Basic Economics | 3 |
| 2040:251 | Human Behavior At Work | 3 |
| 2040:254 | The Black Experience 1619 to 1877 | 3 |
| 2040:256 | Diversity in America | 2 |
| 2040:257 | The Black Experience 1877 to 1954 | 2 |
| 2290:290 | Special Topics: Legal Assisting | 2 |
|  |  | $3-5$ |

[^14] Natural Sciences: Biology/Lab (4).

# 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 nine technical programs and 12 certificate 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 Environmental Health and Safety Technology, Computer Network Engineering Technology, 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 Orrville/Wooster 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, and/or 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 College, 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 knowledge 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 I
Effective Oral Communication
Area Studies/Cultural Diversity Requirement ${ }^{2}$
Humanities Requirement
Mathematics Requirement ${ }^{3}$
Natural Sciences Requirement ${ }^{4}$
Physical Education/Wellness
Social Sciences Requirement ${ }^{5}$
Electives ${ }^{6}$
7600:106

## Science Option

3300:111 English Composition I 4
3300:112 English Composition II 3
3400:210 Humanities in the Western Tradition I ${ }^{1} \quad 4$
7600:106 Effective Oral Communication 3
Effective Oral Communication
Area Studies/Cultural Diversity Requirement ${ }^{2}$
Humanities Requirement ${ }^{1}$
6
Mathematics Requirement ${ }^{3}$
Natural Sciences Requirement ${ }^{4}$
Physical Education/Wellness
Social Sciences Requirement ${ }^{5} \quad 6$
Electives $^{7} \quad \underline{22}$
64

[^15]
## 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 field work in human service organizations. With only four additional credits beyond the associate degree, it is also possible to complete a Certificate in Gerontological Social Services and a Certificate in Therapeutic Activities. While both the associate to bachelor's and the general options can lead to immediate employment, the associate to bachelor's degree option also provides the first half of a bachelor's degree in social work at The University of Akron School of Social Work.

| General Option* |  |
| :--- | :--- |
| $2040: 240$ | Human Relations |
| $2260: 121$ | Social Service Techniques I |
| $2260: 122$ | Social Service Techniques II |
| $2260: 150$ | Introduction to Gerontological Services |
| $2260: 171$ | Career Issues in Social Services I |
| $2260: 172$ | Career Issues in Social Services II |
| $2260: 223$ | Social Service Techniques III |
| $2260: 260$ | Introduction to Addiction |
| $2260: 273$ | Career Issues in Social Services III |
| $2260: 275$ | Therapeutic Activities |
| $2260: 285$ | Social Services Practicum I |
| $2260: 287$ | Social Services Practicum II |
| $2260: 294$ | Social Services Practicum Seminar |
| $3300: 111$ | English Composition I |
| $3300: 112$ | English Composition II |
| $3750: 100$ | Introduction to Psychology |
| $3750: 230$ | Developmental Psychology |
| $3850: 100$ | Introduction to Sociology |
| $3850: 310$ | Social Problems |
| $7400: 201$ | Courtship, Marriage and the Family |
| $7600: 106$ | Effective Oral Communication |
| $7750: 270$ | Poverty and Minority Issues |
| $7750: 276$ | Introduction to Social Welfare |
|  | Physical Education/Vellness |
|  | Electives |
|  |  |

* No new students will be accepted to this program effective Fall 2006.


## Associate to Bachelor's Degree Option with Bachelor of Arts/Social Work degree

2260:121 Social Service Techniques I
2260:122 Social Service Techniques II
Introduction to Gerontological Services 3
2260:172 Career Issues in Social Services II
2260:223 Social Service Techniques III
2260:260 Introduction to Addiction
2260:285 Social Services Practicum I II
2260:287 Social Services Practicum II $\quad 1-2$
2260:294 Social Services Practicum Seminar 2
3100:103 Natural Science-Biology S
$3300 \cdot 111$
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/Vellness Social Services Elective(s)

## 2420: Business Management Technology

## 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 enrolling in the program:

|  |  | Credits |
| :---: | :---: | :---: |
| 2440:105 | Introduction to Computers and Application Software | 3 |
| 2540:290 | ST: Keyboarding for Skill Development | 1 |
| 2040:240 | Human Relations <br> 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 | Global 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 Taxation | 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 |
| 2540:263 | Professional Communications and Presentations or | 3 |
| 7600:106 | Effective Oral Communication | 3 |
| 2540:289 | Career Development for Business Professionals | 3 |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3600:120 | Introduction to Ethics | 3 |
| 6200:250 | Microcomputer Applications for Business | $\underline{3}$ |

## Data Management Option - Microsoft Networking Emphasis

Local area networks (LANs) have either supplemented or replaced mainframe computing systems. The increased reliance on LANs has led to a shortage of qualified local area network administrators. Wayne College's associate degree in Business Management Technology-Data Management Option: Novell Networking Emphasis or Microsoft Networking Emphasis will prepare you to meet the challenge of an exciting career in the computer networking and information technology industry. The Novell Networking Emphasis incorporates Novell, Inc. standard courses and prepares students to qualify for Novell's Certified Novell Engineer (CNE) certification. Wayne College has been designated a Microsoft IT Academy and the Microsoft Networking Emphasis supports the Microsoft Certified Systems Administrator (MCSA) certification.
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 |
| :--- | :--- |
| 2540:290 | ST: Keyboarding for Skill Development |
| 2030:151,152 | Technical Mathematics I, II |
| 2040:240 | Human Relations |
| 2040:247 | Survey of Basic Economics |
| $2040: 260$ | The Arts and Human Experience |
| $2420: 103$ | Essentials of Management Technology |
| $2420: 104$ | Introduction to Business in the Global Environment |
| $2420: 202$ | Elements of Human Resource Management |
| $2420: 211$ | Basic Accounting I |
| $2420: 243$ | Survey in Finance |
| $2420: 280$ | Essentials of Business Law |
| $2440: 145$ | Operating Systems\#\$ |
| $2520: 101$ | Essentials of Marketing Technology |
| $2540: 119$ | Business English |
| $2540: 263$ | Professional Communications and Presentations |
| $2600: 240$ | Microsoft Networking I\# |
| $2600: 242$ | Microsoft Networking II\# |
| $2600: 244$ | Microsoft Networking III\# |
| $2600: 246$ | Microsoft Networking IV\# |
| $2600: 252$ | Microsoft Networking V\# |
| $2600: 270$ | Introduction to Network Technologies+ |
| $3300: 111$ | English Composition I |
| $7600: 106$ | Effective Oral Communication |
|  | Physical Education/Wellness |

## Credits

2440:105 Introduction to Computers and Application Software 3 1

2030:151,152 Technical Mathematics I, II
Survey of Basic Economics
2040:260 The Arts and Human Experience
Introduction to Business in the Global Environment
Elements of Human Resource Management
Basic Accounting
Essentials of Business Law
Operating Systems\#\$
Business English
Professional Communications and Presentations
oft Networking

Microsof Neworing IIf
icrosoft Networking IV\#
2600:270 Introduction to Network Technologies+ 4
3

2420:104
$2420 \cdot 243$
2420:280

2540:263
600.240
effective Oral Communication
anagement Option - Novell Networking Emphasis

| $2030: 151$ | Technical Mathematics I |
| :--- | :--- |
| $2030: 152$ | Technical Mathematics II |
| $2040: 240$ | Human Relations |
| $2040: 247$ | Survey of Basic Economics |
| $2040: 260$ | The Arts and Human Experience |
| $2420: 103$ | Essentials of Management Technology |
| $2420: 104$ | Intro. to Business in the Global Environment |
| $2420: 202$ | Elements of Human Resource Management |
| $2420: 211$ | Basic Accounting I |
| $2420: 243$ | Survey in Finance |
| $2420: 280$ | Essentials of Business Law |
| $2440: 145$ | Operating Systems\#\$ |
| $2520: 101$ | Essentials of Marketing Technology |
| $2540: 119$ | Business English |
| $2540: 263$ | Professional Communications and Presentations |
| $2600: 270$ | Introduction to Network Technologies+ |
| $2600: 272$ | Novell Networking I@ |
| $2600: 274$ | Novell Networking II@ |
| $2600: 276$ | Novell Networking III@ |
| $2600: 278$ | Novell Networking IV@ |
| $2600: 282$ | Novell Networking V@ |
| $3300: 111$ | English Composition I |
| $7600: 106$ | Effective Oral Communication |
| $5540: x x x$ | Physical EducationNVellness |

(a) Fulfills course requirements for Novell Inc. CNE certification program.

+ Fulfills course requirements for CompTIA's Network+ certification.
Credit hours are variable due to continuous updating of course content and certification requirements by Microsoft and Novell, Inc. It may be necessary to take additional elective credits to fulfill the credit hours necessary for program completion
\# Fulfills course requirements for Microsoft MCSA certification program
\$ Fulfills course requirements for Comp TIA's A+ OS certification.


## Data Management Option - Software Emphasis

Wayne College's associate degree in Business Management Technology-Data Management: Software Emphasis can prepare you to meet the challenge of many exciting advancements being made in the Information Technology industry. The program prepares you to effectively use computers in a business environment. Graduates of this program will be prepared to fill first-level positions where computers are used in office management, computer sales, computer support, or Internet document creation and management.
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: Keyboarding for Skill Development 1

2030:151 Technical Mathematics I 2
2030:152 Technical Mathematics II 2
2040:240 Human Relations
2040:247 Survey of Basic Economics
2040:260 The Arts and Human Experience
2420:103 Essentials of Management Technology
2420:104 Introduction to Business in the Global Environment
2420:202 Elements of Human Resource Management
2420:211 Basic Accounting I
2420:243 Survey in Finance
2420:280 Essentials of Business Law
2440:121 Introduction to Logic/Programming
2440:125 Spreadsheet Software
2440:140 Internet Tools
2440:145 Operating Systems\#\$
2440:170 Visual BASIC
2440:245 Introduction to Databases for Micros
2520:101 Essentials of Marketing Technology
2540:119 Business English
2540:263 Professional Communications and Presentations
3300:111
5540:xxx
7600:106

English Composition I
Physical Education/Wellness
Effective Oral Communication

## General Business Option

The General Option provides training in varied business activities in preparation for an entry-level management position in business, industry, government and nonprofit organizations or as a self-employed manager.

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: Keyboarding for Skill Development | 1 |
| 2040:240 | Human Relations | 3 |
|  | or |  |
| 3750:100 | Introduction to Psychology | 3 |
| 2040:247 | Survey of Basic Economics | 3 |
|  | or |  |
| 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 | Global Business Concepts and Practices | 3 |
| 2420:170 | Applied Mathematics for Business | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:212 | Basic Accounting II | 3 |
| 2420:218 | Automated Bookkeeping | 2 |
| 2420:243 | Survey in Finance | 3 |
| 2420:246 | Business Management Internship | 3 |
|  | or |  |
| 2420:250 | Problems in Business Management | 3 |
| 2420:280 | Essentials of Business Law | 3 |
|  | or |  |
| 6400:220 | The Legal and Social Environment of Business | 3 |
| 2440:125 | Spreadsheet Software | 2 |
| 2520:101 | Essentials of Marketing Technology | 3 |
| 2540:263 | Professional Communication and Presentations | 3 |
|  | or |  |
| 7600:106 | Effective Oral Communications | 3 |
| 2540:289 | Career Development for Business Professionals | 3 |
| 2880:232 | Labor Management Relations | 3 |


|  |  | Credits |
| :---: | :---: | :---: |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3600:120 | Introduction to Ethics | 3 |
| 6200:250 | Microcomputer Applications for Business | 3 |
| 6300:201 | Introduction to Entrepreneurship | 3 |
| 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 fo 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 cod ing insurance billing and financial analysis. |  |  |
| Students entering the program must demonstrate a fundamental knowledge 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: Keyboarding for Skill Development | 1 |
| 2040:240 | Human Relations | 3 |
|  | or |  |
| 3750:100 | Introduction to Psychology | 3 |
| 2040:251 | Human Behavior at Work | 3 |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2440:125 | Spreadsheet Software | 2 |
| 2530:241 | Health Information and Records Management | 3 |
| 2530:242 | Medical Office Administration | 3 |
| 2530:243 | Medical Coding | 3 |
| 2530:244 | Medical Insurance Billing | 3 |
| 2530:255 | Health Care Office Management \& Medicolegal Issues | 3 |
| 2530:260 | Health Care Office Management Internship |  |
| 2530:284 | Medical Office Techniques | 2 |
| 2530:290 | ST: Health Care Office Management | 2 |
| 2540:119 | Business English | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
| 2540:289 | Career Development for Business Professionals | 3 |
| 2740:120 | Medical Terminology | 3 |
| 2740:121 | Study of Disease Processes | 3 |
| 2740:230 | Basic Pharmacology | 3 |
| 3300:111 | English Composition I | 4 |
| 3600:101 | Introduction to Philosophy | 3 |
|  | or |  |
| 3600:120 | Introduction to Ethics | 3 |
| 5550:211 | First Aid \& CPR | 2 |
| 7600:106 | Effective Oral Communication | 3 |

## 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, legal 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: Keyboarding for Skill Development | 1 |


| Administrative Professional Option |  |
| :---: | :--- |
| 2040:240 | Human Relations <br>  <br> or |
| 3750:100 | Introduction to Psychology |
| 2040:256 | Diversity in American Society |
| $2420: 171$ | Business Calculations |
|  | or |
| $3470: 250$ | Statistics for Everyday Life |
| $2420: 211$ | Basic Accounting I |
|  | or |
| $6200: 201$ | Accounting Principles I |
| $2440: 125$ | Spreatsheet Software |
| $2540: 119$ | Business English |
| $2540: 121$ | Introduction to Office Procedures |
| $2540: 143$ | Microsoft Word: Beginning |
| $2540: 144$ | Microsoft Word: Advanced |
| $2540: 241$ | Information Management |


| 2540:243 | Internship |
| :--- | :--- |
| $2540: 253$ | Advanced Word Processing |
| $2540: 263$ | Professional Communications and Presentations |
| 2540:271 | Desktop Publishing |
| $2540: 273$ | Microsoft PowerPoint |
| $2540: 281$ | Editing/Proofreading/Transcription |
| $2540: 289$ | Career Development for Business Professionals |
| $2540: 290$ | ST: Speech Recognition Technology |
| $2540: 290$ | ST: Project Management |
| $3300: 111$ | English Composition I |
| $3600: 120$ | Introduction to Ethics |
| $7600: 106$ | Effective Oral Communication |
|  | Physical Education/Wellness |
|  | Natural Science electives |

Business Office Manager Option
Human Relations or
3750:100 Introduction to Psychology 3
2040.256 Diversity in American Society

2040:256
2420:103
2420:104
2420:202
2420:211
6200:201
2420:212
6200:202
2440:125
2540:119
2540:121
2540:143
2540:144
2540:241
2540:243
2540:253
2540:263
2540:271
2540:273
2540:289
2540:290
2540:290
3300:111
3600:120
7600:106
Diversity in American Society
Essentials of Management Technology
Introduction to Business in the Global Environment
Elements of Human Resource Management
Basic Accounting I
or
Accounting Principles I
Basic Accounting II
or
Accounting Principles II
Spreadsheet Software
Business English
Introduction to Office Procedures
Microsoft Word, Beginning
Microsoft Word, Advanced
Information Management
Internship
Advanced Word Processing
Professional Communications and Presentations
Desktop Publishing
Microsoft PowerPoint
Career Development for Business Professionals
ST: Speech Recognition Technology
ST: Project Management
English Composition I
Introduction to Ethics
Effective Oral Communication

Physical Education/Wellness
Legal Administrative Assistant Option
2040:240
Human Relations
3750:100 Introduction to Psychology 3
2040:256 Diversity in American Society 2
2420:171 Business Calculations 3
3470:250 Statistics for Everyday Life 4
2420:211 Basic Accounting I 3
6200:201 Accounting Principles I 3
2420:280 Essentials of Business Law 3
6400:220 Legal and Social Environment of Business
2440:125 Spreadsheet Software 2
2540:119 Business English
2540:121 Introduction to Office Procedures 3
2540:143 Microsoft Word Beginning
2540:144 Microsoft Word, Advanced
2540:241 Information Management 3
2540:243 Internship 3
2540:253 Advanced Word Processing 3
2540:263 Professional Communications and Presentations 3
2540:271 Desktop Publishing 3
Microsoft PowerPoint
2540:279 Legal Office Procedures
2540:281 Editing/Proofreading/Transcription
2540:289 Career Development for Business Professionals
2540:290 ST: Speech Recognition Technology
2540:290 ST: Project Management
English Composition I
Introduction to Ethics
Effective Oral Communication
Physical Education/Wellness
$\frac{1}{68}$

Health Care Administrative Assistant Option

|  |  |
| :--- | :--- |
| 2040:240 | Human Relations |
| 3750:100 | or |
| 2420:171 | Introduction to Psychology |
|  | Business Calculations |
| $2420: 211$ | Basic Accounting I |
| $2440: 125$ | Spreadsheet Software |
| $2530: 241$ | Health Information and Management |
| $2530: 242$ | Medical Office Administration |
| $2530: 243$ | Medical Coding |
| $2530: 244$ | Medical Insurance Billing |
| $2530: 284$ | Medical Office Techniques |
| $2540: 119$ | Business English |
| $2540: 121$ | Introduction to Office Procedures |
| $2540: 143$ | Microsoft Word Beginning |
| $2540: 144$ | Microsoft Word Advanced |
| $2540: 243$ | Internship |
| $2540: 263$ | Professional Communications and Presentations |
| $2540: 282$ | Medical Machine Transcription |
| $2540: 289$ | Career Development for Business Professionals |
| $2540: 290$ | ST: Voice Recognition Technology |
| $2740: 120$ | Medical Terminology |
| $2740: 121$ | Study of Disease Processes |
| $2740: 230$ | Basic Pharmacology |
| $3300: 111$ | English Composition I |
| $3600: 101$ | Introduction to Philosophy |
| $3600: 120$ | or |
| $5550: 211$ | Introduction to Ethics |
| $7600: 106$ | First Aid and CPR |
|  | Effective Oral Communications |
|  |  |

2600: Computer Network Engineering Technology
This program prepares students for employment in support of computer systems in a networked environment. The program also prepares students to design and implement a networked computer environment. Students will be prepared to configure, install, maintain, upgrade, troubleshoot, and repair various networked computer systems used in manufacturing and service enterprises. Students will also be prepared to support hardware areas of computer network system communications and related electronics including power supplies, memory, microprocessors, and the interface between the system and peripheral components. Additionally, students will be prepared to support and implement software areas of computer operating systems, such as DOS/Windows, UNIX/LINUX, Microsoft network operating systems, and Novell network operating systems.
The Microsoft networking courses satisfy Microsoft's Certified Systems Engineer (MCSE) course requirements. The Novell NetWare networking courses satisfy Novell's Certified Novell Engineer (CNE) course requirements.
Graduates of this program have assumed positions in the computer and networking support industry such as network engineer, network administrator, computer service technician, systems analyst, networking technician, PC specialist, and computer systems specialist.

| 2020:222 | Technical Report Writing |
| :--- | :--- |
| 2030:151 | Technical Math I |
| 2030:152 | Technical Math II |
| 2440:251 | Human Behavior at Work |
| 2440:145 | Introduction to Logic/Programming |
| 2600:100 | Operating Systems\#\$ |
| 2600:125 | Basic Electronics for Technicians |
| 2600:160 | Digital Electronics for Technicians |
| 2600:180 | Personal Computer Servicing^ |
| 2600:185 | Microprocessor Service Practicum |
| 2600:270 | Introprocessor Service Practicum Seminar |
| 3300:111 | English Composition I Technologies+ |
| $7600: 106$ | Effective Oral Communications |
|  | Physical Education/Wellness |
|  | Technical Electives |

\# Fulfills course requirements for Microsoft MCSA certification program.
@ Fulfills course requirements for Novell, Inc. CNE certification program

* Credit hours are variable due to continuous updating of course content and certification requirements by Microsoft and Novell, Inc. It may be necessary to take additional elective credits to fulfill the credit hours necessary for program completion.
\$ Fulfills course requirements for Comp TIA's A+ OS certification.

Microsoft Networking Option*

|  |  | Credits |
| :--- | :--- | :---: |
| 2020:222 | Technical Report Writing | 3 |
| 2030:151 | Technical Mathematics I | 2 |
| 2030:152 | Technical Mathematics II | 2 |
| 2040:251 | Human Behavior at Work | 3 |
| 2440:121 | Introduction to Logic/Programming | 3 |
| 2440:145 | Operating Systems\#\$ | 3 |
| 2600:100 | Basic Electronics for Technicians | 5 |
| 2600:125 | Digital Electronics for Technicians | 4 |
| 2600:160 | Personal Computer Servicing | 4 |
| 2600:180 | Microprocessor Service Practicum | 4 |
| 2600:185 | Microprocessor Service Practicum Seminar | 2 |
| 2600:240 | Microsoft Networking I\# | 1 |
| 2600:242 | Microsoft Networking II\# | $1-4^{*}$ |
| 2600:244 | Microsoft Networking III\# | $1-4^{*}$ |
| 2600:246 | Microsoft Networking IV\# | $1-4^{*}$ |
| 2600:252 | Microsoft Networking V\# | $1-4^{*}$ |
| 2600:254 | Microsoft Networking VI\# | $1-4^{*}$ |
| 2600:256 | Microsoft Networking VII\# | $1-4^{*}$ |
| 2600:270 | Introduction to Network Technologies+ | $1-4^{*}$ |
| 3300:111 | English Composition I | 2 |
| 7600:106 | Effective Oral Communications | 4 |
|  | Physical Education/Wellness | 3 |
|  | Electives | 1 |
|  |  | $\underline{2}$ |

Novell Networking Option*
2020:222 Technical Report Writing 3

2030:151 Technical Mathematics I 2
2030:152 Technical Mathematics II 2
2040:251 Human Behavior at Work 3
2440:121 Introduction to Logic/Programming 3
2440:140 Internet Tools 3
2440:145 Operating Systems\#\$ 3
2600:100 Basic Electronics for Technicians
2600:125 Digital Electronics for Technicians
2600:160 Personal Computer Servicing^
2600:180 Microprocessor Service Practicum
2600.185 Microprocessor Service Practicum Seminar 1

2600:270 Introduction to Network Technologies + 2
$2600 \cdot 272$ Novell Networking @ -
2600:274 Novell Networking II@
2600:276 Novell Networking III@
2600:278 Novell Networking IV@
2600:282 Novell Networking V@
3300:111 English Composition I $\quad 4$
7600:106 Effective Oral Communications 3
Physical Education/Wellness
Electives
1
$0-14^{*}$
64

* No new students will be accepted to this program effective Fall 2006.

[^16]
## 2800: Environmental Health and Safety Technology

This program prepares students for employment in business, industry, and government as environmental health and safety technicians. The environmental health and safety technician carries out organizational plans intended to ensure a healthy and safe work and community environment. Specifically, the technician monitors, records, and reports on the handling, processing, and disposal of materials and products in compliance with local, state, federal, and organizational standards and trains and advises supervisory and operational personnel in the provision of a safe and healthy environment.

Graduates of the program will possess knowledge and laboratory skills sufficient to enable them to understand, communicate, and effectively address most environmental health and safety issues and will understand the legal and regulatory system within which modern industry operates. Environmental consulting firms, manufacturers, medical facilities, regulatory agencies, and waste treatment plants can hire graduates in entry-level positions to monitor and control wastes and to assist them in complying with local, state, and federal regulations and regulatory agencies.

| $2020: 222$ | Technical Report Writing |
| :--- | :--- |
| $2040: 251$ | Human Behavior at Work |
| $2230: 250$ | Hazardous Materials |
| $2230: 257$ | Fire and Safety Issues for Business and Industry |
| $2420: 104$ | Introduction to Business in the Global Environment |
| $2800: 200$ | Physics for Environmental Technicians |
| $2800: 210$ | Occupational Safety and Risk |
| $2800: 220$ | Environmental Law and Regulations |
| $2800: 221$ | Environmental Law and Regulations II |
| $2800: 230$ | Water and Atmospheric Pollution |
| $2800: 232$ | Environmental Sampling Laboratory |
| $2800: 250$ | Internship: Environmental Health and Safety |
| $2800: 290$ | ST: Environmental Management and Sustainability |
|  | or |
| $3100: 104$ | Introduction to Ecology Laboratory |
|  | and |
| $3100: 105$ | Introduction to Ecology |
| $3100: 130$ | Principles of Microbiology |
| $3150: 110$ | Introduction to General, Organic and Biochemistry I |
| $3150: 111$ | Introduction to General, Organic and Biochemistry Laboratory I |
| $3150: 112$ | Introduction to General, Organic and Biochemistry II |
| $3150: 113$ | Introduction to General, Organic and Biochemistry Laboratory II |
| $3300: 111$ | English Composition I |
| $3370: 200$ | Environmental Geology |
| $3470: 260$ | Basic Statistics |
| $3600: 120$ | Introduction to Ethics |
| $5550: 211$ | First Aid and CPR |
| $6200: 250$ | Microcomputer Applications for Business |
| $7600: 106$ | Effective Oral Communications |

Credits2040:2513Hazardous Materials32230:257 Fire and Safety Issues for Business and IndustryIntroduction to Business in the Global Environment
Physics for Environmental Technicians
Occupational Safety and Risk
Environmental Law and Regulations
Environmental Law and Regulations
Water and Atmospheric Pollution
Environmental Sampling Laboratory
Internship: Environmental Health and Safety
ST: Environmental Management and Sustainability
Introduction to Ecology Laboratory
Introduction to Ecology1

        Principles of Microbiology ..... 2
    3100:130 Principles of Microbiology33150:111Introduction to General, Organic and Biochemistry Laboratory I3
3150:112Introduction to General, Organic and Biochemistry Laboratory I33300:1113370:200 Environmental Geology4Introduction to EthicsFirst Aid and CPR
7600:106
Effective Oral Communications

## Environmental Health and Safety Technology Minor

A minor in Environmental Health and Safety Technology provides students and business and industry professionals with a course of study designed specifically to focus on the most applicable areas within the environmental and safety management field that pertain to the industrial manufacturing sector.

| Required courses: |  |
| :--- | :--- |
| $2230: 250$ | Hazardous Materials |
| $2800: 210$ | Occupational Safety and Risk |
| $2800: 220$ | Environmental Law and Regulations |
| $2800: 230$ | Water and Atmospheric Pollution |
| $2800: 290$ | Special Topics: Environmental Health and Safety Technology |
|  | Electives || 4 |
| ---: |
| 3 |
| 3 |
| 3 |
| 3 |
| 6 |
| 22 |
|  |
| 3 |
| 3 |
| 3 |
| 3 |
| 3 |
| 3 |
| 2 |
| 4 |
| 4 |

## CERTIFICATE PROGRAIMS

Certificate programs are designed to provide students with specialized job training 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, Environmental Health and Safety Technology or Computer Service and Network Technology degrees.

## Environmental Health and Safety Management Certificate

The Environmental Health and Safety Management Certificate provides students and business and industry professionals with a course of studied designed specifically to focus on the most applicable areas within the environmental and safety management field that pertain to the industrial manufacturing sector.

|  |  | Credits |
| :--- | :--- | :---: |
| 2230:250 | Hazardous Materials | 4 |
| 2420:103 | Essentials of Management Technology | 3 |
| 2420:104 | Introduction to Business in the Global Environment | 3 |
| 2420:202 | Elements of Human Resource Management | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2800:210 | Occupational Safety and Risk | 3 |
| 2800:220 | Environmental Law and Regulations | 3 |
| 2800:230 | Water and Atmospheric Pollution | 3 |
| 2800:290 | Special Topics: Environmental Health and Safety Technology | $\underline{3}$ |
|  |  | 28 |

## Gerontological Social Services Certificate

Recipients of this certificate gain knowledge and skills to support social service employment in nursing homes, retirement communities, senior centers and nutrition sites, and similar settings. Although the elderly are the fastest growing group in our society and there are growing demands for individuals to work with older adults, there is a shortage of workers with specialized training in the field of aging. Therefore, this certificate enhances employability, especially when combined with an associate degree in Social Services Technology. With just one additional credit, it is possible to receive a Certificate in Therapeutic Activities.

| 2260:121 | Social Service Techniques I | 3 |
| :--- | :--- | ---: |
| 2260:122 | Social Service Techniques II | 3 |
| 2260:150 | Introduction to Gerontological Services | 3 |
| 2260:171 | Career Issues in Social Services I | 1 |
| 2260:172 | Career Issues in Social Services II | 1 |
| 2260:251 | Community Services for Senior Citizens | 3 |
| 2260:275 | Therapeutic Activities | 3 |
| 2260:285 | Social Services Practicum I | $1-2$ |
| 2260:294 | Social Services Practicum Seminar | 1 |
| 3100:103 | Natural Science: Biology | 4 |
| 3100:108 | Introduction to Biological Aging | 3 |
| 3300:111 | English Composition I | 4 |
| 7750:276 | Introduction to Social Welfare | $\underline{4}$ |

## 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 |
| $2420: 104$ | Introduction 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 | $\underline{3}$ |
|  |  | 32 |

## Legal Office Assistant Certificate

This certificate prepares students for an entry-level office support position in the legal field. The program focuses on business law, legal office procedures, communication, and computer skills. The legal office assistant may find employment in law firms, corporate legal departments, legal clinics, and city, county, state and federal government offices. All coursework is applicable to the Legal Administrative Assistant associate degree. Office Technology-Administrative Professional students may want to consider obtaining this certificate in conjunction with their associate degree to increase employment opportunities.
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 |
| :--- | :--- |
| $2540: 143$ | Microsoft Word, Beginning |
| $2540: 290$ | ST: Keyboarding for Skill Development |
|  |  |
| Required: |  |
| $2420: 171$ | Business Calculations |
| $2420: 280$ | Essentials of Business Law |
| $2440: 125$ | Spreadsheet Software |
| $2540: 119$ | Business English |
| $2540: 121$ | Introduction to Office Procedures |
| $2540: 144$ | Microsoft Word, Advanced |
| $2540: 253$ | Advanced Word Processing |
| $2540: 263$ | Professional Communication and Presentations |
| $2540: 279$ | Legal Office Procedures |
| $2540: 281$ | Editing/Proofreading/Transcription |
| $2540: 289$ | Career Development for Business Professionals |
| $2540: 290$ | ST: Speech Recognition Technology |


| Credits |
| :---: |
| 3 |
| 2 |
| 1 |
|  |
|  |
| 3 |
| 3 |
| 2 |
| 3 |
| 3 |
| 2 |
| 3 |
| 3 |
| 4 |
| 3 |
| 3 |
| 2 |
| 34 |

## Medical Billing Certificate

The Medical Billing Certificate is designed for those who wish to become medical billing specialists. This certificate will prepare individuals 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.

| $2440: 105$ | Introduction to Computers and Application Software | 3 |
| :--- | :--- | :---: |
| $2540: 290$ | ST: Keyboarding for Skill Development | 1 |
| Required: |  |  |
| $2420: 211$ | Basic Accounting I | 3 |
| $2440: 125$ | Spreadsheet Software | 2 |
| $2530: 241$ | Health Information and Records Management | 3 |
| $2530: 242$ | Medical Office Administration | 3 |
| $2530: 243$ | Medical Coding | 3 |
| $2530: 244$ | Medical Insurance Billing | 3 |
| $2540: 119$ | Business English | 3 |
| $2540: 143$ | Microsoft Word, Beginning | 2 |
| $2540: 263$ | Professional Communication and Presentations | 3 |
| $2740: 120$ | Medical Terminology | 3 |
| $2740: 121$ | Study of Disease Processes | $\frac{3}{31}$ |

## Medical Transcription Certificate

There is substantial demand for high-quality, professional medical transcriptionists. This certificate will prepare individuals for entry-level positions in physicians' offices, hospitals, clinics, medical centers, government facilities, transcription services, and home offices.
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
> 2540:290
> Required:
> 2530:241
> 2530:242
> 2540:119
> 2540:121
> 2540:143
> $2540: 144$
> $2540: 263$
> $2540: 282$
> $2540: 290$
> $2740: 120$
> $2740: 121$
> $2740: 230$

## Mental Health Social Services Certificate

The Mental Health Social Services Certificate is designed to meet the needs of individuals preparing for social service work in the mental health field in positions such as Crisis Assistant, Family Resource Specialist, Recovery Assistant, Vocational Rehabilitation Assistant, Mental Health Technician, and Case Management Assistant. Training includes knowledge of the development and functioning of the mental health system, an overview of causes and symptoms of major mental disorders, understanding and sensitivity regarding those suffering with severe and chronic mental disorders, and development of skills in preparation for entry-level, paraprofessional positions in the mental health field.

| $2260: 120$ | Introduction to Mental Health Services | 3 |
| :--- | :--- | :--- |
| $2260: 121$ | Social Service Techniques I | 3 |
| $2260: 122$ | Social Service Techniques II | 3 |
| $2260: 171$ | Career Issues in Social Services I | 1 |
| $2260: 172$ | Career Issues in Social Services II | 1 |
| $2260: 220$ | Therapeutic Techniques in Mental Health | 3 |
| $2260: 223$ | Social Service Techniques III | 3 |
| $2260: 260$ | Introduction to Addiction | 3 |
| $2260: 285$ | Social Services Practicum I | 1 |
| $2260: 294$ | Social Services Practicum Seminar | 1 |
| 3750:100 | Introduction to Psychology | 3 |
| $7750: 276$ | Introduction to Social Welfare | $\underline{4}$ |

## Network Management Specialist Certificate

Local area networks (LANs) have either supplemented or replaced mainframe computing systems. The increased reliance on LANs has led to a shortage of qualified local area network administrators. Wayne College's Network Management Specialist certificate will prepare you to meet the challenge of an exciting career in the computer networking and information technology industry. The certificate incorporates Novell, Inc. standard courses and prepares you to qualify for Novell's Certified Novell Engineer (CNE) certification. CNE certification is highly regarded by the computing industry.
Students completing this certificate will be prepared to fill first-level positions requiring skills in local area network administration and support.

| $2040: 240$ | Human Relations | 3 |
| :--- | :--- | ---: |
| $2420: 103$ | Essentials of Management Technology | 3 |
| $2420: 104$ | Introduction to Business in the Global Environment | 3 |
| $2440: 145$ | Operating Systems\#\$ | 3 |
| $2540: 119$ | Business English | 3 |
| $2540: 263$ | Professional Communication and Presentations | 3 |
| $2600: 270$ | Introduction to Network Technologies+ | 2 |
| $2600: 272$ | Novell Networking I@ | $1-4^{*}$ |
| $2600: 274$ | Novell Networking II@ | $1-4^{*}$ |
| $2600: 276$ | Novell Networking II@@ | $1-4^{*}$ |
| $2600: 278$ | Novell Networking IV@ | $1-4^{*}$ |
| $2600: 282$ | Novell Networking V@ | $1-4^{*}$ |
|  |  | 33 |

[^17]
## Office Software Specialist Certificate

This certificate will instruct students to use the most popular software packages used in today's modern offices as well as the written and oral communications skills that employers require. All credits are applicable to the Associate of Applied Business Degree in Office Technology - Administrative Professional option.
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 |
| :--- | :--- |
| 2540:143 | Microsoft Word, Beginning |
| 2540:290 | ST: Keyboarding for Skill Development |
| Required: |  |
| $2440: 125$ | Spreadsheet Software |
| $2540: 119$ | Business English |
| $2540: 121$ | Introduction to Office Procedures |
| $2540: 144$ | Microsoft Word, Advanced |
| $2540: 241$ | Information Management |
| $2540: 253$ | Advanced Word Processing |
| $2540: 263$ | Professional Communication and Presentations |
| $2540: 271$ | Desktop Publishing |
| $2540: 273$ | Microsoft PowerPoint |
| $2540: 289$ | Career Development for Business Professionals |
| $2540: 290$ | Special Topics: Office Administration |
| $7600: 106$ | Effective Oral Communication |

2440:105
2540:143
250:290
2440:125
2540:119
2540:121
2540:241
2540:253
2540:263 Professional Communication and Presentations
Desktop Publishing
2540:289 Career Development for Business Professionals

Effective Oral Communication

## Personal Computer Repair Certificate

Wayne College's Personal Computer Repair Certificate prepares you for a career as a computer repairer, often called a field engineer or service technician. You will be prepared to perform functions such as installing new machines, doing preventive maintenance, and correcting emergency problems.

Wayne College's Personal Computer Repair Certificate prepares you to fill entrylevel positions servicing and maintaining computers in businesses where they are sold or used in daily operations. Typical job titles include:Customer Service Engineer, Field Engineer, Computer Service Technician, Bench Technician, Computer and Office Machine Repairer, Data Processing Equipment Repairer, Computer Salesperson

| $2020: 222$ | Technical Report Writing |
| :--- | :--- |
| $2030: 151$ | Technical Mathematics I |
| $2030: 152$ | Technical Mathematics II |
| 2040:251 | Human Behavior at Work |
| $2440: 145$ | Operating Systems\#\$ |
| $2600: 100$ | Basic Electronics for Technicians |
| $2600: 160$ | Personal Computer Servicing $\wedge$ |
| $2600: 180$ | Microprocessor Service Practicum |
| $2600: 185$ | Microprocessor Service Practicum Seminar |
| $3300: 111$ | English Composition I |
| $7600: 106$ | Effective Oral Communication |

## 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 |
| :--- | :--- |
| $2260: 251$ | Community Services for Senior Citizens |
| 2260:275 | Therapeutic Activities |
| 2260:276 | Practicum in Therapeutic Activities |

## 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
2020:290
2020:290
2540:273

> Technical Report Writing
> Special Topics: Information Design
> Special Topics: Ethical Issues in Workplace Communication
> Microsoft PowerPoint

2540:273

## GENERAL EDUCATION/ TRANSFER PROGRAM

Credits
3
3
3

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 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. 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

First Year
3100:111 Principles of Biology $1 \quad 4$

3100:112 Principles of Biology II
150.151

3150:152
3150:153
3150:154
3300:111
3300:112
3450:145
3450:149

## Second Year

3100:211
3100:217
3150:263
3150:264
3150:265
3150:266
3400:210
Principles of Biology II
Principles of Chemistry
Principles of Chemistry I Lab
Principles of Chemistry II
Qualitative Analysis
English Composition I
English Composition II
College Algebra
Precalculus Mathematics

General Genetics
General Ecology
Organic Chemistry Lecture I
Organic Chemistry Lecture II
Organic Chemistry Laboratory I
Organic Chemistry Laboratory II
Humanities in the Western Tradition I
Physical Education/Wellness
Beginning Foreign Language
Social Science Requirement

## 3150: Chemistry

First Year
3150:151
3150:152
3150:153
3150:154
3300:111
3300:112
3450:149
3450:221

Principles of Chemistry I
Principles of Chemistry I Lab
Principles of Chemistry
Qualitative Analysis
English Composition I
English Composition II
Precalculus Mathematics
Analytic Geometry-Calculus I
Physical Education/Wellness
Foreign Language Requirement
or
Social Science Requirement

| Second Year |  | Credits |
| :--- | :--- | ---: |
| 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 |
| 3450:222 | Analytic Geometry-Calculus II | 4 |
| 3540:223 | Analytic Geometry-Calculus II | 4 |
| 3650:291 | Elementary Classical Physics I | 4 |
| 3650:292 | Elementary Classical Physics II | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Foreign Language Requirement | $6-8$ |
|  | or |  |
|  | Social Science Requirement | $\underline{6}$ |

3250: Economics
First Year

| First Year |  |
| :--- | :--- |
| 3300:111 | English Composition I |
| 3300:112 | English Composition II |
| 3450:145 | College Algebra |
| 3450:215 | Concepts of Calculus |
| $7600: 106$ | Effective Oral Communication |
|  | Beginning Foreign Language |
|  | Natural Science Requirement |
|  | Physical Education/Wellness |


| Second Year |  |
| :--- | :--- |
| $3400: 210$ | Humanities in the Western Tradition I |
| 3250:200 | Principles of Microeconomics |
| 3250:201 | Principles of Macroeconomics |
|  | Areas Studies/Cultural Diversity Requirement |
|  | Humanities Requirement |
|  | Intermediate Foreign Language |
|  | Social Science Requirement |
|  | Electives |


| 3250:01 |  |
| :---: | :--- |
| First Year | Labor Economics* |
| 3250:200 | Principles of Microeconomics |
| $3250: 201$ | Principles of Macroeconomics |
| $3300: 111$ | English Composition I |
| $3300: 112$ | English Composition II |
| $3450: 145$ | College Algebra |
| $3450: 215$ | Concepts of Calculus |
| $7600: 106$ | Effective Oral Communication |
|  | Physical Education/Wellness |
|  | Electives |

Second Year
3400:210
Humanities in the Western Tradition I

Areas Studies/Cultural Diversity Requirement
Humanities Requirement
Natural Science Requirement
Social Science Requirement
Electives

## 3300: English*

| First Year |  |
| :--- | :--- |
| 3300:111 | English Composition I |
| 3300:112 | English Composition II |
| 7600:106 | Effective Oral Communication |
|  | Beginning Foreign Language |
|  | Mathematics Requirement |
|  | Physical Education/Wellness |
|  | Social Science Requirement |
|  | Electives |

## Second Year

3400:210

Humanities in the Western Tradition I
Areas Studies/Cultural Diversity Requirement
Humanities Requirement
Intermediate Foreign Language
Natural Science Requirement
Electives

| 3350: Geography and Planning* |  |  |
| :---: | :---: | :---: |
| First Year |  | Credits |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3350:100 | Introduction to Geography | 3 |
|  | Mathematics Requirement | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Beginning Foreign Language | 8 |
|  | Physical Education/Wellness | 1 |
|  | Social Science Requirement | 3 |
|  | Electives | 4 |
|  |  | 32 |
| Second Year |  |  |
| 3400:210 | Humanities in the Western Tradition I | 4 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement |  |
|  | Intermediate Foreign Language | 6 |
|  | Natural Science Requirement |  |
|  | Electives | 4 |
|  |  | 32 |
| 3370: Geology (and Geophysics)** |  |  |
| First Year |  |  |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3150:151 | Principles of Chemistry I | 3 |
| 3150:152 | Principles of Chemistry I Laboratory | , |
| 3150:153 | Principles of Chemistry II (optional for B.A.) | 3 |
| 3150:154 | Qualitative Analysis (optional for B.A. and B.S.) | 2 |
| 3370:101 | Introduction to Physical Geology | 4 |
| 3450:149 | Precalculus Mathematics |  |
| 3450:221 | Analytic Geometry-Calculus I (for B.S.) | 4 |
|  | Physical Education/Wellness | 1 |
|  | Social Science Requirement | 6 |
|  | Electives (for B.A.) | 4-9 |
|  |  | 35 |
| Second Year |  |  |
| 3100:111 | Principles of Biology I (for B.A.) or | 4 |
| 3450:222 | Analytic Geometry-Calculus II (for B.S.) | 4 |
| 3370:102 | Introductory Historical Geology | 4 |
| 3400:210 | Humanities in the Western Tradition ${ }^{* *}$ | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement** | 6 |
|  | Beginning Foreign Language | 8 |
|  |  | 33 |
| 3400: History |  |  |
| First Year |  |  |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3400:250 | U.S. History to 1877 | 4 |
| 3400:251 | U.S. History since 1877 | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Beginning Foreign Language | 8 |
|  | Mathematics Requirement | 3 |
|  | Physical Education/Wellness | 1 |
|  | Social Science Requirement | $\frac{3}{33}$ |
| Second Year |  |  |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| 3400:323 | Europe: From Revolution to World War, 1789-1914 | 3 |
| 3400:324 | Europe: From World War I to the Present | 3 |
|  | Areas Studies/Cultural Diversity Requirement | , |
|  | Humanities Requirement | 6 |
|  | Intermediate Foreign Language | 6 |
|  | Natural Science Requirement | 8 |
|  |  | 34 |

## 3450: Mathematics (and Applied Mathematics)*

(see 3470: Statistics)

[^18][^19]| 3460: Computer Science* |  | Credits |
| :---: | :---: | :---: |
| First Year |  |  |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3450:221 | Analytic Geometry-Calculus I | 4 |
| 3460:209 | Introduction to Computer Science | 4 |
|  | Beginning Foreign Language | 8 |
|  | Physical Education/Wellness | 1 |
|  | Natural Science Requirement | 8 |
|  |  | 32 |
| Second Year |  |  |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| 3450:222 | Analytic Geometry-Calculus II | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Area Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement | 6 |
|  | Intermediate Foreign Language | 6 |
|  | Social Science Requirement | 6 |
|  |  | 33 |
| 3470: Statistics* |  |  |
| First Year |  |  |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3450:221 | Analytic Geometry-Calculus I | 4 |
| 3450:222 | Analytic Geometry-Calculus II | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Natural Science Requirements | 8 |
|  | Physical Education/Wellness | 1 |
|  | Social Science Requirements | 6 |
|  | or |  |
|  | Beginning Foreign Language | 8 |
|  |  | 33-35 |
| Second Year |  |  |
| Students attending part time, or who are ineligible to take 3450:221 during the first year 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. |  |  |
| 3700: Political Science* |  |  |
| First Year |  |  |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3700:100 | Government and Politics in the U.S. | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Beginning Foreign Language | 8 |
|  | Mathematics Requirement | 3 |
|  | Physical Education/Wellness | 1 |
|  | Social Science Requirement | 3 |
|  | Electives | 3 |
|  |  | 32 |
| Second Year |  |  |
| 3400:210 | Humanities in the Western Tradition I | 4 |
|  | Areas Studies/Cultural Diversity Requirement |  |
|  | Humanities Requirement | 6 |
|  | Intermediate Foreign Language | 6 |
|  | Natural Science Requirement | 8 |
|  | Electives | 4 |
| 3750: Psychology* 32 |  |  |
|  |  |  |
| First Year |  |  |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 3750:105 | Professional and Career Issues in Psychology | 1 |
| 3850:100 | Introduction to Sociology | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Beginning Foreign Language | 8 |
|  | Mathematics Requirement | 3 |
|  | Physical Education/Wellness | 1 |
|  | Electives | 2 |
|  |  | 32 |
| Second Year |  |  |
| 3400:210 | Humanities in the Western Tradition I | 4 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement | 6 |
|  | Intermediate Foreign Language | 6 |
|  | Natural Science Requirement | 8 |
|  | Electives | $\frac{4}{32}$ |

[^20]| First Year |  | Credits |
| :---: | :---: | :---: |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3850:100 | Introduction to Sociology | 4 |
| 3850:310 | Social Problems | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Beginning Foreign Language | 8 |
|  | Mathematics Requirement | 3 |
|  | Physical Education/Wellness | 1 |
|  | Social Science Requirement | $\frac{3}{32}$ |
| Second Year |  |  |
| 3230:150 | Cultural Anthropology | 4 |
| 3400:210 | Humanities in the Western Tradition I | 4 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement | 6 |
|  | Intermediate Foreign Language | 6 |
|  | Natural Science Requirement | 8 |

4200: Chemical Engineering* First Year
3150:151 Principles of Chemistry I 3

3150:152 Principles of Chemistry I Laboratory
3150:153 Principles of Chemistry II
3150:154
3300:111
3300:112 English Composition II
340.221 Andic 3

3450:222 Andic Geomell
4100:101 Tools for Engineering
7600:106
Effective Oral Communication
Social Science Requirement
Physical Education/Wellness
Second year
3150:263 Organic Chemistry Lecture I

| $3150: 264$ | Organic Chemistry Lecture II | 3 |
| :--- | :--- | :--- |
| 15 |  |  |

3250:244
3250:244
3400:210
3450:223
3450:335
$3650 \cdot 291$
3650:292
4300:201
Organic Chemistry Lecture II
Introduction to Economic Analysis
Humanities in the Western Tradition I
Analytic Geometry-Calculus III
Introduction to Ordinary Differential Equations
Elementary Classical Physics II
Statics
4300: Civil Engineering*
First Year
$\begin{array}{lll}\text { First Year } & \text { Principles of Chemistry } 151 & 3\end{array}$
3150:152 Principles of Chemistry I Laboratory 1
3150:153 Principles of Chemistry II 3
English Composition I
English Composition II
3450:221 Analytic Geometry-Calculus
3450:222 Analytic Geometry-Calculus II
4100:101 Tools for Engineering
7600:106 Effective Oral Communication
Physical Education/Wellness
Social Science Requirement
Second Year 32
3250:244 Introduction to Economic Analysis
3400:210 Humanities in the Western Tradition I 4
3450:223 Analytic Geometry-Calculus III 4
3450:335 Introduction to Ordinary Differential Equations 3
3650.291 Elementan Classical Physics 1 .

3650:292 Elementary Classical Physics II 4
$4300 \cdot 201$
4300:202 Introduction to Mechanics of Solids
4600:203 Dynamics
Humanities Requirement
, 203

4400: Electrical Engineering

## First year

3150:151 Principles of Chemistry I 3

3150:152 Principles of Chemistry I Laboratory 1
3150:153 Principles of Chemistry II 3
3300:111
3300:112

| 3450:221 | Analytic Geometry-Calculus I |
| :--- | :--- |
| $3450: 222$ | Analytic Geometry-Calculus II |
| $4100: 101$ | Tools for Engineering |
| 7600:106 | Effective Oral Communication |
|  | Physical Education/Wellness |
|  | Social Science Requirement |
|  |  |
| Second Year |  |
| $3250: 244$ | Introduction to Economic Analysis |
| $3400: 210$ | Humanities in the Western Tradition |
| $3450: 223$ | Analytic Geometry-Calculus III |
| $3450: 335$ | Introduction to Ordinary Differential Equations |
| $3650: 291$ | Elementary Classical Physics I |
| $3650: 292$ | Elementary Classical Physics II |
| $4300: 201$ | Statics |
| $4300: 202$ | Introduction to Mechanics of Solids |
| $4600: 203$ | $\quad$ or |
| $4400: 231$ | Dynamics |
|  | Circuits I |

4600: Mechanical Engineering

| First Year |  |
| :--- | :--- |
| 3150:151 | Principles of Chemistry I |
| 3150:152 | Principles of Chemistry I Laboratory |
| 3150:153 | Principles of Chemistry II |
| 3300:111 | English Composition I |
| 3300:112 | English Composition II |
| $3450: 221$ | Analytic Geometry-Calculus I |
| $3450: 222$ | Analytic Geometry-Calculus II |
| $4100: 101$ | Tools for Engineering |
| $7600: 106$ | Effective Oral Communication |
|  | Physical EducationWellness |
|  | Social Science Requirement |

## Second year

3250:244
3400:210
3450:223
3450:335
3650:291
3650:292
4300:201
4300:202
4600:203
Introduction to Economic Analysis
Humanities in the Western Tradition I
Analytic Geometry-Calculus III
Introduction to Ordinary Differential Equations
Elementary Classical Physics I
Elementary Classical Physics II
Statics
Introduction to Mechanics of Solids
Dynamics

Humanities Requirement

## 5200: Early Childhood Education*

Early Childhood Licensure Option (age three through grade three inclusive)

| First Year |  |
| :--- | :--- |
| $3100: 103$ | Natural Science-Biology |
| $3300: 111$ | English Composition I |
| $3300: 112$ | English Composition II |
| $3350: 100$ | Introduction to Geography |
| $3400: 250 / 251$ | U.S. History to 1877/Since 1877 |
|  | or |
| $3700: 100$ | Government and Politics in U.S. |
| $3450: 140$ | Mathematics for Elementary School Teachers I |
| $3450: 260$ | Mathematics for Elementary School Teachers II |
| $7400: 265$ | Child Development |
| $7600: 106$ | Effective Oral Communication |
|  | Natural Science Requirement |
|  | Physical Education/Wellness |
| Second Year |  |
| $3400: 210$ | Humanities in the Western Tradition I |
| $5100: 200$ | Introduction to Education |
| $5100: 220$ | Educational Psychology |
| $5200: 215$ | The Child, Family and the School |
| $5500: 230$ | Educational Technology |
| $5500: 245$ | Understanding Literacy Development and Phonics |
| $5500: 286$ | Teaching Multiple Texts through Genre |
| $5610: 225$ | Introduction to Exceptionalities |
| $7400: 270$ | Theory and Guidance in Play |
| $7400: 280$ | Early Childhood Curriculum Methods |
|  | Humanities Requirement |
|  |  |

[^21]5250: Middle Level Education

| Middle Level Licensure Option (grades 4-9 inclusive) First Year |  | Credits |
| :---: | :---: | :---: |
|  |  |  |
| 3300:111, 112 | English Composition I, II | 7 |
| 3350:100 | Introduction to Geography | 3 |
| 3400:250/251 | U.S. History to 1877/Since 1877 | 4 |
|  | or |  |
| 3700:100 | Government and Politics in U.S. | 4 |
| 3450:140 | Mathematics for Elementary School Teachers I | 3 |
| 3450:260 | Mathematics for Elementary School Teachers II | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Natural Science Requirement | 8 |
|  | Physical Education/Wellness | 1 |
|  | Area of Concentration Course or Electives | 3 |
|  |  | 35 |
| Second Year |  |  |
| 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 Literacy Development and Phonics | 3 |
| 5500:286 | Teaching Multiple Texts through Genre | 3 |
| 5610:225 | Introduction to Exceptionalities | 3 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement | 6 |

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

| First Year |  |
| :---: | :---: |
| 3300:111 | English Composition I |
| 3300:112 | English Composition II |
| 7600:106 | Effective Oral Communication |
|  | Mathematics Requirement |
|  | Natural Science Requirement |
|  | Physical Education/Wellness |
|  | Social Science Requirement |
|  | Teaching Field(s) Course or Electives |
| Second year |  |
| 3400:210 | Humanities in the Western Tradition I |
| 5100:200 | Introduction to Education |
| 5100:220 | Educational Psychology |
| 5500:230 | Educational Technology |
| 5610:225 | Introduction to Exceptionalities |
|  | Areas Studies/Cultural Diversity Requirement |
|  | Humanities Requirement |
|  | Teaching Field(s) Courses or Electives |

6000: Business Administration Options
Accounting, Finance, Management, Marketing, Advertising, International Business

First Year
3300:111 English Composition I 4

3300:112 English Composition II 3
3450:141 Algebra with Business Applications 3
or
3450:145 College Algebra 4
3450:210 Calculus with Business Applications 3
or
3450:215 Concepts of Calculus 4
3750:100 Introduction to Psychology 3
3850:100 Introduction to Sociology 4
$3230: 150 \quad$ Cultural Anthropology 4
7600:106 Effective Oral Communication 3
Natural Science Requirement 8
Physical Education/Wellness 1
Electives
Second Year
3250:200
Principles of Macroeconomics
3400:210 Humanities in the Western Tradition
6200:201 Accounting Principles I
6200:202 Accounting Principles II
6200:250 Microcomputer Applications for Business
6400:220 Microcomputer Applications for Business 3
Quantitative Business Analysis I
Quantitative Business Analysis II
3
Humanities Requi

| Options |  |  |
| :---: | :---: | :---: |
| Dietetics* |  |  |
| First Year |  | Credits |
| 3150:110 | Introduction to General, Organic and Biochemistry I | 3 |
| 3150:111 | Introduction to General, Organic and Biochemistry I, Laboratory | 1 |
| 3150:112 | Introduction to General, Organic and Biochemistry II | 3 |
| 3150:113 | Introduction to General, Organic and Biochemistry II, Laboratory | 1 |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3470:260 | Basic Statistics | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 3850:100 | Introduction to Sociology | 4 |
| 7400:265 | Child Development | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Physical Education/Wellness | 1 |
|  |  | 32 |
| Second Year |  |  |
| 3100:130 | Principles of Microbiology | 3 |
| 3100:200, 201 | Human Anatomy and Physiology I, Lab | 4 |
| 3100:202, 203 | Human Anatomy and Physiology II, Lab | 4 |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| 6200:201 | Accounting Principles I | 3 |
| 2420:211 | Basic Accounting I | 3 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement | 6 |
|  | Electives | 3 |
| Family Life and Child Development |  |  |
| First Year |  |  |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3750:100 | Introduction to Psychology (Family Life Option only) | 3 |
| 3750:230 | Developmental Psychology (Family Life Option only) | 4 |
| 3850:100 | Introduction to Sociology | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Mathematics Requirement | 3 |
|  | Economics Requirement | 3 |
|  | Physical Education/Wellness | 1 |
|  | Electives | 4 |
|  | Second Year 32 |  |  |
|  |  |  |  |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| 7400:265 | Child Development | 3 |
| 7400:270 | Theory and Guidance of Play (Child Development Option only) | 3 |
| 7400:280 | Early Childaood Curriculum Methods (Child Development Option only) | ) |
| 7750:276 | Introduction to Social Welfare (Family Life Option only) | 4 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement | 6 |
|  | Natural Science Requirement | 8 |
|  |  | 35 |
| Food and Consumer Science |  |  |
| First Year |  |  |
| 3150:110 | Introduction to General, Organic and Biochemistry I | 3 |
| 3150:111 | Introduction to General, Organic and Biochemistry I, Laboratory | 1 |
| 3150:112 | Introduction to General, Organic and Biochemistry II | 3 |
| 3150:113 | Introduction to General, Organic and Biochemistry II, Laboratory | 1 |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 3470:260 | Basic Statistics | 3 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Beginning Foreign Language <br> or | 8 |
|  | Language Alternative Courses | 8 |
|  | Economics Requirement | 3 |
|  | Physical Education/Wellness | 1 |
|  | Second Year |  |  |
|  |  |  |  |
| 2440:103 | Software Fundamentals | 2 |
| 3100:130 | Principles of Microbiology | 3 |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| 3750:100 | Introduction to Psychology | 3 |
| 3850:100 | Introduction to Sociology | 4 |
| 7400:265 | Child Development | 3 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement | 6 |
|  | Intermediate Foreign Language <br> or | 6 |
|  | Language Alternative Courses | 6 |
|  |  | 35 |

* 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.

7600: Communication

| First Year |  | 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 Education/Wellness | 1 |
|  | Social Science Requirement | 6 |
|  | Elective (typing/word processing recommended) | $\underline{5}$ |
|  |  | 32 |
| Second Year | Humanities in the Western Tradition I | 4 |
| $3400: 210$ | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Communication Major Emphasis Courses | 6 |
|  | Foreign Language Courses |  |
|  | or | 8 |
|  | Language Alternative Courses | 6 |
|  | Humanities Requirement |  |
|  | Natural Science Requirement | $\mathbf{8}$ |

7750: Social Work
First Year
3300:111 English Composition I 4
3300:112 English Composition II 3
3470:260
3700:100
3750:100
3850:100
7750:270
7750:276
Basic Statistics
Government and Politics in the U.S.
Introduction to Psychology
Introduction to Sociology
Poverty and Minority Issues
Introduction to Social Welfare
Economics Requirement
Physical Education/Wellness
Second Year
3100:103
Natural Science-Biology
$3400 \cdot 210$
7600:106
7750:xxx
Humanities in the Western Tradition I
Effective Oral Communication
Social Work Requirements
Areas Studies/Cultural Diversity Requirement
Humanities Requirement
Natural Science Requirement
Social Science elective
3

## 8200: Nursing (Basic Program)

## First Year

3100:130
3150:110
3150:111
3150:112
3150:113
3300:111
3300:112
3470:260
3600:120
3750:100
3850:100
3230:150
8200:100

Principles of Microbiology
Introduction to General, Organic and Biochemistry I
Introduction to General, Organic and Biochemistry I, Laboratory
Introduction to General, Organic and Biochemistry II
Introduction to General, Organic and Biochemistry II, Laboratory
English Composition I
English Composition II
Basic Statistics
Introduction to Ethics
Introduction to Psychology
Introduction to Sociology
or
Cultural Anthropology
Introduction to Nursing
Physical Education/Wellness

Students are eligible to apply to the College of Nursing during spring semester of the first year if they have completed all of the courses listed above and attained a grade point average of 2.50 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 College during the second year by students who do not satisfy the admission requirements.

| Second Year |  |  |
| :--- | :--- | :--- |
| 3100:200, 201 | Human Anatomy and Physiology I, Lab | 4 |
| 3100:202, 203 | Human Anatomy and Physiology II, Lab | 4 |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| 3750:230 | Developmental Psychology | 4 |
| 7600:106 | Effective Oral Communication | 3 |
|  | Areas Studies/Cultural Diversity Requirement | 4 |
|  | Humanities Requirement | 3 |
|  | Electives | $\underline{3}$ |
|  |  | 29 |

## University College

Karla T. Mugler, Ph.D., Associate Provost and Dean

Brenda L.H. Marina, Ph.D., Assistant Dean
Bonnie Williams, Ph.D., Assistant Dean
Monique Beauvais, MPA, Assistant to the Dean
Debbie Gwin, M.A., Director, Adult Focus
Jess W. Hays, M.A., M.B.A., Director, Academic Advisement Center Connie Murray, M.A., Assistant to the Associate Provost, Systems Lori M. Reinholt, 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 degree-granting colleges.
- To provide Learning Communities, Learning Assistants and academic support services for students to strengthen their skills and facilitate their success in college 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 degree-granting 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 degree-granting colleges upon satisfactory completion of the appropriate requirements.
A student who completes 30 semester credits and achieves a grade-point average of 2.00 ("C") or better may be eligible for transfer to a degree-granting college. 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 knowledge 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 48 credit hours. Courses noted with a single asterisk (*) will apply toward the General Education requirement only for students enrolled in Summit College. 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: $\mathbf{7}$ credits - $\mathbf{2}$ courses

|  |  | Credits |
| :---: | :---: | :---: |
| 2020:121 | English* |  |
|  | or |  |
| 3300:111 | English Composition I | 4 |
|  | or |  |
| 3300:113 | African-American Language and Culture I: College Composition | 4 |
| 2020:222 | Technical Report Writing* | 3 |
|  | or |  |
| 3300:112 | English Composition II | 3 |
|  | or |  |
| 3300:114 | African-American Language and Culture II: College Composition | 3 |

## Mathematics: $\mathbf{3}$ credits

(Students enrolling in a higher-level math course may use this course to meet their General Education requirement)
2030:151,152,153 Technical Mathematics I, II, III* ..... 6
(Must complete all 3 courses. Only 3 credits apply toward fulfilling General Education requirement)
2030:161 Math for Modern Technology* 4
3450:127 Trigonometry 2
3450:135 Excursions in Mathematics 3
3450:145 College Algebra 4
3450:210 Calculus with Business Applications
3450:260 Mathematics for Elementary School Teachers II
3470:250 Statistics for Everyday Life
3470:260 Basic Statistics
3470:261 Introduction to Statistics I
3470:262 Introduction to Statistics ||

## 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 Evolution
4
Biology
2780:106 Anatomy and Physiology for Allied Health I* 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 Biological Aging (Wayne College only) 3
Chemistry
2820:105
2820:111
Basic Chemistry*
3
.
Introductory and Analytical Chemistry*
3150:100 Chemistry and Society
3150:101 Chemistry for Everyone 3

## 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
3370:121-140 Concepts in Geology 1
3370:171 Introduction to Oceans
3370:200 Environmental Geology
3370:201 Exercises in Environmental Geology I
3370.203 Exercises in Envionmental Geology I

3370:203 Exercises in Environmental Geology II 1

| Physics |  | Credits |
| :---: | :---: | :---: |
| 2820:161 | Technical 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 Astronomy | 4 |
| 3650:133 | Music, Sound and Physics | 4 |
| 3650:137 | Light/Lab | 4 |
| Oral Communication: 3 credits |  |  |
| 7600:105 | Introduction to Public Speaking or | 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 | Principles of Microeconomics | 3 |
| 3250:244 | Introduction to Economic Analysis | 3 |
| Set 2 - Geography |  |  |
| 3350:100 | Introduction to Geography | 3 |
| Set 3-Government/Politics |  |  |
| 2040:242 | American Urban Society* | 3 |
| 3700:100 | Government and Politics in the United States | 4 |
| 3700:150 | World Politics and Governments | 3 |
| Set 4 - Psychology |  |  |
| 2040:240 | Human Relations* | 3 |
| 3750:100 | Introduction to Psychology | 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 Archaeology | 3 |
| 3600:125 | Theory and Evidence | 3 |
| Humanities: 10 credits - $\mathbf{3}$ courses |  |  |
| All students are required to complete: |  |  |
| 3400:210 | Humanities in the Western 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 |
| 3300:251 | Topics in World 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 Translation | 3 |
| Set 4 |  |  |
| 3400:211 | Humanities in the Western Tradition II | 3 |

Set 4
3400:211 Humanities in the Western Tradition II 3

## Area Studies \& Cultural Diversity: $\mathbf{4}$ credits $\mathbf{- 2}$ courses

|  |  | Credits |
| :--- | :--- | ---: |
| 1840:300 | Introduction to Women'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 African 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 |
| $3400: 389$ | World Civilization: Near East | 2 |
| $3400: 390$ | World Civilization: Africa | 2 |
| $3400: 391$ | World Civilization: Latin America | 2 |
| $3560: 304$ | Japanese Culture through Film | 2 |
| $7600: 325$ | Intercultural Communication | 3 |

NOTE: A student majoring in medical technology or 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 | Physical Education | $5-1$ |
| :--- | :--- | ---: |
| $5550: 150$ | Concepts of Health and Fitness | 3 |
| $5550: 194$ | Sports Officiating | 2 |
| $5550: 211$ | Flrst Aid and Cardiopulmonary Resuscitation | 2 |
| $5570: 101$ | Personal Health | 2 |
| $7400: 133$ | Nutrition Fundamentals | 3 |
| $7510: 126$ | Marching Band | 1 |
| $7900: 119 / 120$ | Modern Dance I/II | 2 |
| $7900: 124 / 125$ | Ballet I/II | 2 |
| $7900: 130 / 230$ | Jazz Dance I/II | 2 |
| $7900: 144$ | Tap Dance I | 2 |

Note: Dance technique courses do not meet this requirement for dance majors.

[^22]
## ACADEIMIC ADVISEIVENT CENTER

## Values Underlying Academic 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 academic 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 relationship 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 degree-related 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 academic 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 Study Skills Centers and the Mathematics and Writing Laboratories are open to all students without charge.

- The Study Skills Centers, 217 Carroll Hall, and in the Polsky Building, provide professional instruction in a variety of reading and study strategies, memory techniques, and test-taking methods as they apply to specific courses.
- The Mathematics Labs, 208 Carroll Hall, and in the Polsky Building, provide professional instruction for students who are having difficulty in any entry-level mathematics course.
- The Writing Labs, 217 Carroll Hall and in the Polsky Building, offer professional instruction to students taking any course requiring writing.


## TUTORIAL SERVICES

Tutoring is available free of charge to help students develop academically.

- Peer tutoring is available for most freshman 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 215A Carroll Hall.
- 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 215A Carroll Hall, call (330) 972-6552, or e-mail pamela6@uakron.edu.


## 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 COIVIMUNITIES

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 SEIVINAR

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, note-taking, test-taking and critical thinking skills; sharing strategies for effective academic planning; information about University services available to students; exposure to University cultural events; and extended 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

## 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 learns 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 II) 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 fundamentals, 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 three times per week 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.

## 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.

## 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.

- Airborne Training
- Air Assault Training
- Mountain Warfare School
- Northern 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


## Requirements for Commissioning

- 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 advanced summer camp 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, $\$ 900$ 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.

## 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 (SIMP)

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.

## ADIMISSION

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 full-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.

To be considered for admission, an applicant entering from high school must provide evidence of at least two 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 within the major.

## 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 Humanities)

Six or more credits in courses offered by these departments:

| 3200: Classics | 3400: History | 3400: World Civilizations |
| :--- | :--- | :--- |
| 3210: Greek | 3400: Humanities in the | 3510: Latin |
| 3240:Archaeology | Western Tradition | 3600: Philosophy |

## 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:

| 3300: English | 3550: Italian | 7520: Applied Music Lesson |
| :--- | :--- | :--- |
| 3500: Arabic | 3570: Russian | 7600: Communication |
| 3500: Chinese | 3580: Spanish | 7700: Sign Language |
| 3500: Japanese | 7100: Art | 7800: Theatre |
| 3520: French | 7500: Music | 7900: Dance |

## Group III (The Social Sciences)

Six or more credits in courses offered by the departments below:

| 3230: Anthropology | 3350: Geography and Planning | 3750: Psychology |
| :--- | :--- | :--- |
| 3240: Archaeology | 3700: Political Science | 3860: Sociology |
| 3250: Economics |  |  |

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.

| 3100: Biology | 3370: Geology | 3470: Statistics |
| :--- | :--- | :--- |
| 3150: Chemistry | 3450: Mathematics | 3650: Physics |
| 3230: Human Evolution | 3460: Computer Science |  |

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 College 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; during third year if <br> majoring in Nursing or Dietetics) |

## Senior Honors Project

The Honors College student is required to complete a Senior Honors 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 Senior Honors 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 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 Honors College, the awarding of Honors College scholarships, the approval of each student's Honors Distribution and Senior Honors 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, Buchtel 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 average 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:

3230:358
3250:461
3350:353
3350:356
3350:360
3350:363
3400:301
3400:303
3400:325
3400:336
3400:337
3400:381
3400:416
3400:473
3400:476
3700:321
3700:405
6800:305
7100:301
7100:302
7100:303
7100:304
7100:306
7600:325

Indians of North America 3
Principles of International Economics 3
Latin America 3
Europe
Asia
Africa South of Sahara
Mao's China
Japan
Women in Modern Europe
Russia since 1801
France from Napoleon to DeGaulle
History of Canada
Modern India
Latin America: The 20th Century
Central America and the Caribbean
Western European Politics
Politics in the Middle East
International Business
Medieval Art
Art in Europe during the 17th and 18th Centuries
Renaissance Art in Italy
Art in Europe during the 19th Century
Renaissance Art in Northern Europe
Intercultural Communication

3

This list is not exhaustive. Students may propose other courses.

# Buchtel College of Arts and Sciences 

Ronald F. Levant, E.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 to 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 internships and co-op 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 Disciplinary 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.

## A\&S 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 job-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 internship placement both on and off campus, and department-specific mentoring systems for exploration of vocational 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 and Sociology, both of which require 2.2)
- Received approval of the Dean of the College


## Transfer 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.

## 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 of 3300:111,2 English Composition I, II;
- 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 (totaling 14 credits) in the sign language sequence to satisfy the requirement.

| $7700: 101,2$ | American Sign Language I, II | Credits |
| :--- | :--- | :---: |
| $7700: 201,2$ | American Sign Language III, IV | 6 |
| $7700: 222$ | Survey of the Deaf Culture in America | 6 |

- 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)
- Attaining a minimum grade-point average of 2.00 in all work in the major field, including transfer credits. (Political Science 2.2, Sociology 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.

| $3100: 111,2$ | Principles of Biology I, II | Credits |
| :--- | :--- | ---: |
| $3100: 211,2$ | General Genetics, Lab | 8 |
| $3100: 217$ | General Ecology | 3 |
| $3100: 316$ | Evolutionary Biology | 3 |
| $3100: 311$ | Cell and Molecular Biology | 4 |
| $3150: 151,3,2$ | Principles of Chemistry I, II, and Laboratory | 7 |
| $3150: 154$ | Qualitative Analysis | 2 |
| $3150: 263,4,5,6$ | Organic Chemistry I, II/Lab I, II | 10 |
| $3450: 145,47$ | College Algebra; Trigonometry and Advanced Algebra | 7 |
|  | or |  |
| $3450: 149$ | 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,II 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

| Required: |  |  |
| :--- | :--- | :--- |
| $3100: 342$ | Flora and Taxonomy | 3 |
| $3100: 440$ | Mycology | 4 |
| $3100: 443$ | or | Phycology |
| 3100:441 | Plant Development | 4 |
| $3100: 445$ | or | Plant Morphology |
| 3100:442 | Plant Anatomy | 4 |
| Electives: | Food Plants | 4 |
| $3100: 400$ | F | 3 |
|  |  |  |

3100:342
3100:440
Mycology
3100:44
3100:441

3100:442
Electives
3100:400

| Ecology/Evolution Specialization |  |
| :--- | :---: |
| At least one of the following: | Credits |
| $3100: 412$ | Advanced Ecology |
| $3100: 423$ | Population Biology |
| At least one of the following: | 3 |
| $3100: 427$ | Limnology |
| $3100: 430$ | Community/Ecosystem Ecology |
| At least one of the following: | 3 |
| $3100: 418$ | Field Ecology |
| $3100: 421$ | Tropical Field Biology |
| $3100: 426$ | Wetland Ecology |
| At least one of the following: | 4 |
| $3100: 342$ | Flora and Taxonomy |
| $3100: 440$ | Mycology |
| $3100: 443$ | Phycology |
| $3100: 445$ | Plant Morphology |
| $3100: 451$ | General Entomology |
| $3100: 453$ | Invertebrate Zoology |
| $3100: 455$ | Ichthyology |
| $3100: 456$ | Ornithology |
| $3100: 457$ | Herpetology |


| Microbiology Specialization |  |  |
| :---: | :---: | :---: |
| Required: |  |  |
| 3100:331 | Microbiology | 4 |
| 3100:433 | Pathogenic Bacteriology or | 4 |
| 3100:435 | Virology | 4 |
| 3100:437 | Immunology | 4 |
| Electives: |  |  |
| 3100:440 | Mycology or | 4 |
| 3100:443 | Phycology | 4 |
| 3100:454 | Parasitology | 4 |
| 3100:481 | Advanced Genetics | 3 |
| 3150:401,2 | Biochemistry I, II | 6 |

## Animal Physiology Specialization <br> Required: <br> $\begin{array}{ll}\text { 3100:363 } & \text { Animal Physiology } \\ \text { 3100:473 } & \text { Comparative Animal Physiology }\end{array}$

At least two of the following:
3100:465 Advanced Cardiovascular Physiology
3100:468 The Physiology of Reproduction
3100:469 Respiratory Physiology
3100:471 Physiological Genetics
3100:472 Biological Mechanisms of Stress
3100:485 Cell Physiology
Electives:
3100:365 Histology
3100:466 Vertebrate Embryology
3100:467 Comparative Vertebrate Morphology
3100:474 Comparative Animal Physiology Laboratory
3100:482 Neurobiology
3150:401 Biochemistry I
3150:402 Biochemistry II

| Zoology Specialization |  |  |
| :--- | :--- | :--- |
| Required: |  |  |
| 3100:473 | Comparative Animal Physiology |  |
| One of the following: | 3 |  |
| $3100: 453$ | 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: | 4 |  |
| $3100: 365$ | Histology | 4 |
| $3100: 421$ | Tropical Field Biology | 4 |
| $3100: 428$ | Biology of Behavior | 3 |
| $3100: 451$ | General Entomology | 4 |
| $3100: 454$ | Parasitology | 4 |
| $3100: 456$ | Ornithology | 4 |
| $3100: 457$ | Herpetology | 4 |
| $3100: 455$ | Ichthyology | 4 |
| $3100: 482$ | Neurobiology | 4 |
|  |  | 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 Microbiology or | 3 |
| 3100:331 | Microbiology | 4 |
| 3100:265 | Introductory Human Physiology | 4 |
| 3100:342 | Flora and Taxonomy <br> or | 3 |
| 3100:445 | Plant Morphology | 4 |
| 3100:453 | Invertebrate Zoology <br> 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 |
| :--- | :--- | ---: |
| $3100: x x x$ | A 400-level Physiology course | $3-4$ |
| $3650: 261,2$ | Physics for Life Sciences I, II | 8 |
| $3450: 221$ | Analytical Geometry/Calculus I | 4 |
|  | or | 4 |
| $3450: 215$ | Concepts of Calculus | 2 |
| $3470: 261$ | Introductory Statistics I |  |
|  |  | 4 |
| Additional courses that may be taken: | 4 |  |
| $3100: 331$ | Microbiology | 4 |
| $3100: 365$ | Histology | 4 |
| $3100: 466$ | Vertebrate Embryology | 6 |

## Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- At least 17 credits in the humanities or social sciences.
- At least 24 credits in the biological sciences which must include:

| $3100: 111,2$ | Principles of Biology I, II | 8 |
| :--- | :--- | :--- |
| $3100: 211$ | General Genetics | 3 |
| $3100: 217$ | General Ecology | 3 |
| $3100: 311$ | Cell and Molecular Biology | 4 |
|  | or | 4 |
| $3100: 331$ | Microbiology | 4 |
|  | or | 3 |
| $3100: 130$ | Principles of Microbiology | 3 |

- Required chemistry courses: $3150: 151,152$, and 153 (Principles of Chemistry and Laboratory), as well as 3150:154 (Qualitative Analysis).
- Required math course: 3450:149 (Precalculus).


## 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 3 3150:152 Principles of Chemistry Laboratory 1 3150:153 Principles of Chemistry II 3
3150:154 Qualitative Analysis
3150:263 Organic Chemistry 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 Analytical Chemistry I
3150:424 Analytical Chemistry II
3150:472 Advanced Inorganic Chemistry
3150:480 Advanced Chemistry Laboratory III
3
1
3

- At least seven credits from the following:

3150:199 Introductory Seminar in Chemistry
3150:399 Internship in Chemistry
3150:401 Biochemistry Lecture I
3150:402 Biochemistry Lecture II
3150:463 Advanced Organic Chemistry
3150:497 Honors Project in Chemistry (may be repeated for a total of 8 credits) $1-2$
3150:498 Special Topics: Chemistry (may be repeated for a total of 8 credits) 1-2
3150:499 Research Problems (may be repeated for a total of 8 credits) $\quad 1-2$
3650:481 Methods of Mathematical Physics I 3
9871:401/501 Introduction to Elastomers 3
9871:402/502 Introduction to Plastics 3
9871:407/507 Polymer Science
9871:411 Molecular Structure and Physical Properties of Polymers I
9871:412 Molecular Structure and Physical Properties of Polymers II
9871:413 Molecular Structure and Physical Properties of Polymers III
Subject to departmental and Graduate School approval, senior-level students may take graduatelevel chemistry courses for undergraduate credit. Such courses are accepted in lieu of 400-level courses.

- Mathematics:
3450:221 Analytic Geometry-Calculus I 4

3450:222 Analytic Geometry-Calculus II
3450:223 Analytic Geometry-Calculus III
3450:335 Introduction to Ordinary Differential Equations
4

- Physics: 3650:291,2 Elementary Classical Physics I, II
- Graduates of the Bachelor of Science program receive a degree certified by the American Chemical Society.


## Bachelor of Science in Chemistry - Polymer Option

- The General Education requirement and the second year of a foreign language.
- Core Requirement:

| $3150: 151$ | Principles of Chemistry I |
| :--- | :--- |
| $3150: 152$ | Principles of Chemistry Laboratory |
| $3150: 153$ | Principles of Chemistry II |
| $3150: 154$ | Qualitative Analysis |
| $3150: 263$ | Organic Chemistry 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 |
| $3150: 423$ | Analytical Chemistry I |
| $3150: 424$ | Analytical Chemistry II |
| $3150: 472$ | Advanced Inorganic Chemistry |3

1

3150:153
Principles of Chemistry I
3150:263 Organic Chemistry 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
3150:380 Advanced Chemistry Caboratory
3150:381 Advanced Chemistry Laboratory II

- Analyical Chemistry

3150:472 Advanced Inorganic Chemistry

| - | Polymer Courses: | Credits |
| :--- | :--- | :---: |
| 9871:407 | Polymer Science | 4 |
| 987:401 | Introduction to Elastomers | 3 |
| 9871:402 | or |  |
| 98troduction 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 I 3

3150:152 Principles of Chemistry Laboratory 1
3150:153 Principles of Chemistry II 3
3150:154 Qualitative Analysis
3150:263 Organic Chemistry Lecture I
3150:264 Organic Chemistry Lecture II
3150:265 Organic Chemistry Laboratory I
3150:266 Organic Chemistry Laboratory II
Physical Chemistry Lecture I
Physical Chemistry Lecture II
Advanced Chemistry Laboratory I
Analytical Chemistry I
Analytical Chemistry II
3150:314
3150:380
3150:423


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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 1-6
3150:401 Biochemistry Lecture I 3
3150:402 Biochemistry Lecture II
3150:463 Advanced Organic Chemistry
$\begin{array}{ll}\text { 3150:463 } & \text { Advanced Organic Chemistry } \\ \text { 3150:472 } & \text { Advanced Inorganic Chemistry }\end{array}$
3150:480 Advanced Chemistry Laboratory III
3150:497 Honors Project in Chemistry (may be repeated for a total of 8 credits)
3150:498 Special Topics: Chemistry (may be repeated for a total of 8 credits)
3150:499 Research Problems (may be repeated for a total of 8 credits) 1-2
9871:401/501 Introduction to Elastomers 3
9871:402/502 Introduction to Plastics 3
9871:407/507 Polymer Science 4
9871:411 Molecular Structure and Physical Properties of Polymers I 3
9871:412 Molecular Structure and Physical Properties of Polymers II 2
9871:413 Molecular Structure and Physical Properties of Polymers III 2

- Physics:

3650:291,2 Elementary Classical Physics I and II 8
3650:261,2 Physics for the Life Sciences I and II 8

- Mathematics:

| $3450: 149$ | Precalculus Mathematics | 4 |
| :--- | :--- | :--- |
| $3450: 221,2$ | Analytic Geometry-Calculus I and II | 8 |

## 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 position is the decision of the employer.

## Schedule

The work-study schedule for students in the co-op program is as follows:

| Year | Fall | Spring | Summer |
| :---: | :--- | :--- | :--- |
| 1 | School | School | Vacation/School |
| 2 | School | School | Vacation/School/Work |
| 3 | School | Work | School |
| 4 | Work | School | Work |
| 5 | School | School | - |

## Admission to Program

Interested students should attend a Cooperative Education orientation session. Students 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

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 modern 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 learn critical thinking skills and cross cultural 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 World | 3 |
| 3200:230 | Sports and Society 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 | Cultural Anthropology | 3 |
| 3400:317 | Roman Republic | 3 |
| 3400:318 | Roman Empire | 3 |

- Electives: 15 credit hours from the following:

3200:401 Egyptology 3
3240:472 Special Topics in Archaeology 3
3400:308 Greece
3400:404 Studies in Roman History
3600:211 History of Ancient Philosophy
3600:411 Plato
3600:432 Aristotle
7100:100 Art History I

## Bachelor of Arts in Interdisciplinary Anthropology

This interdisciplinary program allows students the flexibility to construct a program of study tailored to their interests in the four fields of Anthropology. To do so, in addition to the required course in linguistics, students are encouraged to take approved courses in partner departments.

- The General Education requirement and the second year of a foreign language.
- Core requirements - 20 credits

| $3230: 150$ | Cultural Anthropology | 4 |
| :--- | :--- | :--- |
| $3230: 151$ | Human Evolution | 4 |
| $3230: 359$ | Anthropology in the 21st Century | 3 |
| $3230: 398$ | Anthropological Research Methods | 3 |
| $3240: 100$ | Introduction of Archaeology | 3 |
| $3300: 371$ | Introduction to Linguistics | 3 |

- Concentration Electives - a minimum of one course each from three of the following four fields for a total of 16 credits


## Archaeological

3240:313 Archaeology of Greece 3
3240:314 Archaeology of Rome 3
3240:320 Medieval Archaeology 3
3240:400 Archaeological Theory 3
3240:410 Archaeogeophysical Survey 3
3240:420 Archaeology of Ohio 3
3240:440 Archaeological Laboratory Methods 3
3240:450 Archaeological Field School 3-6
3240:472 Special Topics in Archaeology 3
3370:101 Introductory Physical Geology 4
3370:324 Sedimentation and Stratigraphy 4
3370:360 Introductory Invertebrate Paleontology 4
3370:405
Archaeological Geology
Advanced Paleontology
Geographic Information Systems
Elementary Surveying 3
3350:405
2980:122
Biological
3230:340
Paleodemography and Human Osteology
Evolution and Human Behavior 3
3100:111 Principles of Biology I 4
$\begin{array}{lll}3100: 112 & \text { Principles of Biology II } & 4 \\ 3100: 217 & \text { General Ecology } & 3\end{array}$
General Ecology
3100:315 Evolutionary Biology Discussion
3100:316 Evolutionary Biology
3100:428 Biology of Behavior
3100:429 Biology of Behavior Laboratory
3100:466 Vertebrate Embryology

## Cultural

3230:251
3230:355 Indians of South America
3230:357 Magic, Myth and Religion
3230:358 Indians of North America
3230:370 Cultures of the World
3230:397 Anthropological Research
3230:416 Anthropology of Sex and Gender 3
3230:420 The Anthropology of Food 3
3230:457 Medical Anthropology
3230:460 Qualitative Methods: Basis of Anthropological Research
3230:472 Special Topics: Anthropology
$\longrightarrow 3$
ropology
3850:460

Racial and Ethnic Relations
Sociological Theory

$\qquad$
$\square$
$\square$
$\square$

| Linguistics |  | Credits |
| :--- | :--- | :---: |
| $3300: 470$ | History of English Language | 3 |
| $3300: 489$ | Seminar in English | $2-3$ |
| $3600: 481$ | Philosophy of Language | 3 |

- Program Electives: All majors must earn a minimum of 12 credit hours at the 300-400 level. Six of those credits must be from Anthropology/Archaeology, courses numbered 3230 or 3240 ; the remainder can be Anthropology/Archaeology courses or may include credits from the following disciplines:Biology: 3100, Classics: 3200, English: 3300, Geography and Planning: 3350, Geology: 3370, History: 3400, Modern Languages: 3500 and Sociology: 3850.


## 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:
3250:200 Principles of Microeconomics 3

3250:201 Principles of Macroeconomics
3250:226 Computer Skills for Economic Analysis
3250:400 Intermediate Macroeconomics
3250:410 Intermediate Microeconomics
3250:426 Applied Econometrics
3250:496 Senior Project in Economics (attached to field course)
$\square$
$\square$

- Departmental Electives - 12
- Statistics:

> 3470:261,2 Introductory Statistics I, II

- Mathematics*.

| $3450: 210$ | Calculus for Business Applications <br> or |
| :--- | :--- |
| $3450: 215$ | Concepts of Calculus |

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

## Credits

3250:310
3250:461
3250:360
3250:333
3250:427
Managerial economics
International Economics
Industrial Organization and Public Policy
Labor Economics
Economic Forecasting

International Economics
Labor Economics
Economic Forecasting
Banking \& International Economics
3250:461 International Economics 3
3250:380 Money \& Banking
3250:460 Economics of Developing Countries
3250:427 Economic Forecasting
3250:481 Monetary \& Banking Policy

## Public Policy

3250:405 Public Sector Economics 3
3250:360 Industrial Organization \& Public Policy 3
3250:385 Environmental Economics 3

2250:487
Urban Economics
3250:430 Labor Market and Social Policy
Economics of Developing Countries
3

## Graduate School **

3250:427 Economic Forecasting 3
3250:423 Applied Game Theory 3
3250:333
Labor Economics
3250:461 International Economics
3250.46

American Economy to 1900
American Economy since 1900

## Bachelor of Science in Labor Economics

The BSLE is a more focused program relating to issues involving human resources, from the analysis of wages and labor markets to the investigation of social policy problems like health, education and discrimination. Career opportunities exist for labor market analysts and for social and labor policy experts in state and local government (like the Department of Job and Family Services or Summit County Children's Services) and in local and international firms. The BSLE program has core courses in labor theory and application plus quantitative and computer methods. The culmination of the program for each student is to bring together all these areas in a labor market analysis and evaluation project. This project demonstrates students' ability to apply what they have learned both in analytical thinking and quantitative methods. For employers, it is a valuable demonstration of what a labor economics graduate can do.

- The General Education requirement*
- At least 33 departmental credits including:
3250:200 Principles of Microeconomics 3

3250:201 Principles of Macroeconomics 3
3250:226 Computer Skills for Economic Analysis
3250:333 Labor Economics
3250:410 Intermediate Microeconomics
3250:426 Applied Econometrics
3250:430 Labor Market and Social Policy
3250:434 Labor Market Analysis \& Evaluation

- Departmental electives -9
- Statistics:

3470:261,2 Introductory Statistics I, II 4

- Mathematics*

| $3450: 210$ | Calculus for Business Applications <br> or | 3 |
| :--- | :--- | :--- |
| $3450: 215$ | Concepts of Calculus | 4 |

3450:215 Concepts of Calculus 4

- Upper division social sciences (geography, history, sociology, political science, psychology) - 8
- Upper division electives - 15

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.

## Internship in Economics

Students can register for 3250:495, Internship for Economics, for one to three academic credits for the semester. Normally, a minimum of 45 hours of relevant internship work is required for each academic credit. Total internship credit over all semesters may not exceed three credits.
The internship is coordinated through the Arts and Sciences Careers Program. The program must be approved by the Department of Economics Undergraduate Program Director prior to registering for the course. The internship must involve career applications of the discipline of economics.

## 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 minimum grade point average of 2.20 in all university course work.
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 $316 ; 3300: 341 ; 3300: 371$.

A student must earn 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 courses: | Credits |  |
| :--- | :--- | :---: |
| 3300:300 | Critical Reading and Writing | 3 |
| 3300:301 | English Literature I | 3 |
| 3300:341 | American Literature I | 3 |
| 3300:371 | Introduction to Linguistics | 3 |
| 3300:315 | Sharespeare: The Early Plays | 3 |
| 3300:316 | Shakespeare: The Mature Plays | 3 |

Distribution of requirements:
One course in world or multicultural literature outside the canon of British and American writers. A minimum of four 400 -level courses.

- 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 | 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 - 15 credits | 3 |
| $3350: 305$ | Maps and Map Reading | 3 |
| $3350: 340$ | Cartography | 3 |
| $3350: 405$ | Geographic Information Systems | 3 |
| $3350: 483$ | Spatial Analysis | 3 |
| $3350: 496$ | Field Research Methods |  |
|  |  | 3 |
| Regional Geography Electives — at least 6 credits | 3 |  |
| $3350: 350$ | Geography of the United States and Canada | 3 |
| $3350: 351$ | Ohio: Environment and Society | 3 |
| $3350: 353$ | Latin America | 3 |
| $3350: 356$ | Europe | 3 |
| $3350: 360$ | Asia | 3 |
| $3350: 363$ | Africa South of the Sahara | 3 |
| $3350: 497$ | Regional Field Studies | $1-3$ |
| Geography and Planning Electives — at least 12 additional credits from 3350 courses | 12 |  |



## Bachelor of Science in Cartography/Geographic Information Sciences

- 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 | 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 - 18 credits |  |  |
| 3350:305 | Maps and Map Reading | 3 |
| 3350:340 | Cartography | 3 |
| 3350:405 | Geographic Information Systems | 3 |
| 3350:447 | Remote Sensing | 3 |
| 3350:483 | Spatial Analysis | 3 |
| 3350:496 | Field Research Methods | 3 |
| Geotechniques electives - at least 9 credits |  |  |
| 3350:407 | Advanced Geographic Information Systems | 3 |
| 3350:442 | Thematic Cartography | 3 |
| 3350:444 | Applications in Cartography and GIS | 3 |
| 3350:448 | Advanced Cartography | 3 |
| 3350:449 | Advanced Remote Sensing | 3 |

## 3370: Geology

## 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 Crystallography and Nonsilicate Mineralogy
3370:231 Silicate Mineralogy and Petrology
3370:301 Engineering Geology
3370:324 Sedimentation and Stratigraphy
3370:350 Structural Geology
3370:446 Exploration Geophysics $\dagger$
3370:493 Geology Field Camp I
3370:494 Geology Field Camp II
Geology Electives from List
Non-Geology Required Courses:
3150:151,2,3 Principles of Chemistry I, II 7
3450:221, 2, 3 Analytical Geometry and Calculus I, II, and III 12
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

- Geology Elective List

3370:310 Geomorphology 3
3370:421 Coastal Geology
3370:432 Optical Mineralogy-Introductory Petrography
3370:435 Petroleum Geology
3370:436 Coal Geology
3370:437 Economic Geology
3370:449 Borehole Geophysics
3370:470 Geochemistry
3370:474 Groundwater Hydrology

- Non-Geology Elective List
3460:201-7 Introduction to Programming Languages (or equivalent) 2

4300:341 Hydraulic Engineering
4300:414 Design of Earth Structure
4300:445 Hydrology
4600:305 Thermal Science
Geology

- 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 Introductor Historical Geology
3370:230 Crystallography and Non-Silicate Mineralogy
3370:231 Silicate Mineralogy and Petrology
3370:324 Sedimentation and Stratigraphy
3370:350 Structural Geology
3370:360 Introductory Invertebrate Paleontology
3370:493 Geology Field Camp I
3370:494 Geology Field Camp II
Elective Geology courses (300/400-level)4

- Non-geology courses required for majors:

3150:151,2,3 Principles of Chemistry I, II 7
3450:221,2 Analytic Geometry-Calculus I and II
3650:291,2 Elementary Classical Physics I and II $\dagger+$

- 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 satisfy the geology elective requirement. Additional work in a supporting sciences, math, or engineering is encouraged. A student majoring in geology should consult regularly with the Director of Undergraduate Studies 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:

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 Geology Field Camp I
3370:494 Geology Field Camp II
3
3

- Science Electives 9 credits. At least three science courses approved by the geophysics adviser. Recommended courses are:

| 3460:201 | Introduction to FORTRAN Programming <br> or equivalent | 3 |
| :--- | :--- | ---: |
| 3650:322 | Intermediate Laboratory I | 2 |
| 3650:323 | Intermediate Laboratory II | 2 |
| 3650:350 | Modeling and Simulation | 4 |
| 3650:431 | Mechanics I | 3 |
| 3650:436 | Electromagnetism I | 3 |
| - Non-Geology | Required Courses: |  |
|  |  |  |
| 3150:151,2,3 | Principles of Chemistry I, II | 7 |
| 3450:221,2, | 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.
- At least 44 departmental 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 |
| $3370: 360$ | Introductory Invertebrate Paleontology | 4 |
| $3370: 493$ | Geology Field Camp I | 3 |
| $3370: 494$ | Geology Field Camp II | 3 |
|  | Elective geology courses (minimum eight credits at the 300/400 level) | 18 |

- Non-geology courses required for majors:
$\begin{array}{lll}3150: 151,2 & \text { Principles of Chemistry I } & 4 \\ \text { 3450:149 } & \text { Precalculus } & 4\end{array}$
- At least seven credits from the following:

3100:111,2 Principles of Biology (or equivalent) 4
3150:153 Principles of Chemistry II (or equivalent) 3
3450.2212 Analytical Geometr-Calculus and II

3650:291,2 Elementary Classical Physics I and II 4

## 3400: History

## Bachelor of Arts

- The General Education requirement and the second year of a foreign language (French, German, Spanish or Russian suggested).
- A minimum of 32 credits of history, 16 of which must be in 300/400-level courses. A minimum of 6 credits in each of the three areas of course offerings, (1) United States; (2) Europe; and (3) Ancient/Non-Western/Cross-Cultural; and 3400:310, Historical Methods. With the approval of the History Department Undergraduate adviser, a History major may apply up to 6 credits of coursework in related disciplines (cognate courses) toward the fulfillment of the History degree requirements.
- Courses in World Civilizations and Humanities in the Western Tradition may not be used to meet major requirements in History.

[^23]
## 3450: Mathematics

## Bachelor of Science

## Mathematics

- The General Education requirement and the second year of a foreign language.
- At least 34 credits including:

| 3450:221,2,3 | Analytic Geometry-Calculus I, II, III |
| :---: | :---: |
| 3450:307 | Fundamentals of Advanced Mathematics |
| 3450:312 | Linear Algebra |
| 3450:411 | Abstract Algebra I |
| 3450:421 | Advanced Calculus I |
| 3460:209 | Introduction to Computer Science* |
| Choose at least one of the following two courses: |  |
| 3450:412 | Abstract Algebra II |
| 3450:422 | Advanced Calculus II |
| Choose at least one of the following three courses: |  |
| 3470:450 | Probability |
| 3470:451 | Theoretical Statistics |12

3450:307 Fundamentals of Advanced Mathematics 3
$360: 307$ Fuda
Abstract Algebra I
Advanced Calculus I
Introduction to Computer Science*
3460:209 Introduction to Computer Science* 4
Choose at least one of the following two courses:
3450:412 Abstract Algebra II 3

Choose at least one of the following three courses:
3470:451 Theoretical Statistics 3

3470:461 Applied Statistics I 4
Electives - Approved 300/400-level 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 I | 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 Algorithms I, II | 7 |
| Choice 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 ${ }^{* *}$ :

| $3460: 209$ | Introduction to Computer Science\# | 4 |
| :--- | :--- | ---: |
| $3450: 221,2,3$ | Analytic Geometry-Calculus I, II, III | 12 |
| $3450: 335$ | Introduction to Ordinary Differential Equations | 3 |
| $3450: 312$ | Linear Algebra | 3 |
| $3450: 421$ | Advanced Calculus I | 3 |
| $3450: 427,8$ | Applied Numerical Methods I, II | 6 |
| $3450: 436$ | Mathematical Models | 3 |
| $3470: 461$ | Applied Statistics I | 4 |
| Choose at least one of the following two courses: |  |  |
| $3450: 422$ | Advanced Calculus II | 3 |
| $3450: 425$ | Complex Variables | 3 |
| Electives (300/400 level) of which: | 18 |  |

Electives (300/400 level) of which:
At least 3 credits are from 3450 courses
At least 6 credits are from some approved applied area such as Chemistry, Computer Science,
Physics, Economics, Engineering, etc.

## Cooperative Education Program

## Mathematics or Applied Mathematics

## Schedule

The work-study schedule for a student participating in the Cooperative Education Program is as follows:

| Year | Fall | Spring | Summer |
| :---: | :--- | :--- | :--- |
| 1 | School | School | Vacation/School |
| 2 | School | School | Vacation/School/Work |
| 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 education 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.

[^24][^25]
## 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:

3460:209 Introduction to Computer Science
Credits Internet Systems Programming
3460:316 Data Structures and Algorithms II Object-Oriented Programming Operating Systems
$\begin{array}{ll}\text { 3460:426 } & \text { Operating Systems } \\ \text { 3460:430 } & \text { Theory of Programming Languages }\end{array}$ Computer Organization 3460:480 Introduction to Software Engineering and Formal Methods4

3460:307

3460:421 Object-Oriented Programming3
3

Senior Seminar in Computer Science
3460:490 Senior Seminar in Computer Science ..... 3

- Other required courses:

| $3450: 208$ | Introduction to Discrete Mathematics | 4 |
| :--- | :--- | :--- |
| $3450: 221$ | Analytic Geometry and Calculus I | 4 |
| $3450: 222$ | Analytic Geometry and Calculus II | 4 |

3470:461 Applied Statistics I Calculus litu

- 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 <br> Computer Science <br> Schedule

The work-study schedule for a student participating in the Cooperative Education Program is as follows:

| Year | Fall | Spring | Summer |
| :---: | :--- | :--- | :--- |
| 1 | School | School | Vacation/School |
| 2 | School | School | Vacation/School/Work |
| 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 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 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 education 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 <br> Bachelor of Arts, Statistics <br> Bachelor of Science, Statistics <br> Bachelor of Science, Statistics/Statistical Computer Science <br> Bachelor of Science, Statistics/Actuarial Science <br> - The General Education requirement and the second year of a foreign language. <br> - Core curriculum: <br> Credits <br> 3450:221,2,3 Analytic Geometry-Calculus I, II and III 12 <br> 3450:312 Linear Algebra 3 <br> 3470:451,2 Theoretical Statistics I, II 6 <br> 3470:461 Applied Statistics I 4 <br> 3470:462 Applied Regression and ANOVA 4 <br> 3470:480 Statistical Data Management 3

- 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 18 credits of humanities or social sciences beyond the General Education. The 18 credits are to be from more than one department.
- For students intending to go on to graduate school, the following electives are recommended: 3450:421,422 Advanced Calculus I, II.


## 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 | 4 |
| :--- | :--- | :--- |
| 3460:209 | Introduction to Computer Science | 4 |
| 3460:210 | Data Structures \& Algorithms I | 4 |
| 3460:316 | Data Structures \& Algorithms II | 3 |
| 3460:475 | Database Management | $\underline{3}$ |

- 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

| $3460: 401$ | Fundamentals of Data Structures | 3 |
| :--- | :--- | :--- |
| 3460:406 | Introduction to C and UNIX | 3 |
| $3460: 475$ | Database Management | $\underline{3}$ |
|  |  | 9 |

- Electives - 20 credits


## Actuarial Science option (BS only)

- Other required courses:

| 3250:244 | Introduction to Economic Analysis | 3 |
| :--- | :--- | ---: |
| 3470:471,2 | Actuarial Science I, II | 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 | 3 |
| 3470:469 | Reliability Models | 3 |
|  |  | 6 |

- The recommended area of concentration for the Actuarial Science degree:

| 6200:202 | Accounting Principles II | 3 |
| :--- | :--- | :--- |
| 6400:301 | Business Finance | 3 |
| 6400:415 | Risk Management and Insurance | $\frac{3}{9}$ |

- 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.
- Completion of 27 credits above the second year (200 level): six credits in literature, six credits in culture, six credits of electives in the major language, and six credits in composition, and conversation and three credits in advanced grammar.
- Oral Proficiency Interview (OPI) exit requirement during final semester before graduation.


## German

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 28 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: Credits 3600:101 Introduction to Philosophy 3 3600:120 Introduction to Ethics 3 3600:170 Introduction to Logic 3600:211 History of Ancient Philosophy 3600:312 History of Medieval Philosophy 3
3 3600:313 History of Modern Philosophy 3

> (Of the additional twelve credits, six must be earned in 300/400-level 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 14 credits of a second language.
- Physics requirements: $\dagger$
A minimum of 40 credits at 200 level or higher, including: $\ddagger$
$3650: 291,2 \quad$ Elementary Classical Physics I and II
3650:301 Elementary Modern Physics 3
3650.322.3 Intermediate Laboratory 1 ,

3650:340 Thermal Physics
6

3650:350 Modeling and Simulation
3650:431 Mechanics I
3650:436 Electromagnetism I
3650:441 Quantum Physics I Physics Electives

Highly recommended courses for all students:
3650:432 Mechanics II
3650:437 Electromagnetism II
3650:451,2 Advanced Laboratory I, II
3650:481,2 Methods of Mathematical Physics I, II
3450:312 Linear Algebra
3650:399 Undergraduate Research


- Mathematics requirements:

| $3450: 221,2,3$ | Analytic Geometry-Calculus I, II, III | 12 |
| :--- | :--- | :--- |
| $3450: 335$ |  |  | 3450:335 Introduction to Ordinary Differential Equations3

- Chemistry requirements:

3150:151, 2, 3 Principles of Chemistry I, II, Lab

- Computer Science requirement:
3460:209 Introduction to Computer Science

The following courses are recommended for students wishing to enhance 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, |
| :--- | :--- |
| 3150:313,4 | Physical Chemistry Lecture I, |
| 3150:423,4 | Analytical Chemistry I, II |

150.313,4 Physical Chemistry Lecture I, II

3150:380, 381 Advanced Chemistry Lab I, II 46

- 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
9871:402/502 Introduction to Plastics
9871:411,12,13 Molecular Structure and Physical
Properties of Polymers I, II, III

- Physics (Pre-Graduate School)

| A suggested program of 31 credits to include 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 I, 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 flexibility is possible, depending upon the needs and interests of the individual student.

[^26] 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 applicable toward the required 40 credits of physics.

## 3700: Political Science

## 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 C- or below obtained in any course at other institutions will not apply toward a Political Science degree at The University of Akron.

## Bachelor of Arts

- The General Education requirement and the second year of a foreign language.
- Students must select one of the following three tracks:

- Additional Political Science electives to equal 30 credits total in Political Science.


## International/Comparative Track

3700:150 World Politics and Governments 3

3700:201 Introduction to Political Research 3
3700:300 Comparative Politics 4
3700:310 International Politics and Institutions 3
3700:303 Introduction to Political Thought 3
And two 400-level courses (may include 400-level courses used to meet the American politics requirement)

- Choose two American politics courses 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

- Additional Political Science electives to equal 30 credits total in Political Science.

Law, Courts and Politics Track

| Foundations in Political Science | Credits |  |
| :--- | :--- | :---: |
| $3700: 100$ | Government and Politics in the U.S. | 4 |
| $3700: 201$ | Introduction to Political Research | 3 |
| $3700: 303$ | Introduction to Political Thought | 3 |
| $3700: 310$ | International 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 Political Parties | 3 |
| Law, Courts and Politics |  |  |
| 3700:360 | Judicial Process | 3 |
| 3700:335 | Law and Society | 3 |
| 3700:334 | Law, Mediation and Violence | 3 |
| 3700:355 | Lawyers, Lawsuits and the Practice of Justice | 3 |

3700:476 American Political Parties

## urts and Politics

$3700 \cdot 335$
3700:334 Law, Mediation and Violence
3700:355 Lawyers, Lawsuits and the Practice of Justice

- Choose two:

| 3700:361 | Politics of Criminal Justice System |
| :--- | :--- |
| 3700:461 | Supreme Court and Constitutional Law |
| 3700:462 | Supreme Court and Civil Liberties |

3700:461 Supreme Court and Constitutional Law 3

## Internship Requirement

3700:395 Internship in Government and Politics

## Inter-Disciplinary

Four courses from a list of approved 200-, 300- or 400-level 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 should note that 2020:121 English and 2820:105 Basic Chemistry only satisfy General Education requirements for students who are completing the associate degree in Criminal Justice Technology and are classified as Summit College students. Furthermore, 2030:151, 152 and 153 Technical Mathematics I-III are only options for associate degree track students and all three courses ( 6 credits) must be completed before the student transfers to the College of Arts and Sciences. Students at Summit College (pursuing the full Associates Degree) may also take Technical Mathematics I (2030:151) paired with Mathematics for Modern Technology (2030:161). If you are unsure which courses to take, feel free to contact the Political Science Department 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: modern languages, history, political science, anthropology and geography.
- At least 30 departmental credits including:

Foundations in Political Science:

| 3700:100 | Government and Politics in the United States |
| :--- | :--- |
| 3700:201 | Introduction to Political Research |
| 3700:361 | Politics of the Criminal Justice System |
| Criminal Justice Core (choose four) |  |
| 3700:335 | Law and Society |
| $3700: 363$ | Crime, Punishment, Politics: A Comparative Perspective |
| 3700:450 | Administering Prisons, Probation and Parole |
| $3700: 480$ | Policy Problems: Criminal Justice |
| $3700: 481$ | The Challenges of Police Work |
| $3700: 482$ | Current Issues in Criminal Justice |
| $3700: 483$ | Constitutional Problems in Criminal Justice |

3700:201 3

```
Justice Core (choose four)
3700:335 Law and Society
3700:363 Crime, Punishment, Politics: A Comparative Perspective
Policy Problems: Criminal Justice
Current Issues in Criminal Justice
Constitutional Problems in Criminal Justice
```


## Internship Requirement

Credits
3700:395 Internship in Government and Politics
(Students are required to take a minimum two credits internship. No more than four credits may be applied toward major in political science.)
Advanced Political Science Courses (choose two only)
3700:341 The American Congress 3
3700:350 The American Presidency 3
3700:360 The Judicial Process
3700:370 Public Administration: Concepts and Practices
3700:380 Urban Politics and Policies
3700:402 Politics and the Media
3700:462 The Supreme Court 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
3750:335 Dynamics of Personality
3750:340 Social Psychology
3750:345 Cognitive Processes
3750:410 Psycholegical Tests and Measurements

- 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 II | 8 |
| $3850: 460$ | Sociological Theory | 4 |
|  | Sociology Electives | 14 |

- Electives

The student should consult with a departmental adviser about using electives to enhance the specialty area, e.g., academic sociology, deviance and corrections, health, family, aging and life cycle, social inequality 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 crimina 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 Internship | 3 |
| AND (choose one) |  |  |
| 3850:431 | Corrections | 3 |
| 3850:430 | Juvenile Delinquency | 3 |
| AND (choose one) |  |  |
| 3850:320 | Social Inequality |  |
| 3850:421 | Racial and Ethnic Relations | 3 |

## Bachelor of Arts in Interdisciplinary Anthropology

For information on the Interdisciplinary Anthropology program, please see 3200: Classical Studies, Anthropology and Archaeology.

## 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: Credits
- Classics:

3200:361 The Literature of Greece 3
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)

- 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 environmenal 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

| 3700:100 | Government and Politics in the United States <br> or <br> Introduction to Political Research | 4 |
| :--- | :--- | :--- |
| 3700:201 | 3 |  |

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 Government 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 | Urban 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 |

## Comparative Politics:

3700:300 Comparative Politics 4

3700:321 Western Europe Politics 3
$\begin{array}{lll}3700: 326 & \text { Politics of Developing Nations } & 3 \\ 3700: 420 & \text { Issues and Approaches in Comparative Politics } & 3\end{array}$
$\begin{array}{lll}\text { 3700:425 } & \text { Lssues and Approaches in Comparative Poilics } & 3\end{array}$

## International Politics:

3700:310 International Politics and Institutions 3

3700:328 American Foreign Policy Process 3
3700:415 Comparative Foreign Policy 3

## Political Theory:

3700:302 American Political Ideas 3
3700:303 Introduction to Political Thought 3

| 3700:304 Modern Political Thought | 3 |
| :--- | :--- |

- 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 nd 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: |  | Credits |
| :---: | :--- | :---: |
| $3600: 120$ | Introduction to Ethics* | 3 |
| $3600: 170$ | Introduction to Logic* | 3 |
| $3600: 464$ | Philosophy of Science | 3 |
| $3600: 3 x \times / 4 x x$ | $300 / 400$ level courses in Philosophy | $\underline{6}$ |
|  |  | 15 |
| Political Science: |  |  |
| $3700: 201$ | Introduction to Political Research | 3 |
| $3700: 303$ | Introduction to Political Thought | 3 |
| $3700: 3 x \times / 4 x x$ | $300 / 400$ level courses in Political Science | $\underline{9}$ |
|  |  | 15 |
| Economics: |  |  |
| $3250: 244$ | Introduction to Economic Analysis** | 3 |
| $3250: 400$ | Intermediate Macroeconomics | 3 |
| $3250: 410$ | Intermediate Microeconomics | 3 |
| $3250: 3 x \times / 4 x x$ | $300 / 400$ level courses in Economics | $\underline{6}$ |
|  |  | 15 |

- 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.

[^27]
## 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 Akron campus (summers included). Phase I students who successfully complete coursework requirements, maintain 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 II 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 clinical campuses, leading to the M.D. degree.

During Phase I, B.S./M.D. students usually pursue a natural sciences division major in the Buchtel College of Arts and Sciences, although other majors may be selected with the approval of the B.S./M.D. Program Coordinator. B.S./M.D. students are eligible for participation 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 fuffiling 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 Ethic

- Remaining 9 credits from among the following

Classics (3200)
Latin (3510)
History (3400)
Humanities in the Western Tradition I, II (3400:210,211)
Group II: $\mathbf{1 3}$ hours

- Required:

7600:105 Introduction to Public Speaking 3
7600:106 $\stackrel{\text { Or }}{\text { Effective }}$
cation
English Composition I Honors
Greek (3210)
English (3300, above 112)
Philosophy (3600)
World Civilizations (3400:385-391)

English Composition II Honors or

Other approved writing class 3-4

- Remaining credits from among the following

Modern Languages (3520-3580 300 level or above) Music (7500)

Art (7100)
Musical Organizations (7510)
Applied Music (7520)
Theatre Arts (7
Theatre Organizations (7810)
Dance (7900)

Dance Organizations (7910)

## Group III: 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 $(3850)$ |

Psychology (3750)

Group IV: 68 hours (satisfies requirement for Natural Sciences

## Divisional major).*

- Required:


## Mathematics

3450:221 Analytical Geometry Calculus I 4
3460:125 Descriptive Computer Science 2
3470:261,2 Introductory Statistics I, II 4
Biology
3100:111,112 Principles of Biology I,II 8
3100:211 General Genetics 3
3100:363 Animal Physiology 4
3100:467 Comparative Vertebrate Morphology
3100:485 Cell Physiology
(plus 4 additional biology 300/400 credits - may be transferred from NEOUCOM)
Chemistry
3150:151,153 Principles of Chemistry I, II 6
3150:152 Principles of Chemistry I Laboratory $\quad 1$
3150:154
3150:263,264 Organic Chemistry I, II 6
3150:265 Organic Chemistry Lab 2
3150:401,402 Biochemistry I, II 6
Physics
3650:261,262 Physics for Life Sciences I, 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 (3100, 3150, 3370, 3650). Credits earned in excess of requirements for any Group IIII may be applied toward this free elective requirement. (May be taken on credit/noncredit basis.)

| Specific B.S./M.D. Program Requirements: 11 hours |  |  |
| :--- | :--- | :--- |
| $2780: 290$ | Special Topics | 2 |
| $3100: 180$ | BS/MD Orientation | 1 |
| $3100: 190,191$ | Health Care Delivery Systems | 2 |
| $3100: 290,291$ | Health Care Delivery Systems | 2 |
| $1880: 201$ | Medical Seminar and Practicum I | 3 |
| Physical Education Requirement: 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 laboratory 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.S./M.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.

[^28]
# College of Engineering 

G. Haritos, Ph.D., Dean<br>Subramaniya Hariharan, Ph.D, Associate Dean of Research 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 engineering. The faculty in the College 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 REQUIREIMENTS

## Admission

To be admitted to the College, the student must have a) 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 application (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 D+, D, D-, F, 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 and Biomolecular 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 XXX 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 engineering profession is normally through a university undergraduate program in one 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 engineering design

In addition, the ABET 2000 Criteria 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 modern 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 life-long learning.
- A knowledge of contemporary issues.

The Biomedical Engineering, Computer Engineering, Mechanical Polymer Engineering, Chemical and Biomolecular 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 first-hand experience. The student develops 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.

## PROGRAIMS OF INSTRUCTION

## 4200: Chemical and Biomolecular Engineering

Chemical and biomolecular 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 controls. 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 and biomolecular 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 and Biomolecular Engineering Department 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 and Biomolecular 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 and Biomolecular 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, learn 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 knowledge of advanced chemistry such as inorganic, analytical, materials chemistry, polymer science or biochemistry.
- a working knowledge of material and energy balances, 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 processes 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 life-long learning.

The Chemical and Biomolecular Engineering program provides a unique opportunity to master teamwork and design project management skills. Teams of freshmen through senior Chemical and Biomolecular 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 and Biomolecular Engineering curriculum consists of:

- General Education - 29 credits.
- Natural science:

3150:151,2,3 Principles of Chemistry //Lab, II
$\begin{array}{lll}3450: 335 & \text { Introduction to Ordinary Differential Equations } & 3 \\ 3450: x x x & \text { Advanced Mathematics Elective } & 2\end{array}$ 12

3650:291,2 Elementary Classical Physics I, II 8

- Advanced chemistry:

3150:263,4 Organic Chemistry I, II 6
3150:265 Organic Chemistry Laboratory 2
3150:313,4 Physical Chemistry I, II 6

- Engineering core:

4200:121 Chemical Engineering Computations 2
4200:305 Materials Science
4200:305 Materials Science
2
4300:201 Statics 3
4400:320 Basic Electrical Engineering

- Chemical and Biomolecular Engineering:

4200:101 Tools for Chemical Engineering 2
4200:110 Project Management and Teamwork I 1
4200:200 Material and Energy Balances 4
4200:210 Project Management and Teamwork II 1
4200:225 Equilibrium Thermodynamics 4
4200:310 Project Management and Teamwork III 1
4200:321 Transport Phenomena 3
4200:330 Chemical Reaction Engineering 3
4200:341 Process Economics 2
4200:351 Fluid and Thermal Operations 3
4200:353
4200:360 Chemical Engineering Laboratory
4200:410 Project Management and Teamwork IV
4200:435 - Process Analysis and Control- - N
4200:441 Process Design I 3
4200:442 Process Design II 3

- Electives:

4700:407 or Advanced Chemistry Elective
Engineering Design Elective
Chemical Engineering Science Electives
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 and Biomolecular Engineering should contact the department for the transition schedule.

## Biotechnology Specialization Certificate

Chemical and Biomolecular 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 Physical Chemistry I, II
4200:305 Materials Science

- Required courses

3100:111, 112 Principles of Biology I, II 8
3100:311 Cell and Molecular Biology 4
3100:331 Microbiology 4
3150:401 Biochemistry Lecture (satisfies Advanced Chemistry Elective) 3

- Chemical and Biomolecular Engineering elective (minimum 3 credits) must be chosen from the following list:
4200:194 Chemical Engineering Design I (with permission)
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
Bioreactor Design
4200:494 Design Project (with permission)
4200:496 Topics in Chemical Engineering (with permission)
4200:497 Honors Proiect (with permission)
4200:499 Research Project(with permission) $\quad 1-3$
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
4200:473 Bioreactor Design
3
4200:494 Design Project (with permission)
4200:496 Topics in Chemical Engineering (with permission)
4200:497
3
4200:497 Honors Proiect (with permsion)
Research Project (with permission)
Special Projects (with permission)
4800:485 Special Topics in Biomedical Engineering

## Polymer Engineering Specialization Certificate

- Required:

4200:408
Polymer Engineering
3

- Chemical and Biomolecular 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 | 3 |
| 9871:402 | Introduction to Plastics | 3 |
| $9871: 407$ | Polymer Science (satisfies Advanced Chemistry elective) | 4 |

## BS/MS in Chemical and Biomolecular Engineering

The five-year BS/MS program in Chemical and Biomolecular Engineering provides superior undergraduate students with the opportunity to complete a master's of science degree in Chemical and Biomolecular Engineering with an additional year of study beyond their bachelors degree. The program is only available to bachelor of science Chemical and Biomolecular Engineering students at The University of Akron. Applications are accepted in the spring of the junior year.

| $4200: 600$ | Transport Phenomena | 3 |
| :--- | :--- | :--- |
| $4200: 605$ | Chemical Reaction Engineering | 3 |
| $4200: 610$ | Classical Thermodynamics | 3 |
| $4200: 631$ | Chemical Engineering Analysis | 3 |
|  | Chemical Engineering Electives | 3 |
|  | Approved Electives | 6 |
|  | Approved Mathematics | 3 |
|  | Master's Thesis | 6 |

## 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 specialization, 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.

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-long learning.
- An ability to use techniques, skills and modern engineering tools necessary for civil engineering practice.
- General Education - 29 credits
- Natural Science:

3150:151,2,3 Principles of Chemistry I/Lab, II
3370:105 Physical Geology for Engineers 3
3450:221,2,3 Analytic Geometry-Calculus I, II, III 12
3450:335 Introduction to Ordinary Differential Equations
3650:291,2 Elementary Classical Physics I,II 8

- Engineering Core:
4300:101 Tools for Civil Engineering 3

4300:201 Statics 3
4300:202 Introduction to Mechanics of Solids 3
4400:320 Basic Electrical Engineering 4
4600:203 Dynamics
4600:305 Thermal Science
4600:310 Fluid Mechas

- Civil Engineering:

4300:120 Introduction to Civil Engineering Design 2
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 Materials 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 learning, 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 as described in IEEE ABET 2006 criteria, 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 desired 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 Internet
- 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: Credits

3150:151,2, Principles of Chemistry I/Lab 4
3450:221,2,3 Analytic Geometry-Calculus I, II, III 12
3450:335 Introduction to Ordinary Differential Equations 3
3470:401 Probability and Statistics for Engineers 2
3650:291,2 Elementary Classical Physics I, II 8

- Engineering core:

4200:305 Materials Science
4600:305 Thermal Science 2
4300:201 Statics
4300:202 Introduction to Mechanics of Solids
4600:203 Dynamics
4450:208 Programming for Engineers
3

- Electrical engineering:

4400:101 Tools for Electrical and Computer Engineering 3
400.231 332 Circuits I II*

4400:230,330 Circuits Laboratory I, II
4400:263 Switching and Logic
Communications and Signal Processing 3
4400:343 Signals and Systems 4
4400:353,4 Electromagnetic I, II $\quad 7$
4400:360 Physical Electronics 3
4400:361 Electronic Design 4
4400:371 Control Systems I 4

* Electrical engineering majors must achieve C- or better in 4400:231 Circuits I to take 4400:332 Circuits II.

4400:381
4400:400
4400:401, 2

- Electives

Energy Conversion
Senior Seminar
Senior Design Project I, II+
Electrical Engineering Electives

## Credits

4
4
1
5

## 4450: Computer Engineering

Computer engineering applies computer technology along with traditional engineering science to address systems in which computing is an essential function. Such systems 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, medical 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 learning, 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 as described in IEEE ABET 2006 criteria, 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 desired 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 Internet
- 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
- 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 IIIIIII | 12 |
| 3450:335 | Introduction to Ordinary Differential Equations | 3 |
| 3470:401 | Probability and Statistics for Engineers | 2 |
| 3650:291,2 | Elementary Classical Physics I,II | 8 |
| Computer | Engineering: |  |
| 4450:330 | Computer Systems | 3 |
| 4450:370 | VLSI Design | 3 |
| 4450:375 | Operating Systems Concepts | 3 |
| 4450:480 | Computer Systems Design | 3 |
| Computer | Science: |  |
| 3460:209 | Introduction to Computer Science | 4 |
| 3460:210 | Data Structures \& Algorithms I | 4 |
| 3460:316 | Data Structures \& Algorithms II | 3 |

- Electrical Engineering:

| $4400: 101$ | Tools for Electrical and Computer Engineering |
| :--- | :--- |
| $4400: 231,332$ | Circuits I, II |
| $4400: 230,330$ | Circuits Laboratory I, II* |
| $4400: 263$ | Switching and Logic |
| $4400: 341$ | Communications and Signal Processing |
| $4400: 343$ | Signals and Systems |
| $4400: 360$ | Physical Electronics |
| $4400: 400$ | Senior Seminar |
| $4400: 401,2$ | Senior Design Project I, II+ |
| $4400: 451$ | Electromagnetic Compatibility |
| $4400: 465$ | Programmable Logic |
| $4400: 470$ | Microprocessor Interfacing |
| Electives: |  |
|  | Computer Engineering Electives |

Credits
4400:101
Circuits I, II3Circuits Laboratory I, II2
Switching and I oaic
4400:341 Communications and Signal Processing
Signals and Systems
Physical Electronics
4400:400 Senior Seminar
Senior Design Project I, II+
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 principles of the (1) thermal/fluids 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 energy, momentum, continuity, state and constitutive equations to ther-mo-fluid and mechanical systems in a logical and discerning manner.
- Design and perform laboratory experiments for thermal, fluid and mechanical systems to gather data and test theories.
- Design thermal, fluid and mechanical and control systems to meet specifications.
- Participate effectively in the same-discipline and cross disciplinary groups.
- Identify, formulate, solve thermal, fluid and mechanical engineering problems by applying first principles, including open-ended problems.
- Develop practical solutions for mechanical engineering problems under ethical constraints.
- Communicate effectively with written, oral and visual means in a technical setting.
- Recognize the fact that solutions may sometimes require non-engineering considerations such as art and impact on society.
- Be prepared for a lifetime of continuing education.
- Recognize environmental constraints and safety issues in engineering.
- An ability to use modern modeling and simulation techniques and computing tools.
- General Education - 29 credits.
- Natural science:

| $3150: 151,2,3$ | Principles of Chemistry I/Lab, 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 | 2 |
| $4300: 201$ | Statics | 3 |
| $4300: 202$ | Introduction to Mechanics of Solids | 3 |
| $4400: 320$ | Basic Electrical Engineering | 4 |
| $4600: 165$ | Tools for Mechanical Engineering | 3 |
| $4600: 203$ | Dynamics | 3 |
| $4600: 260$ | Engineering Analysis I | 2 |
| $4600: 300$ | Thermodynamics I | 3 |
| $4600: 310$ | Fluid Mechanics I | 2 |

[^29]- Mechanical engineering: Credits

4600:301 Thermodynamics II 2
4600:311 Fluid Mechanics II 3
4600:315 Heat Transfer 3
4600:321 Kinematics 2
4600:336 Analysis of Mechanical Components $\quad 3$
4600:337 Design of Mechanical Components 3
4600:340 Systems Dynamics and Response 3
2
Engineering Analysis
4600:400 Thermal System Components 3
4600:402
4600:431 Fundamentals of Mechanical Vibrations
4600:441 Control Systems Design
4600:460 Concepts of Design
4600:461 ME Senior Design Project I
4600:471 ME Senior Design Project II
4600:483 Mechanical Engineering Measurements Laboratory
4600:484 Mechanical Engineering Laboratory

- 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 earn a Polymer Engineering Specialization Certificate by taking one of the following courses:

| $9871: 401$ | Introduction to Elastomers | 3 |
| :--- | :--- | :--- |
| $9871: 402$ | Introduction to Plastics | 3 |
| $9871: 407$ | Polymer Science | 4 |

and the following two courses:

| 4700:425 | Introduction to Blending and Compounding of Polymers | 3 |
| :--- | :--- | :--- |
| $4700: 427$ | Mold Design | 3 |

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.

## 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 learners 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:

Students should successfully complete all three courses listed below:
4600:442/542 Industrial Automatic Contro
4600:444/544 Robot Design and Control Applications
4600:670 Integrated Flexible Manufacturing Systems* 3

[^30]
## 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:

- An ability to apply knowledge of mechanical behavior of polymeric fluids and solid polymers in a logical and discerning manner.
- An ability to apply energy, momentum, continuity, and constitutive equations to interdisciplinary mechanical-polymer systems.
- Develop, design and perform laboratory experiments for interdisciplinary mechanical-polymer systems to gather data and test theories.
- Design of mechanical and polymeric components and machinery to meet the desired steady state or transient specification.
- Participate effectively in the same-discipline and cross disciplinary groups.
- An ability to identify, formulate and solve mechanical and polymer engineering problems by applying first principles, including open ended problems.
- Develop practical solutions to mechanical and polymer engineering problems under ethical constraints.
- An ability to communicate effectively with written, oral and visual means in a technical setting
- Recognition of the fact that solutions may sometimes require non-engineering considerations such as art and impact on society.
- Be prepared for a lifetime of continuing education.
- Recognition of environmental constraints and safety issues in engineering.
- An ability to use modern modeling and simulation techniques and computing tools.


## Requirements

- General Education - 29 credits
- Natural Science:

3150:151,2,3 Principles of Chemistry I/Lab, 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 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

- Mechanical Engineering:

4600:315 Heat Transfer
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 2
4600:380 Mechanical Metallurgy 2
4600:400 Thermal System Components
4600:402 Senior Seminar
4600:431 Fundamentals of Mechanical Vibrations 3
4600:441 Control Systems Design 3
4600:460 Concepts of Design 3
4600:483 Mechanical Engineering Measurements Laboratory 2

- Polymer Engineering-Polymer Science:
4700:281 Polymer Science for Engineers 2

4700:381 Polymer Morphology for Engineers

- Polymer Engineering: Credits

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 3
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 faculty assignments by the College of Polymer 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 problems 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 evaluation 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 Engineering 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 two tracks: Biomechanics and Instrumentation, Signals and Imaging. The Biomechanics track is designed for those students who would pursue a Mechanical Engineering background with specialization in the areas of cardiovascular, 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 specialization in biomedical instrumentation, signal and image processing, imaging devices and detectors and system simulations.
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 engineering problem 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 procedure.
The Department of Biomedical Engineering has established the following program outcomes for obtaining ABET accreditation. Graduates should be able to demonstrate:

- An ability to apply basic knowledge of anatomy and physiology, as well as knowledge of fundamental conservation laws and constitutive laws in mechanical and biomechanical systems (for the Biomechanics Track) or fundamental conservation laws and principles of circuit analysis and design, electromagnetics and signal and image analysis to biomedical engineering (for the Instrumentation, Signals and Imaging Track).
- An ability to design, devise and conduct experiments in biomechanical systems/bioinstrumentation and analyze the results.
- An ability to design medical devices, systems or techniques to meet specific goals.
- An ability to participate effectively as a member of a multi-disciplinary team.
- An ability to recognize, define, evaluate and solve biomedical engineering problems.
- An understanding of professional and ethical responsibility in biomedical engineering.
- An ability to communicate effectively with multi-disciplinary groups using written, 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 engineering, as well as an awareness of current developments in society and technology.
- An ability to use modern techniques, skills and tools for biomedical engineering practice.


## The Biomaterials and Tissue Engineering track

- General Education - 29 credits including:

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3250:244 Introduction to Economic Analysis
3600:120 Introduction to Ethics
```

    3
    3
    - Mathematics:
3450:221, 2, $3 \quad$ Analytic Geometry - Calculus I, II, III 12

3450:335 Introduction to Ordinary Differential Equations 3
3670:461 Applied Statistics 4

- Natural Science:

3150:151, 2, 3 Principles of Chemistry I, II/Lab I 7
3150:154 Qualitative Analysis
3150:263, $5 \quad$ Organic Chemistry I, Lab
3650:291, $2 \quad$ Elementary Classical Physics I, II \& Lab
3100:200, 1, 2, 3 Human Anatomy and Physiology I, II, Labs 8

- Engineering Core

| 4200:321 | Transport Phenomena |
| :--- | :--- |
| 4300:201 | Statics |
| 4300:202 | Mechanics of Solids |
| 4400:320 | Basic Electrical Engineering |
| 4600:203 | Dynamics |
| 460:300 | Thermodynamics I |


| $4300: 201 ~ S t a t i c s ~$ | 3 |
| :--- | :--- | :--- |Basic Electrical Engineering

Dynamics
Thermodynamics I

- Biomedical Engineering

4800:101 Tools for Biomedical Engineering
4800:111 Introduction to BME Design
4800:201 Sophomore Seminar in Biomedical Engineering
4800:220 Biomedical Computing
4800:305 Introduction to Biophysical Measurement
4800:360 Biofluid Mechanics
4800:365 Mechanics of Biological Tissues
4800:400 Biomaterials
4800:440 Advanced Biomaterials
4800:445 Experimental Techniques in Biomaterials and Tissue Engineering
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 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 | Analytic Geometry-Calculus I, II, III |
| :--- | :--- |
| 3450:335 | Introduction to Ordinary Differential Equations |
| 3670:461 | Applied Statistics |12

3450:335

Applied Statistics3
4

- Natural Science:

3100:200, 1, 2, 3 Human Anatomy and Physiology I, II, Lab I, II
3150:151, 2, $3 \quad$ Principles of Chemistry I, II/Lab I
3650:291, 2 Elementary Classical Physics I, II

- Engineering Core

| $4300: 201$ | Statics |
| :--- | :--- |
| $4300: 202$ | Mechanics of Solids |
| $4400: 320$ | Basic Electrical Engineering |
| $4600: 203$ | Dynamics |
| $4600: 300$ | Thermodynamics I |
| $4600: 315$ | Heat Transfer Process |
| $4600: 321$ | Kinematics |
| $4600: 420$ | Introduction to the Finite Element Method |

4400:320 Basic Electrical Engineering
4600.203 Dynamics

4600:315 Heat Transfer Process
4600:420 Introduction to the Finite Element Method
3600:120 Introduction to Ethics 3

- Biomedical Engineering

| 4800:101 | Tools for Biomedical Engineering |
| :--- | :--- |
| $4800: 111$ | Introduction to BME Design |
| $4800: 201$ | Sophomore Seminar in Biomedical Engineering |
| $4800: 220$ | Biomedical Computing |
| $4800: 305$ | Introduction to Biophysical Measurement |
| $4800: 310$ | Modeling \& Simulation in Biomedical Systems |
| $4800: 360$ | Biofluid Mechanics |
| $4800: 365$ | Mechanics of Biological Tissues |
| $4800: 400$ | Biomaterials |
| $4800: 460 / 560$ | Experimental Techniques in Biomechanics |
| $4800: 491$ | BME Design I |
| $4800: 492$ | BME Design II |3


| 4800:101 | Tools for Biomedical Engineering | 3 |
| :--- | :--- | :--- |
| $4800: 111$ | Introduction to BME Design | 3 |

4800:201 Sophomore Seminar in Biomedical Engineering
4800:305 Introduction to Biophysical Measurement
4800:310 Modeling \& Simulation in Biomedical Systems
Biofluid Mechanics
4800:400 Biomaterials
Experimental Techniques in Biomechanics
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.

## 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, III, II II 12
3450:335 Introduction to Ordinary Differential Equations 3
3670:461 Applied Statistics 4

- Natural Science:

3100:200, 1, 2, 3 Human Anatomy and Physiology I, II, Lab I, II 4
3150:151, 2, 3 Principles of Chemistry I, II/Lab I 7
3650:291, 2 Elementary Classical Physics I, II 8

- Engineering Core

| 4300:201 | Statics | 3 |
| :--- | :--- | :--- |
| 4400:230, | Circuits I and Lab | 4 |
| 4400:263 | Switching and Logic | 4 |
| 4400:330, 2 | Circuits II and Lab | 4 |
| 4400:343 | Signals and Systems | 4 |
| 4400:360 | Physical Electronics | 3 |
| $4600: 305$ | Thermal Science | 2 |
| $4600: 203$ | Dynamics | 3 |

- 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
4800:220
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
2

- Electives: 9

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 |

Free Electives, adviser approval 10

# College of Education 

Patricia A. Nelson, Ph.D., Dean<br>Robert K. Eley, Ed.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 well-being through stan-dard-setting programs that enhance teaching, learning and human development; research and inquiry; and outreach. We develop ourselves 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 and exercise science, athletic training for sport medicine and several teacher education programs housed outside the College. Programs include a balanced offering of a foundation in general education, intensive study in the content area, and those professional courses and other learning 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 REOUIREIMENTS

## 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 and written communication, mathematics, academic aptitude and achievement, interpersonal relations and motivation. 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 admission 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 following criteria: A student must have completed at least 30 semester hours of coursework. This coursework 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.
- Grade-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 before attempting the test.
- College Mathematics - Evidence of competency in mathematics as evidenced by the Praxis I Pre-Professional Skills Test (PPST), or computerized version (CBT), scoring at least 172 in mathematics. (Student with a 22 Composite ACT score or a 1050 Composite SAT score is exempt from this admission requirement.)
- Reading and Writing - Evidence of competency in reading comprehension and writing as evidenced by the Praxis I Pre-Professional Skills Test (PPST), or computerized version (CBT), scoring at least 173 in reading comprehension and at least 172 in writing. (Student with a 22 Composite ACT score or a 1050 Composite SAT score is exempt from this admission requirement.)
- 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 Timeline - 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 Affairs Advisement Center, Zook Hall 228, The University of Akron, Akron, OH 44325, phone (330) 972-6970.

[^31]
## 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 228

- References - Students are expected to ask two individuals, not related 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 requirements specified by the program to which they are applying. These are available in the department.
- Advisement - All students will be assigned an adviser and will need to complete an individual advisement program plan. In keeping with the philosophy of the College of Education's teacher education curriculum "Educator as Decision Maker," 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 BCI (Bureau of Criminal Investigation) Clearance. A BCI 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 applicable for certification/licensure. Check with your adviser regarding specific departmental policies.
- Transfer Students - Transfer students will be expected to meet the same admission standards as Akron students
- Post-Baccalaureate Students - Qualified post-baccalaureate students 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 following 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 ( $\mathrm{K}-12$ ), 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. Consequently, the most important skill a future teacher can have is good decision making; knowing "when to do what." Decision-making is stressed in the stan-dards-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 central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful. 2) The teacher understands how children learn and develop and can provide learning 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 learners. 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 community 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. Learning About Learners, "How can I use information about myself and others to understand decisions about students and learners?"
- Phase II. Learning About Teaching, "How do I use principles of learning to make instructional decisions?"
- Phase III. Learning to Apply the Principles of Teaching, "How do I make instructional decisions for specific groups of students?"
- Phase IV. Learning to Teach, "How do I make the best decisions for students?"

During each phase of the program, students 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, regardless of their teaching field. The field experiences provide students with experience in schools from the very beginning of their program. Additionally during their field and clinical experiences, teacher education students learn to apply what they are learning in courses.
Program studies area courses are related to students' intended area of certification/licensure. In addition, students have an adviser to help plan what to study and to review what has been accomplished

The culminating experience for teacher education students is student teaching. Under the supervision 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 education students are required to participate satisfactorily in clinical and field-based experiences for a minimum of 600 hours prior to recommendation for certification/licensure for teaching in Ohio. These clinical and field-based experiences are designed to provide teacher education students with the opportunity to apply theory and skills related to their areas of licensure in at least onehalf of the clinical and field-based clock hours. The field-based experiences are planned in culturally, racially, and socio-economically 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 school 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 students must have approval of the Student Teaching Committee to be placed for student teaching. Committee approval requires that the student submit an approved application for student teaching and also 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, students must have a 2.50 average overall, 2.50 in education classes, and 2.50 in the student's major, and in methods courses(as defined by departments), core courses and in their teaching field(s). Satisfactory completion of at least 300 hours 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 student 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 college. The student must provide evidence of a current BCI (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 FBI clearance report. Application for the license may be obtained from the Office of Student Affairs, College of Education, Zook Hall 228; (330) 972-6970.

## Ohio Licensure Examination Pass-Rate Data* <br> Regular Teacher Preparation Program Average Student Enrollment 2,479

## 2003-2004 School Year

*The following table reflects pass-rate data for Akron students who completed their teacher education preparation program and took the Praxis II licensure examination(s) required to receive an Ohio teaching license. This data, based on 322 completers submitted is for the most recent year reported to the Ohio Department of Education for Ohio's annual report to the U.S. Secretary of Education. As a point of comparison, Ohio's state-wide pass-rate average is also listed, and the column for National Pass Rate indicates the percentage of all individuals across the country who took the test and who would have passed it based upon Ohio's pass score for that test. In accordance with Federal guidelines for reporting, licensure tests for which fewer than 10 individuals are reported are not available for publication. Once a base number of 10 individuals have taken a particular examination, examination results for that academic licensure field will become a part of Akron's annual report. This information is updated annually to reflect the most recently known annual pass-rate for Akron program completers to receive an Ohio teaching license.
Student teaching at Akron ranges from 300 to 480 hours, depending upon the licensure program, and the student-faculty ratio in supervised student teaching is six to one. Akron's teacher preparation program is fully approved/accredited by both the Ohio Department of Education and NCATE, National Council For Accreditation of Teacher Education. Akron is designated a successfully-performing institution.

| Type of Assessment | Assessment Code | Number Taking | Number Passing | Univ.Akron Pass Rate | State-Wide Pass Rate | National Pass |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate | Number | Assessment | Assessment | (Percent) | (Percent) | (Percent) |
| Professional Knowledge |  |  |  |  |  |  |
| PRINCIPLES OF LEARNING <br> \&TEACHING EARLY CHD | 0521 | 18 | 16 | 89 | 99 | 93 |
| PRINCIPLES OF LEARNING \& TEACHING K-6 | 0522 | 29 | 26 | 90 | 92 | 69 |
| PRINCIPLES OF LEARNING \& TEACHING 5-9 | 0523 | 58 | 52 | 90 | 92 | 60 |
| PRINCIPLES OF LEARNING \& TEACHING 7-12 | 0524 | 144 | 134 | 93 | 97 | 79 |
| Academic Content Areas |  |  |  |  |  |  |
| EARLYCHILDHOOD EDUCATION | 0020 | 166 | 166 | 100 | 99 | 85 |
| EDUCATION OF YOUNG CHILDREN | 0021 | 11 | 11 | 100 | 99 | 93 |
| ENGLISH-- CONTENT KNOWLEDGE | 0041 | 27 | 26 | 96 | 92 | 70 |
| MIDDLE SCHOOL ENGLISH LANGUAGE ARTS | 0049 | 16 | 16 | 100 | 97 | 84 |
| MIDDLE SCHOOL <br> MATHEMATICS | 0069 | 31 | 30 | 97 | 100 | 84 |
| MIDDLE SCHOOL SOCIAL STUDIES | 0089 | 27 | 26 | 96 | 93 | 75 |
| PHYSICAL EDUCATION CONTENT KNOWLEDGE | 0091 | 19 | 18 | 95 | 93 | 63 |
| MUSICCONTENT KNOWLEDGE | 0113 | 14 | 14 | 100 | 97 | 82 |
| ART- <br> CONTENT KNOWLEDGE | 0133 | 20 | 20 | 100 | 98 | 85 |
| OTHER CONTENT AREAS MUSICCONTENT KNOWLEDGE | 0120 | 12 | 12 | 100 | 100 | 0 |
| TEACHING SPECIAL POPUL SPECIAL EDUCATION -KNOWLEDGE-BASED CORE PRINCIPLES | ATIONS 0351 | 23 | 22 | 96 | 95 | 79 |

## Students Enrolled in Other Colleges at The University of Akron

All students, regardless of the degree-granting college 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, drama/theatre, 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 grade-point average.
- Sign an agreement card which states that participation in Cooperative Education will not meet College of Education or State of Ohio requirements for clinical/field 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.


## PROGRAVS OF INSTRUCTION

5200: Early Childhood Education<br>http://www.uakron.edu/colleges/educ/COE/programs.php

## 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, written 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 eligible to student teach and graduate from the College of Education. Other admission requirements are outlined on the program application form.
Courses and experiences prepare our students to work in preschools, childcare centers, or to teach in primary schools. Various techniques to establish positive learning 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, students should contact a preadmission adviser in Zook Hall 228, (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. Students 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

| $3300: 111$ | English Composition I | 4 |
| :--- | :--- | :--- |
| $3300: 112$ | English Composition II | 3 |
| $7600: 105$ | Introduction to Public Speaking | 3 |
| $7600: 106$ | or | 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

- Mathematics - minimum of 6 credits

3450:140 Mathematics for Elementary School Teachers I 3
3450:260 Mathematics for Elementary School 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:xxx $\quad$ Science(s) from any set except Biology (see Bulletin)

- Child Development

7400:265 Child Development
3

- Physical EducationMellness

5540:xxx Physical Education/Wellness

- 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 Educational Equity \& Excellence
5500:230 Educational Technology
5500:360 Educational Planning
5500:370 Educational Implementation
Introduction to Exceptionalities

Reading Courses
Credits
5500:245 Understanding Literacy Development and Phonics 3
5500:286 Teaching Multiple 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 Early Childhood Education 0
5200:215 Child, Family, and School 3
5200:319 Integrating Expressive Arts in Early Childhood* 3
5200:325 Advanced Early Childhood Curriculum 4
5200:342 Teaching Mathematics to Young Children 3
5200:340 Developmental Writing in Early Childhood 3
5200:420 Integrated Primary Curriculum 4
5200:425 Advanced Integrated Primary Curriculum 4
5200:495 Student Teaching (Pre-K through K) 6
5200:496 Student Teaching (Grades 1-3) 6
5200:498 Student Teaching Colloquium
5610:450 Special Education Programs in Early Childhood
5610:450 Special Education Programs in Early Childhood 3
5610:459 Collaboration \& Consultation in Schools 3
5610:460 Family Dynamics \& Community 3
7400:265 Child Development
7400:270 Theory and Guidance Play
7400:280

## Reading Endorsement

Students 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 (enewton@uakron.edu).

## 5250: Middle Level Education <br> http://www.uakron.edu/colleges/educ/COE/programs.php

Prior to admission students must complete 35 credit hours of coursework with a 2.50 GPA. These requirements provide Middle Childhood Education majors with the breadth of knowledge (science, written and oral communication, math and social studies) they will need to make decisions in the Middle Childhood setting.
Students 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 outlined on the program application form. Courses and experiences prepare students to work in elementary, middle and junior high schools. Various techniques to establish positive learning environments are taught as students 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 students in Middle Childhood Education are also required to have two areas of concentration from outside the College of Education. Students may choose from sciences, social sciences, mathematics, or reading and language arts. For specific program and required course listings in each area of concentration, students should contact a pre-admission adviser in Zook Hall 228, (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. Students 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 |
| :---: | :---: | :---: |
| 3300:111 | English Composition I | 4 |
| 3300:112 | English Composition II | 3 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Introduction to Effective Oral 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 | Mathematics for Elementary School Teachers I | 3 |
| 3450:260 | Math for Elementary School 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 |
| $3 x x x: x x x$ | Science(s) from any set except Biology (see Bulletin) | 4 |
| - Concentration |  |  |
|  | coursework from the Area of Concentration that is not already used above with a " C " or better. | 3 |
| - Physical Education/Vellness |  |  |
| 5540:xxx | Physical Education/Wellness | 1 |
| - General Studies - 42 credits with a 2.5 GPA or better |  |  |
| Professional Education - $\mathbf{5 2}$ credits |  |  |
| - 2.5 GPA or better and a "C" or better in all coursework. |  |  |
| 5100:200 | Introduction to Education | 3 |
| 5100:220 | Educational Psychology | 3 |
| 5100:300 | Educational Equity \& Excellence | 3 |
| 5250:100 | Orientation to Middle Level Education Program | 0 |
| 5250:300 | Middle Level Education | 3 |
| 5250:495 | Student Teaching (Grades 4-6) | 6 |
| 5250:496 | 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 Reading in the Content 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, reading/language arts, science and social studies. Students must maintain a 2.5 GPA overall in the areas of concentration.


## Mathematics - $\mathbf{2 4}$ credits

- 3 hours from General Education mathematics

| 3450:140 | Math for Elementary School Teachers I | 3 |
| :--- | :--- | :--- |
| 3450:145 | College Algebra | 4 |
| 3450:208 | Intro to Discrete Math | 4 |
| 3450:215 | Concepts of Calculus | 4 |
| 3450:260 | Math for Elementary School Teachers II | 3 |
| 3470:260 | Basic Statistics | 3 |
| 5250:342 | Teaching Math to Middle Level Learners | 3 |

## Reading/Language Arts - $\mathbf{4 0}$ 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 Credits
5250:350 Integrating Lang. Arts and Media 3
5250:351 Modes of Writing for Middle Grades 3

5500:442 Teaching Reading to Culturally Diverse Learners 3
5500:485 Teaching Language Literacy to Second Language Learners 3
5300:330 Teaching Adolescent/Middle Level Literature 3
3300:350 Black American Literature
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 | Field/Lab Studies | 3 |
| :--- | :--- | :--- |
| 3100:111 | Principles of Biology I | 4 |
| 3150:101 | Chemistry for Everyone | 4 |
| 3370:137 | Earth's Atmosphere and Weather | 1 |
| 3370:101 | Introduction to Physical Geology | 4 |
| $3370: 102$ | or | Introduction to Historical Geology |
| 3650:130 | Descriptive Astronomy | 4 |
|  | or |  |
| 3650:131 | Astronomy by Inquiry |  |
| 3650:261 | Physics for Life Sciences | 4 |
| 5250:333 | Teaching Science to Middle Level Learners | 4 |

## Social Studies - 45 hours

- 11 hours General Education from social science and area studies

| 3250:200 | Principles of Microeconomics | 3 |
| :--- | :--- | :--- |
| 3350:250 | World Regional Geography | 3 |
| 3400:210 | Humanities in the Western Tradition I | 4 |
| 3400:250 | U.S. History to 1877 | 4 |
| 3400:251 | U.S. History since 1877 | 4 |
| 3400:323 | Europe: Revolution to World War I 1789-1914 | 3 |
|  | or |  |
| 3400:324 | Europe: World War I to Present | 3 |
| 3400:385-391 | World Civilizations | 2 |
| 3400:385-391 | World Civilizations | 2 |
| 3400:470 | Ohio History | 3 |
| 3700:100 | Government \& Politics in the United States | 4 |
| 3700:210 | State \& Local Government | 3 |
| 3750:100 | Intro to Psychology | 3 |
| 3850:100 | Intro to Sociology | 4 |
| 5250:338 | Teaching Social Studies - Middle Level | 3 |

## 5300: Secondary (Adolescent to Young Adult) Education <br> http://www.uakron.edu/colleges/educ/COE/programs.php

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 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 outlined on the program application form.
The program mandates an expert knowledge in a specific content area. This knowledge prepares and encourages teachers to be decision-makers by adapting and applying content knowledge to the needs and interests of a diverse student population. Upon graduation with a Bachelor of Arts or Science in Education, students 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 (P-12), Dance (P-12), Drama/Theatre (P-12), Music (P-12) and Family and Consumer Science (4-12)
For specific program and licensure requirements, students should contact a preadmission adviser in Zook Hall 228, (330) 972-6970.

## Requirements for Admission to Adolescent to Young Adult (AYA) or P-

 12 Specialty ProgramsAll applicants must successfully complete the following coursework prior to admission into an AYA program.

| - Written and Oral Communication - at least 10 credits | 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 coursework 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 General Education level mathematics requirement

- Natural Science - a minimum of 5 credits
- Physical Education/Wellness

5540:xxx Physical Education/Wellness 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 .

- Professional courses (courses to be taken in an approved sequence)

| 5100:200 | Introduction to Education | 3 |
| :--- | :--- | :--- |
| 5100:220 | Educational Psychology | 3 |
| 5100:300 | Educational Equity \& Excellence | 3 |
| 5300:100 | Orientation to the AYA/P-12/Multi-Age Programs | 0 |
| 5300:311 | Instructional Techniques in Secondary Education@ | 5 |
| 5300:325 | Content Reading in Secondary Schools (for AYA) | 3 |
|  | or |  |
| 5500:480 | Special Topics: Reading for P-12/Multi-Age | 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 Technology Applications | 3 |
| 5610:225 | Introduction to Exceptionalities | 3 |

- Courses in teaching field(s) and electives as determined by the department.

[^32]
## Teaching Fields

Each student 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 |
| Integrated Science (six options)+: | $79-80$ |
| Biology (Life Science) and Earth Science | $88-89$ |
| Biology (Life Science) and Chemistry | $82-83$ |
| Biology (Life Science) and Physics | 83 |
| Earth Science and Chemistry | 71 |
| Earth Science and Physics | 83 |
| Chemistry and Physics | 62 |
| Integrated Social Studies | 45 |
| P-12 Drama Theatre | 45 |
| P-12 Foreign Language | $54-56$ |
| P-12 Music | 58 |
| P-12 Visual Arts |  |
| Family and Consumer Science |  |
| Endorsements in the following fields may be added to any of the above fields: | 18 |
| Reading | 22 |

## 5500:Curricular and Instructional Studies

Contact Lynn Smolen, Ph.D. at (330) 972-6961; Ismolen@uakron.edu.

## TESOL Validation

(Teaching English to Speakers of Other Languages)
This program introduces students to the key issues in teaching English to nonnative speakers through coursework in linguistics, second language theory and methods, and in related disciplines.

Students 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:

3300:371 Introduction to Linguistics
3300:489 Seminar in English: Introduction to Bilingual Linguistics 3
3300:473 Seminar in Teaching ESL: Theory and Method 3
3300:489 Seminar in English: Sociolinguistics 3
5500:481 Multicultural Education in the United States 3
3300:489 Seminar in English: Grammatical Structures 3
5500:487 Techniques for Teaching English as a Second 4

5500:485 Teaching Reading and Language Arts to
5300:395
Field Experience

## 5550: Physical Education* <br> 5560: Outdoor Education@ 5570: Health Education@

The Department of Sport Science and Wellness Education offers the following undergraduate programs:

- Physical Education (Pre K-12)
- Community Health
- Athletic Training for Sport Medicine
- Sport and Exercise Science

Exercise Science Track
Sport Science Track

- 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 |
| xxxx:xxx | Natural Science*\# <br> (See General Education requirements under University College. Select from any set except Biology.) |
| 3300:111 | English Composition I* |
| 3300:112 | English Composition II* |
| 3400:210 | Humanities in the Western Tradition I |
| xxxx:xxx | Humanities coursework <br> (See General Education requirements under University College) |
| $x x x x: x x x$ | Area Studies/Cultural Diversity (See General Education requirements under University College) |
| 3750:100 | Introduction to Psychology* |
| 3850:100 | Introduction to Sociology* |
| 5540:xxx | Physical Education (Health Education/Athletic Training/ Dance Education only)* |
| 5550:193 | Orientation to Teaching Physical Education (Physical Education majors only) |
| 7600:105 | Introduction to Public Speaking* or |
| 7600:106 | Effective Oral Communication* |

7600:106
Effective Oral Communication*

[^33]- Mathematics (choose one option)*


## Option 1

 3470:260Option 2
3450:138
3470:261
Option 3
3450:145 College Algebra 4

- Professional Education Courses for Physical Education and Health Education majors\# (33 credits)
5100:210 Characteristics of Learners ${ }^{1} \quad 3$ and
5100:211 Teaching and Learning Strategies ${ }^{1} \quad 3$
5100:410 Professional Issues in Education 3
5500:310 Instructional Design ${ }^{2}$ 3
and
Instructional Resources ${ }^{2}$ 3
Diversity in Learners
Classroom Management
5500:311
5500:320
5500:330
The following should be taken at the same time but only after completion of all General Studies,
Professional Education, and Department requirements are completed. To qualify for student teaching, students must have a 2.5 GPA overall, a 2.5 GPA in all education 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 II along with other requirements to qualify for student teaching.

5550:494 Student Teaching Colloquium for Physical and Health Education 2
5550:495 Student Teaching for Physical and Health Education 10
Reminder: All students pursuing teacher education programs at The University of Akron are subject to the selective admission and retention requirements. Criteria and procedures are available in the Office of the Student Affairs, College of Education, Zook Hall 228, 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 Physical Education Activities I: Fitness and Contemporary Activities 2
5550:308 Physical Education Activities VI: Dance and Tumbling 2
Area 2 Choose at least four credits from the following:
5550:204 Physical Education Activities II: Teaching Individual and Dual Sports 2
5550:205 Physical Education Activities III: Team Sports 2
5550:306 Physical Education Activities IV: Badminton and Golf 2
5550:307 Physical Education Activities V: Tennis and Volleyball 2
Area 3 (all 5550: and 5560 courses in this Area required for admission to College of Education)
3100:200, 201 Human Anatomy and Physiology I, Lab 4

3100:202, 203 Human Anatomy and Physiology II, Lab 4
5550:130 Physical Education Activities for Children 2
5550:193 Orientation to Teaching Physical Education* 3
5550:201 Kinesiology 3
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
3
Instructional Techniques for Children in Physical Education
5550:346 Instructional Techniques: Secondary Physical Education 3
5550:450 Organization and Administration of Physical Education, 3
5550:452 Foundations of Physical Education 3
5560:454 Resident Outdoor Education 2

- Professional Education Requirements for Undergraduate and Post-Bac Students

5100:200 Introduction to Education 3
5100:220 Educational Psychology 3
5100:300 Educational Equity \& Excellence 3
5500:230 Educational Technology 3
5500:360 Educational Planning 3
5500:370 Educational Implementation 3
5610:225 Introduction to Exceptionalities 3
5500:480 ST: Reading in P-12/Multiage 3
5550:494 Student Teaching Colloquium for Physical and Health Education 2
5550:495 Student Teaching for Physical and Health Education 10

[^34]
## 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)

- See 5550: Physical Education for General Education requirement and Professional Education courses listed previously
- Courses should be taken in the recommended sequence (see adviser):


## Credits

| $5500: 480$ | Special Topics: Reading in P-12/Multi-Age | 3 |
| :--- | :--- | ---: |
| $7500: 100$ | Fundamentals of Music | 2 |
| $7900: 115$ | Dance as an Art Form | 2 |
| $7910: 101-111$ | Dance Organization | 1 |
| $7910: 101-111$ | Dance Organization | 1 |
| $7910: 101-111$ | Dance Organization |  |
|  | (Enrollment in Dance Organization by audition only) | 1 |
| $7910: 108$ | Choreographers' Workshop |  |
| $7910: 112$ | Dance Production Ensemble | 1 |
| $7920: 116$ | Physical Analysis for Dance I | 1 |
| $7920: 117$ | Physical Analysis for Dance II |  |
| $7920: 222$ | Ballet VI (Enrollment by audition only) | 2 |
| $7920: 316$ | Choreography I | 2 |
| $7920: 317$ | Choreography II | 5 |
| $7920: 320$ | Movement Fundamentals | 2 |
| $7920: 328$ | Modern Dance VII | 2 |
| $7920: 351$ | Jazz Dance III | 2 |
| $7920: 361$ | Learning Theory for Dance | 2 |
| $7920: 362$ | Instructional Strategies for Dance | 2 |
| $7920: 416$ | Choreography III | 2 |
| $7920: 417$ | Choreography IV | 2 |
| Choose one History: | 2 |  |
| $7920: 431$ | Dance History: Prehistory - 1661 | 2 |
| $7920: 432$ | Dance History: 1661 Through Diaghilev Era | 2 |
| $7920: 433$ | or | 2 |
| $7920: 461$ | Dance History: 20th Century | 2 |
| $7920: 462$ | Seminar and Field Experience in Dance Education | Professional Issues in Dance Education |
|  | Electives (see adviser) | 2 |
|  |  | 4 |

## Adapted Physical Education (Validation)

A validation of an existing Ohio Standard Physical Education certificate may be granted upon successful completion of the following courses:

| $5550: 395$ | Field Experience (at least two credits required) | $1-6$ |
| :--- | :--- | ---: |
| $5550: 436$ | Foundations and Elements of Adapted Physical Education | 3 |
| $5550: 451$ | Assessment and Evaluation in Adapted Physical Education | 3 |
| $5550: 455$ | Motor Development of Special Populations | 3 |
| $5550: 497$ | Independent Study (at least two credits required) | $1-6$ |
| $5610: 440$ | Developmental Characteristics of Exceptional Individuals | 3 |
| $5610: 454$ | Special Education Program: Moderate/Intense II | 4 |
| $5610: 467$ | Management Strategies in Special Education | 3 |

5550:436 Foundations and Elements of Adapted Physical Education 3
5550:451 Assessment and Evaluation in Adapted Physical Education 3
5550:455 Motor Development of Special Populations 3
5610:440 Developmental Characteristics of Exceptional Individuals 3
special Education Program: Moderate/ntense In
5610:467
Management Strategies in Special Education3
3
3

## Athletic Training for Sports Medicine

Program Director, Stacey Buser, M.S., A.T., C/L Clinical Instructor
The Athletic Training for Sports Medicine Program is a competitive program which prepares students for eligibility to sit for the NATABOC certification examination through didactic courses, laboratory courses, varsity sport rotations, clinical experiences, practicum, and field experiences. These encompass rotations with collegiate athletes, high school athletes, general population persons and orthopedic surgeons.

## Athletic Training Program Objectives

The athletic training for sports medicine education program at The University of Akron is a comprehensive major that will prepare students for a career in athletic training for sports medicine. The curriculum includes didactic and clinical coursework. The course content reflects the competencies and clinical proficiencies required to successfully sit for the National Athletic Trainers' Association Board of Certification examination and the State of Ohio licensure examination. At this time. the program has been accredited through 2007-2008.

## Admission and Exit Requirements

Entrance into the Athletic Training for Sports Medicine Program is by selective admission. The earliest that a student is permitted to apply for admission into the program is at the end of the freshman year or during the sophomore year. Students may apply in either the fall or spring semesters. Students must meet the following criteria:

- Students must maintain a 2.5 GPA
- Students must receive a C or better grade in the core athletic training courses.


## Admission Requirements

1. Students must have taken the following courses in order to be eligible for admission into the Athletic Training Education program:

$$
\begin{array}{ll}
\text { 3100:200/201 } & \text { Anatomy \& Physiology I and Lab } \\
\text { 3100:202/203 } & \text { Anatomy \& Physiology II and Lab } \\
\text { 5550:110 } & \text { Introduction to Athletic Training } \\
5550: 212 & \text { First Aid/CPR: Professional Rescuer } \\
5500: 240 & \text { Care and Prevention of Athletic Injuries } \\
5500: 241 & \text { Care and Prevention of Athletic Injuries Lab }
\end{array}
$$

2. Each student must submit a completed application, which will include a brief essay on why the student has selected athletic training as his/her intended profession, as well as, possible career choices.
3. Students must have two letters of recommendation which describe academic ability, character, and work ethic. One of these will be a professor/instructor at The University of Akron.
4. The student must maintain a cumulative grade point average of 2.5.
5. The Athletic Training Selection Committee will interview the student.
6. Once accepted into the athletic training education program, students must pass the Technical Standards. This requires a physical examination by a licensed physician to ensure that all standard have been met by the student.
**A copy of the Technical Standards physical examination form and all other materials can be obtained by contacting the Program Director or Director of Sports Medicine. Materials can also be obtained on the athletics training education Web site at http://www.uakron.edu/sportmed

## 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 over-all GPA of 2.5. A 2.5 is also required in the major field of study.
5. Have completed an Athletic Training portfolio.
6. Complete exit interview with Program Director and Approved Clinical Instructor [ACI].
7. Complete exit evaluation form of the Athletic Training Program and return it to the Program Director.

## 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 hours are designated as either a sport rotation, field experience or practicum and are under the direct supervision of an Approved Clinical Instructor (ACI). The only hour requirement which now exists is for the State of Ohio licensure. The State of Ohio requires 800 hours of documented athletic training experience under the direct supervision of a certified athletic trainer. All students will be provided a variety of different sport rotations during their clinical experience. These rotations will include but not be limited to outside gender sports, contact sports, collision sports and in-season/off-season sports.
The field experience may be completed at any of our four affiliate allied health settings which include Akron General Medical Center, Summa Health Systems, The PT Center for Family PT, and Allied Rehabilitation Centers.

## PROGRAM STUDIES, ATHLETIC TRAINING FOR SPORTS MEDICINE

| Related required coursework |  |
| :---: | :--- |
| $2740: 120$ | Medical Terminology |
| $2740: 230$ | Basic Pharmacology |
| $3100: 200$ | Human Anatomy and Physiology I |
| $3100: 201$ | Human Anatomy and Physiology I lab |
| $3100: 202$ | Human Anatomy and Physiology II |
| $3100: 203$ | Lab |
| $3750: 100$ | Introduction to Psychology |
| $3850: 100$ | Introduction to Sociology |
| $5100: 101$ | Fundamental Education Computer Skills |
| $5550: 150$ | Concepts of Health and Fitness |
| $5550: 201$ | Kinesiology |
| $5550: 302$ | Physiology of Exercise* |
| $5550: 352$ | Strength \& Conditioning Fundamentals |
| $5550: 480$ | Nutrition in Sport |
| $5570: 101$ | Personal Health |
| $7400: 133$ | Nutrition Fundamentals |3

Major required coursework
5550:110 Introduction to Athletic Training
5550:212 First Aid/CPR: Health Care Professionals*
5550:240 Care and Prevention of Athletic Injuries\#**
5550:241 Care and Prevention of Athletic Injuries Lab*
5550:250 Principles of Athletic Training
5550:260 Sports Rules \& Regulations
5550:305 Clinical Experience I\#

5550:400/500 Musculoskeletal Anatomy I
5550:401/501 Musculoskeletal Anatomy II
5550:405 Clinical Experience II\#
5550:412 General Medical Aspects
5550:415 Seminar in Athletic Training
5550:432 Therapeutic Exercise \& Rehabilitation: UE*
5550:433 Therapeutic Exercise \& Rehabilitation UE Lab*
5550:439 Advanced Athletic Injury Management: Upper Extremity Lab*
5550:441 Advanced Athletic Injury Management: Upper Extremity*
5550:442 Therapeutic Modalities \& Pharmacology
5550:443 Therapeutic Modalities \& Pharmacology Lab*
5550:444 Therapeutic Exercise and Rehabilitation *
5550:445 Therapeutic Exercise and Rehabilitation Lab*
5550:449 Organization and Administration for Health Care Professionals
5550:465/565 Psychology of Injury Rehabilitation
5550:467 Practicum in Sports Medicine II\#
5550:470 Orthopedic Injury \& Pathology
5550:475 Advanced Athletic Injury Management: Lower Extremity*
5550:476 Advanced Athletic Injury Management:Lower Extremity Lab

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.

## Sport and Exercise Science

Program Coordinator, Dr. Ron Otterstetter, (330) 972-7738, ro5@uakron.edu
The Bachelor of Science in Education: Sport and 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 health promotion. The Exercise Science Track prepares individuals for work in clinical fitness centers, rehabilitation programs, or any other programs that require exercise prescription and evaluation. The Exercise Science Track prepares students to sit for certification examinations of the American College of Sports Medicine (ACSM) and the American Council on Exercise (ACE). Visit pre-admission advising in Zook Hall 228 or Memorial Hall Room 140 for more information.

## Exercise Track*:

- The following are required program courses:

2740:120 Medical Terminology
3150:110, 111 Introduction to General, Organic and Biochemistry I, Lab
3750:100 Introduction to Psychology
3750:230 Developmental Psychology
5550:150 Concepts of Health and Fitness
5550:201 Kinesiology
5550:202 Diagnosis of Motor Skills
5550:203 Measurement \& Evaluation in Physical Education
5550:211 First Aid and CPR
5550:235 Concepts of Motor Learning and Development
5550:240 Care and Prevention of Athletic Injuries
5550:241 Care and Prevention of Athletic Injuries Lab\#
5550:245 Adapted Physical Education
5550:300 Physiology of Exercise for Adult and Elderly
5550:302 Physiology of Exercise
5550:400 Musculoskeletal Anatomy I - Upper Extremity
5550:401 Musculoskeletal Anatomy II - Lower Extremity
5550:403 Exercise Testing
5550:404 Exercise Prescription
5550:449 Organization and Administration for Health Care Professionals
5550:480 Special Topics
5570:101 Personal Health
5570:202 Stress, Life-Style, and Your Health
5570:320 Community Health
7400:133 Nutrition Fundamentals

[^35][^36]
## Sport Science Track

Program Coordinator: Dr. Alan Kornspan, (330) 972-8145; alan3@uakron.edu
The Sport Science track comprised of coursework related to leadership, programming, management, marketing, psychosocial, historical, philological and legal aspects of sport. The student is prepared for job opportunities in athletic administration, high school/college coach, collegiate recreation/intramural director, sport information director, aquatics director, sport marketing director, sport programmer, parks and recreation director and a multitude of other available opportunities. The Sport Science track also prepares students for graduate studies in sport management, sport behavior and sport science.

- The following are required in the recommended sequence (see adviser):

| 3100:200, 201 | Human Anatomy and Physiology I, Lab |
| :--- | :--- |
| 3100:202, 203 | Human Anatomy and Physiology II, Lab |
| 3400:356 | Sports in American History Since 1865 |
| 3750:100 | Introduction to Psychology |
| 3850:100 | Introduction to Sociology |
| $5550: 100$ | Introduction to Sport/Exercise Studies |
| $5550: 150$ | Concepts of Health and Fitness |
| $5550: 203$ | Measurement \& Evaluation in Physical Education |
| $5550: 211$ | First Aid and CPR |
| $5550: 235$ | Concepts of Motor Learning and Development |
| $5550: 240$ | Care and Prevention of Athletic Injuries |
| $5550: 245$ | Adapted Physical Education |
| $5550: 409$ | Human Dynamic of Sports and Exercise |
| $5550: 410$ | Introduction to Sport Sociology |
| $5550: 424$ | Sport Leadership |
| $5550: 450$ | Organization and Administration of Physical Education, |
| $5550: 452$ | Intramurals, and Athletics |
| $5550: 453$ | Foundations of Physical Education |
| $5550: 462$ | Principles of Coaching |
| $5550: 480$ | Legal Aspects of Physical Activity |
| $5570: 101$ | Special Topics |
| $5570: 202$ | Personal Health |
| $5570: 320$ | Stress, Life-Style, and Your Health |
| $7400: 133$ | Community Health |
| $5550: x x x$ | Nutrition Fundamentals |
|  | Electives |

With adviser approval, Sport Science track 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.

A student in Sport and Exercise Science needs to select an area of concentration from one of the following groups:

## Concentration Options for Sport and Exercise Science

Select a concentration from the areas listed below (must be a minimum of 20 credits to have an official concentration, including practicum experience):

| I. Physiological Sciences** |  | Credits |
| :---: | :---: | :---: |
| 3100:265 | Introduction to Human Physiology | 4 |
| 3100:392 | Biology of Aging | 3 |
| 3100:465 | Advanced Cardiovascular Physiology | 3 |
| 3100:469 | Respiratory Physiology | 3 |
| 5550:460 | Practicum in P.E.* | 7 |
|  | Course Total | 20 |
| II. Sport Management** |  |  |
| 5550:100 | Introduction to Sport/Exercise Studies | 3 |
| 5550:420 | Sport Management | 3 |
| 5550:422 | Sport Planning/Promotion | 3 |
| 5550:450 | Organization and Administration in PE | 3 |
| 5550:459 | Practicum Seminar | 1 |
| 5550:460 | Practicum in PE* | 4 |
| 5550:462 | Legal/Ethical Issues in Physical and Leisure Activities | 3 |
|  | Course Total | 20 |
| III. Pre-Physical Therapy Option |  |  |
| 3100:111 | Principles of Biology I | 4 |
| 3150:151 | 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 |
|  | Course Total | 20 |
| IV. Sport Coaching/Strength Conditioning** |  |  |
| 5550:350 | Principles of Coaching | 3 |
| 5550:352 | Strength and Conditioning Fundamentals | 3 |
| 5550:409 | Human Dynamics of Coaching | 3 |
| 5550:462 | Legal Aspects of Physical Activities | 3 |
| 5550:460 | Practicum in P.E.* | 9 |
|  | Course Total | 21 |
| 13-24 |  |  |
| 5550:460 | cum in Physical Education (4-11) is required for all cond | areas. |

[^37]
## 5610: Special Education

## Intervention Specialist for Mild/Moderate Educational Needs

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

To meet the needs of children with exceptionalities, the College of Education offers three licensure options as follows: Intervention Specialist Early Childhood (P-3), Intervention Specialist Mild to Moderate (K-12), and Intervention Specialist Moderate to Intensive (K-12). These programs prepare education students to work effectively with pupils who experience physical, learning, and/or emotional differences. Graduates of these programs are trained to put theory into practice by instructing special classes, instructing integrated units, conducting tutoring services, and providing support for general classroom teachers. For specific program and licensure requirements, student should contact a Pre-Admission Adviser in Zook Hall 228, (330) 972-6970.

## Requirements for Admission to Special Education

The following is a list of General Education courses that must be taken by every applicant.

- General Education - 45 credits

| English Composition Component: |  | Credits |
| :---: | :---: | :---: |
| 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* | 4 |
| 3100:265 | Introduction to Human Physiology* | 4 |
| Oral Communication Requirement: |  |  |
| 7600:105 | Introduction to Public Speaking * or |  |
| 7600:106 | Effective Oral Communication* | 3 |
| Physical Education Component: |  |  |
| 5550:211 | First Aid \& CPR | 2 |
| Social Science Component: |  |  |
| 3850:100 | Introduction to Sociology* | 4 |
| 3750:100 | Introduction to Psychology* | 3 |
| Humanities Component: |  |  |
| 3400:210 | Humanities in Western 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 Studies/Cultural Diversity Component: |  |  |
| Teacher Education Core - 18 credits |  |  |
| 5100:200 | Introduction to Education | 3 |
| 5100:220 | Educational Psychology | 3 |
| 5100:300 | Educational Equity \& Excellence | 3 |
| 5500:230 | Educational Technology | 3 |
| 5500:360 | Educational Planning | 3 |
| 5500:370 | Educational Implementation | 3 |

- Special Education Core - 46 credits Credits

5200:480 Teaching Math to Elementary/Middle School Children 3
5500:245 Understanding Literacy Development and Phonics 3
5500:286 Teaching Multiple Texts Through Genre 3
5500:440 Developmental Reading in the Content Area
Evaluating Language Literacy
Orientation to Intervention Specialist Programs
Introduction to Exceptionalities
Student Teaching Colloquium
Special Education Programming: Early Childhood
Special Education Programming: Secondary/Transition
Collaboration \& Consultation in Schools and Community
Family Dynamics \& Communications
Assessment in Special Education
Management Strategies in SpEd
Clinical Practicum in Special Education
Child Development
7700:430 Aspects of Normal Language Development
dits

5500:445
5610:100
5610:225
5610:403
5610:450
5610:452
5610:459
5610:460
5610:463
5610:467
5610:470
7400:265

- Specialization - 19 credits

5610:447 Ind. with Mild/Intensive Educ. Needs: Characteristics and Implications 4
5610:451 Special Education Programming: Mild/Moderate I 3
5610:457 Special Education Programming: Mild/Moderate II 4
5610:486 Student Teaching: Mild/Moderate 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. Students 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, 21 hours of Teaching Education core requirements, 46 hours of Special Education core requirements and 23 hours of Intervention Specialist for Mild/Moderate Educational Needs program requirements. The total program requires 135 hours; there are no elective hours in 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 * | 4 |
| 3100:265 | Introduction to Human Physiology* | 4 |
| Oral Communication Requirement: |  |  |
| 7600:105 | Introduction to Public Speaking* | 3 |
|  | or |  |
| 7600:106 | Effective Oral Communication | 3 |
| Physical Education Component: |  |  |
| 5550:211 | First Aid \& CPR | 2 |
| Social Science Component: |  |  |
| 3850:100 | Introduction to Sociology * | 4 |
| 3750:100 | Introduction to Psychology * | 3 |
| Humanities Component: |  |  |
| 3400:210 | Humanities in Western Tradition | 4 |
| 7100:210 | Visual Arts Awareness | 3 |
|  | or |  |
| 7500:201 | Exploring Music: Bach to Rock | 3 |
|  | Plus one other Humanities course |  |
|  | See General Education under University College for options | 3 |
| Area Studies/Cultural Dlversity component: |  |  |
|  | See General Education under University College for options | 4 |
| Teacher Education Core - 18 credits: |  |  |
| 5100:200 | Introduction to Education | 3 |
| 5100:220 | Educational Psychology | 3 |
| 5100:300 | Educational Equity \& Excellence | 3 |
| 5500:230 | Educational Technology | 3 |
| 5500:360 | Educational Planning | 3 |
| 5500:370 | Educational Implementation | 3 |

[^38][^39]- Special Education - 46 credits:

5200:480 Teaching Math to Elementary/Middle School Children 3
5500:245 Understanding Literacy Development and Phonics
5500:286 Teaching Multiple Texts Through Genre
5500:440 Developmental Reading in the Content Area
5500:445 Evaluating Language Literacy
5610:100 Orientation to Intervention Specialist Programs
5610:403 Student Teaching Colloquium
5610:225 Introduction to Exceptionalities
5610:450 Special Education Programming: Early Childhood
5610:452 Special Education Programming: Secondary/Transition
5610:459 Collaboration \& Consultation in Schools and Community
5610:460 Family Dynamics \& Communication
5610:463 Assessment in Special Education
5610:467 Management Strategies in Special Education
5610:470 Clinical Practicum in Special Education
7400:265 Child Development
7700:430 Aspects of Normal Language Development

- Specialization - 23 credits:

| $7700: 101$ | American Sign Language I | 3 |
| :--- | :--- | :--- |
| $5610: 453$ | Special Education Programming: Moderate/Intensive I | 4 |
| $5610: 454$ | Special Education Programming: Moderate/Intensive II | 4 |
| $5610: 448$ | Ind. with Mod/Intensive Educ. Needs: Characteristics and Implications | 4 |
| $5610: 487$ | Student Teaching: 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. Students 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 Early 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 I** | 4 |
| 3300:112 | English Composition II | 3 |
| Mathematics component: |  |  |
| 3450:145 | College Algebra** | 4 |
| Natural Science Component: |  |  |
| 3150:110 | General, Organic \& Biochemistry I * | 4 |
| 3100:265 | Introduction to Human Physiology* | 4 |
| Oral Communication Requirement: |  |  |
| 7600:105 | Introduction to Public Speaking* | 3 |
|  | or |  |
| 7600:106 | Effective Oral Communication | 3 |
| Physical Education Component: |  |  |
| 5550:211 | First Aid \& CPR | 2 |
| Social Science Component: |  |  |
| 3850:100 | Introduction to Sociology * | 4 |
| 3750:100 | Introduction to Psychology * | 3 |
| Humanities Component: |  |  |
| 3400:210 | Humanities in Western 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 options | 3 |
| Area Studies/Cultural Dlversity component: |  |  |
|  | See General Education under University College for options | 4 |
| Teacher Education Core - 18 credits: |  |  |
| 5100:200 | Introduction to Education | 3 |
| 5100:220 | Educational Psychology | 3 |
| 5100:300 | Educational Equity \& Excellence | 3 |
| 5500:230 | Educational Technology | 3 |
| 5500:360 | Educational Planning | 3 |
| 5500:370 | Educational Implementation | 3 |

- Special Education - 42 credits: Credits

5200:480 Teaching Math to Elementary/Middle School Children 3
5500:245 Understanding Literacy Development and Phonics 3
5500:286 Teaching Multiple Texts Through Genre 3
5500:440 Developmental Reading in Content Area 3
5500:445 Evaluating Language Literacy 3
5610:100 Orientation to Intervention Specialist Programs 0
5610:225 Introduction to Exceptionalities 3
5610:450 Special Education Programming: Early Childhood
5610:459 Collaboration \& Consultation in Schools and Community
3
3
Family Dynamics \& Communication
610:464 Assessment \& Evaluation in Early Childhood
5610:467 Management Strategies in Special Education
5610:470 Clinical Practicum in Special Education
7400:265 Child Development
7700:430 Aspects of Normal Language Development

- Specialization - 26 credits:

7400:280 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
5610:487 Student Teaching: Early Childhood-Moderate/Intensive 8

## Department of Educational Foundations and Leadership

## Postsecondary Technical Education

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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 $\mathrm{p}-12$. 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 I | 4 |
| 3300:112 | English Composition II (with grades "C" or better) | 3 |
| 7600:105 | Introduction to Public Speaking or | 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:xxx Physical Education/Wellness 1

- Teaching Field(s) - a minimum of 8 credits

Does not include coursework already used above. A 2.50 GPA 8
in all such coursework is required. This includes credits beyond the minimum of 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 Akron 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 earn 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 |
| :--- | :--- | :--- |
| $5400: 401$ | Learning with Technology | 1 |
| $5400: 405$ | 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 | 4 |
| $5400: 490$ | Workforce Education and Training Workshop | 3 |
| $5400: 495$ | Postsecondary Education Practicum | 3 |

All 5400 courses are available online or face-to-face.

# College of Business Administration 

James R. Emore, D.B.A., Associate Dean
Anne G. Jorgensen, M.M., Director, Undergraduate Programs

## 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 college 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 management 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 curriculum 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 REQUIREIMENTS

## 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.
- Earn 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 Admissions

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 $4 x x$ course, 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 earned 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 earn at least 15 credits within the college after admission is granted.
- Obtain the recommendation of the department faculty in the student's primary major.
- Complete other University requirements listed in Section 3 of this Bulletin.

[^40]- General Education requirement of 42 credits, including:
6400.321.2

6400:301
6500:221
6500:222
6500:301
6500:330
6500:490
6600:300
6800:305
$\begin{array}{lc}3250: 200 & \text { Principles of Microeconomics }\end{array} \quad \begin{gathered}\text { Cred } \\ \text { Either of the following two sequences of mathematics:* }\end{gathered}$
Either of the following two sequences of mathematics:*
$3450: 145 \quad$ College Algebra
$\begin{array}{lll}3450: 145 & \begin{array}{l}\text { College Algebra } \\ \text { and } \\ \text { Concepts of Calculus }\left.\right|^{* *}\end{array} & 4 \\ 3450: 215 & 4\end{array}$
3450:215 Concepts of Calculus I** 4
OR
3450:210 Calculus with Business Applications 3
One course chosen from psychology or sociology.(3230:150 can substitute for 3850:100) 3

- Complete the following core program in business and economics: Credits

3250:201 Principles of Macroeconomics 3
6200:201 Accounting I
6200:202 Accounting II 3
6200:250 Microcomputer Applications for Business 3
6400:220 Legal and Social Environment of Business\#
or
Business Law I, II\#
6
Corporate Finance
Quantitative Business Analysis I
Quantitative Business Analysis II
3

Management: Principles and Concepts
Principles of Operations Management
Business Policy
Marketing Principles
International Business

## 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 student's major or minor.
Students must apply for participation in the program through the Center for Career Management.

[^41]
## PROGRAIVS OF INSTRUCTION

## 6100: General 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 family business enterprise, may find the flexibility of this degree program best for them. Other students with more administrative experience may also 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:

- Two courses ( 24 credits) from the 300 - or 400 -level of $6200,6400.6500$ and 6600, which must include one of the following

|  |  | Credits |
| :---: | :---: | :---: |
| 6200:320 | Accounting Information Systems | 3 |
| 6200:454 | Information Systems Security or | 3 |
| 6400:379 | Advanced Corporate Finance or | 3 |
| 6500:310 | Business Information Systems or | 3 |
| 6600:490 | Marketing Strategy | 3 |
| And one additional course from the following: |  |  |
| 6100:201 | Introduction to E-business | 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 |
| Total credits required |  |  |

## 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. Careers in industry, government, non-profit institutions or information systems consulting services generally do not require students to pass the CPA exam.

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*

For students pursuing professional careers in public accounting, management accounting, internal auditing, government or non-profit institutions as an accountant:

## Credits

| 3300:275 | Specialized Writing: Business | 3 |
| :--- | :--- | ---: |
| $6200: 301$ | Cost Management and Enterprise Resource Planning | 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 |
| $6200: x x x$ | Accounting electives | 6 |
| Total credits required | 33 |  |

## 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 Internship. Scores on the PAT and performance in 6200:320 (Accounting Information Systems) and 6200:321 (Intermediate Accounting I) will be considered in evaluating petitions.

[^42] the Chair of the School of Accountancy.

## 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 knowledge 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 student must successfully complete one or the other of these 33-credit-hour programs:

## Corporate Financial Management Program

All finance majors must complete four required major (core) courses with an average grade of " C " over the four courses. In addition, students in the Corporate Financial Management Program must complete five additional courses, one required and four electives:

| - Finance Core: | Credits |  |
| :--- | :--- | :---: |
| 6400:338 | Financial Markets and Institutions | 3 |
| $6400: 343$ | Investments | 3 |
| $6400: 379$ | Advanced Corporate Finance | 3 |
| - Required: |  |  |
| $6400: 473$ | Financial Statement Analysis | 3 |
| $6400: 485$ | Financial Strategy | 3 |

- Electives:

Select at least eighteen credits. Students must complete six credits of 6200 courses (choosing either 6200:321 and 6200:322 or 6200:430 and 6200:431) and twelve 6400 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
6400:417 Retirement and Estate Planning 3
6400:436 Commercial Bank Management 3
6400:438 International Banking 3
6400:481 International Business Finance 3
6400:490 Selected Topics in Finance 1-3

## Financial Services Program

All finance majors must complete three required major (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:

- Finance Core: Credits

6400:338 Financial Markets and Institutions 3
6400:343 Investments 3

6400:379 Advanced Corporate Finance 3

- Select at least twenty-four credits from the following:
6100:495 Internship in Business Administration 3

6100:497 Honors Project in Business Administration 2-3
6200:410 Taxation for Financial Planning 3
6200:430 Taxation I 3
6400:323 International Business Law 3
6400:332 Personal Financial Planning 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 and Insurance 3
6400:417 Retirement and Estate Planning 3
6400:424 Legal Concepts of Real Estate 3
Seminar in Financial Planning
$6400: 436$ Commercial Bank Managent
6400:447 Security and Portfolio Analysis 3
6400:473 Financial Statement Analysis 3
Selected Topics in Finance
Professional Selling
1-3
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 |
| $6400: 403$ | Real Estate Finance* | 3 |
| $6400: 424$ | Legal Concepts of Real Estate* | 3 |

## 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 |
| 6400:332 | Personal Financial Planning | 3 |
| 6400:343 | Investments | 3 |
| 6400:415 | Risk Management and Insurance | 3 |
| 6400:417 | Retirement and Estate Planning | 3 |
| $6400: 432$ | Seminar in Financial Planning | 3 |

[^43]
## 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 variety 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 five options listed:

## Human Resource Management Option

Management Core: Complete all 9 credits:


| 6500:302 | Organization Behavior and Leadership Skills |
| :--- | :--- |
| 6500:310 | Business Information Systems |
| $6500: 471$ | Management Project |

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Required: Complete all 15 credits:

| 6500:341 | Human Resource Management |
| :--- | :--- |
| $6500: 342$ | Labor Relations |
| $6500: 350$ | Fundamentals of Enterprise Resource Planning |
| 6500:442 | Compensation Management |
| $6500: 443$ | Human Resources Selection and Staffing |

6500:350 Fundamentals of Enterprise Resource Planning

6500:443 Human Resources Selection and Staffing
-
: Six credits:
6x00:3xx/4xx CBA Electives
Total credits required

## 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 12 credits:

| 6500:333 | Supply Chain and Operations Analysis |
| :--- | :--- |
| $6500: 350$ | Fundamentals of Enterprise Resource Planning |
| 6500:390 | Principles of Supply Chain Management |
| $6500: 433 / 533$ | Supply Chain Logistics Planning |

Plus two electives ( 6 credits) from the following:

| $6500: 324$ | Data Management for Information Systems | 3 |
| :--- | :--- | ---: |
| $6500: 334$ | Service Operations Management | 3 |
| $6500: 341$ | Human Resources Management | 3 |
| $6500: 434$ | Production Planning and Control | 3 |
| $6500: 435$ | Quality Management and Control | 3 |
| $6500: 457$ | International Management | 3 |
| $6500: 476$ | Supply Chain Management | 3 |
| Electives: 3 credits: |  |  |
| $6 x 00: 3 x \times / 4 x x$ | CBA Elective | 3 |
| Total credits required | 30 |  |

[^44]Industrial Accounting Option

| 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 |

## Concentration requirements:

Required: Complete all 12 credits:
6200:301 Cost Management and Enterprise Resource Planning 3

6200:460 Advanced Managerial Accounting 3
6500:333 Supply Chain and Operations Analysis 3
6600:390 Pinciples of Supply Chain Manement
Plus two elective courses ( 6 credits) from the following:

| 6500:334 | Service Operations Management | 3 |
| :--- | :--- | :--- |
| $6500: 433$ | Supply Chain Logistics Planning | 3 |
| $6500: 434$ | Production Planning and Control | 3 |
| $6500: 435$ | Quality Management and Control | 3 |

6200:321 Pualy 3
Plus one CBA elective
6X00:3XX/4XX CBA Elective

Total Credits Required
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 \& Design of Information Systems 3
6500:350 Fundamentals of Enterprise Resource Planning 3
6500:420 Telecommunications for Business
6500:425 Decision Support w/Data Warehousing and Data Mining 3
6500:427 Systems Integration 3
Electives: Three credits (choose one course from the following):
6500:333 Supply Chain and Operations Analysis 3

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 |

6500:310 Business Information Systems 3
6500:471 Management Project 3
Required: Complete all 15 credits:
6100:201 Introduction to E-business 3

6500:324 Data Management for Information Systems 3
6500:350 Fundamentals of Enterprise Resource Planning 3
6500:420 Telecommunications for Business 3
6500:426 E-business Application Development 3
Electives: 6 credits (choose two courses from the following):
6200:454 Information Systems Security 3

6500:341 Human Resource Management 3
6500:345 — E-Marketing Practices
6500:425 Decision Support with Data Warehouses \& Data Mining
6500:390 Principles of Supply Chain Management
Total credits required

## 6600: Marketing*

Marketing is concerned 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. Consequently, 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 of the other of these programs.

## Marketing Management Major**

- Required: Complete all 25 credits Credits

| Required Foundation Prerequisite Courses: |  |  |
| :---: | :---: | :---: |
| 6600:275 | Professional Selling | 3 |
| 6600:335 | Marketing Research and Analytics | 4 |
| 6600:340 | Multi-Channel Marketing | 3 |
| 6600:350 | Integrated Marketing Communications | 3 |
| 6600:355 | Buyer Behavior | 3 |
| Required Core Competencies Courses: |  |  |
| 6600:385 | International Marketing | 3 |
| 6600:440 | Product and Brand Management | 3 |
| Required Integrative Capstone Course: |  |  |
| 6600:490 | Marketing Strategy | 3 |
| Electives: Complete any 6 credits |  |  |
| 6100:495 | Internship in Business Administration | 3 |
| 6100:497 | Honors Project in Business Administration | 2-3 |
| 6600:425 | eMarketing Practices | 3 |
| 6600:445 | Creative Marketing Laboratory | 3 |
| 6600:450 | Strategic Retail Management | 3 |
| 6600:475 | Business Negotiations | 3 |
| 6600:480 | Sales Management | 3 |
| 6600:491 | Workshop in Marketing | 1-3 |
| 6600:496 | Special Topics in Marketing | 1-3 |
| Total Credits Required: 31 |  |  |

[^45] earned.

## Sales Management Major**

| Required: Complete all 25 credits: |  | Credits |
| :---: | :---: | :---: |
| Required Foundation Prerequisite Courses: |  |  |
| 6600:275 | Professional Selling | 3 |
| 6600:335 | Marketing Research and Analytics | 4 |
| 6600:340 | Multi-Channel Marketing | 3 |
| 6600:350 | Integrated Marketing Communications | 3 |
| 6600:355 | Buyer Behavior | 3 |
| Required Core Competencies Courses: |  |  |
| 6600:475 | Business Negotiations | 3 |
| 6600:480 | Sales Management | 3 |
| Required Integrative Capstone Course: |  |  |
| 6600:490 | Marketing Strategy | 3 |
| Electives: Complete any 6 credits |  |  |
| 6100:495 | Internship in Business Administration | 3 |
| 6100:497 | Honors Project in Business Administration | 2-3 |
| 6600:385 | International Marketing | 3 |
| 6600:425 | eMarketing Practices | 3 |
| 6600:440 | Product and Brand Management | 3 |
| 6600:445 | Creative Marketing Laboratory | 3 |
| 6600:491 | Workshop in Marketing | 1-3 |
| 6600:496 | Special Topics in Marketing | 3 |
| 7600:235 | Interpersonal Communication | 3 |
| 7600:252 | Persuasion | 3 |
| Total Credits Required: |  | 31 |

## 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" experiences. Students will not only know "what to do" but also "how to do it." Program learning experiences are greatly enhanced by the state-of-the-art classroom and 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-credit-hour program:


## 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 study within an international framework. Given the growth and complexity of international business activities and practices, career opportunities are available and rewarding.

[^46]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 three required categories and one of the optional categories listed below.
Required Categories:

- International Business Core:
(Complete all courses - 6 credits)
6800:405 Multinational Corporations 3
6800:421 International Business Practices 3
- International Business Functional Specialties:
(Complete four courses - 12 credits)
6200:408 International Financial Reporting \& Analysis 3
6400:481 International Business Finance 3
6500:457 International Management 3
6600:385 International Marketing
- International Capstone Field Experience: (Complete one or more courses - 3 credits)
6100:495 Internship in Business Administration 3
6800:494 International Business Practicum
1-3
- International Capstone Topical Investigations:
(Complete one or more courses - 2-3 credits)
6100:497 Honors Project in Business Administration 2-3
6100:499 Independent Study in Business Administration 3
6400:323 International Business Law 3
6400:438 International Banking 3
6500:459 Special Topics in International Management 1-3
6800:496 Special Topics in International Business 3

Global Interdisciplinary Option:
(Complete four courses - 12-13 credits)
$\begin{array}{lll}\text { 3230:370 } \quad \text { Cultures of the World } & 3\end{array}$
3250:460 Economics of Developing Countries 3
3250:461 Principles of International Economics 3
3350:320 Economic Geography 3
3350:353 Latin America 3
3350:356 Europe 3
3350:360 Asia
3350:363 Africa South of the Sahara 3
3350:450 Development Planning 3
3700:300 Comparative Politios
3700:310 International Politics and Institutions

3700:321 Western European Politics
3700:326 Politics Of Developing Nations
Total with Global Interdisciplinary Option: $\quad \overline{35-36}$

## 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 I 3
$\begin{array}{lll}3530: x x x & \text { German Language } & \\ 3530: 101 & \text { Beginning German I } & 4\end{array}$
$\begin{array}{lll}3530: 101 & \text { Beginning German I } & 4 \\ 3530: 102 & \text { Beginning German II } & 4\end{array}$
3530:201 Intermediate German I 3
3550:xxx Italian Language
3550:101 Beginning Italian I 4
3550:102 Beginning Italian II 4
3550:201 Intermediate Italian I 3
$\begin{array}{lll}3570: x x x & \text { Russian Language } & \\ 3570: 101 & \text { Beginning Russian I } & 4\end{array}$
3570:101 Beginning Russian I 4
3570:102 Beginning Russian II 4
3570:201 Intermediate Russian I 3
$\begin{array}{lll}3580: x x x & \text { Spanish Language } & \\ 3580: 101 & \text { Beginning Spanish I } & 4\end{array}$
3580:102 Beginning Spanish II 4
3580:201 Intermediate Spanish I
$\begin{array}{r}4 \\ -35 \\ \hline\end{array}$
Total with Foreign Language Option: $\overline{35}$

# 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 REOUIREMENTS

## 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 college 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 <br> Baccalaureate Degrees

- Compliance with University requirements, Section $\mathbf{3}$ 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 education activities, eight credits of applied music or four credits of music organizations are included. (Credit limitations on applied music and music organizations 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
Bachelor of Fine Arts (Ceramics, Drawing, Graphic Design, Metalsmithing, Painting, Photography, Printmaking, Sculpture)
Bachelor of Arts: Family and 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
Bachelor 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 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 62 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 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. For more information on the program, see page 101.

## 7100: Art

## Bachelor of Arts

- Two years of a foreign language as required by major.
- 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 |
| :--- | :--- |
| 7700:102 | American Sign Language II |
| 7700:103 | Arts Orientation |
| $7700: 201$ | American Sign Language II |
| $7700: 202$ | American Sign Language IV |
| $7700: 222$ | Survey of Deaf Culture in America |

- 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 | 3 |
| :--- | :--- | :--- |
| $7100: 496$ | Internship in Art | 3 |

- Electives - 16 credits.

History of Art Option (Second-year of a foreign language required) 7100:103 Arts Orientation

0

- 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 I 4
7100:101 Survey of History of Art II
7100:355 Contemporary Arts Issues
7100:401 Special Topics in History of Art
7100:405 History of Art Symposium
7100:498 Special Problems in History of Art
Archaeology of Greece
$\begin{array}{ll}\text { 3240:313 } & \text { Archaeology of Greece } \\ \text { 3240:314 } & \text { Archaeology of Rome }\end{array}$
History of art electives

- (Student may elect to take 3200:401 Egyptology I in place of one art history elective course)
7100:402 Museology
3
- Studio art coursework: 7100:275 Introduction to Photography 3, 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.
- Professional education (including student teaching) - 48 credits. Credits 5100:210 Characteristics of Learners
5100:211 Teaching and Learning Strategies 3

5100:410 Professional Issues in Education 1
5500:310 Instructional Design
5500:311 Instructional Resources
5500:320 Diversity in Learners
5500:330 Classroom Management
5500:480 ST: Reading in P-12 Programs
5610:440 Developmental Characteristics of Exceptional Individuals Developmental Characteristics of Ex
Introduction to Computer Graphics
$\begin{array}{ll}\text { 7100:185 } & \text { Introduction to Computer Graphics } \\ 7100: 410 & \text { Methods of Teaching Elementary Art }\end{array}$
7100:411 Methods of Teaching Secondary Art
7100:412 Student Teaching Colloquium
5100:211 Teaching and Learning Strategies 3 11

Teaching Field requirements - 56 credits
7100:100 Survey of History of Art I 4

7100:101 Survey of History of Art II 4
4

7100:131 Foundation Drawing I 3
7100:144 Foundation 2-D Design 3
7100:145 Foundation 3-D Design 3
7100:210 Visual Arts Awareness 3
7100:222 $\quad$ Introduction to Sculpture 3
7100:233 $\quad$ Foundation Life Drawing $\quad 3$
7100:254 Introduction to Ceramics
7100:266 Introduction to Metalsmithing
7100:275 Introduction to Photography
7100:402 Museology
7100:494 Special Topics in Art Education 3

- Choose one of the following courses:

7100:243 Introduction to Painting 3
7100:246 Introduction to Water-based Media 3

- Choose one of the following courses: 7100:213 Introduction to Lithography 7100:214 Introduction to Screen Printing 7100:215 Introduction to Relief Printing $7100 \cdot 216$ Introduction to Intaglio Pinting
$7100: 216$ Introduction to Reief
- Studio art electives above the introductory level - 6 credits
- One art history elective, 20th century focus recommended -3 credits

Note: The National Teacher Exam (NTE) is required for certification. Students must take the general knowledge, professional knowledge, and art education segments of the NTE. General Studies-42 credits

## Bachelor of Fine Arts

- General Education requirement - 42 credits.
- Foundations Curriculum in Art

| $7100: 100$ | Survey of History of Art I | 4 |
| :--- | :--- | :--- |
| $7100: 101$ | Survey of History of Art II | 4 |
| $7100: 103$ | Arts Orientation | 0 |
| $7100: 131$ | Foundation Drawing I | 3 |
| $7100: 144$ | Foundation 2-D Design | 3 |
| $7100: 145$ | Foundation 3-D Design | 3 |
| $7100: 210$ | Visual Arts Awareness | 3 |
| $7100: 233$ | Foundation Life Drawing | 3 |
| $7100: 250$ | Foundation Review | 0 |

- Electives - 3-9 credits.
- Two advanced-level art history courses (one for graphic design emphasis students).
- Senior exhibition: 7100:495 Senior Exhibition 0
- Portfolio review as specified for student's area of emphasis.
- Studio art courses must include one area of major emphasis as described below, plus studio electives to equal no less than 57 credits.

| Ceramics |  | Credits |
| :---: | :---: | :---: |
| 7100:222 | Introduction to Sculpture | 3 |
| 7100:231 | Intermediate Drawing | 3 |
| 7100:254 | Introduction to Ceramics | 3 |
| 7100:354 | Ceramics II | 3 |
| 7100:454 | Advanced Ceramics (to be repeated) | 15 |
| 7100:456 | Ceramics Portfolio Review | 0 |
| Graphic Design |  |  |
| 7100:132 | Introduction to Design | 3 |
| 7100:184 | Typography 1 | 3 |
| 7100:275 | Introduction to Photography | 3 |
| 7100:276 | Introduction to Professional Photography | 3 |
| 7100:281 | Web Page Design | 3 |
| 7100:280 | Digital Imaging | 3 |
| 7100:283 | Drawing Techniques | 3 |
| 7100:288 | Typography 2 | 3 |
| 7100:289 | Production 1 | 3 |
| 7100:307 | History of Graphic Design | 3 |
| 7100:384 | Graphic Design Portfolio Review | 0 |
| 7100:387 | Typography 3 | 3 |
| 7100:388 | Production 2 | 3 |
| 7100:482 | Corporate Identity and Graphic Systems | 3 |
| 7100:484 | Illustration | 3 |
| 7100:485 | Advanced Illustration or | 3 |
| 7100:480 | Advanced Graphic Design or | 3 |
| 7100:481 | Design $\times 9$ | 3 |
| 7100:487 | Packaging Design | 3 |
| 7100:488 | Typography 4 | 3 |
| 7100:483 | Graphics Portfolio Presentations | 3 |
| Metalsmithing |  |  |
| 7100:185 | Introduction to Computer Graphics | 3 |
| 7100:222 | Introduction to Sculpture | 3 |
| 7100:266 | Introduction to Metalsmithing | 3 |
| 7100:254 | Introduction to Ceramics | 3 |
| 7100:275 | Introduction to Photography | 3 |
| 7100:366 | Metalsmithing II | 3 |
| 7100:466 | Advanced Metalsmithing (to be repeated)@ | 12 |
| 7100:467 | Metalsmithing Portfolio Review | 0 |
| 7100:489 | Special Topics in Art Studio (in metals) | 3 |
| 7100:283 | Drawing Techniques <br> or |  |
| 7100:132 | Introduction to Design | 3 |
| Painting/Drawing |  |  |
| 7100:185 | Introduction to Computer Graphics | 3 |
| 7100:213, 214 |  |  |
| 215 or 216 | One intro-level course in Printmaking | 3 |
| 7100:231 | Intermediate Drawing | 3 |
| 7100:243 | Introduction to Painting | 3 |
| 7100:300 | Art Since 1945 | 3 |
| 7100:335 | Intermediate Life Drawing | 3 |
| 7100:348 | Intermediate Painting | 6 |
| 7100:450 | Advanced Life Drawing | 6 |
| 7100:455 | Advanced Drawing (to be repeated) | 6 |
| 7100:xxx | Art Studio electives | 24 |
| 7100:xxx | Contemporary Art History elective | 3 |
| Photography |  |  |
| 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 Portfolio Review | 0 |
| 7100:477 | Advanced Photography: Color | 3 |
| 7100:479 | Professional Photographic Practices | 3 |
| 7100:xxx | Printmaking (to be selected from the courses offered in Printmaking) | 3 |

[^47]| Printmaking |  | Credits |
| :--- | :--- | :--- |
| 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 II (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 Water-based Media | 3 |
| Sculpture |  |  |
| $7100: 185$ | Introduction to Computer Graphics | 3 |
| $7100: 222$ | Introduction to Sculpture | 3 |
| $7100: 223$ | Sculpture: Stone |  |
| $7100: 224$ | or | Installation Art |
| $7100: 231$ | Intermediate Drawing | 3 |
| $7100: 254$ | Introduction to Ceramics |  |
| $7100: 266$ | or | Introduction to Metalsmithing |
| $7100: 322$ | Sculpture II | 3 |
| $7100: 323$ | Lost Wax Casting | 3 |
| $7100: 420$ | Sculpture Portfolio Review | 3 |
| $7100: 422$ | Advanced Sculpture (to be repeated) | 3 |
|  |  | 3 |

## 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 family 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:

All students enrolled in baccalaureate programs in the School of Family and Consumer Sciences are required to complete the following core of requirements:

| 7400:147 | Orientation to Professional Studies in Family and Consumer Sciences | 1 |
| :--- | :--- | :--- |
| 7400:447 | Senior Seminar: Critical Issues in Professional Development | 1 |

One course to be chosen from each of the following divisions outside the area of specialization:

| Clothing, Textiles and Interiors: |  |  |
| :--- | :--- | :--- |
| $7400: 225$ | Textiles | 3 |
| $7400: 259$ | Family Housing | 3 |
| $7400: 219$ | Clothing Communication | 3 |
| Family and Child Development: |  |  |
| $7400: 201$ | Courtship, Marriage and the Family | 3 |
| $7400: 265$ | Child Development | 3 |
| Nutrition/Dietetics and Food Science: | Nutrition Fundamentals $\ddagger$ |  |
| $7400: 133$ | Food for the Family | 3 |
| $7400: 141$ |  | 3 |
| Management: | Family Life Management |  |
| $7400: 362$ |  | 3 |

[^48]
## Bachelor of Arts in Family and Child Development

This degree offers the following emphases: family development, child development, and child-life specialist. In addition to departmental requirements listed under 7400: Family and Consumer Sciences, a student must complete one of the following options:

| Family Development |  |
| :---: | :---: |
| 3750:100 | Introduction to Psychology |
| 3750:230 | Developmental Psychology |
| 7400:201 | Courtship, Marriage and the Family |
| 7400:255 | Fatherhood: The Parent Role |
| 7400:265 | Child Development |
| 7400:300 | Legal Environment of Families |
| 7400:301 | Consumer Education |
| 7400:360 | Parent-Child Relations |
| 7400:390 | Family Relationships in Middle and Later Years |
| 7400:401 | American Families in Poverty |
| 7400:404 | Middle Childhood and Adolescence |
| 7400:406 | Family Financial Management |
| 7400:440 | Family Crisis |
| 7400:442 | Human Sexuality |
| 7400:446 | Culture, Ethnicity and the Family |
| 7400:496 | Parent Education |
| 7400:497 | Internship: Family and Consumer Sciences |
|  | Electives selected in consultation with adviser |
| Child Development |  |
| 2200:110 | Foundations in Early Childhood |
| 2200:245 | Infant/Toddler Day-Care Programs |
| 2200:250 | Observing and Recording Child Behavior |
| 5200:360 | Teaching in the Early Childhood Center |
| 5200:370 | Early Childhood Center Laboratory |
| 7400:132 | Early Childhood Nutrition |
| 7400:201 | Courtship, Marriage and the Family |
| 7400:255 | Fatherhood: The Parent Role |
| 7400:265 | Child Development |
| 7400:270 | Theory and Guidance of Play |
| 7400:280 | Early Childhood Curriculum Methods |
| 7400:303 | Children As Consumers |
|  | or |
| 7400:301 | Consumer Education |
| 7400:360 | Parent-Child Relations |
| 7400:401 | American Families in Poverty |
| 7400:404 | Middle Childhood and Adolescence |
| 7400:446 | Culture, Ethnicity and the Family |
| 7400:460 | Organization and Supervision of Child-Care Centers |
| 7400:497 | Internship: Family and Consumer Sciences |
|  | or |
| 2200:295 | Early Childhood Practicum (see adviser) |
|  | Electives selected in consultation with adviser |

## Child Life Specialist

The Child-Life Specialist 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, full-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 writing to: Director of Child Life Program, Schrank Hall South, Room 215, Akron, OH, 44325-6103.
In addition to the following:

- GED requirement
- Family and Consumer Sciences core

The core courses for the Child Life Program are: Credits

| $2740: 120$ | Medical Terminology | 3 |
| :--- | :--- | ---: |
| $3150: 101$ | Chemistry for Everyone | 4 |
| $3100: 200$ | Human Anatomy and Physiology I | 3 |
| $3100: 201$ | Human Anatomy and Physiology Lab I | 1 |
| $3100: 202$ | Human Anatomy and Physiology II | 3 |
| $3100: 203$ | Human Anatomy and Physiology Lab II | 1 |
| $3470: 250$ | Statistics for Everyday Life | 4 |
|  | or |  |
| $3470: 260$ | Basic Statistics | 3 |
|  | or | 4 |
| $3470: 261,262$ | Intro to Statistics I, II | 3 |
| $3600: 120$ | Introduction to Ethics | 2 |
| $2040: 256$ | Diversity in America | 3 |
| $3230: 251$ | or | 3 |
| $3750: 100$ | Human Diversity | 4 |
| $3750: 430$ | Introduction to Psychology | 2 |
| $5200: 360$ | Psychological Disorders of Children | 2 |
| $5200: 370$ | Teaching in the Early Childhood Center | 3 |
| $5610: 440$ | Teaching in the Early Childhood Center Lab | 3 |
| $7100: 201$ | Developmental Characteristics of Exceptional Child | 3 |
| $7400: 265$ | Courtship, Marriage and the Family | 3 |
| $7400: 270$ | Child Development | 3 |
| $7400: 280$ | Theories and Guidance of Play | 3 |
| $7400: 295$ | Early Childhood Curriculum Methods | 3 |
| $7400: 296$ | Direct Experiences in the Hospital | 2 |
| $7400: 365$ | Hospital Based Child Life | 3 |
| $7400: 400$ | Infants, Families and Society | 3 |
| $7400: 404$ | Nutrition, Communication and Education Skills | 3 |
| $7400: 451$ | Middle Childhood and Adolescence | 3 |
| $7400: 455$ | The Child in the Hospital | 3 |
| $7400: 484$ | Practicum Experience in a Child-Life Program | 3 |
| $7400: 485$ | Hospital Settings, Children and Families | 3 |
| $7400: 495$ | Children, Illness and Loss | 3 |
| $7400: 496$ | Internship: Guided Experience in a Child-Life Prog | 3 |
|  | Parent Education | 3 |
|  |  | 3 |

-Human Anatomy and Physiologyt
3100:201 Human Anatomy and Physiology Lab I 1
3100:202 Human Anatomy and Physiology II 3
3100:203 Human Anatomy and Physiology Lab II 1
3470:250 Statistics for Everyday Life 4
Basic Statistics
3
4
3
2
3
3750:100 Introduction to Psychology $\quad 3$
3750:430 Psychological Disorders of Children
5610:440 Developmental Characteristics of Exceptional Child $\quad 3$
7100:201 Courtship, Marriage and the Family 3
$\begin{array}{ll}7400: 265 & \text { Child Development } \\ 7400: 270 & \text { Theories and Guidance of Play }\end{array}$
7400:280 Early Childhood Curriculum Methods
7400:295 Direct Experiences in the Hospital
$7400.296 \quad$ Hospital Based Child Life
7400:400 Nutrition, Communication and Education Skills
7400:404 Middle Childhood and Adolescence
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 C [2.00] required)

| $7400: 250$ | Food Science Lecture and Lab |
| :--- | :--- |
| $7400: 321$ | Experimental Foods |
| $7400: 403$ | Advanced Food Preparation |
| $7400: 424$ | Nutrition in the Life Cycle |
| $7400: 470$ | The Food Industry: Analysis and Field Study |
| $7400: 474$ | Cultural Dimensions of Food |
| $7400: 475$ | Analysis of Food |
| $7400: 476$ | Developments in Food Science |
| $7400: 497$ | Internship: Family and Consumer Sciences |

Credits

- Food Science Electives:

7400:474 Cultural Dimensions of Food

- Supporting Discipline Requirements:

| $3300: 390$ | Professional Writing |
| :--- | :--- |
| $2440: 103$ | Software Fundamentals |
| $3100: 130$ | Principles of Microbiology |
| $3750: 100$ | Introduction to Psychology |
| 6140:300 | Introduction to Finance |
| 6200:201 | Accounting Concepts for Business |
| $6300: 201$ | Introduction to Entrepreneurship |
| 6500:301 | Management Principles and Concepts |
| $6500: 341$ | Human Resource Management |
| $6600: 300$ | Marketing Principles |
| $7400: 310$ | Food Systems Management I |
|  | $\quad$ and |
| $7400: 315$ | Food Systems Management I, Clinical |
| $7400: 450$ | Demonstration Techniques |

- 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: |  | Credits |
| :---: | :---: | :---: |
| 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 Furnishings 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 Options: Students must complete one track <br> - Apparel Track |  |  |
| 7400:125 | Principles of Apparel Design | 3 |
| 7400:219 | Clothing Communications | 3 |
| 7400:226 | Textile Evaluation | 3 |
| 7400:437 | Historic Costume | 3 |
| 7400:438 | History of Fashion | 3 |
| 7400:425 | Textiles for Apparel | 3 |
| 7400:xxx | Apparel, Home Furnishings, and Fiber Arts Tracks Electives (see below) | w) 9 |
| - Home Furnishings Track: |  |  |
| 7400:158 | Introduction to Interior Design | 3 |
| 7400:259 | Family Housing | 3 |
| 7400:331 | Interior Design Theory | 3 |
| 7400:333 | Space Planning and Programming | 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 |
| - Fiber Arts Track: |  |  |
| 7400:125 | Principles of Apparel Design or | 3 |
| 7400:158 | Introduction to Interior Design | 3 |
| 7400:311 | Seminar in Fiber Arts | 6 |
| 7400:418 | History of Interior Design I AND | 4 |
| 7400:419 | History of Interior Design II or | 4 |
| 7400:437 | Historic Costume AND | 3 |
| 7400:438 | History of Fashion | 3 |
| 7400:422 | Textiles for Interiors | 3 |
|  | or |  |
| 7400:425 | Textiles for Apparel | 3 |
| 7400:xxx | Apparel, Home Furnishings, and Fiber Arts Electives (see below) | 0 |

Electives for Apparel, Home Furnishings, and Fiber Arts Tracks: (Courses used to fulfill track requirements may not be used as elective courses.)

| 7400:219 | Clothing Communication | 3 |
| :--- | :--- | :--- |
| $7400: 301$ | Consumer Education | 3 |
| or |  |  |
| $7400: 303$ | Children as Consumers | 3 |
| $7400: 305$ | Advanced Construction and Tailoring | 3 |
| $7400: 311$ | 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 | 3 |
| $7400: 497$ | Internship: Family and Consumer Sciences | 3 |

## Bachelor of Arts in Interior Design

The professional interior designer is qualified by education, experience, and examination to enhance the 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 nonresidential interior design. The program includes understanding and application of the design process; space planning and programming; furniture selection and layout; application of design elements and decorative elements; selection and application of lighting and color; codes, regulations, and barrier-free environments; 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. Both lecture and studio coursework are included in this program. 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 human experience. CIDA is a recognized 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 education in the field of interior design, and is a member of the Association of Specialized and Professional Accreditors (ASPA).
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 the alumni. The professional members of the Advisory Board are:

## Scott Lukens, Hassenstab Architects

Robert Lann, Business Interiors and Environments
Jackie Kubilas, Atlas Carpet Mills
Leilani Gainer, Brown and Steidl Architects
Sue Hutchinson, Shaw Contract Group
Annie McGinty, Masland Contract

## Admission to the Interior Design Program:

Students must meet the College of Fine and Applied Arts Requirements for Admission. Incoming freshmen will be designated as Pre-Interior Design Candidates and will remain in this category until the following requirements have been met:

- Successful completion of the following courses:

| $7100: 144$ | Foundation 2-D Design |
| :--- | :--- |
| $7100: 491$ | Architectural Presentations I |
| $7400: 147$ | Orientation to Professional Studies |
| $7400: 158$ | 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 Contract and must maintain a grade-point average of 2.50 in all courses in the interior design core. The student must take all Interior Design courses in the prescribed sequence and must qualify for and sign a contract with the Interior Design Program before taking any Interior Design courses beginning in the third year of the Interior Design sequence.
Transfer students from non-CIDA accredited interior design programs will be placed 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 submit an approved portfolio.
Postbaccalaureate 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 Director, Interior Design Studies, for an individual evaluation.
Because of the professional nature of Interior Design, it is expected that students will meet or exceed standards appropriate for the practice of Interior Design. As part of meeting these standards, all students must earn 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.
Detailed information on admission to this program of study may be obtained by writing directly to: Robert W. Brown, Director, Interior Design Studies, 215 U Schrank Hall South, The University of Akron, Akron, OH 44325.

Interior Design Majors are required to follow the program of study as published due to prerequisites and course content sequencing requirements. There is no foreign language requirement.

## - Interior Design Core Courses

Students are required to take the following Interior Design Core Course and maintain a 2.50 GPA:
2940:250 Architectural Drafting Credits

3
100:144 Survey of Art History I 3
$\begin{array}{lll}7100: 144 & \text { Foundation 2-D Design } & 3\end{array}$
7100:491 Architectural Presentations I
7100:492 Architectural Presentations II
7400:139 Fashion and Furnishings Industry
7400:147 Orientation to Professional Studies
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 Space Planning and Programming
7400:334 Specifications for Interiors I
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 1
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 NCIDQ Examination
7400:497 Internship: Family and Consumer Sciences
3

And Interior Design Electives (Select 6 credit hours from the following:)
7100:131 Foundation Drawing I
7100:145 Foundation 3-D Design
7100:180 Fundamentals of Graphic Design
7100:222 Introduction to Sculpture
7100:254 Introduction to Ceramics
7100:274 Photography I for Non-Art Majors
7400:485 Seminars, i.e. Landscape Architecture, Advanced AutoCAD,
Computer Applications, Cultural Studies

It is recommended that the student take the following courses that satisfy both General Education requirements and Interior Design Requirements:

| $3230: 150$ | Cultural Anthropology (Social Science) | 4 |
| :--- | :--- | :--- |
| $3750: 100$ | Introduction to Psychology (Social Science) | 3 |
| $7100: 210$ | Visual Arts Awareness (Humanities) | 3 |

## Bachelor of Arts (Step-Up 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 Requirements |  |
| :---: | :--- |
| 2020:121 | English |
| 2040:240 | Human Relations |
| 2040:247 | Survey of Basic Economics |
| 2420:170 | Applied Mathematics for Business |
| 2420:211 | Basic Accounting I |
| 2420:243 | Survey of Finance |
| 2420:280 | Essentials of Business Law |
| 2440:103 | Software Fundamentals |
| 2520:101 | Essentials of Marketing Technology |
| 2520:202 | Retailing Fundamentals |
| 2520:203 | Principles of Advertising |
| 2520:206 | Retail Promotion and Advertising |
| 2520:210 | Consumer Service Fundamentals |
| 2520:211 | Mathematics of Retail Distribution |
| 2520:212 | Principles of Sales |
| 2540:119 | Business English |
| 5540:xxx | Physical Education |
| $7600: 105$ | Introduction to Public Speaking |

## 2020:121 English

2040:247 Survey of Basic Economics
2420:170 Applied Mathematics for Business
Survey of Finance
2420:280 Essentials of Business Law
Software Fundamentals
Essentials of Marketing Technology
2520:202 Re3 Rincip of Advaing

2520:206 Retail Promotion and Advertising
2520:210 Consumer Service Fundamentals

5540:xxx Physical Education

## Fashion Option <br> 2420:202 Elements of Human Resource Management <br> 7400:139 The Fashion and Furnishings Industries <br> 7400:219 Clothing Communication <br> 7400:225 Textiles <br> 7400:226 Textile Evaluation

4
3
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## 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:

| $2020: 240$ | Human 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.

| $7400: 123$ | Fundamentals of Clothing Construction | 3 |
| :--- | :--- | ---: |
| $7400: 133$ | Nutrition Fundamentals |  |
|  | or | 3 |
| $7400: 141$ | Food for the Family | 3 |
| $7400: 147$ | Orientation to Professional Studies | 1 |
| $7400: 201$ | Courtship, Marriage and the Family | 3 |
| $7400: 265$ | or | 3 |
| $7400: 352$ | Child Development | 3 |
| $7400: 362$ | Strategic Merchandise Planning | 3 |
| $7400: 425$ | Family Life Management | 3 |
| $7400: 427$ | Textiles for Apparel | 3 |
| $7400: 439$ | Global Issues in Textiles and Apparel | 3 |
| $7400: 447$ | Fashion Analysis | 3 |
| $7400: x x x$ | Senior Seminar: Critical Issues | 1 |

## 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 |  |
| :---: | :---: |
| 7600:105 | Introduction to Public Speaking |
| 5540:xxx | Physical Education |
| 2020:121 | English |
| 2040:240 | Human Relations |
| 2040:247 | Survey of Basic Economics |
| 2420:170 | Applied Mathematics for Business |
| 2420:202 | Elements of Human Resource Management |
| 2420:211 | Basic Accounting I |
| 2420:243 | Survey in Finance |
| 2420:280 | Essentials of Business Law |
| 2440:103 | Software Fundamentals and |
| 2520:215 | Advertising Projects or |
| 2520:219 | Sales Projects |
| 2520:101 | Essentials of Marketing Technology |
| 2520:202 | Retailing Fundamentals |
| 2520:203 | Principles of Advertising |
| 2520:206 | Retail Promotion and Advertising |
| 2520:210 | Consumer Service Fundamentals |
| 2520:211 | Mathematics of Retail Distribution |
| 2520:212 | Principles of Sales |
| 2520:217 | Merchandising Projects |
| 2540:119 | Business English |
| 7400:139 | The Fashion and Furnishings Industries |
| 7400:219 | Clothing Communication |
| 7400:225 | Textiles |



7600:105 Introduction to Public
5540:xxx Physical Education

2040:247
2420:170
Survey of Basic Economics
Applied Mathematics for Business

Basic Accounting |
Essentials of Business Law
and
Advertising Projects
Sales Projects
ssentials of Marketing Technology
Princor
Retail Promotion and Advertising
Mathematics of Retail Distribution
2520:212 Principles of Sales

Business English
The Fashion and Furnishings Industrie

Textiles
dits

2420:202 Elements of Human Resource Management
2420:211 - Basic Accounting

2440:103
2520:215
2520:219
2520:101
2520.202

2520:203
2520:210 Consumer Service Fundamentals

2520:217 Merchandising Projects

7400:219 Clothing Communication

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 | Human 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.

| $7400: 123$ | Fundamentals of Construction | 3 |
| :--- | :--- | ---: |
| $7400: 133$ | Nutrition Fundamentals | 3 |
| $7400: 141$ | or | 3 |
| $7400: 147$ | Food for the Family | 1 |
| $7400: 201$ | Orientation to Professional Studies | 3 |
| $7400: 265$ | Courtship, Marriage and the Family | 3 |
| $7400: 352$ | Child Development | 3 |
| $7400: 362$ | Strategic Merchandise Planning | 3 |
| $7400: 425$ | Family Life Management | 3 |
| $7400: 427$ | Textiles for Apparel | 3 |
| $7400: 439$ | Global Issues in Textiles and Apparel | 3 |
| $7400: 447$ | Fashion Analysis | 1 |
| $7400: x \times x$ | Senior Seminar: Critical Issues | $24-26$ |
|  | Fashion Merchandising Track |  |

## 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 three routes to prepare a student for a career in dietetics - the Didactic Program, the Coordinated Program, and a Step-Up Option for students with a two-year degree in Restaurant Management from Summit College. 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 allows students to complete 900 hours of supervised experience along with regular coursework during their junior and senior years. The Step-Up Option with C \& T allows a student to move into the Didactic Program or apply for the Coordinated Program. Regardless of the option chosen, students must have successfully completed their coursework and clinical experience before they are eligible to take the registration examination.

Up to 12 students per year are admitted to the Coordinated Program. Applications are accepted no later than February 1 of each year. Students who wish to apply to the Coordinated Program must have completed, or be currently taking, the prerequisite courses indicated below by an asterisk(*). Some remaining prerequisites may be completed during the summer following application if these courses are offered during a summer session. In addition to completing the required prerequisites, students must have a minimum GPA of 2.50 with a science GPA of 3.0 and have been accepted to the College of Fine and Applied Arts prior to submission of the application. Students must submit three letters of recommendation and successfully complete an interview. Previous work experience or volunteer activity, preferably in the area of food service or nutrition, although not required, is encouraged before applying for the Coordinated Program.

Students selected for the Coordinated Program will continue their classwork and begin their supervised experience the following fall semester. Students not accepted will continue in the Didactic Program or the Step-Up Option with C \& T.

## Program for Nutrition Intervention

Evelyn Taylor, M.S., R.D., L.D., Director
The Program for Nutrition Intervention (PNI), established in 1989, is the service learning, outreach and research arm of the Division of Nutrition/Dietetics, School of Family and Consumer Sciences. Both the University and community benefit from partnerships between faculty, students and community stakeholders. Our mission is to enhance academic excellence, address the food and nutrition needs of the community, and advance nutrition research. The Nutrition Services Center of PNI provides nutrition services to University faculty, staff and students. Services include: sports nutrition, nutrition assessment and counseling, medical nutrition therapy,computerized nutrition analysis, and individual and group nutrition education. (See Miscellaneous Fees.)

Many projects of the PNI are funded at the local, state and federal levels. They provide: (1) valuable service learning and practice opportunities for nutrition/dietetics students, (2) food and nutrition services to our community, and (3) opportunities for applied nutrition research. For information, call (330) 972-5548.

## Didactic Program Option

- Family and Consumer Sciences Core (14 credits) Note: 7400:133 Nutrition Fundamentals*キ must be taken. (Meets PE requirement.)
- General Education Requirement (42 credits)

| 3150:110, 111 | Introduction to General, Organic, and Biochemistry I ${ }^{\text {\# }}$ |
| :---: | :---: |
| 3150:112, 113 | Introduction to General, Organic, and Biochemistry $\\|^{* \ddagger}$ |
| 3300:111 | English Composition I* |
| 3300:112 | English Composition II* |
| 3400:210 | Humanities in the Western Tradition I |
| xxxx:xxx | Humanities elective |
| xxxx:xxx | Humanities elective <br> Note: See General Education Program under University College. Humanities electives must be chosen from two different sets. |
| 3400:385-391 | World Civilization |
| 3400:385-391 | World Civilization |
| 3470:260 | Basic Statistics <br> or |
| 3470:261 | Introductory Statistics \| |
| 3750:100 | Introduction to Psychology* ${ }^{\text {* }}$ |

[^49]|  |  | Credits |
| :--- | :--- | :---: |
| 3850:100 | Introduction to Sociology* | 4 |
| $7600: 105$ | Introduction to Public Speaking* | 3 |
|  | or |  |
| $7600: 106$ | Effective Oral Communication | 3 |

- Program Requirements (74 credits)

3100:130 Principles of Microbiology ${ }^{*} \ddagger$ 3
3100:200, 201 Human Anatomy and Physiology I, Lab* ${ }^{*} \ddagger$
3100:202, 203 Human Anatomy and Physiology II, Lab* $\ddagger$ 4
6200:201 Accounting Concepts and Principles for Business * 3
2420:211 Basic Accounting |* 3
6500:341 Human Resource Management ${ }^{\ddagger} \quad 3$
6500:480 Introduction to Health-Care Management ${ }^{\ddagger} 3$
7400:250 Food Science Lecture \& Lab* $\ddagger$
7400:310 Food Systems Management $I^{\ddagger}$
7400:320 Career Decisions in Nutrition ${ }^{\ddagger}$
7400:328 $\quad$ Nutrition in Medical Science $I^{\ddagger}$
7400:400 Nutrition Communication and Education Skill $\ddagger$ - 4
7400:403 Advanced Food Preparation ${ }^{\ddagger}$
7400:413 Food Systems Management II ${ }^{\ddagger}$
7400:424 Nutrition in the Life Cycle ${ }^{\ddagger}$
7400:426 Human Nutrition ${ }^{\ddagger}$
7400:428 $\quad$ Nutrition in Medical Science $\|^{\ddagger}$
7400:480 Community Nutrition $I^{\ddagger}$
7400:482 Community Nutrition || ${ }^{\ddagger}$
7400:487 Sports Nutrition ${ }^{\ddagger}$
7400:489 Professional Preparation for Dietetics ${ }^{\ddagger}$
Credits
4

- Electives (3 hours)


## Coordinated Program Option

- Family and Consumer Sciences Core (14 credits)

Note: 7400:133 Nutrition Fundamentals*₹ must be taken. (Meets PE requirement.)

- General Education Requirement (39 credits)

3150:110, 111 Introduction to General, Organic, and Biochemistry I ${ }^{* \ddagger}$
3150:112, 113 Introduction to General, Organic, and Biochemistry II*キ
3300:111 English Composition I*
3300:112 English Composition II*
2400:210 I I
xxxx:Xxx Humanities elective
xxxx:xxx Humanities elective
Note: See General Education Program under University College
Humanities electives must be chosen from two different sets.

3400:385-391 World Civilization
3400:385-391 World Civilization
3470:260 Basic Statistics
or
3470:261 Introductory Statistics I
3750:100 Introduction to Psychology
3850:100 Introduction to Sociology*
7600:105 Introduction to Public Speaking*
or
7600:106 Effective Oral Communication

- Program Requirements ( 85 credits)

3100:130 Principles of Microbiology* $\ddagger$ 3
3100:200, 201 Human Anatomy and Physiology I, Lab* $\ddagger$ 4
3100:202, 203 Human Anatomy and Physiology II, Lab* $\ddagger$
3750:100 Introduction to Psychology* $\neq$, Lab* 3
6200:201 Accounting Concepts and Principles for Business* 3
2420:211 Basic Accounting I 3
6500:341 Human Resource Management ${ }^{\ddagger} \quad 3$
6500:480 Introduction to Health-Care Management ${ }^{\ddagger} 3$
7400:250 Food Science Lecture \& Lab* $\ddagger$
7400:310 Food Systems Management $\left.\right|^{\ddagger}$
7400:315 Food Systems Management I Clinical ${ }^{\ddagger}$
7400:320 Career Decisions in Nutrition ${ }^{\ddagger}$
7400:328 Nutrition in Medical Science $I^{\ddagger}$
7400:329 $\quad$ 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 $\|^{\ddagger}$
7400:414 Food Systems Management II Clinical ${ }^{\ddagger}$
7400:424 $\quad$ Nutrition in the Life Cycle ${ }^{\ddagger}$
7400:426 Human Nutrition ${ }^{\ddagger}$

[^50]```
7400:428 Nutrition in Medical Science ||
7400:429 Nutrition in Medical Science II Clinical}\mp@subsup{}{}{\ddagger
7400:480 Community Nutrition I I
7400:481 Community Nutrition I Clinical }\mp@subsup{}{}{\ddagger
7400:482 Community Nutrition II }
7400:483 Community Nutrition II Clinical }\mp@subsup{}{}{\ddagger
7400:486 Staff Relief: Dietetics }\mp@subsup{}{}{\ddagger
7400:487 Sports Nutrition
```

Credits 5
3 3 3 1

- Electives (2 hours)

7400:485
Professional Preparation for the Coordinated Program

## Step-Up Option with Summit College (Restaurant Management)

2020:121 English 4

2020:222 Technical Report Writing
2040:247 Survey of Basic Economics
2280:120 Safety and Sanitation
2280:121 Fundamentals of Food Preparation I
2280:122 Fundamentals of Food Preparation II
2280:232 Dining Room Service and Training
2280:233 Restaurant Operation and Management
2280:237 Internship
2280:240 Systems Management and Personnel
2280:245 Menu, Purchasing and Cost Control
2280:256 Hospitality Law
2280:243 Food Equipment and Plant Operations
2420:170 Applied Mathematics for Business
2420:211 Basic Accounting I
2420:212 Basic Accounting II
2540:263 Business Communications
2420:280 Essentials of Business Law
2520:203 Principles of Advertising
2540:119 Business English
3100:130 Principles of Microbiology ${ }^{\ddagger}$
3100:200, 201 Human Anatomy and Physiology I, Lab* $\ddagger$
3100:202, 203 Human Anatomy and Physiology II, Lab*キ
3150:110, 111 Introduction to General, Organic \& Biochemistry I, Lab ${ }^{\ddagger}$
3150:12, 113 Introduction to General, Organic \& Biochemistry II, Lab ${ }^{\ddagger}$
3300:112 English Composition II
3400:210 Humanities in the Western Tradition I
$x x x x: x x x \quad H u m a n i t i e s ~ e l e c t i v e$
xxxx:xxx Humanities elective
Note: See General Education Program under University College.
Humanities electives must be chosen from two different sets.
3400:385-391 World Civilization
3470:260 Basic Statistics
3750:100 Introduction to Psychology ${ }^{\ddagger}$
3850:100 Introduction to Sociology
6500:480 Introduction to Health Care Management ${ }^{\ddagger}$
7400:xxx Clothing Communication, Textiles or Housing option
7400:133 $\quad$ Nutrition Fundamentals ${ }^{\ddagger}$
7400:147 Orientation to Professional Studies in Family and Consumer Sciences
7400:201 Courtship, Marriage, and the Family
7400:265 Child Development
7400:250 Food Science
7400:315 Food System Management I Clinical
7400:320 Careers in Nutrition
7400:328 Nutrition in Medical Science I ${ }^{\ddagger}$
7400:362 Family Life Management
7400:400 Nutrition Communication and Education Skills
7400:403 Advanced Food Preparation
7400:413 Food Systems Management II ${ }^{\ddagger}$
7400:424 Nutrition in Life Cycle ${ }^{\ddagger}$
7400:426 Human Nutrition ${ }^{\ddagger}$
7400:428 $\quad$ Nutrition in Medical Science $\|^{\ddagger}$
7400:447 Critical Issues in Family and Consumer Sciences
7400:480 Community Nutrition I
7400:482 Community Nutrition II
7400:487 Sports Nutrition
7600:105 Introduction to Public Speaking
7600:106 Effective Oral Communication

## Bachelor of Arts in Family and Consumer Sciences Education

The name "Family and Consumer Sciences" or FCS was adopted nationally in 1994, but you may hear FCS education programs called "Home Economics," "Life Skills," or "Work and Family." These programs can be found in middle schools, high schools, career centers and in adult education programs. 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 minimum 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:

General Education Requirements
See College of Fine and Applied Arts and College of Education requirements
7400:133 Nutritional Fundamentals (meets PE requirement)

| Family and Consumer Sciences Content requirements |  |  |
| :---: | :--- | :--- |
| $7400: 147$ | Orientation to Professional Studies in FCS |  |
| $7400: 123$ | Fundamentals of Clothing and Construction |  |
| $7400: 141$ | Food for the Family | 3 |
| $7400: 201$ | Courtship, Marriage and the Family | 3 |
| $7400: 225$ | Textiles | 3 |
| $7400: 259$ | Family Housing | 3 |
| $7400: 265$ | Child Development | 3 |
| $7400: 301$ | Consumer Education | 3 |
| $7400: 340$ | Meal Management | 3 |
| $7400: 360$ | Parent-Child Relations | 2 |
| $7400: 362$ | Family Life Management | 3 |
| $7400: 404$ | Middle Childhood and Adolescence | 3 |
| $7400: 406$ | Family Financial Management | 3 |
| $7400: 431$ | Professional Presentations in FCS | 3 |
| $7400: 442$ | Human Sexuality | 3 |
| $7400: 447$ | Senior Seminar: Critical Issues in Professional Development | 3 |
| $7400: 485$ | Seminar: Computer Technology in FCS | 1 |
| $7400: x x x$ | FCS Elective | 3 |
| Content hours required | 1 |  |

Teacher Education requirements
5100:210 Characteristics of Learners 3

5100:211 Teaching \& Learning Strategies 3
5100:410 Professional Issues in Education 3
5300:375 Exploratory Experiences in Secondary Education 1
5300:495 Student Teaching
5500:310 Instructional Design
5500:311 Intructional Resources $\quad 3$
5500:320 Diversity in Learners 3
5500:330 Classroom Management 3
5500:480 Reading in P-12 Programs
5500:325 Content Reading in Secondary Schools 3
5610:440 Developmental Characteristics of Exceptional Individuals 3
7400:491 Career-Technical FCS Instructional Strategies 3
7400:498 Student Teaching Seminar 1
Teacher Education hours Required 40
Total hours required
The University of Akron also offers options for licensure in FCS Job Training programs which include: Early Childhood Education and Care; Clothing, Fashion \& Interiors; Production and Services; Culinary and Food Management; and Hospitality, Hotels and Resorts. Contact the School of Family and Consumer Sciences teacher educator, Carol Werhan at (330) 9726049 for more information.

## 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.

[^51]
## 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 " 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

- Bachelor 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 completion of the 200 level in piano. A full senior composition recital is required.
- Bachelor of Music in Music Education - Sixteen credits and completion of the 200 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 completion of the 100 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 completion of the 200 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 of an applied area may require a student to take a jury examination at the end of any semester.
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, keyboard, 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 weekly 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 Conducted 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 Arts degree in music. Students who do not complete degree requirements within eight semesters must continue to enroll in a major conducted ensemble each semester until graduation requirements are met.
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).

- Unconducted 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)
7500:121 Theory and Musicianship I

7500:122 Theory and Musicianship II
7500:154 Music Literature I
7500:155 Music Literature II
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) |
| :--- | :--- |
| $7510: x x x$ | Music Organization (four semesters in a major conducted ensemble <br> on primary instrument) |
| $7520: x x x$ | Applied Music |

7520:xxx
(Completion of the 200 level on 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 (eight semesters in a major conducted ensemble) 8 $7520: x x x \quad$ Applied Piano (completion of 400 level is required prior to graduation) 32 Applied Voice

2

- 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

7500:157 Student Recital (eight semesters) 0
7510:xxx Music Organization* 8
7520:Xxx $\quad \begin{gathered}\text { Applied Music - primary instrument (completion of the } 400 \text { level } \\ \text { is required prior to graduation) }\end{gathered}$

- Additional required music courses - 14-15 credits

7500:361 Conducting 2
7500:371 Analytical Techniques 2
7500:372 Techniques for the Analysis of 20th Century Music
7500:454 Orchestration
7500:471 Counterpoint
Independent Study (with approval of applied instructor and adviser)
$7500 \cdot 35$
Electronic Music
(As an alternative 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 - 30 credits.
- Applied music and performance courses 40 credits.
7500:157 Student Recital (eight semesters) 0

7510:xxx Music Organization* 8
7520:xxx Applied Music - primary instrument (completion of the 400 level 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
7500:361 Conducting
7500:371 Analytical Techniques
7500:451 Introduction to Musicology
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) |
| :--- | :--- |
| $7510: x x x$ | Music Organization* |
| $7520: x x x$ | Applied Music - primary instrument (completion of the 400 level |
| is required prior to graduation) |  |

Applied Music - primary instrument (completion of the 400 level 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 instructor and adviser) |
| $7500: 353$ | Electronic Music |
|  | (As an alternative 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.

| $7500: 157$ | Student Recital (eight semesters) |
| :--- | :--- |
| $7510: \times x x$ | Music Organization* |
| $7520: \times x x$ | Applied Music - primary instrument (completion of the 400 level |
|  | is required prior to graduation) |
| $7520: 025$ | Applied Piano - (completion of the 100 level) |

- Additional required music courses - 14 credits.

| $7500: 371$ | Analytical Techniques |
| :--- | :--- |
| $7500: 471$ | Counterpoint |
| $7500: 361$ | Conducting |
| $7500: 265$ | Diction for Singers I |
| $7500: 266$ | Diction for Singers II |
| $7500: 365$ | Song Literature |

Foreign Language Requirement - 12 credits
3550:101 $\begin{array}{ll}\text { 3530:101 } & \text { Italian }\end{array}$
3530:101 German

3520:101 French

- Senior recital (full recital required).
- Electives 6 credits.

Performance (emphasis in voice/musical theatre) $\ddagger$

- Total of 145 credits required for degree.
- General Education requirement - 42 credits.
- Core curriculum in music - 24 credits.

| $7500: 151$ | Theory I |
| :--- | :--- |
| $7500: 152$ | Theory II |
| $7500: 154$ | Music Literature I |
| $7500: 155$ | Music Literature I |
| $7500: 141,2,241,2$ | Ear Training/Sight Reading I, II, II, IV |
| $7500: 251,2$ | Theory III, IV |
| $7500: 261$ | Keyboard Harmony I |
| $7500: 262$ | Keyboard Harmony II |

- Applied music and performance courses - 41 credits.

7500:157 Student Recital (eight semesters)
7500:108 Opera Workshop (3 semesters)
7510:1xx Choral Ensembles (by audition)
7520: $24 \quad$ Applied Voice (completion of 300 level)
7520:×25 Applied Piano (completion of 200 level)

- Additional required music courses -2 credits.

7500:320 Musical Theatre History and Literature I

| - Theatre Core | - 20 credits | 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 |  |
| $7900: 119$ | Modern I | 2 |
| $7900: 124$ | Ballet I | 2 |
| $7900: 130$ | Jazz Dance I | 2 |
| $7900: 230$ | Jazz Dance II | 2 |
| $7900: 144$ | Tap Dance I | 2 |
| $7920: 270$ | Musical Theatre Dance Techniques | 3 |

- 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.
- Core curriculum in music - 30 credits.
- Applied music and performance courses - 40 credits.

| $7500: 157$ | Student Recital (eight semesters) | 0 |
| :--- | :--- | :--- |

7520:xxx Applied Music - primary instrument (completion of the 400 level is required prior to graduation)

- Additional required music courses - 14-15 credits
7500:325 Research in Music 2

7500:361 Conducting
7500:371 Analytical Techniques
7500:454 Orchestration 2
7500:471 Counterpoint $\quad$ Cor
7500:497 Independent Study (with approval of applied instructor and adviser) 2
7500:353 $\quad \begin{aligned} & \text { Electronic Music } \\ & \text { (As an alternative to 7500:452 Composition or }\end{aligned}$
7500:454 Orchestration or 7500:471 Counterpoint)

- 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 performance courses - 40 credits.
7500:157 Student Recital (eight semesters) 0

7510:xxx Music Organization* 8
7520:xxx Applied Music - primary instrument (completion of the 400 level is required prior to graduation)

- Additional required music courses - 15 credits

| $7500: 263$ | Service Playing for Organists (in lieu of 7500:262) | 2 |
| :--- | :--- | :--- |
| $7500: 361$ | Conducting | 2 |
| $7500: 371$ | Analytical Techniques | 2 |
| $7500: 456$ | Advanced Conducting: Choral | 2 |
| $7500: 462$ | Repertoire and Pedagogy: Organ | 3 |
| $7500: 471$ | Counterpoint | 2 |
| $7500: 497$ | Independent Study (Choral Arranging) | 2 |

- 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 |
| :--- | :--- | :--- |
| $7510: x x x$ | Music Organization* | 8 |
| $7520: x x x$ | Applied Music - primary instrument (completion of the 400 level |  |
|  | is required prior to graduation) | 32 |

7520:xxx Applied Music - primary instrument (completion of the 400 level is required prior to graduation)

[^52][^53]| - Additional required music courses - 14-15 credits | Credits |  |
| :--- | :--- | :---: |
| $7500: 361$ | Conducting | 2 |
| $7500: 371$ | Analytical Techniques | 2 |
| $7500: 372$ | Techniques for the Analysis of 20th Century Music | 2 |
| $7500: 432$ | Teaching and Literature: Percussion Instruments | 2 |
| $7500: 454$ | Orchestration | 2 |
| $7500: 455$ | Advanced Conducting: Instrumental | 2 |
| $7500: 471$ | Counterpoint | 2 |
| $7500: 353$ | Electronic Music | 3 |

- Electives -5-6 credits.
- Senior recital (full recital required).


## Performance (emphasis in guitar)

- Total of 132 credits required for degree.
- General Education requirement 42 credits.
- Core curriculum in music (7500:262 not required) 28 credits.
- Applied music and performance courses - 40 credits.

| $7500: 157$ | Student Recital (eight semesters) |
| :--- | :--- |
| $7510: x x x$ | Music Organization* |
| $7520: x x x$ | Applied Music - primary instrument (completion of the 400 level |

7520:xxx Applied Music - primary instrument (completion of the 400 level is required prior to graduation)

- Additional required music courses - 16-17 credits.

| $7500: 259$ | Fretboard Harmony (in lieu of 7500:262) |
| :--- | :--- |
| $7500: 361$ | Conducting |
| $7500: 371$ | Analytical Techniques |
| $7500: 467$ | Guitar Pedagogy |
| $7500: 668$ | Guitar Arranging |
| $7500: 669$ | History and Literature of the Guitar and Lute |
| $7500: 471$ | Counterpoint |
| $7500: 497$ | Independent Study (with approval of applied instructor and adviser) |
| $7500: 353$ | Electronic Music |
|  | (As an alternative to 7500:471 Counterpoint) |

500:361
7500:371 Analytical Techniques
7500:467 Guitar Pedagogy
7500:469 History and Literature of the Guitar and Lute
7500:471 Counterpoint
7500:353 Electronic Music
(As an alternative 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:xxx Applied Music primary instrument (completion of the 200 level is required for graduation)

- Additional music courses - 14-15 credits.

| 7500:325 | Research in Music |
| :--- | :--- |
| $7500: 361$ | Conducting |
| $7500: 371$ | Analytical Techniques |
| $7500: 451$ | Introduction to Musicology |
| $7500: 454$ | Orchestration |
| $7500: 455$ | Advanced Conducting: Instrumental |
| $7500: 353$ | Electronic Music |
|  | (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 | $1-2$ |
| :--- | :--- | ---: |
| $7500: 601$ | Choral Literature | 2 |
| $7500: 621$ | Music History Survey: Middle Ages and Renaissance | 2 |
| $7500: 622$ | Music History Survey: Baroque Era | 2 |
| $7500: 623$ | Music History Survey: Classical and Romantic Eras | 2 |
| $7500: 624$ | Music History Survey: 20th Century | 2 |

- 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.


## 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. Credits

| $7500: 157$ | Student Recital (eight semesters) | 0 |
| :--- | :--- | ---: |
| $7510: x x x$ | Music Organization* | 8 |
| $7520: x x x$ | Applied Music primary instrumentalł | 8 |
| $7520: x x x$ | Aplid Music |  |

7520:xxx Applied Music composition 16
(completion of the 200 level piano proficiency is required)

- 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 |
|  | or |  |
| $7500: 456$ | Advanced Conducting: Choral | 2 |
| $7500: 471$ | Counterpoint | 2 |
| $7500: 497$ | Independent Study of Music | $2-4$ |

- 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 | 2 |
| :--- | :--- | :--- |
| $7500: 371$ | Analytical Techniques | 2 |

7500:454 Orchestration 2

- Additional jazz courses - 21 credits.
7500:210,1 Jazz Improvisation I, II 4

7500:212 The Music Industry: A Survey of Practices and Opportunities 2
7500:307 Technique of Jazz Ensemble Performance and Direction 2
istory and Literature
7500:309 Jazz 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) 0

7510:xxx $\begin{gathered}\text { Music Organization } \\ \text { Major Conducted }\end{gathered}$
$\begin{array}{ll}\text { Major Conducted } & 4 \\ \text { Jazz Ensembles } & 8\end{array}$
7520:xxx Applied Music primary instrument (completion of 200 level is required for graduation)

Saxophone major must pass flute and clarinet proficiency (completion of 100 level is required)
Guitar majors must pass classical guitar proficiency (completion of the 100 level is required)

- Electives - 7-8 credits.
- Senior recital.

[^54]
## 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 Student Teaching, 5300:495 and Student Teaching Colloquium, 7500:492) - 24 credits.
- Additional Music Courses by Major: Band-Wind and Percussion Instruments/Applied Music and Performance Courses - 26 credits. Credits 7500:157 7500:457

Student Recital (eight semesters) 0
Senior Recital (one-half recital during 12 months prior to graduation. but not during the semester of student teaching) 0
7510:104
7510:125
7510:126
7520:xxx
Symphonic Band
Concert Band
Marching Band (as prerequisite for 7500:205)
Two semesters. Instrumental majors excepting bowed strings.
Applied Music primary instrumental (completion of the 300 level
is required prior to student teaching)
16
Minimum keyboard and conducting proficiencies must be attained before assignment to student 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 Methods@
7500:298 Technologies of Music Education
7500:305 Marching band Organization and Technique
7500:307 Technique of Jazz Ensemble Performance and Direction
7500:339 Teaching General Music I
7500:345 Low Brass Methods@
7500:346 Flute and Double Reed Methods@
7500:361 Conducting
7500:442 Instrumental Methods@
7500:443 Instrumental Practicum@
7500:454 Orchestration
7500:455 Advanced Conducting: Instrumental $\quad 2$
7500:458 Percussion Methods
1

- Orchestra - Violin, Viola, Cello, String Bass/Applied Music and Performance Courses - 24 credits

| $7510: 103$ | Symphony Orchestra | 8 |
| :--- | :--- | ---: |
| $7520: x x x$ | Applied Music - primary instrument | 16 |

- Additional Music Courses - 23 credits

7500:102 Introduction to Music Education 2
7500:254,5 String Methods I, II 2
7500:276 Trumpet and French Horn Methods@ 1
7500:277 Clarinet and Saxophone Methods@ 1
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 Methods@ 1
7500:361 Conducting
7500:442 Instrumental Methods
7500:443 Instrumental Practicum
7500:454 Orchestration
7500:455 Advanced Conducting: Instrumental
7500:458 Percussion Methods@
8
7520:xxx $\quad$ Applied Music - primary instrument $\quad 16$

Choral/General Music - Voice, Keyboard, or Guitar/Applied Music and Performances Courses - 24 credits

Concert Choir
or
7510:121
University Singers
7520:xxx
Applied Music - primary instrument

- Additional Required Music Courses - 24 credits

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 |
| Guitar Majors: |  |  |
| $7520: 024$ | Applied Voice | 2 |
| $7520: 025$ | Applied Piano | 2 |
| $7500: 102$ | Introduction to Music Education | 2 |
| $7500: 265$ | Diction for Singers I |  |
| $7500: 268$ | Group Vocal Techniques for Choral Music Education | 2 |
| $7500: 298$ | 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 |
| $7500: 442$ | Instrumental 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 and (e) jury to the 200 level on her/his applied instrument.

- One-half recital during 12 months prior to graduation but not during the semester of student teaching except with special permission of Area Coordinator.
- Must be enrolled in at least one major conducted ensemble for four years (eight semesters).
- Jurying to the 300 level on applied instrument is required 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.) Credits

| $7600: 102$ | Survey of Mass Communication | 3 |
| :--- | :--- | :--- |
| $7600: 115$ | Survey of Communication Theory | 3 |
| $7600: 384$ | Communication Research | 3 |

- Concentration in business and organizational communication, interpersonal and public communication, or mass media communication as described in tracks plus departmental electives: 39
- University electives: 24
- Total:


## Bachelor of Arts in Business and Organizational Communication <br> Bachelor of Arts in Interpersonal and Public Communication <br> Bachelor of Arts in Mass-Media Communication

- General Education requirement and "tag" degree coursework
- Communication Core
- Area of specialization as described below plus School of Communication electives
- University electives
- Total128


## 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)

| $7600: 280$ | Media Production Techniques |
| :--- | :--- |
| $7600: 300$ | Newswriting |
| $7600: 303$ | Public Relations Writing |
| $7600: 309$ | Public Relations Publications |
| $7600: 403$ | Public Relations Strategies |
| $7600: 404$ | Public Relations Cases |
| Choose nine credits from the following list: |  |
| $7600: 235$ | Interpersonal Communication |
| $7600: 252$ | Persuasion |
| $7600: 345$ | Business \& Professional Speaking |
| $7600: 405$ | Media Copywriting |

$\begin{array}{ll}7600: 300 & \text { Newswriting } \\ 7600: 303 & \text { Public Relations Writing }\end{array}$
7600:309 Public Relations Publications
600:403 Public Relations Strategies
3

7600:404 Public Relations Cases
Choose nine credits from the following list:
$\begin{array}{ll}7600: 252 & \text { Persuasion } \\ 7600: 345 & \text { Business \& Professional Speaking }\end{array}$
3

7600:405 Media Copywriting
Communication electives: (not used for above requirements)
Communication Total
Organizational Communication Track:
Major area: (required)

| 7600:226 | Interviewing |
| :--- | :--- |
| $7600: 235$ | Interpersonal Communication |
| $7600: 344$ | Group Decision Making |
| $7600: 345$ | Business \& Professional Speaking |
| $7600: 435$ | Communication in Organizations |
| Choose 12 credits from the following list: |  |
| $7600: 245$ | Argumentation |
| $7600: 300$ | Newswriting |
| $7600: 252$ | Persuasion |
| $7600: 303$ | Public Relations Writing |
| $7600: 309$ | Public Relations Publications |
| $7600: 325$ | Intercultural Communication |
| $7600: 436$ | Analyzing Organizational Communication |
| $7600: 437$ | Training Methods in Communication |
| $7600: 454$ | Theory of Group Processes |

7600:235 Interpersonal Communication
7600:344 Group Decision Making
600:435 Business \& Professional Speaking
Choose 12 credits from the following list
600:245 Argumentation
3
7600:300 Newswriting
7600:252 Persusion
ions Writing
7600:325 Intercultural Communication
600.436 Analyzing Organizational Communication

7600:454 Theory of Group Processes
Communication Electives: (not used for above requirements)
12
Communication Total

Interpersonal and Public Communication

- Required courses

| $7600: 235$ | Interpersonal Communication | 3 |
| :--- | :--- | :--- |
| $7600: 245$ | Argumentation | 3 |
| $7600: 346$ | Advanced Public Speaking | 3 |

- AND take 9 credits selected from:

| 7600:225 | Listening |
| :--- | :--- |
| 7600:226 | Interviewing |
| 7600:227 | Nonverbal Communication |
| 7600:252 | Persuasion |
| 7600:325 | Intercultural Communication |
| $7600: 344$ | Group Decision Making |
| $7600: 355$ | Freen |


| $7600: 225$ | Listening | 1 |
| :--- | :--- | :--- |
| $7600: 226$ | Interviewing | 3 |

Persuasion
7600:325 Intercultural Communication
7600.355 Group Decision Making

- And take two courses (6 credits) selected from:

7600:454 Theory of Group Processes
7600:457 Public Speaking in America
7600:470 Analysis of Public Discourse
7600:471 Theories of Rhetoric
7600:475 Political Communication
Communication Electives: (not used for above requirements)
Communication Total

## 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/TV Writing | 3 |
| $7600: 396$ | Radio/TV Programming | 3 |
| $7600: 484$ | Regulations in Mass 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): |  |  |
| $7600: 270$ | Voice Training for the Media | 3 |
| $7600: 282$ | Radio Production | 3 |
| $7600: 283$ | Studio Production | 3 |
| $7600: 345$ | Business and Professional Speaking | 3 |
| And choose one course (3 credits): |  |  |
| $7600: 302$ | Broadcast Newswriting | 3 |
| $7600: 462$ | Advanced Media Writing | 3 |
| $7600: 416$ | New Media Writing | 3 |
| Communication Electives: (not used for above requirements) | 9 |  |
| Communication | Total: | 48 |

Media Production Track:
Required courses:
7600:280 Media Production Techniques 3
7600:282 Radio Production 3
7600:283 Studio Production 3
$7600 \cdot 300$ News Writing
7600:368 Basic Audio \& Video Editing
7600:387 Radio \& Television Writing
7600:468 Advanced Audio \& Video Editing
7600:472 Single Cane Production
Choose one class from the following (3 credits): $\quad \square$
7600:302 Broadcast Newswriting 3
7600:270
7600:375 Communication Technology and Change
7600:416 New Media Writing
7600:417 New Media Production
7600:462 Advance Media Writing
7600:493 Production Practicum
Prome
choose one class from the following (3 credits):
7600:481 Film as Art
7600:385 American Film History I
7600:386 American Film History II
Communication Electives:
Communication Total

| 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): |  |  |
| $7600: 302$ | Broadcast 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): | 3 |  |
| $7600: 400$ | History of Journalism in America | 3 |
| $7600: 408$ | Women, Minorities and News | 3 |
| $7600: 410$ | Journalism Management | 3 |
| $7600: 484$ | Mass Media Regulations | 3 |
| And: |  | 9 |
| Communication | Electives: (not used for above requirements) | 48 |
| Communication | Total |  |

## Bachelor of Arts (Step-Up Program) with Summit College College

The School of Communication will accept any Summit College degree in a Step-Up 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 College. 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 (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 specialists 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.

Coursework focuses on the evaluation and treatment of the many disordered communication processes. Students who complete 7700:321, 330, 235 and 240 with a "B" average or better and who have at least a 3.0 overall grade point average may elect the clinical option which requires completion of 7700:420. Students wishing to study this field without clinical experience at the undergraduate level may pursue a non-clinical curricular option. Decisions regarding degree options and graduate study should be made only after consultation with the departmental undergraduate coordinator. A master's degree is required for employment as a speech-language pathologist. An Au.D. is required for certification as an audiologist, effective 2007.

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 pathologists work in public school settings, it is recommended that undergraduate students who are interested in pursuing careers in the communicative disorders professions complete the requirements for educational certification, except for student teaching, which can be taken only 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. in Speech-Language Pathology and Audiology) - 45 credits. Students may count 14 credits of American Sign Language for the foreign language requirement.
- Electives - 21 credits
- Core in Speech-Language Pathology and Audiology: Credits

7700:101 American Sign Language |
7700:110 Introduction to Disorders of Communication
7700:210 Introduction to Clinical Phonetics
7700:215 Introduction to Hearing and Speech Science
7700:230 Language Science and Acquisition
7700:235 Introduction to Audiology
7700:240 Audiological Rehabilitation
7700:250 Observation and Clinical Methods
7700:321 Articulatory and Phonologic Disorders
7700:322 Organic Disorders of Communication
7700:330 Language Disorders
7700:445 Multi-Cultural Considerations in Audiology and
Speech Language Pathology

## Clinical Option

- Add the following Clinical Practicum to the above requirements. 7700:420 Senior Clinical Experience


## Non-Clinical Option

Students wishing to study this field without clinical experience at the undergraduate level may pursue a non-clinical curricular option. The non-clinical option will include the core curriculum and at least four credits in the areas related to communication disorders, selected in consultation with the department undergraduate coordinator.

## 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 well-being 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 two years of a foreign language (Spanish is recommended; sign language is accepted). The Bachelor of Arts in Social Work degree does not require a language.
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 two-year 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./S.W. four-year curriculum in social work with two additional years of full-time coursework.
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.

[^55]
## Bachelor of Arts

- Completion of the General Education requirement, 42 credits including.

| 3100:103 | Natural Science Biology/Lab | Credits |
| :--- | :--- | :---: |
| $3850: 100$ | androduction to Sociology | 4 |
| Intren |  |  |

- Course Prerequisites for the Social Work major:

| $7750: 270$ | Poverty and Minority Issues | 3 |
| :--- | :--- | :--- |
| $7750: 276$ | Introduction to Social Welfare | 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
$7750: 405 \quad$ Practice I Skills Lab 3
$7750: 421 \quad$ Field Experience Seminar I 1
7750:422 Field Experience Seminar II 1
7750:425 Social Work Ethics
7750:430 Human Behavior and Social Environment II
7750:440 Social Work Research I
7750:441 Social Work Research II
7750:445 Social Policy Analysis for Social Workers
7750:493 Field Experience: Social Agency I
7750:494 Field Experience: Social Agency II
7750:4xx Electives in Social Work
General Electives, including 14 credits in a foreign language.
A total of 19 credits in approved courses in the social and behavioral sciences must be taken in addition to the 10 credits that are required (3250:100, Introduction to Economics; 3700:100, Government and Politics in the United States; 3750:100, Introduction to Psychology). The 19 credits may be chosen from the following suggested disciplines: Anthropology, Economics, History, Political Science, Psychology, and Sociology. Associate degree, Minor, and certificate requirements may satisfy some of the general electives.


## Bachelor of Arts/Social Work

- Completion of the General Education requirement, 42 credits including:
3100:103 Natural Science Biology/Lab 4
3850:100 Introduction to Sociology
- Course prerequisites for the Social Work major:

| $7750: 270$ | Poverty and Minority Issues | 3 |
| :--- | :--- | :--- |
| $7750: 276$ | Introduction to Social Welfare | 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 I Skills Lab 3
7750:421 Field Experience I
7750:422 Field Experience Seminar II
7750:425 Social Work Ethics
7750:430 Human Behavior and Social Environment II
7750:440 Social Work Research I
7750:441 Social Work Research II
7750:445 Social Policy Analysis for Social Workers
7750:493 Field Experience: Social Agency I
7750:494 Field Experience: Social Agency II
$7750: 4 x x \quad$ Electives in Social Work
$\square$

General Electives:
A total of 19 credits in approved courses in the social and behavioral sciences must be taken in addition to the 10 credits that are required (3250:100, Introduction to Economics; 3700:100, Government and Politics in the United States; 3750:100, Introduction to Psychology). The 19 credits may be chosen from the following suggested disciplines: Anthropology, Economics, History, Political Science, Psychology, and Sociology. Associate degree, Minor, and certificate requirements may satisfy some of the general electives.

## 7800: Theatre

## Bachelor of Arts

- General Education Requirement, including the second year of a foreign language - 56 credits.
- Theatre - 54 credits
- Electives - 18 credits.
- Minimum Semester Hours Required - 128 credits.

| The Fundamentals (24 credits) | 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 I | 3 |
| $7800: 262$ | Stage Makeup | 3 |
| $7800: 264$ | Playscript and Performance Analysis | 3 |
| $7800: 265$ | Basic Stagecraft | 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 | 3 |
|  | or |  |
| 7800:355 | Stage Lighting Design | 3 |
| Choose one of the following: |  |  |
| 7800:373 | Acting II | 3 |
|  | or |  |
| 7800:470 | Theatre in Education | 3 |
| 7800:471 | Senior Seminar | 1 |

Production/Performance Labs ( 8 credits; $\mathbf{4}$ must be production credits)
7810:100-410 $\quad$ Production Lab $\quad 1-2$

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:xxx) 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.


## The Fundamentals ( $\mathbf{2 4}$ 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 I | 3 |
| 7800:262 | Stage Makeup | 3 |
| 7800:264 | Playscript and Performance Analysis | 3 |
| 7800:265 | Basic Stagecraft | 3 |
| Advanced | (22 credits) | 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 | 3 |
|  | or |  |
| 7800:355 | Stage Lighting Design | 3 |
| Choose one of the following: |  |  |
| 7800:373 | Acting II | 3 |
|  | or |  |
| 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 $\quad 1-2$

## 7810:100-410 Prof

$1-2$
$1-2$

## Electives

| 7800:301 | Introduction to Theatre through Film |
| :--- | :--- |
| $7800: 170$ | Introduction to Acting for Non-majors |
| $7800: 263$ | Scene Painting |
| $7800: 301$ | Introduction to Theatre through Film |
| $7800: 307$ | Advanced Stage Costume Design |
| $7800: 351$ | Advanced Voice and Movement |
| $7800: 374$ | Acting III |
| $7800: 403$ | Special Topics in Theatre Arts |
| $7800: 421$ | Musical Theatre Production |
| $7800: 436$ | Styles of Scenic Design |
| $7800: 467$ | Contemporary Theatre Styles |
| $7800: 461$ | Directing II |
| $7800: 470$ | Theatre in Education |
| $7800: 475$ | Acting for Musical Theatre |
| $7800: 480$ | Independent Study |

- 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:xxx) 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 B.F.A. dance major is designed for the student who wishes to pursue professional training in dance through an emphasis in ballet technique. The dance program offers training in technical, performing and choreographic skills, as well as an in-depth knowledge of dance history.
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 from the BFA in Dance, students must complete one full year of Ballet VIII with a minimum of " $B$ " and be enrolled in a ballet technique class each semester until they satisfy their technique requirements and maintain an overall 2.875 GPA in all dance classes.
Advancement in levels of dance techniques is by receipt of a " B " grade or better for two semesters in Ballet V-VIII and for one semester in all other technique classes.

- General Education requirements - 42 credits
- Required dance courses - 84 credits

|  |  | Credits |
| :---: | :---: | :---: |
| 7900:115 | Dance as a Art Form | 2 |
| 7900:116,7 | Physical Analysis of Dance I, II | 4 |
| 7910:112 | Dance Production Ensemble | 1 |
| 7910:201 | Freshman Jury | 0 |
| 7920:122,222 | Ballet V, VI | 16 |
| 7920:141,241 |  |  |
| or 341 | Pointe I, II or III or | 2 |
| 7920:333 | Partnering or | 2 |
| 7920:334 | Pas de Deux | 2 |
| 7920:228 | Modern V | 3 |
| 7920:229 | Modern VI | 3 |
| 7920:316,7 | Choreography I, II | 4 |
| 7920:320 | Movement Fundamentals | 2 |
|  | ${ }^{\circ}$ |  |
| 7920:321 | Rhythmic Analysis for Dance | 2 |
| 7920:322,422 | Ballet VII, VIII | 16 |
| 7920:328 | Modern VII | 3 |
| 7920:329 | Modern VIII | 3 |
| 7920:361 | Learning Theory for Dance | 2 |
| 7920:362 | Instructional Strategies for Dance | 2 |
| 7920:416 | Choreography III | 2 |
| 7920:417 | Choreography IV | 2 |
| 7920:431 | Dance History: Prehistory to 1661 | 2 |
| 7920:432 | Dance History: 1661 through Diaghilev | 2 |
| 7920:433 | Dance History: 20th Century | 2 |
| 7920:445,6 | Dance Philosophy and Criticism I, II | 4 |
| 7920:471 | Senior Seminar | 1 |

- Required performance course (7910) - 4 credits
- Required somatics and world dance (7915) — 2 credits
- Electives (with approval of adviser) - 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.


## Bachelor of Arts

The B.A. dance major is designed for the student who wishes to pursue dance training through an emphasis on the four major dance idioms of ballet, modern, jazz and tap dance. The program offers adjunctive coursework in choreography, history, physical analysis and pedagogy.
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 technique study is by receipt of a " $B$ " grade or better for two semesters in Ballet $\mathrm{V}-\mathrm{VI}$ and 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 2.875 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 and must complete two semesters of Ballet VI with a minimum of a " $B$ " grade.

- General Education requirement and foreign language** - 56 credits
- Dance - 68 credits
- Required dance courses:

7910:112 Dance Production Ensemble 1
7900:115 Dance as an Art Form 2
7910:201
7920:116, 7 Physical Analysis for Dance I, II
7920:122, 222 Ballet V, VI
7920:228 Modern V
7920:316, 7 Choreography I, II
7920:320 Movement Fundamentals
7920:321 Rhythmic Analysis for Dance
7920:333 Partnering
7920:361 Learning Theory for Dance
7920:362 Instructional Strategies for Dance
7920:445, 446 Dance Philosophy and Criticism I, II
7920:471 Senior Seminar
Credits

Choose one of the following:

| 7920:431 | Dance History: Prehistory to 1661 |
| :--- | :--- |
| 7920:432 | Dance History: 1661 through Diaghilev Era |
| $7920: 433$ | Dance History: 20th Century |

7920:432 Dance History: 1661 through Diaghilev Era
7920:433 Dance History: 20th Century

- Choose a minimum of one from each category as dance electives for a minimum of 12 credits

Category A
7920:229 Modern VI 3
7920:328 Modern VII 3

7920:329 Modern VIII 3
Category B
7900:351
7900:451
Jazz Dance III
Jazz Dance IV
Category C
7920:246 Tap Dance III 2
7920:347 Tap Dance IV 2

- Choose one category D, E, or F for a total of four credits:

Category D
7920:416 Choreography III 2

7920:417 Choreography IV 2
Category E
7920:431
7920:432
Dance History: Prehistory to 1661
Dance History: 1661 - Diaghilev Era
Dance History: 20th Century
Era 2
Category F
7920:461 Seminar and Field Experience in Dance Education 2
7920:462 Professional Issues in Dance Education 2

- Required performance courses (7910) - 3 credits.
- Required somatics and world dance (7915) - 4 credits.
- Electives - 6 credits.
- Minimum semester hours required - 130 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.


## 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.

[^56]
# College of Nursing 

Cynthia Flynn Capers, Ph.D., R.N., Dean<br>Kathleen Ross-Alaolmolki, Ph.D, R.N., Assistant Dean of Academic Nursing Programs<br>Elizabeth S. Kinion, Ed.D., R.N., Assistant Dean of Professional Practice and Academic Nursing Center<br>N. Margaret Wineman, Ph.D., R.N., Assistant Dean of Nursing Research and Scholarly Activity<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 comprehensive 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 well-being 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 lifelong 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 ethical 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.
Families 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. Learning 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, beliefs, 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 operationalize 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 learning 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 learning 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 learn 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.

## REOUIREIVENTS

## Admission to Baccalaureate Program

Five classifications of students will be considered for admission to the baccalaureate 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 earned 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 College of Nursing must meet the following requirements:

- Complete all University College requirements and College of Nursing prerequisites 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 College 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

In effect for all students entering a pre-licensure 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 earn 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 (only Honors students and 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 college 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 College, 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 a 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 July 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 prerequisites.
- 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 space-available basis.


## Procedures

1. Contact the College of Nursing, Assistant Dean Academic Nursing Programs, The University of Akron, Akron, OH 44325-3701, (330) 972-7551.
2. Submit a letter to the Assistant Dean Academic Nursing Programs, 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 return 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 Assistant Dean Academic Nursing Programs, 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 133 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 attempted 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

| Freshman Year (Prerequisite Courses) |  | Credits |
| :---: | :---: | :---: |
| 3300:111,112 | English Composition I, II | 7 |
| 5540:120-190 | Physical Education | 1 |
| 3100:130 | Princiiples of Microbiology | 3 |
| 3150:110, 111 | Introduction to General, Organic and Biochemistry I, Lab | 4 |
| 3150:112, 113 | Introduction to General, Organic and Biochemistry II, Lab | 4 |
| 3600:120 | Introduction to Ethics | 3 |
| 3470:260 | $\begin{aligned} & \text { Basic Statistics }^{\dagger} \\ & \text { or } \end{aligned}$ | 3 |
| 3470:250 | Statistics for Everyday Life ${ }^{\dagger}$ | 4 |
| 3750:100 | Introduction to Psychology | 3 |
| 3850:100 | Introduction to Sociology ${ }^{\dagger}$ | 4 |
| 3230:150 | ${ }_{\text {Cultural Anthropology }}{ }^{\text {or }}$ | 4 |
| 8200:100 | Introduction to Nursing | 1 |
|  | Electives | 2 |
| Admission to the Nursing major |  |  |
| Sophomore Year |  |  |
| 3100:200, 201 | Human Anatomy and Physiology I, Lab | 4 |
| 3100:202, 203 | Human Anatomy and Physiology II, Lab | 4 |
| 3750:230 | Developmental Psychology | 4 |
| 7600:105 | Introduction to Public Speaking | 3 |
| 7600:106 | Oral Communications ${ }^{\dagger}$ | 3 |
| 8200:211 | Foundations of Nursing Practice I | 5 |
| 8200:212 | Foundations of Nursing Practice II | 5 |
| 8200:215 | Professional Role Development | 2 |
| 8200:225 | Health Assessment | 3 |
| Junior Year |  |  |
| 7400:316 | Science of Nutrition | 4 |
| 8200:315 | Pathophysiology for Nurses | 3 |
| 8200:325 | Cultural Dimensions in Nursing | 2 |
| 8200:330 | Nursing Pharmacology | 3 |
| 8200:350 | Nursing of Childbearing Families | 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 Western Tradition I | 4 |
|  | Humanities Elective | 3 |
|  | Area Studies/Cultural Diversity Requirement | 2 |
|  | Area Studies/Cultural Diversity Requirement | 2 |
| 8200:410 | Nursing of Families with Children | 5 |
| 8200:430 | Nursing in Complex/Critical Situations | 5 |
| 8200:435 | Nursing Research | 2 |
| 8200:440 | Nursing of Communities | 5 |
| 8200:450 | Nursing Practicum \& Leadership | 5 |
|  | Total minimum credits for graduation: | 130-132 |

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## 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

| 3100:130 | Principles of Microbiology ${ }^{\dagger}$ | 3 |
| :---: | :---: | :---: |
| 3100:200, 201 | Human Anatomy and Physiology I, Lab | 4 |
| 3100:202, 203 | Human Anatomy and Physiology II, Lab | 4 |
| 3150:110, 111 | Introduction to General, Organic and Biochemistry I, 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 I ${ }^{\dagger}$ | 4 |
| 3470:260 | Basic Statistics ${ }^{\dagger}$ <br> or | 3 |
| 3470:250 | Statistics for Everyday 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 ${ }^{\dagger}$ or | 4 |
| 3230:150 | Cultural Anthropology ${ }^{\dagger}$ | 4 |
| 5540:120-190 | Physical Education ${ }^{\dagger}$ | 1 |
| 7600:105 | Introduction to Public Speaking | 3 |
|  | or |  |
| 7600:106 | Effective Oral Communication ${ }^{\dagger}$ | 4 |
| 8200:100 | Introduction to Nursing | 1 |
|  | Electives | 2 |


| Sophomore Year |  |  |
| :--- | :--- | :--- |
| Fall |  | 5 |
| $8200: 211$ | Foundations of Nursing Practice I | 2 |
| $8200: 215$ | Professional Role Development | 5 |
| Spring |  | 3 |
| $8200: 212$ | Foundations of Nursing Practice II | 3 |
| $8200: 225$ | Health Assessment | 4 |
| Summer | Science of Nutrition | 2 |


| Junior Year |  |
| :--- | :--- |
| Fall |  |
| $8200: 315$ | Pathophysiology |
| $8200: 350$ | Nursing of Childbearing Families |
| Spring |  |
| $8200: 330$ | Nursing Pharmacology |
| $8200: 360$ | Nursing Care of Adults |
| Summer | Humanities Elective $^{\dagger}$ |
|  | Area Studies/Cultural Diversity Requirement ${ }^{\dagger}$ |


| Junior/Senior Year |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| 8200:370 | Nursing Care of Older Adults | 5 |
| 8200:380 | Mental Health Nursing | 5 |
| Spring |  |  |
| 8200:410 | Nursing of Families with Children | 5 |
| 8200:440 | Nursing of Communities | 5 |
| Summer |  |  |
| 8200:435 | Nursing Research | 2 |
|  | Area Studies/Cultural Diversity Requirement ${ }^{\dagger}$ | 2 |
| Senior Year |  |  |
| Fall |  |  |
| 8200:430 | Nursing in Complex/Critical Situations | 5 |
| Spring |  |  |
| 8200:450 | Nursing Practicum \& Leadership | 5 |
|  | Total minimum credits for graduation: | 130-132 |

## 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 Anatomy \& Physiologyl, 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 | 4 |
|  | or | 4 |
| $3850: 100$ | Introduction to Sociology | 7 |
| $3300: 111,112$ | English Composition I, II | 4 |
| $3400: 210$ | Humanities in the Western Tradition I | 4 |
| $3400: x x x$ | Humanities electives | 3 |
| $3600: 120$ | Intro to Ethics | 4 |
| $3400: 385-391$ | Area Studies and Cultural Diversity | 3 |
| $3470: 260$ | Basic Statistics | 3 |
| $3470: 250$ | or | 3 |
| $3750: 100$ | Statistics for Everyday Life | 3 |
| $3750: 230$ | Intro to Psychology | 4 |
| $7600: 105$ | Developmental Psychology | 3 |
| $7600: 106$ | Introduction to Public Speaking | Effective Oral Communication |

## Senior Year

| 8200: 325 | Cultural Dimensions in Nursing | 2 |
| :--- | :--- | :--- |
| 8200: 336 | Concepts of Professional Nursing | 4 |
| 8200:337 | Health Assessment/Rn only | 3 |
| 8200:405 | Nursing Care of Health Individual | 5 |
| 8200:415 | Nursing of Individuals with Complex Health Problems | 5 |
| 8200:436 | Nursing Research/RN only | 3 |
| 8200:445 | Community Health Nursing/RN only | 5 |
| 8200:446 | Professional Nursing Leadership | 5 |

## 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 | Fundamentals Nursing Practice I | 5 |
| :--- | :--- | :--- |
| 8200:212 | Fundamentals Nursing Practice II | 5 |
| 8200:215 | Professional Role Development | 2 |
| 8200:225 | Health Assessment | 3 |
| 8200:315 | Pathophysiology for Nurses | 3 |
| 8200:325 | Cultural Dimensions in Nursing | 2 |
| 8200:330 | Nursing Pharmacology | 3 |
| 8200:350 | Nursing of the Childbearing Family | 5 |
| 8200:360 | Nursing Care of Adults | 5 |
| 8200:370 | Nursing Care of Older Adults | 5 |
| 8200:380 | Mental Health Nursing | 5 |
| 8200:410 | Nursing of Families with Children | 5 |
| 8200:430 | Nursing in Complex and Critical Situations | 5 |
| $8200: 435$ | Nursing Research | 2 |
| $8200: 440$ | Nursing of Communities | 5 |
| $8200: 450$ | Nursing Practicum \& Leadership | 5 |

## LPN/BSN Sequence

| (Prerequisite Courses) |  | Credits |
| :---: | :---: | :---: |
| 3300:111,112 | English Composition I, II | 7 |
| 5540:120-190 | Physical Education | 1 |
| 3100:130 | Principles of Microbiology | 3 |
| 3150:110, 111 | Introduction to General, Organic and Biochemistry I, Lab | 4 |
| 3150:112, 113 | Introduction to General, Organic and Biochemistry II, Lab | 4 |
| 3600:120 | Introduction to Ethics | 3 |
| 3750:100 | Introduction to Psychology | 3 |
| 3850:100 | Introduction to Sociology ${ }^{\dagger}$ | 4 |
| 3230:150 | $\stackrel{\text { or }}{\text { Cultural Anthropology }}{ }^{\dagger}$ | 4 |
|  | Electives | 2 |
| 3100:200, 201 | Human Anatomy and Physiology I, Lab | 4 |
| 3100:202, 203 | Human Anatomy and Physiology II, Lab | 4 |
| 3470:260 | Basic Statistics ${ }^{\dagger}$ <br> or | 3 |
| 3470:250 | Statistics for Everyday Life ${ }^{\dagger}$ | 4 |
| 3750:230 | Developmental Psychology | 4 |
| 7600:105 | Introduction to Public Speaking or | 3 |
| 7600:106 | Oral Communications ${ }^{\dagger}$ | 3 |

## Spring Semester starts

| $8200: 211$ | Foundations of Nursing Practice I <br> (Advanced Placement Testing) | 5 |
| :--- | :--- | :--- |
| $8200: 216$ | Transition to Baccalaureate Nursing | 3 |

## Summer

8200:212 Foundations of Nursing Practice II 5
8200:225 Health Assessment 3

7400:316 Science of Nutrition 4

## Junior Level

| 8200:315 | Pathophysiology for Nurses | 3 |
| :--- | :--- | :--- |
| 8200:325 | Cultural Dimensions in Nursing | 2 |
| 8200:330 | Nursing Pharmacology | 3 |
| 8200:350 | Nursing of Childbearing Families | 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 Western Tradition I 4
Humanities Elective 3
Area Studies/Cultural Diversity Requirement 2
Area Studies/Cultural Diversity Requirement 2
ursing of Families with Children
8200:430 Nursing in Complex/Critical Situations
8200:435 Nursing Research
8200:440 Nursing of Communities
8200:450 Nursing Practicum \& Leadership
Total minimum credits for graduation:

## 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 N225. (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 to graduation


## 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 | Homeless Outreach Program |
| Barberton Citizens Hospital | Olsten Kimberly Quality Home Care |
| Brecksville Veterans Administration | Portage Path Community Mental Health |
| $\quad$ Hospital | Center |
| Chambrel at Montrose | Rockynol Retirement Community |
| Children's Hospital Medical Center | St. Elizabeth's Hospital-Youngstown |
| College of Nursing, Center for Nursing | SUMMA Akron City Hospital |
| Community Based Corrections Facility | SUMMA St. Thomas Medical Center |
| Cuyahoga Falls General | Summit County Health District |
| Edwin Shaw Hospital | Tri County Home Nurses, Inc. |
| First American Home Care | University Center for Child Development |
| Haven of Rest | Visiting Nurse Service, Summit County |
| Heartland-Massillon |  |

## 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.

## ADIVISSION: B.S./IM.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./IM.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 II 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 I-76 intersection, across from the Rootstown High School.

# College of <br> Polymer <br> Science and <br> Polymer Engineering 

Frank N. Kelley, Ph.D., Dean

## 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

## 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 minimum 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 baccalaureate degree and only on application.
- Courses to be applied toward the granting of a minor may not be taken credit/non-credit. A maximum of 6 bypassed credits may be used, but all other credits must be earned.
- 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.

## PROGRAIM REQUIREIVENTS

(All programs listed in alphabetical order)

## Addiction Services

- Total number of credits required for a minor in Addiction Services: 20
- Required core courses:

|  |  | Credits |
| :--- | :--- | ---: |
| 2260:260 | Introduction to Addiction | 3 |
| 2260:240 | Drug Use and Abuse | 3 |
| 2260:267 | Addiction Assessment and Treatment Planning | 3 |
| 2260:261 | Addiction Treatment | 4 |
| 2260:286 | Addiction Services Internship | 2 |
|  |  |  |
| Electives: | Select 5 credits from the following: |  |
| 2260:268 | Co-Occurring Disorders |  |
| 2260:269 | Criminal Justice and Addiction | 3 |
| 2260:270 | Relapse Prevention | 3 |
| 2260:271 | Non-chemical Addictions and Dependencies | 3 |
|  |  | 3 |

## American Politics

3700:100 Government and Politics in the United States 4

- Fourteen credits from the following: 3700:210 State and Local Government 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 Urban Politics and Policies 4
3700:381 State Politics 3
3700:395 Internship in Government and Politics 2-3
3700:402 Politics and the Media 3
3700:440 Survey Research Methods 3
3700:470 Campaign Management I 3
3700:471 Campaign Management II 3
3700:472 Campaign Finance 3
3700:474 Political Opinion, Behavior and Electoral Politics 3
3700:475 American Interest Groups 3
3700:476 American Political Parties 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.


## Art

## Art

- Foundations curriculum need not be completed.
- Prerequisites must be honored.


## Art History

- Select from the following: Credits

| $7100: 100$ | 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 |
| $7100: 303$ | Renaissance Art in Italy |
| $7100: 304$ | Art in Europe during the 19th Century |
| $7100: 305$ | Art from 1900 to 1945 |
| $7100: 306$ | Renaissance Art in Northern Europe |
| $7100: 355$ | Contemporary Art Issues |
| $7100: 370$ | History of Photography |
| $7100: 400$ | Art in the U.S. before World War II |
| $7100: 401$ | Special Topics in History of Art |
| $7100: 405$ | History of Art Symposium |
| $7100: 498$ | 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 |
| :--- | :--- |
|  | or |
| $7100: 289$ | Production I |
| $7100: 280$ | Digital Imaging |
| $7100: 383$ | Musion |

- Nine credits from the following:

| $7100: 281$ | Web Page Design |
| :--- | :--- |
| $7100: 381$ | Digital Imaging II |
| $7100: 385$ | Computer 3-D Modeling and Animation |
| $7100: 486$ | Interactive Multimedia Development |
|  | Total |

## Drawing

- Student must complete:

| 7100: 131 | Foundation Drawing |
| :--- | :--- |
| 7100:233 | Foundation Life Drawing |
| 7100:231 | Intermediate Drawing |
|  |  |
| - And select 3 | courses from the following |
| 7100: 283 | Drawing Techniques |
| 7100: 335 | Intermediate Life Drawing |
| 7100:450 | Advanced Life Drawing |
| $7100: 489$ | Special Topics (in Drawing) |

## Illustration

| $7100: 185$ | Introduction to Computer Graphics |
| :--- | :--- |
| or |  |
| $7100: 289$ | Production I |
| $7100: 283$ | Drawing Techniques |
| 7100:335 | Intermediate Life Drawing |
| $7100: 480$ | Advanced Graphic Design |
| $7100: 484$ | Illustration |
| $7100: 485$ | Advanced Illustration (to be repeated) |

## Metalsmithing

- Select from the following:

| 7100:266 | Introduction to Metalsmithing |
| :--- | :--- |
| $7100: 268$ | Color in Metals |
| 7100:366 | Metalsmithing II |
| $7100: 368$ | Color in Metals II |
| $7100: 466$ | Advanced Metalsmithing (may be repeated) |

## Painting

| - Select from the following: | Credits |  |
| :--- | :--- | :---: |
| $7100: 243$ | Introduction to Painting | 3 |
| $7100: 246$ | Introduction to Water Color Painting | 3 |
| $7100: 248$ | Airbrush Techniques | 3 |
| $7100: 249$ | Figure Painting | 3 |
| $7100: 335$ | Intermediate Life Drawing | 3 |
| $710: 348$ | Intermediate Painting | 3 |
| $7100: 450$ | Advanced Life Drawing | 3 |
| $7100: 455$ | Advanced Painting | 3 |

## Photography

- Select from the following:

| $7100: 275$ | Introduction to Photography | 3 |
| :--- | :--- | :--- |
| $7100: 276$ | Introduction to Professional Photography | 3 |
| $7100: 370$ | History of Photography | 3 |
| $7100: 375$ | Photography II | 3 |
| $7100: 475$ | Advanced Photography (may be repeated) | 3 |
| $7100: 477$ | Advanced Photography: Color | 3 |
| $7100: 479$ | Professional Photographic Practices | 3 |

## Printmaking

- Select from the following:

| $7100: 243$ | Introduction to Painting | 3 |
| :--- | :--- | :--- |
| $7100: 231$ | Intermediate Drawing | 3 |
|  | or | 3 |
| $7100: 335$ | Intermediate Life Drawing | 3 |
| $7100: 348$ | Intermediate Painting (to be repeated for a total of 6 credits) | 6 |

- And select two courses from this list, at least one from the 400 level:

| $7100: 246$ | Introduction to Water-based Media | 3 |
| :--- | :--- | :--- |
| $7100: 249$ | Figure Painting | 3 |
| $7100: 450$ | Advanced Life Drawing (May be repeated) | 3 |
| $7100: 455$ | Advanced Painting (May be repeated) | 3 |


| $7100: 455$ | Advanced Painting (May be repeated) | 3 |
| :--- | :--- | :--- |
| $7100: 489$ | Special Topics (in Painting) | 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 Portrait/Fashion Photography 3
7100:320 Illustration/Advertising Photography 3
7100:479 Professional Photographic Practices 3

## Sculpture

- Select from the following

| $7100: 222$ | Introduction to Sculpture | 3 |
| :--- | :--- | :--- |
| $7100: 322$ | Sculpture II | 3 |
| $7100: 422$ | Advanced Sculpture (May be repeated ) | 3 |
| $7100: 254$ | Introduction to Ceramics | 3 |
|  | or | 3 |
| $7100: 266$ | Introduction to Metalsmithing | 3 |
| $7100: 321$ | Figurative Sculpture | 3 |
| $7100: 323$ | Lost Wax Casting | 3 |
| $7100: 223$ | Sculpture: Stone | 3 |

## Biology

- Total credits required for a minor in biology: 23-24.

| $3100: 111,2$ | Principles of Biology I, II | 8 |
| :--- | :--- | ---: |
| $3100: 211$ | General Genetics | 3 |
| $3100: 217$ | General Ecology | 3 |
| $3100: 311$ | Cell and Molecular Biology | 4 |
| $3100: 130$ | or |  |
| $3100: 331$ | Principles of Microbiology | 3 |
| $3100: 316$ | or | 4 |
| $3100: x x x$ | Evolutionary Biology | 4 |
|  | Any 300/400-level course | 3 |
|  |  | - |

## Business Administration for Non-Business Majors

- Total credits required for a minor in Business Administration: 18
- Required Courses:

6140:370 Introduction to Finance
Credits

6200:201 Accounting Concepts and Principles for Business
6500:301 Management: Principles and Concepts
6600:300 Marketing Principles

- Electives: Select 2 courses ( 6 credits) from the following:

| 6200:xxx | Any three credit Accountancy course for which <br> the student has the appropriate prerequisites |
| :--- | :---: |
| $6300: x x x$ | Any three credit Entrepreneurship course for which <br> the student has the appropriate prerequisites |
| $6400: 220$ | The Legal and Social Environment of Business |
| $6500: x x x$ | A 300/400 level course in Management for which |
| the student has the appropriate prerequisites |  |

## Business Management Technology

- Required core courses:

| $2040: 247$ | Survey of Basic Economics | 3 |
| :--- | :--- | :--- |
| $2420: 103$ | Essentials of Management Technology | 3 |
| $2420: 202$ | Elements of Human Resource Management | 3 |
| $2420: 211$ | Basic Accounting I | 3 |
| $2420: 280$ | Essentials of Business Law | 3 |
| $2420: x x x$ | Elective | 3 |
| $2520: 101$ | Essentials of Marketing Technology | 3 |
| Choose elective from the following: |  |  |
| $2420: 170$ | Applied Mathematics for Business | 3 |
| $2420: 212$ | or |  |
| $2420: 243$ | Basic Accounting II | or |
|  | Survey in Finance | 3 |

## Chemistry

- Total credits required for a minor in chemistry: 19-22.
- Core comprised of the following:

| 3150:151 | Principles of Chemistry I | 3 |
| :--- | :--- | :--- |
| 3150:152 | Principles of Chemistry I Laboratory | 1 |
| $3150: 153$ | Principles of Chemistry II | 3 |
| $3150: 263,4$ | Organic Chemistry Lecture I, II | 6 |

- 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 instrumental courses might be attractive to others.
- Chemical engineering majors automatically fulfill 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:


## 3200:230 Sports and Society in Ancient Greece and Rome

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
3200:404 Assyriology 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
3600:432 Aristotle
3230:357 Magic, Myth and Religion

## 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 |
| :--- | :--- | :--- |
| $7600: 227$ | Nonverbal 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 | 3 |

## Mass Communication

- Required

| $7600: 102$ | Survey of Mass Communication | 3 |
| :--- | :--- | :--- |
| $7600: 388$ | Broadcast History <br> or | 3 |

- Electives - 12 credits (at least 3 credits at the 300-400 level) selected from:
600:270 Voice Training for Media3

7600:280 Media Production Techniques 3
7600:282 Radio Production 3
7600:283 Studio Production 3
7600:300 Newswriting 3
7600:301 Advanced Newswriting 3
7600:302 Broadcast Newswriting 3
7600:304 Editing 3
7600:308 Feature Writing
7600:368 Basic Audio and Video Editing
7600:375 Communication Technology \& Change
7600:385 American Film History: the beginning to 1945
7600:386 American Film History: 1945 to the present
7600:387 Radio and TV Writing
7600:388 History of Broadcasting
7600:396 Radio/TV Programming
7600:400 History of Journalism in America $\quad 3$
7600:408 Women Minorities and News
7600:410 Journalism Manaement
7600:420 Magazine Writing
7600:425 Commercial Electronic Publishing
7600:462 Advanced Media Writing
$\rightarrow 3$
Advanced Audio and Video Editing
7600:472 Single Camera Production
7600:484 Regulations in Mass Media
7600:486 Bent
$\qquad$
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## Mass Media Production

| - Required |  | Credits |
| :--- | :--- | ---: |
| $7600: 280$ | Media Production Techniques | 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 |
| $7600: 387$ | Radio \& TV Writing | 3 |
| $7600: 417$ | New Media Production | 3 |
| $7600: 468$ | Advanced Audio and Video Editing | 3 |
| $7600: 472$ | Single Camera Production | 3 |

## Media History

- Required

7600:102 Survey of Mass Communication
7600:388 History of Broadcasting
7600:400 History of Journalism in America

- Electives - 9 credits selected from the following:

7600:385 American Film History to 1945
7600:386 American Film History 1945-present
7600:408 Women, Minorities and News
7600:481 Film as Art
7600:484 Mass Media Regulation
7600:490 Film History: Workshop (may be repeated up to 3 credits)

## News

- Required

| 7600:300 | Newswriting |
| :--- | :--- |
| 7600:301 | Advanced Newswriting |
| 7600:304 | Editing |
| 7600:308 | Feature Writing |

- Electives - 6 credits selected from the following:

7600:302 Broadcast Newswriting
7600:400 History of Journalism in America
7600:408 Women, Minorities and News
7600:416 New Media Writing
7600:420 Magazine Writing
7600:425 Commercial Electronic Publishing

## Organizational Communication

- Required:
$\begin{array}{ll}\text { 7600:115 } & \text { Survey of Communication Theory } \\ \text { 7600:435 } & \text { Communication in Organizations }\end{array}$ 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 Theory
- Select 15 credits from among the following (6 credits at 300/400 level):

| $7600: 245$ | Argumentation | 3 |
| :--- | :--- | :--- |
| $7600: 252$ | Persuasion | 3 |
| $7600: 345$ | Business and Professional Speaking | 3 |
| $7600: 346$ | Advanced Public Speaking | 3 |
| $7600: 355$ | Freedom of Speech | 3 |
| $7600: 457$ | Public Speaking in America | 3 |
| $7600: 470$ | Analysis of Public Discourse | 3 |
| $7600: 471$ | Theories of Rhetoric | 3 |
| $7600: 450$ | Special Topics | 3 |

7600:345 Business and Professional Speaking 3
7600:346 Advanced Public Speaking 3
600.355 Freedom of Speech

7600:470 Analysis of Public Discourse 3
7600:450 Special Topics 3
(Depends on topic; only with prior approval of School Director)

## Public Relations

- Required: Credits
7600:115 Survey of Communication Theory 3

7600:300 Newswriting 3

- Select 12 credits from among the following:

| 7600:303 | Public Relations Writing | 3 |
| :--- | :--- | :--- |
| $7600: 309$ | Public Relations Publications | 3 |
| $7600: 403$ | Public Relations Strategies | 3 |
| $7600: 404$ | Public Relations Cases | 3 |
| $7600: 450$ | Special Topics | 3 |
|  | (Depends on topic; only with prior approval of School Director) |  |

## Community Services Technology

- Required core courses:
2040:240 Human Relations 3

2260:100 Introduction to Community Services 3
2260:150
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 3

2440:140 Internet Tools 3
2440:160 JAVA Programming 3
2440:170 Visual BASIC 3
2440:180 Database Concepts 3
2440:xxx Computer Information Systems Electives 6

- Electives:

2440:145
2440:210 Client/Server Programming
2440:234 Advanced Business Programming
2440:241 Systems Analysis and Design _ 3
2440:251 Computer Applications Projects 3
2440:256 C++ Programming 3
2440:290 Special Topics: Computer Information Systems 1-3

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:xxx Computer Information Systems Electives 3

- Electives:

2440:210 Client/Server 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: Computer Information Systems 1-3

## 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:

Credits
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) | 3 |
| $2600: 240$ | or | 3 |
| $2440: 202$ | Microsoft Networking I (MS option) | 3 |
| $2600: 242$ | Router and Routing Basics (Cisco option) | 3 |
| $2440: 203$ | Microsoft Networking II (MS option) | 3 |
| $2600: 244$ | Switching Basics \& Intermediate Routing (Cisco option) | 3 |
| $2440: 204$ | or | 3 |
| $2440: 247$ | Microsoft Networking III (MS option) | 3 |

## Computer Science

- Total credits required are as follows: Computer Science

| $3450: 208$ | Introduction to Discrete Mathematics | 4 |
| :--- | :--- | :--- |
| $3450: 221$ | Analytic Geometry-Calculus I <br> or | 4 |
| $3450: 215$ | Concepts of Calculus | 4 |
| $3460: 209$ | Introduction to Computer Science | 4 |
| $3460: 210$ | Data Structures and Algorithms I | 4 |
| $3460: 316$ | Data Structures and Algorithms II | 3 |
| $3460: 306$ | Assembly and System Programming | 4 |
| Approved 300/400-level computer science electives. | 6 |  |

## 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 additional credits including at least 6 credits taken at the 300/400 levels, and a 3 -credit internship.

- Required Core Courses (6 credits): Credits

Conflict and Mediation Core (3 credits)
3700:334 Law, Mediation, and Violence 3
$\begin{array}{lll}\text { Socio-Cultural Core (3 credits, choose one) } \\ \text { 3230:150 } & \text { Cultural Anthropology } & 3\end{array}$
$\begin{array}{lll}3230: 150 & \text { Cultural Anthropology } & 3 \\ 3750: 340 & \text { Social Psychology } & 3\end{array}$
3850:315 Sociological Social Psychology 3

- Elective Courses (choose 9 credits):
3230:251 Human Diversity 3

3700:335 Law and Society 3
3700:363 Crime, Punishment, and Politics: A Comparative Perspective 3
3700:481 The Challenges of Police Work 3
3850:320 Social Inequality 3
3850:340 The Family
3850:344 Sociology of Gender
3850:421 3
3
3850:441 Sociology of the Law 3
3850:455 Family Violence 3
7600:227 Nonverbal Communication 3
7600:325 Intercultural Communication 3
Electives must include courses from at least two different departments.

- Internship: (3 credits)

All students will complete a 3-credit internship. (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 www.uakron.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

6600:300 Marketing Principles 3
6600:340 Multi-Channel Marketing 3
6600:350 Integrated Marketing Communications 3
6600:355 Buyer Behavior 3

- Elective Courses - 6 credits

6100:201 Introduction to eBusiness 3
6600:275 Professional Selling 3
6600:425 eMarketing Practices 3
6600:440 Product and Brand Management 3
6600:450 Strategic Retail Management 3
6600:490 Marketing Strategy 3
Total credits required 18

## Criminal Justice Technology

| - Core courses: |  |
| :--- | :--- |
| 2220:100 | Introduction to Criminal Justice |
| 2220:102 | Criminal Law for Police |
| 2220:104 | Evidence and Criminal Legal Process |

Credits Credit 3 3
2220:104 Evidence and Criminal Legal Process

- Additional courses for general criminal justice minor:

| $2220: 250$ | Criminal Case Management | 6 |
| :--- | :--- | ---: |
| $2220: 260$ | Critical Incident Interventions for Criminal Justice | 3 |
| $2220: 270$ | Community Corrections | 3 |
| $2220: 296$ | Current Topics in Criminal Justice | $1-3$ |

- Additional courses for corrections area of concentration:

| $3850: 100$ | Introduction to Sociology | 4 |
| :--- | :--- | :--- |
| $3850: 330$ | Criminology | 3 |
| $3850: 431$ | Corrections | 3 |

- Additional courses for security area of concentration:

2220:101 Introduction to Proprietary Safety
2230:104 Fire Investigation Methods
2230:204 Fire Hazards Recognition
2220:290 Special Topics in Security

## Dance

- Required core courses

| $7900: 115$ | Dance as an Art Form | 2 |
| :--- | :--- | :--- |
| $7900: 119$ | Modern I | 2 |
| $7900: 120$ | Modern II | 2 |
| $7900: 124$ | Ballet I | 2 |
| $7900: 125$ | Ballet II | 2 |
| $7900: 224$ | Ballet III* | 3 |
|  | or | 2 |
| $7900: 219$ | Modern III* | 2 |
| $7900: 130$ | Jazz Dance I |  |
|  | or | 2 |

- Choose one (total of 2 credits):
7920:431 Dance History: Prehistory to $1661 \quad 2$

7920:432 Dance History: 1661 through Diaghilev Era 2
7920:433 Dance History: Twentieth Century 2

- Choose two (total of 4 credits):

7900:316 Choreography I 2
7920:317 Choreography II 2
7920:320 Movement Fundamentals\# 2
7920:321 Rhythmic Analysis 2
7920:361 Learning Theory for Dance

## 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.

- Required: Complete all courses (16 credit hours)

Credits
6500:324 Database Management for Information Systems 3
6600:335 Marketing Research and Analytics 4
6600:340
6600:4
Creative Marketing Laboratory
Direct Interactive Marketing Practicum

- Elective: Complete one course (3 credit hours)

6500:425 Decision Support with Data Warehousing/Data Mining 3
6500:427 Systems Integration 3
6600:350 Integrated Marketing Communications 3
6600:425 eMarketing Practices 3
6600:490 Marketing Strategy 3
Total credits required 19

## 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 earned.

- 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 | 3 |
| 6600:350 | Integrated Marketing Communications | 3 |
| 6600:425 | eMarketing Practices | 3 |
| 6600:490 | Marketing Strategy | 3 |
| Total credits required | $\mathbf{1 9}$ |  |

## 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 summer.


## Labor Economics

- Required:

3250:410 Intermediate Microeconomics

- 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 |
| :--- | :--- |
| 3250:333 | Labor Economics |
| 3250:430 | Labor Market and Social Policy |
| 3250:432 | The Economics and Practice of Collective Bargaining |

3250:430 Labor Market and Social Policy
The Economics and Practice of Collective Bargaining

- 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.


## 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 Novel 3 | 3 |
| $3300: 389$ | African American Drama | 3 |
| $3300: 489$ | Harlem Renaissance | 3 |
| $3300: 489$ | Toni Morrison | 3 |
| $3300: 489$ | African American Poetry | 3 |
| $3300: 489$ | Sociolinguistics 3 | 3 |
| $3300: 471$ | U.S. Dialects | 3 |

## Professional Writing

- Required

3300:390,391 $\begin{aligned} & \text { Professional Writing I, II } \\ & \text { (Do not have to be taken in sequence) }\end{aligned}$

- One from the following:

| 3300:376 | Legal Writing |
| :--- | :--- |
| $3300: 489$ | Management Reports |
| 3300:489 | Science Writing |6

Science Writing

- One departmental linguistics or language course.
- Two additional courses from any of the literature, language or writing offerings in the department.


## Creative Writing

- Two introductory courses in creative writing from the following:

| $3300: 277$ | Introduction to Poetry Writing | 3 |
| :--- | :--- | :--- |
| $3300: 278$ | Introduction to Fiction Writing | 3 |
| $3300: 279$ | 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 |
| $3300: 389$ | Advanced Script Writing | 3 |

- One literature course primarily concerned 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
$3300 \cdot 389$
3300:389 Detective Fiction
3300:399 Gothic Imagination
3300:484 Fantasy
3300:489 Science Fiction
3300:489 Film and Literature
3300:489 Women and Film
3300:489
NOTE: The following courses taken to fulfill 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 I; 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 obtain a Minor in Entrepreneurship where they will learn entrepreneurial skills related to starting or buying a small business, working for a fast growth business or corporation, family business, and franchising. The program has already produced several successful new businesses in ecommerce, retail, and service industries.

- Required Courses (12 credit hours):

| 6300:201 | Introduction to Entrepreneurship | 3 |
| :--- | :--- | :--- |
| 6300:301 | New Venture Creation | 3 |
| 6600:300 | Marketing Principles | 3 |
| $6140: 370$ | Introduction to Finance | 3 |
|  | or |  |
| $6400: 301$ | Corporate Finance | 3 |
|  | or | 3 |

- Electives (choose 6 credit hours):

| 6100:201 | Introduction to E-Business | 3 |
| :--- | :--- | ---: |
| 6100:495 | Internship in Business | 3 |
| 6100:499 | Independent Study in Business | 3 |
| 6200:301 | Cost Management and Enterprise Resource Planning | 3 |
| 6200:430 | Taxation I | 3 |
| 6200:431 | Taxation II | 3 |
| 6200:440 | Auditing | 3 |
| 6200:460 | Advanced Managerial Accounting | 3 |
| 6300:360 | Entrepreneurial Field Project. | 3 |
| 6300:450 | Business Plan Development | 3 |
| 6400:332 | Personal Financial Planning | 3 |
| 6400:343 | Investments | 3 |
| 6400:390 | Real Estate Principles: A Value Approach | 3 |
| 6400:403 | Real Estate Finance | 3 |
| 6400:415 | Risk Management \& Insurance | 3 |
| 6400:473 | Financial Statement Analysis | 3 |
| 6500:310 | Business Information Systems | 3 |
| 6500:333 | Supply Chain and Operations Analysis | 3 |
| 6500:334 | Service Operations Management | 3 |
| 6500:341 | Human Resource Management | 3 |
| 6500:435 | Quality Management and Control | 3 |
| 6500:457 | International Management | 3 |
| 6600:350 | Integrated Marketing Communication | 3 |
| 6600:275 | Professional Selling | 3 |
| 6600:425 | eMarketing Practices | 3 |
| 6600:440 | Product and Brand Management | 3 |
| 6600:475 | Business Negotiations | 3 |
| 6800:421 | International Business Practices | 3 |
| Total credits required | 3 |  |

Family and Consumer Sciences

| Fashion |  | Credits |
| :---: | :--- | :---: |
| $7400: 139$ | The Fashion and Furnishings Industries | 3 |
| $7400: 219$ | Clothing Communication | 3 |
| $7400: 225$ | Textiles | 3 |
| $7400: 352$ | Strategic Merchandise Planning | 3 |
| $7400: 226$ | or |  |
| $740 x t i l e ~ E v a l u a t i o n ~$ | 3 |  |
| $7400: 438$ | History of Fashion | 3 |
| Fashion Analysis | 3 |  |

Family Development
(Prerequisites must be honored.)

| $7400: 201$ | Courtship, Marriage and the Family |
| :--- | :--- |
| $7400: 265$ | Child Development |
| The remaining 12 credits may be selected from the following: |  |
| $7400: 255$ | Fatherhood: The Parent Role |
| $7400: 360$ | Parent-Child Relations* |
| $7400: 362$ | Family Life Management |
| $7400: 390$ | Family Relationships in Middle and Later Years |
| $7400: 401$ | American Families in Poverty |
| $7400: 404$ | Middle Childhood and Adolescence* |
| $7400: 440$ | Family Crisis |
| $7400: 442$ | Human Sexuality* |
| $7400: 446$ | Culture, Ethnicity and the Family |
| $7400: 496$ | Parent Education* |

## 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 | 2 |
| $7400: 255$ | Fatherhood: The Parental Role | 3 |
| $7400: 270$ | Theory and Guidance of Play | 3 |
| $7400: 280$ | Early Childhood Curriculum Methods | 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 |
| $7400: 496$ | Parent Education* | 3 |

## Clinical Nutrition

| 7400:133 | Nutrition Fundamentals |
| :--- | :--- |
| $7400: 328$ | Nutrition in Medical Science I |
| $7400: 424$ | Nutrition in the Life Cycle |
| $7400: 426$ | Human Nutrition* |

7400:424 Nutrition in the Life Cycle
7400:428 Nutrition in Medical Science II

7400:132 Early Childhood Nutrition ..... 2

700:270
7400:280 Early Childhood Curriculum Methods
7400:360 Parent-Child Relations*
7400:404 Middle Childhood and Adolescence*
7400:446 Culture, Ethnicity and the Family
$7400: 496$ Organization and Supervision of Child-Care Centers

Community Nutrition
7400:133 Nutrition Fundamentals
7400:424 Nutrition in the Life Cycle
7400:426 Human Nutrition*
7400:480 Community Nutrition I
7400:482 Community Nutrition II
7400:xxx Elective in Nutrition/Dietetics
7400:265 Child Development
The remaining 12 credits may be selected from the following:
7400:255 Fatherhood: The Parent Role
7400:362 Family Life Management
7400:390 Family Relationships in Middle and Later Years
7400:401 American Families in Poverty
d Adolescence*
7400:442 Human Sexuality*
Culture, Ethnicity and the Family
Parent Education*

## 路



- Required Core Courses (9 credits)

| 6400:338 | Financial Markets and Institutions | 3 |
| :--- | :--- | :--- |
| 6400:343 | Investments | 3 |
| $6400: 379$ | Advanced Corporate Finance | 3 |

- And Three of the Following Courses (9 credits):

| $6100: 495$ | Internship in Finance | 3 |
| :--- | :--- | ---: |
| $6200: 430$ | Taxation I | 3 |
| $6400: 323$ | International Business Law | 3 |
| $6400: 332$ | Personal Financial Planning | 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 and Insurance | 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 credits required | $\mathbf{1 8}$ |  |

## Financial Planning

The 21-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 Examination.

| $6200: 410$ | Taxation for Financial Planning | 3 |
| :--- | :--- | ---: |
| $6400: 301$ | Corporate Finance |  |
|  | or | 3 |
| $6140: 300$ | Introduction to Finance (non-business students only) | 3 |
| $6400: 332$ | Personal Financial Planning | 3 |
| $6400: 343$ | Investments | 3 |
| $6400: 417$ | Retirement and Estate Planning | 3 |
| $6400: 415$ | Risk Management and Insurance | 3 |
| $6400: 432$ | Seminar in Personal Financial Planning | $\mathbf{2 1}$ |

## 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 (9 credits)

| $6140: 131$ | Personal Finance | 3 |
| :--- | :--- | :--- |
| $6140: 341$ | Contemporary Investments | 3 |

6140:300 Introduction to Finance 3

- Electives (9 credits)

6200:410 Taxation for Financial Planning 3
6200:430 Taxation I 3
6400:338 Financial Markets and Institutions 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 and Insurance 3
6400:417 Retirement and Estate Planning 3
6400:424 Legal Concepts of Real Estate Law 3
6400:432 Seminar in Financial Planning 3
6400:436 Commercial Bank Management 3
6600:275 Professional Selling
Total credits required

| Fire Protection | Credits |  |
| :---: | :---: | :---: |
| $2230: 100$ | Introduction to Fire Protection | 3 |
| 2230:102 | Fire Safety in Building Design and Construction | 3 |
| 2230:104 | Fire Investigation Methods | 4 |
| 2230:153 | Principles of Fire Protection and Life Safety | 3 |
| 2230:204 | Fire Hazards Recognition | 3 |
| $2230: 205$ | Fire Detection and Suppression Systems I | 3 |

## Geography and Planning

## Geography

| $3350: 250$ | World Regional Geography |
| :--- | :--- |
| $3350: 305$ | Maps and Map Reading |
| 3350:310 | Physical and Environmental Geography |
| $3350: 320$ | Economic Geography |

- The remaining six credits are to be selected from any geography offerings, except 3350:100.


## Planning

- Students must complete 19 semester credits of coursework as follows:

| $3350: 385$ | Planning Seminar | 1 |
| :--- | :--- | :--- |
| $3350: 433$ | Practical Approaches to Planning | 3 |
| $3350: 495$ | Soil and Water Field Studies | 3 |

- At least two courses (six credits) from the following:

| 3350:335 | Recreation Resource Planning | 3 |
| :--- | :--- | :--- |
| 3350:422 | Transportation System Planning | 3 |
| 3350:436 | Urban Land Use Analysis | 3 |

- At least two courses (six credits) from the following:

| 3350:340 | Cartography | 3 |
| :--- | :--- | :--- |
| 3350:405 | Geographic Information Systems | 3 |
| 3350:447 | Remote Sensing | 3 |
| 3350:483 | Spatial Analysis | 3 |
| 3350:496 | Field Research Methods | 3 |

## Geographic Information Science and Cartography

- At least five courses (15 credits) from:

| $3350: 340$ | Cartography | 3 |
| :--- | :--- | :--- |
| $3350: 405$ | Geographic Information Systems | 3 |
| $3350: 442$ | Thematic Cartography | 3 |
| $3350: 444$ | Applications in Cartography and Geographic Information Systems | 3 |
| $3350: 447$ | Remote Sensing | 3 |
| $3350: 448$ | Advanced Cartography | 3 |
| $3350: 449$ | Advanced Remote Sensing | 3 |
| At least one course (three credits) from: |  |  |
| $3350: 481$ | Research Methods in Geography and Planning | 3 |
| $3350: 483$ | Spatial Analysis | 3 |
| $3350: 496$ | Field Research Methods | 3 |

## Geology

- 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 Department for minors.


## History

- Twelve of the 18 credits must be at the upper-division level (300/400). A combination of courses in United States and non-United States history is required.
- A student may work primarily in United States history, European, Medieval, Latin American and the like, provided in both cases there is some combination or distribution between United States and non-United States history.


## Hospitality Management

| Restaurant Management | Credits |  |
| :---: | :--- | :---: |
| 2280:101 | Introduction to Hospitality | 3 |
| 2280:120 | Safety and Sanitation | 2 |
| 2280:121 | Fundamentals of Food Preparation I | 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 Sanitation 2
2280:121 Fundamentals of Food Preparation I 4
2280:122 Fundamentals of Food Preparation II 4
2280:160 Wine and Beverage Service 3
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 System Management and Personnel 3
2280:250 Front Office Operations 3
2280:268 Revenue Centers 3
2280:278 Hotel Catering and 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 Business | 3 |

6800.305 International Business

- Electives: Complete two (2) courses - 6-7 credits

3250:461 Principles of International Economics 3
$\begin{array}{ll}\text { 3700:300 } & \text { Comparative Politics } \\ \text { 3700:312 } & \text { Politics of International Trade and Money }\end{array}$
6100:495 Internship in Business
6400:323 International Business Law
6400:481 International Business Finance
6500:457 International Management
6800:421 International Business Practices
6800:496 Special Topics in
-
Total credits required $\quad$ 18-19

## Management

## General Management Option

| $6500: 301$ | Management: Principles and Concepts | 3 |
| :--- | :--- | :--- |
| $6500: 310$ | Business Information Systems | 3 |
| $6500: 330$ | Principles of Operations Management | 3 |
| $6500: 341$ | Human Resource Management | 3 |
| $6500: 3 x \times / 4 x x$ | Management Electives | 6 |
|  |  |  |
| Human Resource Management Option | 3 |  |
| $6500: 301$ | Management: Principles and Concepts | 3 |
| $6500: 310$ | Business Information Systems | 3 |
| $6500: 341$ | Human Resource Management |  |

- Select THREE of the following for which you have the prerequisites:

6500:302 Organizational Behavior and Leadership Skills 3
$6500 \cdot 342$ Labor Relations
6500:442 Compensation Management
6500:443 Human Resources Selection and Staffing
6500:457 International Management
$\begin{array}{lll}\text { 6500:301 } & \text { Management: Principles and Concepts } & 3 \\ \text { 6500:310 } & \text { Business Information Systems } & 3\end{array}$
6500:330 Principles of Operations Management 3
6500:341 Human Resource Management 3

Human Resource Management Option
Management: Principles and Concepts 3
$\begin{array}{lll}6500: 310 & \text { Business Information Systems } & 3 \\ 6500: 341 & \text { Human Resource Management } & 3\end{array}$

## 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 |

6500:315 Applications Development for Business Processes 3
6500:350 Fundamentals of Enterprise Resource Planning

- Select TWO of the following for which you have the prerequisites: Credits

6500:324 Data Management for Information Systems
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 Telecommunications for Business 3
6500:425 Decision Support with Data Warehouses 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 Analysis 3
6600:390 Principles of Supply Chain Management

- Select ONE of the following for which you have the prerequisites:

6500:334 Service Operations Management
6500:350 Fundamentals of Enterprise Resource Planning
6500:433 Supply Chain Logistics Planning
6500:434 Production Planning and Control
6500:435 Quality Management and Control

## 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 learn this minor even though you are not part of the Army ROTC program; however, being in Army ROTC entitles you to participate in moire 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.

|  |  | Credits |
| :--- | :--- | :---: |
| 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 |
| :---: | :--- | ---: |
| $7500: 211$ | Jazz 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 Jazz | 3 |
| $7500: 497$ | Independent Study in Music | 2 |
| $7510: 115$ | Jazz Ensemble | 4 |
| $7520: x x x$ | Applied Jazz Study | 8 |
| Music |  |  |
| $7500: 121$ | Theory and Musicianship I | 4 |
| $7500: 122$ | Theory and Musicianship II | 4 |
| $7500: 351$ | Music History I | 3 |
| $7500: 352$ | or |  |
| $7500: x x x$ | Music History II |  |
| $7510: x x x$ | Music Elective (Selected from any 7500 course at 300 or 400 level) | 3 |
| $7520: x x x$ | Music Organization (four semesters in a major conducted ensemble) | 4 |
|  | Applied Music |  |
|  | (This eight-credit requirement must be satisfied in four separate | 8 |
|  | semesters. In order to complete the Minor in Music, the student |  |


| Office Administration |  |  |
| :---: | :---: | :---: |
| The following courses must be completed with a minimum grade point averag of 2.0 overall for the minor to be noted on the student's record. |  |  |
| Genera | cretarial - 18 credits | Credits |
| 2440:105 | Introduction to Computers \& Application Software | 3 |
| 2540:121 | Introduction to Office Procedures | 3 |
| 2540:129 | Information/Records Management | 3 |
| 2540:151 | Intermediate Word Processing | 3 |
| 2540:253 | Advanced Word Processing | 3 |
| 2540:281 | Editing/Proofreading/Transcription | 3 |
| Word Processing - 19 credits |  |  |
| 2440:105 | Introduction to Computers \& Application Software | 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/Transcription | 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-attorneys 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 | Civil Procedures | 3 |
| 2290:xxx | Electives (at least three hours to be completed at the 200 level) | 6 |

## Philosophy

## General Philosophy Minor

A total of 18 credits in philosophy including:

- At least three credits at the introductory level:

| $3600: 101$ | Introduction to Philosophy | 3 |
| :--- | :--- | :---: |
| $3600: 120$ | or |  |
| $3600: 170$ | Introduction to Ethics | 3 |
| or | 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 | Internship 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 |

[^58]|  |  | Credits |
| :--- | :--- | :---: |
| 3750:420 | Abnormal Psychology | 4 |
| 3750:430 | Psychological Disorders of Children | 4 |
| 3850:342 | Sociology of Health and Illness | 3 |
| 3850:444 | Social Issues in Aging | 3 |
| 3850:450 | Sociology of Mental Illness | 3 |
| 5570:322 | Current Topics in Health Education | 3 |
| 6500:480 | Introduction to Health-Care Management | 3 |
| $7400: 442$ | Human Sexuality | 3 |
| $7400: 451$ | Child in the Hospital | 4 |
| $7750: 456$ | Social Work in Health Services | 3 |
| 8200:315 | Pathophysiology for Nurses | 3 |
| 8200:470 | Community Health Nursing | 4 |

## Philosophy of Science and Religion Minor\#

A total of 18 credits including:

- Required: 12 credits of Philosophy

3600:125 Theory and Evidence* 3
3600:331 Philosophy of Religion 3
3600:333 Philosophy of Science and Religion 3
3600:464 Philosophy of Science 3

- Electives: 6 credits from the following:
3100:316 Evolutionary Biology 3

3100:428 Biology of Behavior 2
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 Introductory Invertebrate Paleontology
3370:405 Archaeological Geology
3400:407 - Sciene R Tennology in H.S.
Science \& Technology in U.S. History since 1800 3
3600:392 Internship in Philosophy (in science and/or religion)
$\begin{array}{ll}3600: 471 & \text { Metaphysics } \\ 3600: 480 & \text { Seminar (on science and/or religious issues) }\end{array}$
3650:301 Elementary Modern Physics
3750:320 Biopsychology
3850:315 Sociological Social Psychology
3850:410 Social Structures and Personality
3850:460 Sociological Theory

## Philosophy of World Religions Minor\#

A total of 18 credits including:

- Required: 12 credits of Philosophy
3600:201 Philosophy of World Religions $\quad 3$

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 Islamic Fundamentalism and Revolution 3
$\begin{array}{lll}3400: 342 & \text { The Crusades through Arab Eyes } & 3\end{array}$
3400:425 The Reformation
3400:493 ST in History (on Religious issue)
3600:211 History of Ancient Philosophy
3600:312 History of Medieval Philosophy
3600:313 History of Modern Philosophy
3600:340 Eastern Philosophy
3600:392 Internship in Philosophy (World Religion)
3600:414 Aquinas
3600:415 Augustin
3600:480 Seminar (on Religious issue)
3850:365 ST in Sociology (on Religious issue)

[^59]| Physics \# | Credits |  |
| :--- | :--- | :--- |
| - Required for all students: |  |  |
| 3650:291,2 | Elementary Classical Physics I, II ** | 8 |
| $3650: 301$ | Elementary Modern Physics | 3 |
| $3650: 3 x x$ | Electives | 7 |
| - Recommended electives: |  |  |
| 3650:322,3 Intermediate Laboratory I, II |  |  |
| 3650:340 | Thermal Physics | 6 |
| $3650: 350$ | Modeling and Simulation | 3 |
|  |  | 3 |

## Political Science

- Each student shall complete at least nine of the required credits in 300/400level coursework in political science.
- A student may select a minor concentration from one of the six following course sequences.


## American Politics

3700:100 Government and Politics in the United States 4

Fourteen credits from the following
3700:210 State and Local Government and Politics 3
3700:341 The American Congress
3700:350 The American Presidency
3700:360 The Judicial Process
3700:370 Public Administration: Concepts and Practices
3700:380 Urban Politics and Policies
3700:381 State of Politics
3700:395 3
解
3700:440 Surver Rea
3700:470 Campaign Management I
3700:471 Campaign Management II
3700:472 Campaign Finance
3700:474 Political Opinion, Behavior and Electoral Politics
3700:475 American Interest Groups
3700:476 American Political Parties

## Comparative Politics

3700:150 World Politics and Governments 3

3700:300 Comparative Politics 4
Eleven additional credits from the following:

| 3700:304 | Modern Political Thought |
| :--- | :--- |
| 3700:321 | Western European Politics |
| 3700:326 | Politics of Developing Nations |
| 3700:405 | Politics in the Middle East |
| 3700:425 | Latin American Politics |

International Politics
$\begin{array}{lll}3700: 150 & \text { World Politics and Government } & 3\end{array}$
3700:310 International Politics and Institutions 3
3700:415 Comparative Foreign Policy
Eight additional credits from the following:
3700:300 Comparative Politics 4

3700:304 Modern Political Thought
3700:312 The Politics of International Trade and Money
3700:321 Western European Politics
3700:326 Politics of Developing Nations
3700:328 American Foreign Policy Process
3700:405 Politics in the Middle East
3700:410 International Defense Policy
3700:425 Latin American Politics
Public Policy Analysis

| 3700:100 | Government and Politics in the United States |
| :--- | :--- |
| 3700:201 | Introduction to Political Research |
| $3700: 441$ | The Policy Proces |

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 |

[^60]
## 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 | Internship in Government 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 | 3 |

3700:201 Introduction to Political Research
3700:361 Politics of the Criminal Justice System 3

- Eight additional credits from the following:
$\begin{array}{ll}3700: 363 & \text { Crime, Punishment, Politics: A Comparative Perspective }\end{array}$

3700:363 Crime, Punishment, Politics: A Comparative Perspective 3
3700:395 Internship: Government \& Politics* $\quad$ 2-9
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 of Criminal Justice 3
*(Must be in a Criminal Justice related field. No more than 4 credits of internship may be applied toward a minor in Criminal Justice)

## 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.

- Required:
3700:100 Government and Politics in the U.S. 4

3700:150 World Politics and Government 3
And the following two courses:
3700:336 Homeland Security Polices and Process 3
3700:337 Terrorism: Perpetrators, Politics, and Response 3

- Chose from:

3700:310 International Politics and Institutions 3
3700:328 American Foreign Policy \& Process 3
3700:334 Law, Mediation, and Violence 3
3700:338 Politics of 9/11 3
3700:339 Terrorism and the Constitution
3700:352 Weapons of Mass Destruction
3700:353 Future International Threats
3700:392 Selected Topics-with department approval

## Psychology

- A total of 19 credits in Psychology with eight credits of 300/400-level coursework.
- Required for all students:

3750:100 Introduction to Psychology

- At least one course from these 100-200-level courses:
3750:110 Quantitative Method in Psychology 4

3750:220 Introduction to Experimental Psychology 4
3750:230 Developmental Psychology 4

- At least one course from these 300-level courses:
3750:320 Biopsychology 4

3750:335 Dynamics of Personality 4
3750:340 Social Psych
Social Psychology
Cognitive Processes
Industria//Organizational Psychology

- Courses from the following list which relate to student's area of interest:
Credits
4
4
4
4
4
4
4
4
4
4
4
3
4
4
$1-4$
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 |
| 6600:350 | Integrated Marketing Communications | 3 |
| 6600:475 | Business Negotiations | 3 |
| $7600: 235$ | Interpersonal Communication | 3 |
| Total credits required | $\mathbf{1 8}$ |  |

## Sociology

- Nineteen total credits are required.
- Required for all students:

3850:100 Introduction to Sociology
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:

| $7700: 110$ | 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
3450:312 Linear Algebra
3470:461 Applied Statistics I
3470:462 Applied Regression and ANOVA
Approved 400-level statistics electives:

## 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

Credits
7800:100 Experiencing Theatre 3
7800:108 Introduction to the Visual Arts of the Theatre
7800:172
Acting I
7800:264 Playscript and Performance Analysis

- Electives

| $7800: 336$ | 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 |
| $7800: 370$ | Directing I | 3 |
| $7800: 373$ | Acting II | 3 |

## 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 level). At least one elective course must be taken from each of the following areas: humanities, social sciences, fine and applied arts plus an additional women's studies or cross-listed class from any area.

- Required for all students:

| $1840: 300$ | Introduction to Women's Studies | 3 |
| :--- | :--- | ---: |
| 1840:480 | Feminist Theory | 3 |
| 1840:490 | Women's Studies Lecture Series | 1 |
| 1840:493 | Individual Studies in Women | $1-3$ |
|  | or | $1-4$ |

- 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* | 1-3 |
| 3300:386 | Women in Modern Novels | 3 |
| 3300:389 | Special Topics: 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 | American 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: Women, Poverty and Welfare* | 3 |
| 1840:489 | Internship in Women's Studies* | 1-4 |
| 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 Modern Europe | 3 |
| 3400:340 | African-American Women's History | 3 |
| 3400:350 | U.S. Women's History | 3 |
| 3400:400 | Women in Revolutionary China | 3 |
| 3700:392 | Special Topics: Women in Politics | 3 |
| 3750:474 | Psychology of Women* | 4 |
| 3850:344 | The Sociology of Gender | 3 |
| 3850:423 | Sociology of Women* | 3 |
| 3850:455 | Family Violence | 3 |
| Fine and Applied Arts |  |  |
| 1840:485 | Women, Minorities and Media* | 3 |
| 1840:493 | Individual Studies on Women* | 1-3 |
| 7100:401 | Women in Art* | 3 |
| 7400:201 | Courtship, Marriage and the Family | 3 |
| 7400:219 | Clothing Communication | 3 |
| 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 Social Work Practice* | 3 |
| 7750:480 | Special Topics: Gay and Lesbian Issues* | 3 |
| Summit College |  |  |

[^61]
## Interdisciplinary and Certificate Programs

# 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 indicating 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 earning 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
2420:212
2420:213
2420:217
2420:243
2420:215
2420:220
Basic Accounting I
3
Basic Accounting II
Essentials of Management Accounting
Survey of Taxation
Survey in Finance
Computer Applications for Accounting Cycles
or
Applied Accounting

## 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 develop expertise in this area.
(3) The person employed in the field who would like to upgrade his/her knowledge.

## Requirements

## Credits

2260:210 Addiction Education and Prevention 3
2260:240 Drug Use and Abuse
3
3
3
2260:260 Introduction to Addiction
2260:261 Addiction Treatment
2260:267 Addiction Assessment and Treatment Planning

## ADDICTION SERVICES (ADVANCED)

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 develop expertise in this area.
(3) The person employed in the field who would like to upgrade his/her knowledge.

## 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 Treatment Planning
3
Group Principles in Addiction 4
2260:264 Addiction and the Family 3
2260:270 Relapse Prevention 3

- Addiction elective (choose from following):

2260:265

Women \& Addiction

3
2260:268
2260:269
2260:271

Co-Occurring Disorders
3
3
3
$\begin{array}{ll}\text { Co-Occurring Disorders } & 3\end{array}$
Non-Chemical Addictions and Dependencies 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 post-retirement 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.

| Requilements |  |
| :--- | :--- |
|  |  |
| 2020:121 | English |
| 2020:222 | Technical Report Writing |
| 2040:240 | Human Relations |
| 2040:244 | Death and Dying |
| 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 |
| 7400:390 | Family Relationships in Middle and Later Years |

Technical Report Writing
Human Relations
3
2040:244 Death and Dying
Introduction to Gerontolo
2260:279 Technical Experience: Community and Social Services

Family 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 | Internship in Government 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 | 3 |
| :--- | :--- | :--- |
| $3700: 440$ | Survey Research Methods | 3 |
| $3700: 472$ | Campaign Finance | 3 |
| $3700: 473$ | Voter Contact and Elections | 3 |
| $3700: 474$ | Public Opinion, Behavior and Electoral Politics | 3 |
| $3700: 475$ | American Interest Groups | 3 |
| $3700: 476$ | American Political Parties | 3 |
| $7600: 475$ | Political Communication | 3 |

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.

## ARCHAEOLOGY

The Certificate in 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 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 Archaeology is multidisciplinary and students have the option of taking electives in Geology, Geography and Survey and Construction Engineering Technology.
The Certificate in Archaeology requires students to successfully pass three required courses and three elective courses, each worth 3 credits for a total of 18 credits.

## Requirements

## 3240:400

3240:440
3240:450

- Electives: 2980.489 3240:410 3240:420 3350:405 3370:405

Archaeological Theory Archaeological Laboratory Methods Archaeological Field School

ST: Surveying for Archaeology Archaeogeophysical Survey Archaeology of Ohio Geographic Information Systems Archaeological Geology
$\square$
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 earned independently of a degree

Total credits required for the Certificate in Archaeology: 18.

## 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 <br> $3100: 311$ |
| :--- | :--- |
| Cell and Molecular Biology <br> or |  |
| $3100: 331$ | Microbiology |

## Credits

4

3100:331 Microbiology 4

- Advanced Chemistry Elective - 2 credits

3150:401 Biochemistry Lecture I

- 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)
4200:294 Chemical Engineering Design II (with permission)
4200:394 Chemical Engineering Design III (with permission) 1-3
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

4200:496
4200:194
4200:294
4200:394
4200:494
4200:497
4200:499
4300:482
Bioreactor Design

4800:485
chering (with permission)
Chemical Engineering Design I (with permission)
Chemical Engineering Design II (with permission)
$\begin{array}{lr}\text { Chemical Engineering Design III (with permission) } & 1-3\end{array}$
1-2
Design Project (with permission)
3
Honors Project (with permission)
1-3
Research Project (with permission) 1-3
Special Project (with permion)
3
Special Topics in Biomedical Engineering

## BUSINESS MANAGEIVENT 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 enrolling in the program.


## Bridge Courses:

2540:140 Keyboarding for Nonmajors3

## Required:

2420:104
2420:103
2420:211
2420:280
2520:101
Introduction to Business in the Global Environment
3
Essentials of Management Technology
Basic Accounting I
Essentials of Business Law
Essentials of Marketing Technology
2520.101

## 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 |
| :--- | :--- |
| $2200: 245$ | Infant/Toddler Day-Care Programs |
| $2200: 250$ | Observing and Recording Children's Behavior |
| $2200: 246$ | Multicultural Issues in Child Care |
| $2200: 247$ | Diversity in Early Childhood Literacy |
| $5200: 360$ | Teaching in the Early Childhood Center |
| $5200: 370$ | Early Childhood Center Laboratory |
| $7400: 265$ | Child Development |
| $7400: 270$ | Theory and Guidance of Play |
| $7400: 280$ | Early Childhood Curriculum Methods |

## COMPUTER INFORIMATION SYSTEMS

This certificate 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:

| 2440:105 | Introduction to Computers and Application Software | 3 |
| :--- | :--- | :--- |
| 2540:140 | Keyboarding for Nonmajors | 2 |

## Required Courses:

2440:121 Introduction to Logic/Programming 3
2440:140 Internet 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 3
2540:140 Keyboarding for Nonmajors 2

| Required Courses: |  |  |
| :---: | :--- | :--- |
| $2440: 121$ | Introduction to Logic/Programming | 3 |
| 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 technical 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.

|  |  | Credits |
| :--- | :--- | :--- |
| Bridge Courses: |  |  |
| 2440:105 | Introduction to Computers and Application Software |  |
| 2540:140 | Keyboarding for Nonmajors | 3 |
|  |  | 2 |
| 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 |  |
| 2540:140 | Keyboarding for Nonmajors | 3 |
| Required Courses: | 2 |  |
| 2440:121 | Introduction to Logic/Programming |  |
| $2440: 180$ | Database Concepts | 3 |
| $2440: 210$ | Client Server Programming | 3 |
| $2440: 234$ | Advanced 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: |  |  |
| :--- | :--- | :--- |
| $2440: 105$ | Introduction to Computers and Application Software | 3 |
| $2540: 140$ | Keyboarding for Nonmajors | 2 |


| Required Courses: |  |  |
| :--- | :--- | :--- |
| 2440:121 | Introduction to Logic/Programming | 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 <br> 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 | Credits |  |
| :--- | :--- | :---: |
| 3650:291,2 | Elementary Classical Physics I, II | 8 |
| 3650:350 | Modeling and Simulation | 4 |
| Mathematics |  |  |
| 3450:221,2 | Analytic Geometry-Calculus I, II | 8 |
| Computer Science |  |  |
| 3460:206 | Introduction to C Programming |  |
| 3460:209 | Introduction to Computer Science | 3 |
| 3460:210 | Data Structures and Algorithms I | 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 <br> 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 dimension 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 granted upon completion of a degree program or if a degree has already been earned

## Courses

3450:208
3450:215

3450:221
3460:209
3460:210
3460:306
3460:316
xxxx:xxx

Introduction to Discrete Mathematics 4
Concepts of Calculus 4
or
Analytic Geometry-Calculus | 4
Introduction to Computer Science 4
Data Structures and Algoithel
Assembly and System Programming
Data Structures and Algorithms II
Approved 300/400-Level Computer Science Electives

## 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

3700:334
Law, Mediation, and Violence
3
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
$\begin{array}{ll}\text { 5100:210 } & \text { Characteristics of Learning } \\ 5500: 320 & \text { Diversity in Learners }\end{array}$
5500:330 Classroom Management
Political Science Options
3700:341 American Congress 3
3700:350 American Presidency 3
3700:360 Judicial Process 3
3700:392 ST: Power and Community: Local Conflict Resolution 1-3
3700:475 American Interest Groups 3
3700:476 American Political Parties 3
Sociology Options

| 3850:320 | Social Inequality |
| :--- | :--- |
| 3850:344 | Sociology of Gender |
| 3850:421 | Racial and Ethnic Relations |
| 3850:428 | Victim in Society |
| 3850:430 | Juvenile Delinquency |
| 3850:455 | Family Violence |

Communications Options

| $7600: 227$ | Nonverbal Communication | 3 |
| :--- | :--- | :--- |
| $7600: 325$ | Intercultural Communication | 3 |

Electives must include courses taken from at least three of these areas Internship

Students must take at least three credits of internship in either the Political Science Department or the Sociology Department internship program, or they can arrange an internship with the Center Director directly.
For further information, contact Dr. William Lyons, Jr., director, at (330) 972-5855 or see www. 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 3
2990:352 Field Management and Scheduling 2
2990:358 Advanced Estimating 3
2990:359 Construction Cost Control 3
2990:453 Legal Aspects of Construction 2
2990:468 Construction Management 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 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, 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 earning 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 |
| $2990: 465$ | Heavy Construction | 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:
Construction Engineering Technology Program Director
Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-2055
http://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 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
Requirements: A minimum of 16 hours is required.
The following courses are required:
Credits

| 2990:125** | Statics |
| :--- | :--- |
| 2990:237 | Materials Testing I |
| 2990:238 | Materials Testing II |
| 2990:241 | Strength of Materials |
| 2990:320** | Advanced Materials Testing |
| 2990:355 | Computer Applications in Construction |

2990:237 Materials Testing I
2990:238 Materials Testing ||
2990:320** Advanced Materials Testing 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
http://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 Reading | 2 |
| :--- | :--- | :--- |
| $2990: 231$ | Building Construction | 2 |
| $2990: 245$ | Construction Estimating | 3 |
| $2990: 310$ | Residential Building Construction | 3 |
| $2990: 356$ | Safety in Construction | 2 |
| $2990: x x x$ | 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:

## Construction Engineering Technology Program Director

Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-2055
http://sc.uakron.edu

## CRIMIINAL 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 Credits
2220:100
Introduction to Criminal Justice

2220:104 Evidence and Criminal Legal Process
2220:250 Criminal Case Management $\square$
Critical Incident Crisis Intervention
3850:100
Introduction to Sociology
Criminal Justice/Security
2220:101 Introduction to Proprietary Safety 4
2220:120 Crime Prevention: Theory Practice and Management 3
2220:296 Current Topics in Criminal Justice 1-3
2230:204 Fire Hazards Recognition 3
230:2040
2230:257
Hazardous Materials
Criminal Justice/Corrections
2220:100
2200:102
2200:106
2200:290
3850:100
3850:330
3850:431
Introduction to Criminal Justice
Criminal Law for Police
Juvenile Justice Process
Community Corrections
Introduction to Sociology
Criminology
Corrections

## 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 complete 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 Fundamentals | 4 |
| $2860: 121$ | Introduction to Electronics and Computers | 3 |
| $2860: 123$ | Electronic Devices | 4 |
| $2860: 136$ | Digital Fundamentals | 2 |
| $2860: 237$ | Digital Circuits | 4 |
| $2860: 238$ | Microprocessor Applications | 4 |
| All courses taken may be applied toward the Associate | Degree in Electronic |  |
| Engineering Technology. |  |  |
| For further information contact: |  |  |
| John W. Edgerton, Program Director |  |  |
| Electronic Engineering Technology |  |  |
| Summit College |  |  |
| The University of Akron |  |  |
| Akron, OH 44325-6104 |  |  |
| (330) 972-7054 |  |  |
| http://sc.uakron.edu |  |  |

# 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 |
| minimum of | semester hours selected from the following: |  |
| 2940:170 | Surveying Drafting | 3 |
| 2940:200 | Advanced Drafting | 3 |
| 2940:211 | Computer Aided Drawing II | 3 |
| 2940:230 | Mechanical Systems Drafting | 3 |
| 2940:240 | Electrical \& Electronic Drafting | 3 |
| 2940:250 | Architectural Drafting | 3 |
| 2980:223 | Fundamentals of Map Production | 3 |
| 2990:250 | Structural Drafting | 3 |

All courses taken may be applied toward the Associate Degree in Drafting and Computer Drafting Technology.

## EIVERGENCY IMANAGEMENT

The field of emergency management continues to develop rapidly as disasters and major emergencies become more frequent and responses to such emergencies become more complex. In addition, federal and state legislation affecting emergency planning and preparedness has increased the demand for well-educated individuals at all levels of government, business and industry.
This program prepares students with a background in fire protection, criminal justice, environmental health and safety, or other related fields to enter and advance in the field of emergency management through the acquisition of specialized knowledge of emergency management concepts, planning, natural disasters and mitigation.

- Enrollment in The University of Akron
- Completion of the following required courses (24 credits):

| 2235:305 | Principles of Emergency Management | 3 |
| :--- | :--- | :--- |
| 2235:350 | Emergency Response Preparedness \& Planning | 3 |
| 2235:405 | Hazard Prevention and Mitigation | 3 |
| 2235:410 | Disaster Relief and Recovery | 3 |
| 2235:450 | Emergency Management Research Methods and Applications | 4 |
| 3350:305 | Maps and Map Reading | 3 |
| 3350:310 | Physical and Environmental Geography | 3 |
| 3350:433 | Practical Approaches to Planning | 3 |

- Completion of 6 credit hours selected from the following recommended electives:

2235:495 Internship: Emergency Management 1-4
$3350 \cdot 314$

## 3350:320

## 3350:405

3350:444
3350:447
3370:350
3370:421
3400:471
3700:370
3850:428
7600:303
7600:344
3850:xxx

3250:385 Economics of Natural Resources and the Environment 3
Climatology
Economic Geography
Geographic Information Systems
Applications in Cartography and GIS
Remote Sensing
Structural Geology
Coastal Geology
American Environmental History
Public Administration Concepts and Practices
The Victim in Society
Public Relations Writing
Group Decision Making
Social Behavior in Crisis

## ENTREPRENEURSHIP

All students at the University can obtain a Certificate in Entrepreneurship where they will learn entrepreneurial skills related to starting or buying a small business, working for a fast growth business or corporation, family business, and franchising. The program has already produced several successful new businesses in ecommerce, retail, and service industries.

## 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:

| - Required: Complete all courses - 12 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 |  |
| $6300: 330$ | Financing New Ventures | 3 |

- Electives: Complete one course - 3 credits

6100:201 Introduction to E-Business 3
6100:495 Internship in Business Administration 3
6200:201 Accounting I 3
6300:360 Entrepreneurial Field Project 3
6300:450 Business Plan Development 3
6400:220 Legal and Social Environment Business 3
6600:275 Professional Selling 3
Total credits required 15

## 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.

## Core (required)

3010:201 Introduction to Environmental Science 3
3010:401 Seminar in Environmental Studies 2

## 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 | $1-4$ |
| 3100:217 | General Ecology | 3 |
| 3100:342 | Flora and Taxonomy | 3 |
| 3100:421 | Tropical Field Biology | 4 |
| 3100: 425 | Freshwater Ecology Field \& Laboratory Studies | 3 |
| 3100:426 | Wetland 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 Studies | 3 |



3370:125, 126,129,130,131,133,134,135, 136 Concepts in Geology
3370:200 Environmental Geology 3
3370:201, 203 Exercises in Environmental Geology I, II 1
3370:301 Engineering Geology 3
3370:371 Oceanography
3370:470 Geochemistry
3370:474 Groundwater Hydrology
3400:471 American Environmental History
Population
4100:203 Environmental Science \& Engineering Pollution Control
4300:321 Introduction to Environmental Engineering
Water Supply and Pollution Control
Chemistry for Environmental Engineers
Water-Wastewater Laboratory
Environmental Engineering Design
Water Quality Modeling and Management
Hazardous and Solid Waste

## GENDER CONFLICT

## Center for Conflict Management

www.uakron.edu/centers/conflict

## Requirements

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

- Chose from:

3700:402 Politics and the Media 3
3700:334 Law, Mediation, and Violence 3
3700:375
3850:365
3850:365
3850:441
3850:423
3850:455
3230:416
3230:463
3300:489
3300:489
3400:340
3400:350
3400:493
3400:325
Internship
Women in Politics
ST: Sociology of Peace and Violence
ST: Sociology of Sexuality
Sociology of Law
Sociology of Women
Family Violence
Anthropology of Sex and Gender
Social Anthropology
Seminar in English: Subversive Women
Seminar in English: British Women Writers
ST: African-American Women's History
US Women's History
Special Studies: Women, Film and History
Women in Modern Europe
(3 credits from Sociology, Political Science, Anthropology or History)
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 well-educated 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
2230:102
2230:104
2230:202
2230:204
2230:205
2230:250

Introduction to Fire Protection
Fire Safety in Building Design and Construction Fire Investigation Methods
Incident Management for Emergency Responders
Fire Hazards Recognition
Fire Detection and Suppression Systems I
Hazardous Materials

# GERONTOLOGY 

Harvey L. Sterns, Ph.D., Director
Terry H. Albanese, Ph.D., Program Coordinator, Gerontology Certificate
Program; Practicum Coordinator

## Requirements

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 already 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 been 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

| 3006:450 | Interdisciplinary Seminar in Gerontology | Creatts |
| :--- | :--- | :---: |
| 3006:495 | Practicum/Internship (within Institute or in individual departments) | 2 |
| 3100:392 | Biology of Aging | 3 |
| 3750:475 | Psychology 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 Later Years 2
3006:490 Workshop Aging: Process and Intervention 2
3006:485-001 Special Topics Long Term Care: Case Management/Patient Services
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
Post Secondary Learner
Post Secondary Learner
Introduction to Health Care Management
Family Relationships in Middle and Later Years
Introduction to Disorders of Communication
Social Needs and Services: Aging

For students in course sequence for Nursing Home Administration, the following courses are required:

Credits
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

6600:275 Professional Selling 3

Electives: Complete at least 9 credits

1880:310
2740:120
2740:121
2740:230
2780:106
Anatomy and Physiology for Allied Health II
Medical Anthropology
3100:265 Introduction to Human Physiology
3150:100 Chemistry and Society
3600:361 Biomedical Ethics
3850:342 Sociology of Health and Illness
5550:150 Concepts in Health and Fitness
5570:101 Personal Health
6500:480 Introduction to Health Care Management
7400:295 Direct Experiences in the Hospital
7400:484 Hospital Settings, Children and Families
7600:438 Health Communication
7750:456 Social Work in Health Services
8200:100
Medicine and the Humanities

Basic Pharmacology

3
Medical Terminology $\quad 3$
Study of Disease Processes 3

## HOME-BASED INTERVENTION

Helen Cleminshaw, 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.

| Core (9-11 | credits) | Credits |
| :--- | :--- | ---: |
|  |  |  |
| 1820:403 | Home-based Intervention Theory | 3 |
| 1820:404 | Home-based 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 |
| 3750:230 | Developmental Psychology |
| $3750: 335$ | Dynamics of Personality |

Dynamics of Personality

| 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 Welfare | 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 |
| Sociology |  |  |
| 3850:410 | Social Structures and Personality | 3 |
| 3850:412 | Socialization: Child to Adult | 3 |
| 3850:430 | Juvenile Delinquency | 3 |
| 3850:450 | Sociology of Mental Illness | 3 |
| Psychology |  |  |
| 3750:400 | Personality | 4 |
| 3750:420 | Abnormal Psychology | 4 |
| 3750:430 | Psychological Disorders of Children | 4 |
| Social Work |  |  |
| 7750:451 | Social Work and Child Welfare | 3 |
| 7750:452 | Social Work and Mental Health | 3 |
| 7750:454 | Social Work in Juvenile Justice | 3 |
| Multicultural Education |  |  |
| 5500:482 | Characteristics of Culturally Different Youth | 3 |
| Special Education |  |  |
| 5610:440 | Developmental Characteristics of Exceptional Individuals | 3 |
| 5610:446 | Developmental Characteristics of Behaviorally Disordered Individuals | 3 |
| 5610:459 | Collaboration and Consultation in Schools and Community | 3 |
| 5610:468 | Advanced Behavioral Management | 3 |

## HOSPITALITY MANAGEIMENT

## 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 | Arts | Credits |
| :---: | :--- | :---: |
| 2280:101 | Introduction to Hospitality | 3 |
| $2280: 120$ | Safety and Sanitation | 2 |
| $2280: 121,2$ | Fundamentals of Food Preparation I, II | 8 |
| $2280: 230$ | Advanced Food Preparation | 4 |
| $2280: 233$ | Restaurant Operation and Management | 4 |
| $2280: 245$ | Menu, Purchasing and Cost Control | 4 |
| $2280: 261$ | Baking and Classical Desserts | 4 |
|  |  |  |
| Hotel/Lodging Management Option |  |  |
| 2280:101 | Introduction to Hospitality | 3 |
| $2280: 120$ | Safety and Sanitation | 2 |
| $2280: 121$ | Fundamentals of Food Preparation I | 4 |
| $2280: 232$ | Dining Room Service and Training | 3 |
| $2280: 237$ | Internship | 2 |
| $2280: 240$ | Systems Management and Personnel | 3 |
| $2280: 250$ | Front Office Operations | 3 |
| $2280: 256$ | Hospitality Law | 3 |
| $2280: 268$ | Revenue Centers | 3 |
| $2280: 278$ | Hotel Catering and Marketing | 3 |

## Restaurant Management Option

2280:160 Wine and Beverage Service
$2280 \cdot 237$
2280:240
2280:101 Introduction to Hospitality 3

2280:120 Safety and Sanitation 2
2280:121 Fundamentals of Food Preparation I 4
2280:122 Fundamentals of Food Preparation II
2280:232 Dining Room Service and Training
2280:233 Restaurant Operation and Management
Systems Management and Personnel
Menu, Purchasing and Cost Control
Hospitality Law Internship

- Safety and Sanitation

2280:232 Fundamentals of Food Preparation 3
2280:232 Dining Room Service and Traning

Systems Management and Personnel
Front Office Operations
Revenue Centers
3

2280:256

## INTERNATIONAL BUSINESS

This certificate program provides students with the opportunity to enhance their appeal on the job market by providing basic knowledge in international business. It is especially appropriate for students pursuing non-business degrees who have an interest in using their education in an international environment. It is also a valuable means for post baccalaureate students to learn about international business.

## Requirements:

| Required - Complete both courses (6 credits) |  | Credits |
| :---: | :---: | :---: |
| 6800:305 | International Business | 3 |
| 6800:405 | Multinational Corporations | 3 |
| - Electives - Complete at least three courses (9 credits) |  |  |
| 6100:495 | Internship in Business | 3 |
| 6400:481 | International Business Finance | 3 |
| 6500:457 | International Management | 3 |
| 6600:385 | International Marketing | 3 |
| 6800:421 | International Business Practices | 3 |
| 6800:496 | Special Topics in International Business | 3 |
| Total credits required |  | 15 |

## INTERNATIONAL DEVELOPIMENT

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-governmental 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 non-degree 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 ( 6 credits)

| 3004:201 | Introduction to International Development | 3 |
| :--- | :--- | :--- |
| 3004:401 | International 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 3
3700:326 Politics of Developing Nations 3
3700:363 Crime, Punishment and Politics: Comparative Perspectives
3850:321
3870:370
3870:463
3870:472
6800:305
6800:421

3700:392 Selected Topics in Political Science: Tourism \& Development
$\begin{array}{ll}\text { Selected Topics in Political Science: Tourism \& Development } & 3 \\ \text { Population } & 3\end{array}$
Cultures of the World
Social Anthropology
Special Topics: International Business
International Business
International Business Practices

| Global, Region and Area Focus (6 credits) | Credits |  |
| :---: | :---: | :---: |
| $3350: 353$ | Latin America | 3 |
| $3350: 360$ | Asia | 3 |
| $3350: 363$ | Africa South of the Sahara | 3 |
| $3400: 301$ | Mao's China | 3 |
| $3400: 416$ | Modern India | 3 |
| $3400: 473$ | Latin America: 20th Century | 3 |
| $3400: 476$ | Central America \& the Caribbean | 3 |
| $3700: 405$ | Politics of the Middle East | 3 |

## 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 Systems ..... 3
3700:395 Internship in Government \& Politics* ..... 3
3700:4403850:301Methods of Social Research I or II3
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 International 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. During 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 AIMERICAN 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 (eg. 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.

[^62]
## Requirements

The student in the Latin American Studies Certificate Program will major in the respective disciplines: classical studies, anthropology and archaeology, economics, geography, history, international business, sociology and Spanish.

## Core

Three years of Spanish or the equivalent of the following:
Credits

| $3400: 391$ | World Civilizations: Latin America | 2 |
| :--- | :--- | :--- |
| $3580: 101$ | Elementary Spanish I | 4 |
| $3580: 102$ | Elementary Spanish II** | 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
Indians of South America
Economics
3250:460 Economic Development and Planning for Underdeveloped 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 Caribbean 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 International 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.

## 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)

3300:371 Introduction to Linguistics
3

## Core (Minimum of two of the following)

| $3230: 461$ | Language and Culture | 3 |
| :--- | :--- | :--- |
| $3300: 472$ | Syntax | 3 |
| $3600: 481$ | Philosophy of Language | 3 |
| $7700: 230$ | Language Science and Acquisition | 3 |
|  | or | 3 |

Aspects of Normal Language Development

| Electives |  | Credits |
| :---: | :--- | :---: |
| 3300:400 | Anglo Saxon | 3 |
| $3300: 470$ | History of the English Language | 3 |
| 3300:471 | U.S. Dialects: Black and White | 3 |
| 3300:473 | ST: Teaching ESL: Theory and Method | 3 |
| 3300:489 | ST: Sociolinguistics | 3 |
| 3460:460 | Artificial Intelligence and Heuristics Programming | 3 |
| 3460:470 | Automata, Computability and Formal Language | 3 |
| 3580:405,6 | Spanish Linguistics | 8 |
| 3600:170 | Introduction to Logic | 3 |
| 3600:374 | Symbolic Logic | 3 |
| 3600:418 | 20th Century Analytic Philosophy | 3 |
| $3600: 471$ | Metaphysics | 3 |
| $5200: 335$ | Teaching of Language Arts | 5 |
| $5500: 481$ | Multicultural Education in the United States | 3 |
| $7600: 325$ | Intercultural Communication | 2 |
| $7700: 210$ | Introduction to Clinical Phonetics | 4 |
| $7700: 101$ | American Sign Language I | 3 |

## MANUAL COMMIMUNICATION

Mona S. Klingler, M.A., Coordinator
This certificate, designed for those who use American Sign Language to communicate 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 earned independent of earning a degree.

## Requirements

| $7700: 101$ | American Sign Language I |  |
| :--- | :--- | :--- |
| $7700: 102$ | American Sign Language II |  |
| $7700: 120$ | Introduction to Audiology/Aural Rehabilitation | 2 |
| $7700: 121$ | Aspects of American Sign Language | 3 |
| $7700: 201$ | American Sign Language II | 3 |
| $7700: 202$ | American Sign Language IV | 2 |
| $7700: 222$ | Survey of Deaf Culture in America |  |

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 Sales 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

## 2420:211 Basic Accounting

2520:101
2520:203
2520:204
2520:206
2520:212
2520:254

Basic Accounting 3
Essentials of Marketing Technology 3
Principles of Advertising 3
Services Marketing
Retail Promotion and Advertising
Principles of Sales
$\square$
$\square$
$\square$
$\square$3
3

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

|  |  | Credits |
| :--- | :--- | :---: |
| $2020: 224$ | 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 World Wide Web | 3 |
| :--- | :--- | :--- |
| $2240: 140$ | Internet Tools | 3 |
| $2440: 212$ | Multimedia \& Interactive Web Elements | 3 |
| $2520: 290$ | Web Marketing | 3 |

$\begin{array}{lll}2440: 212 & \text { Multimedia \& Interactive Web Elements } & 3 \\ 2520: 290 & \text { Web Marketing } & 3\end{array}$

## MEDICAL BILLING

This certificate program prepares the individual to assign numerical codes to diagnoses, symptoms and operative procedures.

## Requirements:

| 2740:120 | Medical Terminology |
| :--- | :--- |
| 2740:121 | Study of Disease Process |
| 2740:226 | Medical Billing |
| 2740:230 | Basic Pharmacology |
| 2740:245 | Medical Externship |
| 22780:106 | Anatomy and Physiology for Allied Health I |
| 2780:107 | Anatomy and Physiology for Allied Health II |

## 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 | 3 |
| :--- | :--- | :--- |
| 2990:237 | Materials Testing I | 2 |
| 2990:238 | Materials Testing II | 2 |
| 2990:241 | Strength of Materials | 3 |
| 2990:320 | Advanced Materials Testing | 3 |
| 2990:355 | Computer Applications in Construction | 3 |

For further information, contact:
Construction Engineering Program Director
Summit College
The University of Akron
Akron, OH 44325-6104
(330) 972-2055

## MEDICAL TRANSCRIPTIONIST

This one-year certificate for persons with previous or no college training and/or office experience can enhance career opportunities in the medical field, as the demand for medical transcriptionists is high. A student will take 31 credit hours of core courses. Students will learn an advanced level of transcription skill for the transcription of letters, chart notes, history and physical examination reports, consultations, emergency room reports, operative reports, discharge summaries, laboratory reports, diagnostic studies, radiology and pathology reports.

## Requirements:

> 2540:119 Business English
$2540 \cdot 151$
2740:120
2740:121
2740:240
2740:245
2780:106

## IMOTION 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 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 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 Control ..... 3
Integrated Flexible Manufacturing Systems*

## OFFICE ADIVINISTRATION 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.

2440:105<br>2540:119<br>2040:240<br>\section*{2040:251}<br>2540:129<br>2420:170<br>2540:143<br>2540:151<br>2540:270<br>2540:281<br>2540:121<br>Introduction to Computers \& Application Software

Credits

## OFFICE SOFTWARE SPECIALIST, OFFICE ADIMINISTRATION

This certificate will instruct students to use the most popular software packages used in today's modern 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 | 3 |
| or |  | 3 |
| $2540: 253$ | Advanced Word Processing | 3 |
| $2540: 129$ | Information/Records Management |  |

## Total Credit Hours: 15

## Second Semester:

| $2540: 263$ | Professional Communications and Presentations | 3 |
| :--- | :--- | :--- |
| $2540: 271$ | Desktop Publishing | 3 |
| $2540: 270$ | Business Software Applications | 4 |
| $2540: 273$ | Microsoft PowerPoint | 2 |

Total Credit Hours: 12
Grand Total Credit Hours: 27

## Prerequisites:

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 Adminisration 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 Behavior at Work | 3 |
| 2420:103 | Essentials of Management Technology | 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 | Human Relations | 3 |
| 2420:104 | Introduction to Business | 3 |
| 2420:211 | Basic Accounting I | 3 |
| 2420:280 | Essentials of Business Law | 3 |
| 2540:119 | Business English | 3 |
| 2540:121 | Introduction to Office Procedures | 3 |
| 2540:265 | Women in Management | 3 |
| 2540:289 | Career Development for Business Professionals | 3 |
| $7600: 105$ | Introduction to Public Speaking | 3 |
| $7600: 106$ | or | Effective Oral Communication |

## PAN-AFRICAN STUDIES

For information, contact the Pan-African Studies Office, (330) 972-8447

## 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-African Studies | 3 |
| :--- | :--- | :--- |
| 3400:361 | African American History 1492-1877 | 3 |
|  | or |  |
| 3400:362 | African-American History 1877-present | 3 |

Elective Courses (9 credits)
2040:254 The Black Experience from 1619 to 18772

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-African Studies 3
3002:420 Special Topics in Pan-African Studies $\quad 1-3$
3002:498 Independent Study 1-3
3300:350 Black American Literature $1-3$
3

3300:389 Special Topics: African-American Novel 3
3300:389 Special Topics: African-American Drama 3
3300:471 United States Dialects: Black and White
Special Topics: Seminar Wright/Ellison/Baldwin 3
Africa South of the Sahara
World Civilizations: Africa
Special Topics: African Experiences in Latin America
3400:468 African-American Social and Intellectual History
Racial and Ethic Relations
Poverty in the United States
Introduction to Social Welfare
$\begin{array}{ll}7750: 276 & \text { Introduction to Socia } \\ 7750: 455 & \text { Black Family Issues }\end{array}$
3300:689 Special Topics: Seminar Wright/Ellison/Baldwin
3350:363
3400:390
3400:340

3850:421 Racial and Ethic Relations
7750:270 Poverty in the United States
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 certificate entitled Pan-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;
- Minimum of 32 credits as set forth in curriculum guide;
- No grade below a C in major.
- Required coursework includes Credits $\begin{array}{lll}\text { 2290:101 } & \text { Introduction to Legal Assisting } & 3 \\ \text { 2290:104 } & \text { Basic Legal Research and Writing } & 3\end{array}$ $\begin{array}{lll}\text { 2290:104 } & \text { Basic Legal Research and Writing } & 3 \\ \text { 2290:106 } & \text { Business Associations } & 3\end{array}$
2200.106 Business Associations
2290:220 Legal Assisting Internship 4
- Students are required to take 12 hours from the following courses

| 2220:290 | Special Topics - Legal Assisting | $3-5$ |
| :--- | :--- | ---: |
| 2290:110 | Tort Law | 3 |
| 2290:112 | Family Law | 3 |
| 2290:204 | Advanced Legal Research | 3 |
| 2290:214 | Civil Procedures | 3 |
| 2290:216 | Debtor-Creditor Relations | 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 FAIMILY EDUCATION <br> 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 Credits

Complete the following:

| $7400: 265$ | Child Development | 3 |
| :--- | :--- | :--- |
| $7400: 360$ | Parent-Child Relations | 3 |
| $7400: 496$ | 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:
7400:201 Courtship, Marriage and Family Relations3
3
7400:255 Fatherhood: The Parent Role
7400:362 Family Life Management
7400:390 Family Relations: Middle and Later Years3
3
7400:401 American Families in Poverty7400:404 Middle Childhood and Adolescence
7400:440 Family Crisis7400:446Culture, Ethnicity and the Family
Social Work:7750:270Poverty in the U.S3
7750:276 intro to SocialWelfare4
Psychology:3750:2303750:3353750:430
Sociology:
3850:340Anthropology:
3230:251Human Diversity3
Special Education:
5610:460 Family Dynamics \& Communication in Education ..... 3
Multicultural Education:
5500:481 Multi-Cultural Education in the U.S. ..... 3

## PIANO PEDAGOGY

## Requirements

This certificate 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: | Credits |  |
| :---: | :--- | :---: |
| $7500: 152$ | Theory I | 3 |
| $7500: 152$ | Theory II | 3 |
| $7500: 154$ | Music Literature I | 2 |
| $7500: 155$ | 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 | 8 |

## PLANNING WITH AN EIMPHASIS ON CITY OR REGIONAL RESOURCE STUDIES

Robert B. Kent, Ph.D., Department Chair

## Requirements

This program is intended to enhance understanding of the planning function and to increase the research and analytical abilities of the person preparing for work in, or who is currently engaged in, city, urban, regional, environmental and resource planning. The program is open to the undergraduate, as well as a person with a baccalaureate degree, employed in local agencies doing related work, e.g., urban renewal, community redevelopment, community action, environmental protection and private industry. The person with a degree can enroll as a postbaccalaureate or special student.

## Program

- Employment or internship in a planning agency or in an office engaged in related work; or a sincere intention to pursue a professional career in some aspect of government work or planning after graduation.
- A statement by the applicant giving reasons for wishing to participate in the planning certificate program.


## Core

Complete five of the following:
3250:244 Introduction to Economic Analysis 3

3350:320 Economic Geography 3
3350:433 Practical Approaches to Planning 3
3350:495 Soil and Water Field Studies 3
3370:200 Environmental Geology 3
3400:436 The American City 3
3700:210 State and Local Government and Politics 3
3700:380 Urban Politics and Policies 4
3850:425 Sociology of Urban Life 3
4300:450 Urban Planning 2

## Electives

Each student's program (subject to the program director's approval) is to include six elective courses distributed between professional, technical and research offerings. Three courses will be from the professional listing and three from the technical-research listing. In consultation with the program director, elective courses will be selected from University offerings either in the city planning or regional resource planning emphasis areas. Similar courses completed at this or other universities, up to five years prior to admission to candidacy, may be approved by the director.

The intent of the elective requirements is to facilitate the development of a diverse perspective which is significant for a person who will be or is already engaged in planning for present and changing future urban, regional, environmen-
tal, resource, energy and societal needs. The truly comprehensive planner must have academic acquaintance with a variety of professional and technical approaches to cope with social, geographical, physical design, economical and governmental problems. Selecting courses that duplicate or continue interests already well established in a student's background will be discouraged.

## Project

Upon completion of the core and elective course requirements, the student will take 3350:385 Planning Seminar (one credit). In this seminar the student will produce a final paper covering a city or regional resource planning topic chosen by the student and approved by the director of the program. Each project will be presented to the seminar class and critically analyzed.

A grade of " C " or better is required in all courses undertaken as part of the certificate program. In the five core courses an average grade of " B " is required.

## POLITICAL CONFLICT

## Center for Conflict Management

www.uakron.edu/centers/conflict

## Requirements (18 credits)

## Core Courses ( 3 credits)

3700:334 Law, Mediation, and Violence

## Electives (12 credits)

Choose one course from each of the following four clusters:

| Institutional Conflicts |  |
| :---: | :---: |
| 3700:341 | The American Congress |
| 3700:350 | The American Presidency |
| 3700:360 | The Judicial Process |
| 3700:380 | Urban Politics and Policies |
| 3700:441 | The Policy Process |
| Linkage Conflicts |  |
| 3700:402 | Politics and the Media |
| 3700:470 | Campaign Management |
| 3700:475 | American Interest Groups |
| 3700:476 | American Political Parties |
| Global Conflicts |  |
| 3700:310 | International Politics and Institutions |
| 3700:328 | American Foreign Policy Process |
| 3700:410 | International Defense Policy |
| Law and Justice Conflicts |  |
| 3700:335 | Law \& Society |
| 3700:363 | Crime, Punishment, and Politics: A Comparative Perspective |
| 3700:481 | Challenges of Police Work |
| 3700:483 | Constitutional Problems in Criminal Justice |

[^63]
## POLYIVER ENGINEERING SPECIALIZATION

The College of Engineering and the College of Polymer Science and Polymer Engineering allow for a specialization for the mechanical engineering student. Students may earn a Polymer Engineering Specialization Certificate by satisfying the following requirements

## Requirements

Choose one of the following three Polymer courses:

> Credits

9871:401
Introduction to Elastomers
9871:402 Introduction to Plastics 3
9871:407 Polymer Science 3
and the following two courses:
4700:425 Introduction to Blending and Compounding of Polymers 3
4700:427
Introduction to Molding Technology

## 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 seek 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 earn 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 19 credits:

| $5400: 400$ | Postsecondary Learner |
| :--- | :--- |
| $5400: 401$ | Learning with Technology |
| $5400: 405$ | Work force Education for Youth and Adults |
| $5400: 420$ | Postsecondary Instructional Technology |
| $5400: 430$ | Systematic Curriculum Design for Postsecondary Instruction |
| $5400: 435$ | Systematic Instructional Design in Postsecondary Education |

5400:435 Systematic Instructional Design in Postsecondary Education
5400:475

## PROFESSIONAL COMMUNICATION <br> 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 handling the communication needs of business and industry. This certificate must be earned 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 | Credits |
| :--- | :--- | :---: |
| $3300: 391$ | Professional Writing II | 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
6600:275 Professional Selling 3

6600:300 Marketing Principles 3
6600:475 Business Negotiations 3
Elective: Complete any 6 credits

| $6600: 350$ | Integrated Marketing Communications | 3 |
| :--- | :--- | ---: |
| $6600: 480$ | Sales Management | 3 |
| $7600: 235$ | Interpersonal Communication | 3 |
| $7600: 252$ | Persuasion | 3 |
| Total credits required | $\mathbf{1 5}$ |  |

6600:480 Sales Management 3
7600:235 Interpersonal Communication 3
$\begin{array}{ll}\text { Total credits required } & 15\end{array}$

## 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 qualifications 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: Credits

| 2820:131 | Software Applications for Technology |
| :--- | :--- |
| 2870:441 | Advanced Quality Practices |
| 2880:100 | Basic Principles of Manufacturing Management |
| 2880:241 | Introduction to Quality Assurance |
| 3470:261 | Introductory Statistics I |
| 3470:262 | Introductory Statistics II |

2870:441 Advanced Quality Practices $\quad 3$

Basic Principles of Manufacturing Management 4

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

www.uakron.edu/centers/conflict

## Requirements

This is an 18 -credit undergraduate certificate that is an intensive and interdisciplinary examination of racial conflict.

| Required: |  | 3 |
| :--- | :--- | :--- |
| 3850:421 | Racial and Ethnic Relations | 3 |

Choose from: Law, Mediation, and Violence
3700:334 3
3700:402 Politics and the Media - 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 Inequality 3
3850:365 ST: Sociology of Peace and Violence 3
3850:441 Sociology of Law 3
3230:410 Evolution and Human Behavior 3
3230:463 Social Anthropology
3400:340 African-American Women's History
3400:438
3400:454 1850-1877

## 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

2430:185 Real Estate Law
2430:245 Real Estate Finance
2430:255 Valuation of Residential Property

## 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
2440:103 Software Fundamentals 3
2520:203 Principles of Advertising 3

## RETAIL MARKETING <br> 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 Credits

| 2520:202 | Retailing Fundamentals | 3 |
| :--- | :--- | :--- |
| 6600:300 | Marketing Principles | 3 |
| 6600:450 | Strategic Retail Management | 3 |

- Electives: Complete two courses - 6 credits

| 2520:206 | Retail Promotion and Advertising | 3 |
| :--- | :--- | ---: |
| 6600:350 | Integrated Marketing Communications | 3 |
| 6600:355 | Buyer Behavior | 3 |
| 6600:440 | Product and Brand Management | 3 |
| Total credits required | $\mathbf{1 5}$ |  |

## 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:

## Economics

3250:450 Comparative Economic Systems

## Geography

3350:358 U.S.S.R.
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 |
| :--- | :--- |
| $2420: 118$ | Financial Management and Planning for the Small Business |
| $2420: 170$ | Applied Mathematics for Business |
| $2420: 211$ | Basic Accounting I |
| $2420: 227$ | Entrepreneurship Projects |
| $2420: 280$ | Essentials of Business Law |
| $2440: 103$ | Software Fundamentals |
| $2540: 119$ | Business English |3

4
3
3
3
3
2
3

## SUPERVISION AND MANAGEMENT

The Supervision and Management Certificate Program is aimed at providing knowledge and skills 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 certificate may be earned independent of earning a degree.
A minimum of 21 semester hours is required as follows:
Credits

## 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: |  |  |
| Management Theory and Skills |  |  |
| 2420:103 | Essentials of Management Technology | 3 |
| 2880:100 | Basic Principles of Manufacturing Management | 4 |
| Communication Skills |  |  |
| 2020:121 | English | 4 |
| 2020:222 | Technical Report Writing | 3 |
| 2540:263 | Professional Communications and Presentations | 3 |
| Math |  |  |
| 2030:151 | Elements of Math I | 2 |
| 2030:152 | Elements of Math II | 2 |
| 2420:170 | Applied Mathematics for Business | 3 |

In addition to the above courses, a minimum of 6 credits must be completed from the following:

| $2040: 247$ | Survey of Basic Economics | 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 registration 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.

| $2980: 101$ | Basic Surveying 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 Practice2980:222Construction Surveying22980:225Advanced Surveying3
3
2980:315Boundary Control \& LegalGPS Surveying
2980:415 Legal Aspects of Surveying3
Subdivision Design 2980:4212980:422Survey Elective2
History of Surveying 2980:4261-3
2980:xxxCredits

For further information, contact:
Surveying \& Mapping Program Director, Summit College, The University of Akron, Akron, OH 44325-6104; (330) 972-7059.

## SURVEYING AND IMAPPING 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 experience or formal training in basic drafting and computer aided drawing must complete coursework in these areas first (see adviser).
The following courses are required:

| $2940: 170$ | Surveying Drafting | 3 |
| :--- | :--- | :--- |
| $2980: 223$ | Fundamentals of Map Production | 3 |
| $2980: 422$ | GPS Surveying | 2 |
| 2980:445 | Application in GIS with GPS | 3 |
| $2980: 498$ | Independent Study | 1 |
| $2985: 101$ | Introduction to Geographic and Land Information Systems | 3 |
| $3350: 405$ | Geographic 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 LANGUAGE† <br> 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 Bulletin 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 non-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 adequate proficiency in English with a valid TOEFL score of at least 550.

[^64]
## Program

This certificate requires the completion of four core courses and two elective courses for a minimum of 18 credits.

| Core |  | Credits |
| :---: | :---: | :---: |
| 3300:473 | Special Topics: Teaching ESL: Theory and Method | 3 |
| 3300:489 | Special Topics: Grammatical Structures of English | 3 |
| 5500:481 | Multicultural Education in the U.S.** or | 3 |
| 3300:489 | Special Topics: Sociolinguistics** | 3 |
| 5500:487 | Techniques for Teaching English as a Second Language in the Bilingual Classroom | 4 |
| Electives |  |  |
| 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, (Qetler@uakron.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 trainer. Persons are eligible 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 coursework must be completed in six years.

## Requirements

## Minimum: 19 Credits

| $5400: 400$ | Postsecondary Learner | 3 |
| :--- | :--- | :--- |
| $5400: 401$ | Learning with Technology | 1 |
| $5400: 415$ | 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 |

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 Robert B. Kent, Ph.D., department chair, at (330) 972-7622, for more information.
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 certificate program in transportation will enable 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.

## Requirements:

Eighteen (18) credits are required to complete this program. These include the three core courses:

| 3350:422 | Transportation Systems Planning | 3 |
| :--- | :--- | :--- |
| $4300: 361$ | Transportation Engineering | 3 |
| $4300: 463$ | Transportation Planning | 3 |

The remaining 9 credits shall come from the list of electives:

| $3350: 420$ | Urban Geography | 3 |
| :--- | :--- | :--- |
| $3350: 437$ | Planning Analysis and Projection Methods | 3 |
| 3350:438 | Land Use Planning Methods | 3 |
| 4300:466 | Traffic Engineering | 3 |
| 3350:432 | Land Use Planning Law | 3 |
| $3350: 433$ | Practical Approaches to Planning | 3 |

## 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)

| 3850: 428 | The Victim in Society |
| :--- | :--- |
| 3850: 455 | Family Violence |
| 7750: 480 | Special Topics: Crisis Intervention |
| 7750: 445 | Social Policy Analysis for Social Workers |
| Elective Courses (9 credit hours): select one course from each area. |  |

## Treatment and Intervention

7750: $480 \quad$ Special Topics: Disaster Intervention 3

7750: $465 \quad$ Administration and Supervision in Social Work 3
7750: $475 \quad$ Substance Abuse and Social Work Practice 3
3850: 431 Corrections
3850: 350 Drugs in Society

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7750:480 Special Topics: Crisis Intervention
    7750:445 Social Policy Analysis for Social Workers
```

3850: $350 \quad$ Drugs in Society3

## 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 Ethnic 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 Welfare | 3 |

## Policy and Law <br> 3850: $433 \quad$ Sociology of Deviant Behavio <br> 3850: 441 Sociology of Law <br> 3850: $341 \quad$ Political Sociology <br> 3850: $324 \quad$ Social Movements <br> 7750: $425 \quad$ Social Work Ethics <br> 7750: $454 \quad$ Social Work in Juvenile Justice <br> 7750: 470 Law for Social Workers

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 self-interested emphases of our society's most powerful institutions - family, church, academia, business, and government.
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 <br> Credits <br> Total Credits Required:

## Core:

| $1840: 300$ | Introduction to Women's Studies | 3 |
| :--- | :--- | :--- |
| $1840: 490$ | Women's Studies Lecture Series* | 1 |
| $1840: 480$ | Feminist Theory* | 3 |
|  | or |  |
| $1840: 493$ | Individual Studies in Women* |  |

Electives: 12 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 3
3300:386 Women in Modern Novels 3
3300:389 Popular Culture: Writing about Race and Gender 3
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 Modern Europe 3
3400:340 African-American Women's History 3
3400:350 U.S. Women's History 3
3400:400 Women in Revolutionary China* 3
3400:493 Special Topics: Popular Culture, Cultural Theory and Historical Change* 3
3700:392 Special Topics: Women in Politics 3
3750:474 Psychology of Women* 4
3850:344 The Sociology of Gender 3
3850:423 Sociology of Women* 3
3850:455 Family Violence 3
Fine and Applied Arts
7100:401 Women in Art* 3
7400:201 Courtship, Marriage and the Family 3
7400:219 Clothing Communication 3
7400:265 Child Development 3
7400:442 Human Sexuality 3
77400:485
7600:408 Women, Minorities and News*
7750:480 Special Topics. Gay and Lesbian Issues*
Electives in Education, Institute for Life-Span Development, Summit College, and Women's Studies Workshops

2450:265 Women in Management

1840:485 Special Topics: Boys to Men: Masculinity in Contemporary Society* 3
1840:485 Special Topics: Women, Poverty and Welfare* 3
1840:485 Special Topics: Women, Minorities and Media* 3
1840:493 Individual Studies in Women* 1-3
1840:489 Internship in Women's Studies* 1-4
*

* Available at the graduate level.


## Research Centers and Institutes

# 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.

## 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 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 <br> 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 www.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 fosters an understanding and appreciation of the American economic system.

## 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 exemplify the interdisciplinary approach to the understanding of issues.

## Center for Family Studies

Helen K. Cleminshaw, 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: Conflict Management, Case Management, 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 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://www.uakron.edu/colleges/educ/Lit/index.php.

## Center for Nursing

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

Andrew Thomas, M.A., 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 Policy Studies

## Sonia Alemagno, Ph.D., Director

The Center for Policy Studies is an associated center of the Institute for Health and Social Policy.

The Center houses The University of Akron survey research unit, with responsibility for external grant and contract research, research support for the Urban University linkage program, sponsored research for faculty, and internal University surveys. Geographic scope of work for center projects extends from local jurisdictions through state, national and international projects. Most of the work conducted at the center is on behalf of government or nonprofit agencies or grant funded subcontracts for faculty researchers. Center professional staff are available for consultation in the development of grant proposals and budgets.

The Center has responsibility for the administration of the Board of Regents Urban University Program (UUP) which links eight state universities to collaborate on the identification of significant urban problems and propose solutions designed to improve the urban regions of Ohio. The University of Akron Urban University Program, in addition to the collaborative mission of the Ohio UUP, encourages community oriented research and policy analysis through Partnership Grant Program. The Center also houses a State Data Center under the aegis of the Ohio Department of Development to provide Census and other data to appropriate agencies and coordinate geographic information system activities with the Department of Geography and Planning.

## 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 Urban Studies, established at The University of Akron in 1967. CPSRT's mission is to assist the local and regional community in policy analysis and evaluation, applied research, professional service and the resolution of social, economic and public management problems. CPSRT offers its services to governments of all levels, to community foundations, to human service agencies and to community organizations. Particular expertise is available in 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 Urban 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. The Center for Public Service Research and Training also plans to offer workshops and professional training in the near future.

## Center for Urban and Higher Education

Sajit Zachariah, Ed.D., Director
The Center for Urban 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 non-native 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 individuals 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 the TOEFL test of English language proficiency, which is required for admission to the University. 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 non-native English speakers living and working in Northeast Ohio, offers a variety of smal group, non-intensive courses (e.g., business writing, conversation, vocabulary development, pronunciation), private tutoring, consulting (e.g., editing of documents, language assessment), and workplace ESL classes contracted through employers for job-related English instruction. The ELI can also provide specialized courses for UA departments (e.g., thesis/dissertation writing, speaking for international graduate students)

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 www.uakron.edu/eli, email ua-eli@uakron.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.

## William T. and Rita Fitzgerald Institute for Entrepreneurial Studies

Todd A. Finkle, Ph.D., 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

Bruce D. Keillor, Ph.D., Director
The University of Akron received special funding from the State of Ohio to expand its offerings of undergraduate and graduate degree programming in international 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) 972-6195.

## 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 health 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 sub-unit 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 • Policy \& Program Evaluation
- Intervention Development
- Service delivery
- Technology transfer
- Program Needs Assessment
- Survey Research Support
- 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 65 faculty in 23 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 week-long 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, Northeastern Ohio Universities College of Medicine; Gerontology Center, Kent State University; and Gerontology Committee, Youngstown State University.

Institute of Polymer Engineering<br>Lloyd A. Goettler, Ph.D., Director<br>The Institute of Polymer Engineering carries out fundamental and applied research in polymer processing, engineering performance and associated characterization.<br>The Institute, founded in 1983, is a major intellectual and research resource in northeast Ohio. The institute maintains up-to-date and futuristic processing and characterization laboratories, with continued interest in development and investigation of new process technology and new materials. Its activities also include organization of scientific symposia and various seminars related to polymer processing and engineering.

## The Maurice Morton Institute of Polymer Science

Frank Harris, Ph.D., 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, an applied research group, a macromolecular modeling center, and a mini pilot plant for polymer synthesis. It is the principal organization responsible for external funding of research projects and graduate fellowships in 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 industrial-university cooperation, and is a consortium of industrial sponsors for fundamental and applied research in microscale physiochemical engineering.

## Gary L. and Karen S. Taylor Institute for Direct Marketing <br> Dale M. Lewison, Ph.D., Director <br> 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

Philip W. McLean, Training Coordinator

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

Don V. Laconi, Director
The Training Center for Law Enforcement and Criminal Justice, employing the expertise of the Criminal Justice Technology faculty and the experienced professionals in the field of Criminal Justice, provides state certified training in the following areas: Basic Peace Officer Training Academies, Private Security, Police Refresher Training, Firearms Requalification, and In-service Seminars.


## Courses of Instruction

## 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 |
| :--- | :--- |
| 3002 | Pan-African Studies |
| 3004 | International Development |
| 3005 | Canadian Studies |
| 3006 | Institute for Lifespan |
|  | Development and Gerontology |
| 3010 | Environmental Studies |
| 3030 | English Language Institute |
| 3100 | Biology |
| 3110 | Biology/N.E.O.U.C.O.M..** |
| 3150 | Chemistry |
| 3200 | Classics |
| 3210 | Greek |
| 3230 | Anthropology |
| 3240 | Archeology |
| 3250 | Economics |
| 3300 | English |
| 3350 | Geography and Planning |
| 3370 | Geology |
| 3400 | History |
| 3450 | Mathematics |

3460 Computer Science
3470 Statistics
3480 General Mathematical Sciences
3490 Engineering Applied
3006 Mathematics**
3500 Modern Languages
3510 Latin
3520 French
3530 German
3550 Italian
3560 Japanese
3570 Russian
3580 Spanish
3600 Philosophy
3650 Physics
3700 Political Science
3750 Psychology
3850 Sociology
3980 Public Administration and Urban Studies**

## College of Engineering

4100 General Engineering
4200 Chemical and Biomolecular Engineering
4300 Civil Engineering
4400 Electrical Engineering
4450 Computer Engineering
4600 Mechanical Engineering
4700 Mechanical Polymer Engineering
4800 Biomedical Engineering
College of Education
5000 Cooperative Education
5100 Educational Foundations
5170 Educational Administration (K-12)
5190 Educational Administration (Higher Education)
5200 Early Childhood Education
5250 Middle Level Education
5300 Secondary Education
5400 Postsecondary Technical Education 5800 Special Educational Programs
5540 General Education 5850 Educational Technology
College of Business Administration
6000 Cooperative Education
6100 General Business
6140 Finance for Non-Business Students
6200 Accountancy
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
7510 Musical Organizations
7520 Applied Music
7900 Dance
7910 Dance Organizations
7920 Dance Performance
7600 Communication
7700 Speech-Language Pathology and Audiology
College of Nursing
8000 Cooperative Education 8200 Nursing
College of Polymer Science and Polymer Engineering
9821 Polymer Science and
9841 Polymer Engineering Polymer Engineering 9871 Polymer Science

## School of Law

9200 Law

[^65]
## University College

## GENERAL EDUCATION

## 1100:

100 UA STUDY ABROAD
0 credits
Academic 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 TRAINING I
1 credit
Prerequisite: Permission from coordinator of tutorial programs based on GPA, letter or recommendation, and interview. Corequisite: Tutoring practicum of 25 hours. Training of peer tutors in several academic areas with topics to meet requirements of the College Reading and Learning Association.

103 TUTOR TRAINING II
1 credit
Prerequisite: 102. Advanced training of peer tutors, including student motivation, learning, and study strategies; assessing student learning difficulties; and referral skills.
104 TUTOR TRAINING II 1 credit
Prerequisite: 102. Summative training of peer tutors emphasizing assertiveness training, leadership skills, administering and interpreting a learning styles inventory and structuring a learning experience.

110 INFORMATION TOOLS FOR ACADEMIC SUCCESS 1-3 credits 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 PLANNING
2 credits
Web-version/self-paced class providing learners with skills necessary to make effective educa-
tional/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 SPECIAL TOPICS: GENERAL EDUCATION

## Army ROTC

## MILITARY SCIENCE

## 1600:

100 INTRODUCTION TO MILITARY SCIENCE I
2 credits
Study of the mission of the Army, the principles of basic military leadership and management, land navigation, and opportunities in the Army. A geographical and cultural examination of the countries where U.S. soldiers are located. Leadership laboratory required. No military obligation incurred.
101 INTRODUCTION TO MILITARY SCIENCE II
2 credits
Study of the principles and techniques of military leadership and human resource management. Introduction to drill and ceremony, small unit tactics, briefing techniques, and public speaking. Leadership laboratory required. No military obligation incurred.
200 BASIC MILITARY 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 SMALL UNIT OPERATIONS 2 credits 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 LEADERSHIP II
3 credits Prerequisite: 300 or permission. Study of leadership, leadership counseling and tactics at the small-unit level. Practical work with land navigation, marksmanship training, squad and platoon movement, and battlefield survival. Leadership laboratory required.
305 LEADERSHIP TECHNIQUES AND PRINCIPLES: A MILITARY PERSPECTIVE
3 credits This course is about leadership and about being a leader. Students will learn leadership principles through practical exercise and application of leadership techniques in order to develop effective leadership skills and abilities.

400 MILITARY MANAGEMENT I 3 credits
Prerequisites: 300, 301, or permission. Intensive investigation of the leadership process to include applicatory work emphasizing officer ethics, duties, and responsibilities. Management and supervisory skills. Practical experience with the Leadership Development Program (LDP). Leadership laboratory required.
401 MILITARY MANAGEMENT II
3 credits
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.
490 SPECIAL TOPICS IN MILITARY SCIENCE special topics. Texts to be selected according to topic and will use relevant library periodicals and journals. 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 INTERVENTION THERAPY

## 1820:

403 HOME-BASED INTERVENTION THEORY
3 credits
Prerequisite: Admission to the Certificate 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 TECHNIQUES AND PRACTICE
3 credits
Prerequisite: 403. Provides intervention techniques and skill areas required for home-based intervention and learning opportunities for matching techniques with specific family problems.
405 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, experienced home based intervention therapists.

## WOMEN'S STUDIES

## 1840:

300 INTRODUCTION TO WOMEN'S STUDIES 3 credits
Introduction to the interdisciplinary program in Women's Studies. 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 STUDIES
$1-3$ credits
(May not be repeated). Special topics and current issues in Women's Studies. Covers content not currently addressed in other courses. Fosters a critical approach to knowledge about women.
489/589 INTERNSHIP IN WOMEN'S STUDIES
1-4 credits
Prerequisite: 300, permission of Director of Women's Studies. This class provides supervised
experience and on-the-job 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 INDIVIDUAL STUDIES ON WOMEN 1-3 credits
Prerequisite: 300, and approval of Director of Women's Studies. Directed study of selected top-
ics related to women. Projects are chosen by student in consultation with instructor.

## HONORS COLLEGE

## 1870:

250 HONORS COLLOQUIUM: HUMANITIES
2 credits
Prerequisite: admission to Honors College. Interdisciplinary colloquium on important issues in humanities.

360 HONORS COLLOQUIUM: SOCIAL SCIENCES
2 credits
Prerequisite: admission to Honors College. Interdisciplinary colloquium on important issues in social sciences.

470 HONORS COLLOQUIUM: NATURAL SCIENCES
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 paraprofessional in meeting health-care needs of community. Open to first-year student in Phase 1 of B.S./IM.D. program.

310 MEDICINE AND THE HUMANITIES 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 only. 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 load 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 learning 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 (1020:050), 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 Business Mathematics (2420:170); Introduction to Technical Math (2020:130); Elements of Math I (2030:151); or Intermediate Algebra (3450:100).
060 COLLEGE READING
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, summarizing, 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 textbook reading, and implementation of effective study strategies such as note-taking, 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.
064 APPLIED STUDY STRATEGIES
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: Basic 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 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 overall theme such as "writing, reading 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 TECHNICAL REPORT WRITING
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, memoranda, 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 electronic advertising. Study of advertising language; practice in writing ad copy; includes writing for a portfolio.

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 WRITING FOR THE WORLD WIDE 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 ALLIED HEALTH
3 credits
Prerequisites: placement test. The real 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
Prerequisites: placement test. Fundamental concepts and operations, functions, graphs, factoring and algebraic fractions, variation, and quadratic equations.
152 TECHNICAL MATHEMATICS II
2 credits
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 III
2 credits
Prerequisite: 152 or equivalent with a grade of C - or better, or placement test. Factoring, algebraic fractions, exponents and radicals, equations with radicals, equations in quadratic form, exponential and logarithmic functions, radian measures, matrices.
154 TECHNICAL MATHEMATICS IV
3 credits
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 TECHNOLOGY4 credits
Prerequisite: 151 or placement by adviser. Numeration systems. Analytical geometry of the straight line, linear system. Matrices and matrix methods, determinants. Sets and logic. Probability and statistics. Math of finance.
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, logarithmic, and exponential functions. Integration by antidifferentiation.
290 SPECIAL 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 credits
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.
356 TECHNICAL CALCULUS II
3 credits
Prerequisite: 255 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.

[^66] dismissal decisions.

## 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, net working, 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 institutional arrangements. Topics include biomedical technology, automation, economic growth, natural environment and technology and quality of life.

242 AMERICAN URBAN SOCIETY
3 credits
Multidisciplinary treatment of urban processes and problems. Concerns historical, political social, economic and other environmental forces which impact the individual in an urban setting.

243 CONTEMPORARY GLOBAL ISSUES
3 credits
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 DIVERSITY IN AMERICAN SOCIETY
2 credits
Prerequisites: 121, or 3300:112 or equivalent. Survey course covering demographic, social, economic, political, and educational realities of diversity in 21 st Century. Focus on diversity and unity, historical overview.
257 THE BLACK EXPERIENCE 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 society.
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 SPECIAL 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 INDIVIDUALIZED STUDY EVALUATION
1 credit
Prerequisite: admission to program. A continuing assessment of the student's progress and program. Enrollment required during first semester in the Individualized Study Program.

## EARLY CHILDHOOD DEVELOPMENT

## 2200:

## 110 FOUNDATIONS IN EARLY CHILDHOOD EDUCATION

3 credits
Provides students with a comprehensive overview of model early childhood programs and places emphasis on interactions between home and school that impact children's development.
245 INFANT/TODDLER DAY-CARE PROGRAMS
3 credits
Survey of infant/toddler 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 MULTICULTURAL ISSUES IN CHILD CARE
3 credits
The study of cultural differences in child care and preschool settings to improve caregiving practices and enhance communication between caregivers and families.
247 DIVERSITY IN EARLY CHILDHOOD 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 CHILDHOOD DEVELOPMENT
$1-3$ credits
Prerequisite: permission. Selected topics on subject areas of interest in early childhood development.
295 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 specia areas of study under supervision and evaluation of selected faculty member with whom specific arrangements have been made.

## CRIMINAL JUSTICE TECHNOLOGY

## 2220:

100 INTRODUCTION TO CRIMINAL JUSTICE
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 INTRODUCTION TO PROPRIETARY SAFETY
4 credits
Prerequisite: 2220:100.Overview of functions, problems and strategies of contract and proprietary security agencies. Philosophy of the protection of assets based on risk analysis and cost effective ness.
102 CRIMINAL LAW FOR POLICE
3 credits
Prerequisite: 2220:100. Historical development and philosophy of the law. Thorough study of modern criminal law including Ohio Criminal Code and defenses to particular crimes.

104 EVIDENCE AND CRIMINAL LEGAL PROCESS
Prerequisite: 2220:100. Study of evidence law, constitutional perspectives and law enforcement officer's relationship thereto. Court procedures from arrest to incarceration.

106 JUVENILE JUSTICE 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 CRIME PREVENTION: THEORY, PRACTICE, AND MANAGEMENT 3 credits Examines contemporary crime prevention and security strategies used in target hardening. Central theme is the use of community resources to prevent crime.
225 THE POLICE EXPERIENCE
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 certain courses (see adviser).
230 CORPORATE AND INDUSTRIAL FACILITY INTEGRITY
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.
235 SCHOOL CRIME AND VIOLENCE PREVENTION
Prerequisites: 101, 120. Examines the nature and extent of crime and deviance in American schools Particular focus is on the use of a systems approach to prevent crime.

240 VICE AND ORGANIZED CRIME
3 credits
Prerequisites: 100 and permission. An overview of organizations operating nationally and internationally in a variety of criminal activities with a particular emphasis on narcotics trafficking.

250 CRIMINAL CASE MANAGEMENT
6 credits
Prerequisites: 100, 2820:105 and permission. Reconstruction of chronological sequence of a crime including searching, collection, preserving and evaluation of physical and oral evidence. Scientific approach to criminal investigation.

255 INTRODUCTION TO FORENSIC INVESTIGATION 3 credits Prerequisite: 100. This course is designed to introduce the student to the field of forensic science The emphasis will be on skills and techniques of evidence evaluation
260 CRITICAL INCIDENT INTERVENTIONS FOR CRIMINAL JUSTICE
3 credits
Prerequisite: 100. This course is designed to introduce the student to the stressors and emotions of dealing with people and workers involved in crisis situations.
270 COMMUNITY CORRECTIONS
3 credits
Prerequisite: 100. Examines the corrections component of the criminal justice system. Special focus on the development and use of probation, parole and other alternative forms of sentencing
280 CYBERCRIME
3 credits
Prerequisites: 101, 120. Examines crime and deviance in cyberspace. Particular focus is on the prevention of computer intrusion in the workplace.

290 SPECIAL TOPICS: CRIMINAL JUSTICE
1-4 credits
(May be repeated for a total of six credits) Prerequisite: permission. Workshops and special programs in selected areas of criminal justice such as community relations, crime statistics, ethics, survival.

294 CRIMINAL JUSTICE INTERNSHIP EVALUATION
1 credit
Prerequisites: 100. Thirty credits and permission; corequisite: 295. Analysis by student and instructor of internship experience. A sharing of knowledge gained by student during internships

295 CRIMINAL JUSTICE INTERNSHIP
3 credits
Prerequisites: 100. Thirty credits and permission; corequisite: 294 . Supervised work experience in criminal justice agency for purpose of increasing student understanding of criminal justice process.
296 CURRENT TOPICS IN CRIMINAL JUSTICE 1-3 credits
Prerequisite: 100. A variety of course topics on current subjects relative to law enforcement and the
Criminal Justice System. May be repeated for up to 12 credits.

297 INDEPENDENT STUDY: CRIMINAL JUSTICE
1-3 credits Prerequisite: 100 and permission. Selected topics and special areas of study in Criminal Justice Technology under the supervision of a selected faculty member with whom specific arrangements have been made.
298 APPLIED ETHICS IN CRIMINAL JUSTICE
3 credits
Prerequisite: 100. This course deals with ethical considerations which confront justice practitioners and the legal ramifications of misconduct.

## FIRE PROTECTION TECHNOLOGY

## 2230:

## 100 INTRODUCTION TO FIRE PROTECTION

3 credits History and philosophy of fire protection; introduction to agencies involved; current legislative developments; discussion of current related problems, expanding future of fire protection and career orientation.
102 FIRE SAFETY IN BUILDING 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 FIRE INVESTIGATION METHODS
4 credits History of fire investigation; gathering of evidence and development of technical reports; fundamentals of arson investigation; processing of criminal evidence and procedures related to local and state statutes.
202 INCIDENT MANAGEMENT FOR EMERGENCY RESPONDERS
4 credits
Efficient and effective use of human resources, equipment and systems. Emphasis on preplanning, incident management, problem solving related to emergency preparation and response.

## 204 FIRE HAZARDS RECOGNITION

3 credits
Inspection techniques and procedures; setting up a fire prevention bureau. Recognition and correction of fire hazards. Public relations and code enforcement.

205 FIRE DETECTION AND SUPPRESSION SYSTEMS I
3 credits Design, installation, maintenance and utilization of portable fire extinguishing appliances and preengineered automatic systems; fire detection and alarm signaling systems operational capabilities, requirements.
206 FIRE DETECTION AND SUPPRESSION SYSTEMS II
3 credits Prerequisite: 205. Design, installation and operation of automatic fire suppression systems. Includes sprinkler, foam, carbon dioxide, dry chemical, halogenated agent systems.
250 HAZARDOUS MATERIALS
4 credits Prerequisite: 100. Study of chemical characteristics and reactions related to storage, transportation and handling of hazardous materials. Emphasis on emergency situations, fire fighting and control.
254 FIRE CODES AND STANDARDS
3 credits
Prerequisite: 104. Study of legal rights and duties, liabilities and responsibilities of fire department organizations.
257 FIRE 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.

## 280 FIRE SERVICE ADMINISTRATION

4 credits Prerequisites: 100. Fire officer professional qualifications; federal, state regulations governing department operations-OSHA, EPA; emergency and non-emergency operations procedures-ICS, IMS, Emergency Operations Center are presented.
290 SPECIAL TOPICS: FIRE PROTECTION TECHNOLOGY
1-2 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 FIRE PROTECTION
1-4 credits
A variety of course topics on current subjects related to fire protection. May be repeated for up to 12 credits.
294 ADVANCED FIRE 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 fire investigations.

## 295 FIRE PROTECTION INTERNSHIP

4 credits
Prerequisites: 30 credits in program and permission of program coordinator. Supervised work experience in fire protection to increase student understanding of fire technology; analysis by student and instructor of internship experience; sharing of knowledge gained during internship.

1-4 credits Prerequisite: 2230:100 and permission. Selected topics and special areas of study in fire protection technology under the supervision and evaluation of a selected faculty who assigns specific arrangements.

## 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 on man-made, natural and technological hazards.
350 EMERGENCY RESPONSE PREPAREDNESS AND PLANNING 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 PREVENTION 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 RELIEF 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 various business and government and citizen needs for recovery action and resource allocation.
450 EMERGENCY MANAGEMENT RESEARCH METHODS AND APPLICATIONS
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 credits
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 INTERNSHIP: EMERGENCY MANAGEMENT
4 credits
Prerequisite: 30 hours in program and permission from program director. Supervised work experience in emergency management to increase student understanding of emergency management and disaster response.
497 INDEPENDENT STUDY: EMERGENCY MANAGEMENT
1-4 credits
Prerequisites: 305 and 350. Selected topics, special areas of study in emergency management, disaster preparedness under the supervision of a faculty member with whom specific arrangements have been made.

## COMMUNITY SERVICES <br> TECHNOLOGY <br> 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 paraprofessionals, programs, volunteer experiences, selfawareness, and interaction in community services.

3 credits
Prerequisite: 171. Preparation to provide helping interventions as Social Work Assistants. Focuses on helping relationships, helping and problem-solving processes, social work values, attending skills and interview techniques.
122 SOCIAL SERVICE TECHNIQUES II
3 credits
Corequisite: 121. Focus on enhancing self-awareness. Provides basic knowledge about social group work and opportunities for students to practice beginning group work techniques by cofacilitating group discussions and experiential activities.
150 INTRODUCTION TO GERONTOLOGICAL SERVICES
3 credits
Basic orientation to gerontology and role of community service technician in service delivery to aged. Topics include social, biological, economical, and psychological aspects of aging; national and state legislation; services and service provider.

171 CAREER ISSUES IN SOCIAL 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 IN SOCIAL SERVICES II
1 credit
Prerequisite: 171. Addresses attitudes and behavior necessary to succeed in field work and on the job. Topics include appropriate professional behavior, using supervision effectively and workplace competencies.
210 ADDICTION 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 TECHNIQUES 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 COMMUNITY-BASED RESIDENTIAL SERVICES
3 credits
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.
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 ethical/legal issues will be covered.
262 BASIC HELPING SKILLS
4 credits
Teaches micro skills through the use of didactic presentation, role play and videotaping; develops ability to give and receive feedback about effectiveness of helping others.

263 GROUP PRINCIPLES IN ADDICTIONS
4 credits
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 SOCIAL 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 concerns 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-OCCURING 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 practices and strategies for relapse prevention with addictive behaviors.
271 NON-CHEMICAL ADDICTIONS AND DEPENDENCIES
3 credits
Introduction to understanding human behaviors and physiological responses to compulsive behaviors other than dependacies on psychoactive chemicals. Several behavior addictions will be explored.

273 CAREER ISSUES IN SOCIAL SERVICES III
1 credit
Prerequisite: 122 and 171. Explores strategies to promote optimal effectiveness in human service careers. Topics include self-care, preventing burnout, ethical dilemmas, human diversity and the professional use of self.

275 THERAPEUTIC ACTIVITIES
3 credits
Prerequisite: 150. Preparation for planning, adapting and implementing individual and group therapeutic activities to meet diverse psychological needs. Emphasizes program planning, motivational techniques and group work skills.
276 PRACTICUM IN THERAPEUTIC ACTIVITIES
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 IN COMMUNITY 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 COMMUNITY WORK
4 credits
Prerequisites: 100 and 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 SERVICES
5 credits
Prerequisite: 278 and permission. Individual placement in selected community and social service agencies for educationally supervised experience in community and social services technician position. Does not substitute for 7750:421 or 495.
285 SOCIAL SERVICES PRACTICUM I
1-4 credits
Prerequisites: 122, 172 and 273. Supervised field placement in a human service organization. Students apply classroom learning to actual helping situation, test career interests and gain practical, on-the-job experience.

286 ADDICTION SERVICES INTERNSHIP
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 SOCIAL SERVICES PRACTICUM II
1-4 credits
Prerequisites: 172, 273, 285 and permission. Second supervised field placement in a human service organization. Students apply classroom learning to actual helping situation, test career interests and gain practical, on-the-job experience.

288 TECHNIQUES OF COMMUNITY WORK II
4 credits
290 SPECIAL TOPICS: COMMUNITY SERVICES TECHNOLOGY 1-3 credits
Selected topics or subject areas of interest in community services technology.
294 SOCIAL SERVICES PRACTICUM SEMINAR
1-2 credits
Taken concurrently with Social Services Practicum I and II to discuss practicum experiences confidentially, integrate classroom learning with practical field work situations, and support learning.

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 HOSPITALITY
Explores the various segments of the hospitality industry and introduces the knowledge and skills required for success.

120 SAFETY AND SANITATION 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: 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 restaurant atmosphere.

237 INTERNSHIP
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 SYSTEMS MANAGEMENT AND PERSONNEL
3 credits
Identifies systems utilized in successful food service operations. General principles of each system, its interrelationships with total food service organization explored.
243 FOOD EQUIPMENT AND PLANT OPERATIONS
3 credits
Prerequisite: 120. Available food service equipment, its selection, use and care. Field trips taken to wholesale outlets and food service establishments to see food service equipment demonstrated and in operation.
245 MENU, PURCHASING AND COST CONTROL
4 credits
Prerequisites: 101 and 2420:170. 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 HOSPITALITY LAW
3 credits
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 well as their interconnections are studied.
278 HOTEL CATERING AND MARKETING
3 credits
Prerequisite: 101. Hotel sales office operation/supervision are presented. Marketing and promotion of the property, planning, internal/external selling, the sales contract and execution of functions.
290 SPECIAL TOPICS: HOSPITALITY MANAGEMENT
(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 WRITING
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 proprietor ships to corporations. Preparation of forms and necessary governmental 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, marriage, divorce, dissolutions, annulments, adoptions, juvenile law, artificial insemination, and paternity.
118 PROBATE ADMINISTRATION
4 credits
Prerequisite: 101. Covers law necessary to draft and interpret wills, trusts. Includes adminis tration 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 CIVIL 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-CREDITOR RELATIONS
3 credits
Prerequisite: 101. Covers bankruptcy primarily, as well as collection methods and state law remedies.
218 ADVANCED PROBATE ADMINISTRATION
3 credits
Prerequisites: 101; 118. Covers guardianships, marriage licenses, living wills and advanced direc tives, 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-related environment. Students work at placement and meet with course instructor.

290 SPECIAL TOPICS: LEGAL ASSISTING TECHNOLOGY
3-5 credits
Prerequisites: 101, 104 or permission. (May be repeated for a maximum of six credits.) Selected topics on subject areas of interest in Legal Assisting Technology.

297 INDEPENDENT STUDY: LEGAL ASSISTING
3-5 credits
Prerequisite: 101. (May be repeated for a maximum of six credits.) Selected topics and special areas of study in Legal Assisting Technology.

## BUSINESS MANAGEMENT <br> TECHNOLOGY

## 2420:

103 ESSENTIALS 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 ENVIRONMENT
3 credits
Survey of business emphasizing the global nature of business and including entrepreneurship concepts, form, marketing, management, human 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 PUBLIC RELATIONS
2 credits
Study of philosophy, techniques and ethics of the management function known as public relations. Defines variety of publics and methods of communication.

117 SMALL BUSINESS DEVELOPMENT
3 credits
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 SMALL BUSINESS 4 credits Prerequisite: 212 and 117. Study of finance as applied to small business, including planning, budgeting, 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 APPLIED MATHEMATICS FOR BUSINESS
3 credits
Mathematics of business including retail pricing, simple and compound interest, discounts, mortgages, payroll, annuities, depreciation, inventory, 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 human resource management functions. Includes planning, EEO/AA, selection, development, legal environment, compensation, labor relations, appraisal systems 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 specialized accounting software

213 ESSENTIALS OF MANAGEMENT ACCOUNTING
3 credits.
Prerequisite: 211. Study of the interpretation and use of accounting data by management in decision making and the planning and controlling of business activities.

214 ESSENTIALS OF INTERMEDIATE 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 ACCOUNTING 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 preparation of returns for individuals, partnerships and corporations. Federal, state and local taxes are discussed.

219 BUSINESS ACCOUNTING PROJECTS 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 APPLIED ACCOUNTING
3 credits
Prerequisites: $212,213,2540: 270$. An applied orientation focusing on all accounting functions through adjusted trial balance and basic payroll skills. Emphasis on skills required for the Certified Bookkeeping designation
227 ENTREPRENEURSHIP PROJECTS
3 credits
Prerequisite: $103,104,117,212,243$ and $2540: 270$. Requires the student to research, design, and complete a comprehensive business plan which will become the blueprint for a new or existing business.
243 SURVEY IN FINANCE
3 credits
Prerequisites: 170 and 211. Survey of field including instruments, procedures, practices and institutions. Emphasis on basic principles
245 BUSINESS MANAGEMENT ACCOUNTING INTERNSHIP
3 credits
Prerequisites: 212 and 213 or 215 and 216. An accounting field experience exposing the student to the actual accounting environment and general workplace.
246 BUSINESS MANAGEMENT INTERNSHIP
3 credits
Prerequisites: 32 credits completed, including 103, 104, 212, 280, 2040:240, 6300:201. A management field experience exposing the student to the actual management environment and general workplace.

250 PROBLEMS IN BUSINESS MANAGEMENT
3 credits
Prerequisites: $103,104,212,243,2520: 101$ and 2540:270. Capstone course studies the development of solutions and the formulation of policies to solve business problems, emphasizes case studies, group projects, oral and written presentations.

280 ESSENTIALS 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 SPECIAL TOPICS: BUSINESS MANAGEMENT TECHNOLOGY
1-3 credits
(May be repeated for a total of four credits) Prerequisite: permission. Selected topics or subject areas of interest in business management technology.

## REAL ESTATE

## 2430:

105 REAL ESTATE PRINCIPLES
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, govern 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. Application of management functions of planning, organizing, 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 INFORIMATION 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 WINDOWS
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 provides the skills and knowledge to create word processing documents, spreadsheets and databases.

105 INTRODUCTION TO COMPUTERS AND APPLICATION SOFTWARE
3 credits
Overview of basic computer concepts, electronic mail and Internet technologies. Introductory-leve instruction and hands-on experience in word processing, spreadsheet, database and presentation software.

121 INTRODUCTION OF LOGIC/PROGRAMMING
3 credits
Prerequisite: Must pass department placement test, admitted to program, or permission from program director. An introduction to business problem solving using computer-based solutions. Topics include structured design, documentation and modularity. Includes a component of hands-on programming.
125 SPREADSHEET SOFTWARE
2 credits
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 images in their HTML code.

141 WEB SITE ADMINISTRATION
3 credits
Prerequisites: 101, 102, 103, 2540:140. 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 PROGRAMIMING
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
Prerequisites: 101, 102, 103 and 2540:140 or permission from program director. This course is an continuation of Software Fundamentals. In-depth use of word processing and spreadsheet software packages.

180 DATABASE CONCEPTS 3 credits
Prerequisites: 121 and 145 . Overview of models and functions of Database Management Systems. Data definition and data manipulation in the relational model using SOL. Introduction to database design.
201 NETWORKING BASICS
3 credits
Prerequisites: Bridge 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 credits
Prerequisite: 201. The second course in networking. It covers basic router configuration as well as routed and routing protocols.
203 SWITCHING BASICS AND INTERMEDIATE ROUTING
3 credits
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.
204 WAN TECHNOLOGIES
3 credits
Prerequisite: 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 CLIENT/SERVER PROGRAMMING
3 credits
Prerequisites: 170 and 180. Introduces student to client/server programming. Includes hands-on experience using a Rapid Application Development (RAD) tool to show integration of database and program development.
211 INTERACTIVE WEB PROGRAMIMING
3 credits Prerequisite: 121. 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 MULTIMEDIA AND INTERACTIVE WEB ELEMENTS
3 credits
Prerequisite: 140. Reviews and demonstrates web tools and techniques like RealAudio, Shockwave QuickTime, video conferencing and other dynamic graphical elements to enhance Web-based communication. Multimedia software may change to reflect current technology.
234 ADVANCED BUSINESS PROGRAMMING
3 credits
Prerequisite: 210. Course emphasizes programming and documentation skills to solve business problems, Topics include business application programming, file handling, and advanced data manipulation.
240 COMPUTER INFORMATION SYSTEMS INTERNSHIP
3 credits
Prerequisites: 204, 247. Gives student experience in networking or computer maintenance in the workplace. Student with instructor to discuss and examine experiences.
241 SYSTEMS ANALYSIS AND DESIGN
3 credits
Prerequisite: 170 and 180. Covers all phases of business systems analysis, design, development, and implementation. Such principles as system flowcharting and file and document design emphasized.
245 INTRODUCTION TO DATABASES FOR MICROS
3 credits
Prerequisite: 103. 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 ADVANCED HARDWARE SUPPORT
3 credits
Prerequisite: 247. This course introduces the student to server hardware and expands student knowledge of client hardware.
251 COMPUTER APPLICATIONS PROJECTS
3 credits
Prerequisites: 241. Using a simulated work environment, project teams are set up and required to analyze an unstructured problem, prepare alternative designs and implement a solution.
256 C++ PROGRAMMING $^{+}$
3 credits
Prerequisite: 160. This course explores object-oriented programming through $\mathrm{C}^{++}$program development.
257 MICROCOMPUTER PROJECTS
3 credits
Prerequisite: 175 and 267. Course is designed to be the capstone course for the Microcompute Specialist Option and will include integration of desktop applications resulting in a comprehensive project.
267 MICRO DATABASE APPLICATIONS
3 credits 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 NETWORK 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 SPECIAL TOPICS: COMPUTER INFORMATION SYSTEMS
1-3 credits
Prerequisite: permission. Selected topics or subject areas of interest in computer information systems.

301 ADVANCED ROUTING 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 advanced routing protocols and features and complies with the content of the Cisco Academy Cisco Certified Network Profession (CCNP) Advanced Routing course.
302 REMOTE ACCESS
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 remote access protocols, features, and configuration and complies with the content of the Cisco Academy Cisco Certified Network Profession (CCNP) Remote Access course.
310 WIRELESS NETWORKING
3 credits
Prerequisite: admission to program. This course provides students with various wireless networking technologies.
338 SYSTEM ADMINISTRATION I
3 credits
Prerequisite: 145. This course provides students with the necessary knowledge and skills to perform basic system administration tasks on a network operating system.
388 SYSTEM ADMINISTRATION II
3 credits
Prerequisite: 338 . This course provides students with the necessary knowledge and skills to perform advanced system administration tasks on a network operating system.
401 MULTILAYER SWITCHING
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 Academy Cisco switching protocols and features. This course complies
Certified Network Profession (CCNP) Switching course.

402 NETWORK TROUBLESHOOTING
4 credits
Prerequisites: 301, 302, 401. This course focuses on troubleshooting complex networks and complies with the content of the Cisco Academy Cisco Certified Network Profession (CCNP) Troubleshooting course.
410 NETWORK AUTHENTICATION AND SECURITY
3 credits
Prerequisite: entrance to program. This course focuses on network security issues related to conduct ing business over the Internet, including authentication, authorization, and firewalls. Security issues have evolved from server-centric security to network-level security. This course will allow students to discover the extent of the concerns and current solutions.

## 420 VOICE, DATA, AND VIDEO

3 credits
Prerequisite: entrance to program. This course focuses on network issues related to the integration of voice, data, and video over the same network media and equipment.

430 NETWORK MONITORING AND MANAGEMENT
3 credits
Prerequisite: admission to program. This course provides students the basic theory and practical application of network monitoring and management skills.

## 480 CURRENT TOPICS IN COMPUTER INFORMATION SYSTEMS

3 credits
Prerequisite: permission. Seminar in topics of current interest in information technology or special individual topics in information technology.

## MARKETING AND SALES TECHNOLOGY

## 2520:

101 ESSENTIALS 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 RETAILING 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 media 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 RETAIL PROMOTION AND ADVERTISING
3 credits Prerequisite: 202. 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 camera-ready art.
211 MATHEMATICS OF RETAIL DISTRIBUTION
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. Study of basic principles of selling, 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 assigned by the AAF. The campaign may be entered in the AAF national contest.
240 MARKETING 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 sales program. Students will learn how to select, evaluate and motivate a sales force.

290 SPECIAL TOPICS: 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:

241 HEALTH INFORMATION 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 ADMINISTRATION
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 responsibilities.

284 MEDICAL OFFICE TECHNIQUES
2 credits
Prerequisite: $2470: 120$. This course will guide the student through a variety of clinical-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 subject areas of interest in health care office management.

## OFFICE ADIMINISTRATION

2540:
118 EXPLORING THE INTERNET
2 credits
Prerequisite: 2440:101 or equivalent. Use of the Internet for conducting research and job searches, using e-mail, accessing personal and business information, and setting up and maintaining a web page.

119 BUSINESS ENGLISH
3 credits
Prerequisite: placement test. Fundamentals of English language with emphasis on grammatical correctness, acceptable usage, spelling and punctuation. Limited writing primarily involves choice of precise words and effective sentence structure with some attention to paragraph development.
121 INTRODUCTION TO OFFICE PROCEDURES
3 credits
Prerequisite: 143 and basic typing skills. Introduction to concepts regarding the role of the office worker, human relations, communications, productivity, reference materials, technological advances in processing information and employment opportunities.
129 INFORMATION/RECORDS MANAGEMENT
3 credits
Overview of records used in business. Includes filing procedures, equipment, supplies, classification systems, alphabetic rules, electronic database systems, and management and control of records systems.

## 140 KEYBOARDING FOR NON-MAJORS

2 credits
Beginning keyboarding for the non-secretarial student. Fundamentals in the operation of the keyboard; application emphasis on individual student needs such as resumes, application letters and forms, term reports, abstracting, etc. Credit not applicable toward associate degree in Office Administration.
143 MICROSOFT WORD, BEGINNING
2 credits
Prerequisite: 140 or permission. Introduction to word processing software for the non-office Administration major. Training on personal computers as a tool for personal/business 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 BEGINNING KEYBOARDING
3 credits
For the beginning student or one who desires a review of fundamentals. Includes basic keyboard, letters, tables and manuscripts. Minimum requirement: 30 wpm with a maximum of 5 errors for $5 \mathrm{~min}-$ utes. (Wayne campus only)

151 INTERMEDIATE WORD PROCESSING
3 credits
Prerequisite: 143 and basic typing skills. Further development of keyboarding skill. Advanced letter styles, forms, reports and tables. Minimum requirement: 40 wpm with a maximum of 5 errors for 5 minutes.
241 INFORMATION MANAGEMENT
3 credits
Prerequisite: 150 or equivalent and basic typing skills. Study of creation, classification, encoding, transmission, storage, retention, transfer and disposition of information. Emphasis on written, oral and machine language communication media used in business information systems. Offered at Wayne campus only.

243 INTERNSHIP
3 credits
Prerequisites: 119; $121 ; 129 ; 253 ; 263 ; 270$; and 281 . Work experience in an office environment related to the student's degree major. Application of office administration skills and knowledge.

253 ADVANCED WORD PROCESSING
3 credits
Prerequisites: 151. To increase student's ability to do office-style documents on the computer with minimal supervision. Minimum requirement: 50 wpm with a maximum of 5 errors for 5 minutes.

255 LEGAL OFFICE PROCEDURES I
3 credits
Prerequisite: 151. Concentration on ethics, responsibilities, and document production for the career legal secretary. (Wayne campus only)
263 PROFESSIONAL COMMUNICATIONS AND PRESENTATIONS
3 credits
Prerequisites: 2020:121 or permission. 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 BUSINESS SOFTWARE APPLICATIONS
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 PUBLISHING
3 credits
Prerequisites: 140 or permission. Desktop Publishing software used to create printed materials such
as newsletters, brochures and forms. Course addresses design/layout 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 EDITING/PROOFREADING/TRANSCRIPTION
3 credits
Prerequisites: 119,151. Editing and proofreading skills emphasized on the transcription of taped dic-
tation 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 ADMINISTRATION
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 ADMINISTRATIVE MEDICAL ASSISTING I 4 credits
Theory and practice in administrative competencies such as legal and ethical concepts, professionalism, 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.
135 CLINICAL MEDICAL ASSISTING I
4 credits
Prerequisite: 125. Introduction to medical laboratory, theories and procedures essential for a medical assistant's career

226 MEDICAL BILLING
4 credits
Prerequisite: 120. Theory and practice in maintaining the patient financial/medical record, diagnosis and procedural coding, electronic data interchange, filing insurance claim forms, and collection.

230 BASIC PHARMACOLOGY
3 credits
Overview of drugs used in a medical setting
235 CLINICAL MEDICAL ASSISTING II
4 credits
Prerequisites: 125, 135. Advanced medical laboratory theories and practices essential for a medical assistant's career.

240 MEDICAL TRANSCRIPTION I
3 credits
Prerequisites: 2540:119, 151; 120. Designed to correlate word processing and typing skills necessary for the transcription of a physician's dictation
245 MEDICAL EXTERNSHIP
4 credits
Prerequisites: 2030:130; 2440:103; 2540:151, 256; 2780:106, 107; 2740:120, 125, 135, 235 , 2302.0 accumulative GPA; permission from Medical Assisting Program Director. Corequisites: 121, 240, 241; 2420:211; other courses required for program completion. A seminar course including 200 hours of practical experience in ambulatory medicine where the student can apply administrative/dlinical procedures with actual patient contact.

290 SPECIAL TOPICS: MEDICAL ASSISTING
1-2 credits
Prerequisite: permission. Selected topics or workshops of interest in medical assisting technology.

## RADIOLOGIC TECHNOLOGY

## 2760:

161 PHYSICAL SCIENCE FOR RADIOLOGIC TECHNOLOGY I
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 II
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 CLINICAL APPLICATION I
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
Prerequisite: 131; corequisite: 222. Student assigned to surgical service of affiliated hospitals. Emphasis on "scrubbing" on general surgery and gynecology procedures.

33 CLINICAL 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 ANATOMY I
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-dimensions and the relationships of parts to one another in the various surgical specialties.
290 SPECIAL 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 ALLIED HEALTH I, II
3 credits each Prerequisite: permission. Introduction to the study of human structure and function. No laboratory.
290 SPECIAL TOPICS: ALLIED 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 CARE

## 2790:

## 100 CONCEPTS IN RESPIRATORY THERAPY

3 credits
Prerequisite: 2030:161. Introductory concepts regarding the practice and application of the con cepts employed in respiratory therapy, including career information and equipment. (lecture/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/laboratory.
122 RESPIRATORY PATIENT CARE
3 credits
Prerequisites: 2780:106 (or equivalent) 2790:121. Corequisite: 2780:107 (or equivalent). Covers basic hospital practices in sterile technique, suctioning and postural drainage. Lecture/laboratory.
123 MECHANICAL VENTILATORS
3 credits
Prerequisite: 122, 131, 141. Introduction to different brands of ventilators and their functions. Airway and airway complications.

131 CLINICAL 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 Alternates 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 CLINICAL APPLICATIONS IV
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 aerosol therapy equipment. Lecture/laboratory.

215 RESPIRATORY THERAPY PHARMACOLOGY
2 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 pulmonary function studies. Lecture/laboratory.
224 PULMONARY REHABILITATION AND THE RESPIRATORY
2 credits CARE DEPARTMENT
Prerequisites: 223,242. Covers area of pulmonary rehabilitation. Includes essentials of establishing a respiratory therapy department. Lecture/laboratory.
242 PATHOLOGY FOR RESPIRATORY CARE
3 credits
Prerequisites: 201, 3100:130. Discussion of disease processes, diseases of lung and heart, their effect on respiratory therapy.

290 SPECIAL TOPICS: RESPIRATORY CARE-

301 CARDIOPULMONARY ASSESSMENT TECHNIQUES
2 credits Prerequisites: 2780:107 or 3100:202 and 3100:203. Overall patient assessment, with concentration on the cardiopulmonary systems. Overview of common illness and related clinical manifestations. Lecture/laboratory.
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 II
3 credits
Prerequisites: 210, 2780:107,, 3100:202, 203. Airway Care and Lung Inflation Techniques. Lecture/laboratory.
312 DIAGNOSTICS I
3 credits
Prerequisite: 210. Corequisites: 301,302,311. Bedside screening studies for the evaluation of cardiopulmonary diseases. Lecture/laboratory.

313 DIAGNOSTICS II 3 credits
Prerequisites: 311, 312. Corequisite: 303. Laboratory diagnostic studies for the evaluation of cardiopulmonary diseases. Lecture/laboratory.

## 315 ADVANCED PHARMACOLOGY IN RESPIRATORY THERAPY <br> 2 credits

Prerequisite: 215. Pharmacologic actions and effects of cardiopulmonary medications,
320 NEONATAL/PEDIATRIC RESPIRATORY THERAPY I
3 credits
Prerequisite: 301. In-depth coverage of neonatal and pediatric respiratory care concepts. Emphasis placed on anatomy and physiology, assessment and therapeutics.
325 MECHANICAL VENTILATION 4 credits
Prerequisites: 303,312,315,320,341. Introduction to mechanical ventilation and equipment. Lecture/lab.
340 APPLICATION IN CLINICAL 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 CLINICAL 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 CLINICAL EXPERIENCE 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 POLYSOMNOGRAPHY I
3 credits
Prerequisite: 302. Introduction to sleep disorders and the related diagnostic tests.
405 POLYSOMNOGRAPHY II
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 alternate settings. Lecture/lab.
420 NEONATAL/PEDIATRIC RESPIRATORY THERAPY II 3 credits Prerequisite: 320. Detailed study of airway management, 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
4 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 CLINICAL EXPERIENCE III
3 credits
Prerequisite: 342 . Rotation to a variety of health care facilities to practice specialty procedures in each institution. 225 clinical hours.
444 RT CLINICAL 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
2 credits
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 Prerequisite: 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 equilibria, 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 APPLICATIONS FOR TECHNOLOGY
1 credit
Prerequisite: 2030:151. Word processing, spreadsheet database, and internet applications in engineering technology. Computer basics also. Limited to students in Engineering \& Science Technology Department programs. Laboratory.
161 TECHNICAL PHYSICS: MECHANICS I
2 credits
Corequisite: 2030:152. Principles of mechanics that include motion, vectors, forces, equilibrium; also, significant figures and unit conversions. Laboratory.
162 TECHNICAL PHYSICS: MECHANICS II
2 credits
Prerequisite: 161; corequisite: 2030:153. Principles of mechanics that include work, power, conservation of energy, rotational motion, torque. Laboratory.
163 TECHNICAL PHYSICS: ELECTRICITY AND MAGNETISM
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 PHYSICS: HEAT AND LIGHT
2 credits
Prerequisites: 161 and 2030:153. Topics include thermal behavior of matter,thermodynamics, light, geometric and physical optics. Introduction to atomic and nuclear physics. Laboratory.
290 SPECIAL TOPICS: 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 II

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 INSTRUMENTAL 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 polymer properties, processing, and design guidelines to analyze complete manufacturing, testing, and quality assurance programs. Examples of significant applications analyzed in detail.

260 COMPOUNDING 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 SPECIAL 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 ELECTRICITY 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 CIRCUIT FUNDAMENTALS
4 credits
Corequisite: 121; 2030:152, 153. SI units, current, voltage, resistance, Ohm's Law, circuit analysis, network theorems, computer simulation, inductor, capacitor, RLC dc analysis, transients, laboratory support of circuit concepts, ac introduction.

121 INTRODUCTION TO ELECTRONICS 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 ELECTRONIC DEVICES
4 credits
Prerequisite: 120. Physical theory, characteristics and operational parameters of solid-state electronic devices. Analysis and design of electronic circuits incorporating these devices, utilizing characteristic curves and linear modeling.
136 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 MAINTENANCE
4 credits
Corequisite: 217. Personal computer fundamentals, software diagnostics to isolation of hardware faults. Set up, maintain, diagnose, repair, upgrade personal computers. Not applicable towards an EET degree

217 SURVEY OF DIGITAL 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 Engineering Technology.
225 APPLICATIONS OF ELECTRONIC 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 closed-loop control systems. Design of simple servomechanisms.
237 DIGITAL CIRCUITS
4 credits
Prerequisites: 123 and 136. Devices used in logic circuits, interfacing, combinational logic, arithmetic 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. Fundamentals of power transformers. Three-phase distribution and motor control. Principles of industrial electronic devices.

251 ELECTRONIC COMMUNICATIONS
4 credits
Prerequisite: 225. Resonance, coupling, filters, oscillators, mixers, power amplifiers, 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.
270 SURVEY OF ELECTRONICS I
3 credits
Prerequisite: 2820:163. Fundamentals of $D C$ and $A C$ electrical circuits and rotating machinery. For non-electronic technology majors.
271 SURVEY OF ELECTRONICS II
3 credits
Prerequisite: 270. Survey of the most commonly used solid-state circuit components including typical applications. Introduction into digital circuits and microprocessor applications. For nonelectronic technology majors.

280 MICROPROCESSOR MAINTENANCE PRACTICUM/SEMINAR
3 credits
Prerequisite: 206, 217. Setup, maintain, diagnose, repair, upgrade personal computers, peripheral 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
Prerequisite: permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor (may be repeated for a total of six credits).
350 ADVANCED CIRCUIT THEORY
3 credits
Prerequisite: 225, 231. 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 MICROPROCESSOR SYSTEMS
4 credits
Prerequisite: 238; corequisite: 350. Study of microprocessors and microcomputers, topics in architecture, assembly language, software, operating systems, I// interface circuits. Specific systems studied include the 8088 and the IBM PC.
354 ADVANCED CIRCUIT APPLICATIONS
4 credits
Prerequisites: 350; 2030:356 or 2820:310. Introduction to PSPICE. Calculating electrical power. Series and parallel resonance. LaPlace transforms in operational circuit analysis. Transfer func tions, impulse function, Bode diagrams, Fourier Series.
400 COMPUTER SIMULATIONS IN TECHNOLOGY
3 credits
Prerequisites: $354,2030: 345,3460: 201$ or 205 or 2820:310. Software simulation of electronic circuits. Production of circuits is simulated using random generation of components. Output is presented using both 2 - and 3 -dimensional techniques

406 COMMUNICATION 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, 3460:201 or 205 or 2820:310. Electric power, industrial nameplates, power factor correction, mutual inductance, linear transformers, power transformers, polyphase systems, per-phase analysis, system grounding, protective device coordination computeraided analysis.
453 CONTROL SYSTEMS
4 credits
Prerequisites: 231, 354. Modeling and responses of closed-loop systems. LaPlace transforms root-locus analysis. Stability, compensation, digital control, optimal control. Digital computer in system simulation and design.

490 ST: ELECTRONIC ENGINEERING TECHNOLOGY
1-4 credits
Prerequisite: permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor (may be repeated for a total of six credits)

497 SENIOR 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 leading to completion of Senior Honors Thesis or other original work.

## AUTOMATED <br> MANUFACTURING <br> 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 FACILITIES PLANNING
3 credits
Prerequisite: 2940:180 or 2940:210 or permission. An application based study of facilities analysis, design and layout utilizing 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 PROGRAMMING I
3 credits
Prerequisites: 2940:121, 2030:154; or permission. Introduction to numerical control (N/C) of operation of machine tools and other processing machines. Includes programming, types of N/C systems, economic evaluation.

441 ADVANCED QUALITY 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 SQC 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 SIMULATION 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 PRODUCTION
3 credits
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 from a 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 project 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 engineering technology under the direct supervision of a faculty member.

496 SPECIAL TOPICS IN MANUFACTURING ENGINEERING TECHNOLOGY 1-3 credits Prerequisite: permission. Selected topic(s) that provide for specific coursework in the area of manufacturing engineering technology offered once or only occasionally in areas where no formal course exists.
499 WORKSHOP IN MANUFACTURING ENGINEERING TECHNOLOGY
1-3 credits
Prerequisite: permission. Group studies of special topics in manufacturing engineering technology.

## MANUFACTURING <br> ENGINEERING TECHNOLOGY

## 2880:

## 100 BASIC PRINCIPLES OF MANUFACTURING MANAGEMENT <br> 4 credits

A survey of basic concepts of management and their interrelationships to a manufacturing environment. 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 production standards, and their relationship to manufacturing cost estimates.
151 INDUSTRIAL SAFETY AND ENVIRONMENTAL PROTECTION
2 credits
A contemporary overview of the science and management of occupational health and safety programs, policies, and procedures in an industrial and business type environment.
201 ROBOTICS AND AUTOMATED MANUFACTURING
3 credits
Prerequisite: 100 or permission of instructor. Study of manufacturing automation and the com-puter-based products and processes available for this task. Robots, machine controllers, and machine/process interfaces are investigated.

211 COMPUTERIZED 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 modern labor organizations and collective bargaining process.
241 INTRODUCTION TO QUALITY ASSURANCE
3 credits Prerequisite: 100 and 2030:152. Theory and practice of inspection and sampling techniques for measurement of quality, QC charts, sampling plans, mill specs, checking machine capabilities, and setting tolerances.
290 SPECIAL 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:

101 INTRODUCTION TO MECHANICAL 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 pneumatic devices and systems.

142 INTRODUCTION TO MATERIAL TECHNOLOGY 3 credits
Fundamental properties of materials. Material testing. Applications of methods to control material properties.
243 KINEMATICS
3 credits
Prerequisite: 101 and 2990:125. Study of rigid-body motions of simple linkages, cams, gears and gear trains. Vector solutions emphasized. Industrial applications presented and computers used to analyze mechanisms.
245 MECHANICAL DESIGN II
5 credits
Prerequisites: 142; 2940:210; 2990:241. Corequisite: 2920:243 Design of machine elements: springs, shafts, fasteners, welded joints. Combined stress and fatigue analysis. Design projects. Experimental stress analysis.
249 APPLIED THERMAL ENERGY I
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 momentum relationships. Fluid machinery and measurements.
252 THERMO-FLUIDS LABORATORY
1 credit
Prerequisite: 251; corequisite: 249. Laboratory experiments in applied thermal energy and fluid power.
290 SPECIAL TOPICS: MECHANICAL 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 bodies, 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 (casting, forging, welding, forming sheet metal), integrating material technology, mechanical design, and mechanics of materials.
365 APPLIED THERMAL ENERGY II
3 credits
Prerequisites: 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 PROCESSING
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 INDUSTRIAL MACHINE CONTROL
3 credits
Prerequisite: 2860:270. Principles and design of industrial machine control systems. Application oriented study of typical control devices. Utilization of programmable controllers as the system logic controllers.
470 PLASTICS PROCESSING AND TESTING
2 credits
Prerequisites: 370 or permission. Use of basic polymer testing methods. Setup and operation of modern molding and extrusion equipment. Basic troubleshooting procedures. Study of processing effects on final properties.
497 SENIOR HONORS PROJECT IN MECHANICAL ENGINEERING TECHNOLOGY $1-3$ credits (May be repeated for a total of six credits) 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 ENGINEERING TECHNOLOGY 1-4 credits Prerequisite: Department permission. Directed study in special field of interest chosen by the student in consultation with the instructor. (May be repeated for a total of six credits.)

## DRAFTING AND COMPUTER DRAFTING TECHNOLOGY

## 2940:

121 TECHNICAL DRAWING I
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 DRAWING II
3 credits
Prerequisite: 121,210. Covers dimensioning; allowances and tolerances; geometric tolerancing; 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 mathematics.

170 SURVEYING DRAFTING
3 credits
Corequisite: 2030:152 or permission. Drafting procedures, techniques and tools required for the various phases of survey office work. Projects include topographic maps, plan and profile drawings, and cross-section drawings.
180 INTRODUCTION TO COMPUTER AIDED DRAFTING
1 credit
Drafting techniques using AutoCAD. Topics include drawing, editing, dimensioning, plotting, layers and text. Credit not applicable toward the AAS in Drafting and Computer 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 AIDED DRAWING I
3 credits
Drafting procedures and techniques used for creating drawings using AutoCAD software. Topics include basic components, drawing, editing, dimensioning, layers, text, blocks, plotting and hatch.
211 COMPUTER AIDED DRAWING II
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 AutoLISP.

230 MECHANICAL SYSTEMS DRAFTING
3 credits
Prerequisite: 122. Drawing fundamentals and terminology of welding, gears, cams, piping, sheet metal, and fluid power drawings.

240 ELECTRICAL AND ELECTRONIC DRAFTING
3 credits
Corequisite: 122. Drafting 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 draftsman in preparation of detailed work ing drawings for steel and concrete. Emphasis on portrayal, dimensions and notes on a working drawing.

250 ARCHITECTURAL DRAFTING
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 DRAFTING TECHNOLOGY PROJECT
3 credits
Prerequisite: Completion of 20 credits of 2940 . Provides opportunity to research and develop a specific drafting project within chosen field of interest.
290 SPECIAL TOPICS: DRAFTING TECHNOLOGY
1-3 credits
(May be repeated for a total of three credits) Prerequisite: permission. Selected topics on sub ject areas of interest in drafting technology.

## SURVEYING ENGINEERING TECHNOLOGY

## 2980:

100 INTRODUCTION TO GEOMATICS
2 credits
An introductory course into the field of surveying and mapping technology. Integrated topics include: types of surveys, cartography and geographic information systems.

101 BASIC SURVEYING I 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 SURVEYING II
2 credits Prerequisites: 101 and 2030:153. Corequisite: 180 or equivalent. The computation and adjust ment 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 FIELD PRACTICE
2 credits
Prerequisite: 122. Practical experience in use of surveying equipment 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 grade for construction. Circular, spiral and parabolic curves. Cross-sectioning methods and earthwork. Field 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 top ics in control surveys, State Plane Coordinates and surveys of public lands. Field practice
228 BOUNDARY SURVEYING
3 credits Prerequisites: 102 or equivalent, 210 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: SURVEYING ENGINEERING TECHNOLOGY
1-6 credits
Prerequisite: permission. Selected topics or subject areas of interest in surveying engineering technology.

310 SURVEYING COMPUTATIONS \& ADJUSTMENTS
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 boundaries, rectangular system of public land surveys, systems to describe property, wording and interpretation of deed descriptions, surveyor's rights, duties and responsibilities.

330 APPLIED 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 APPLICATIONS IN SURVEYING
2 credits Use of current surveying software to solve typical problems/projects in surveying technology.
415 LEGAL ASPECTS OF SURVEYING
3 credits
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, railroads, 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
Prerequisite: 222, 315. Site analysis, 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

## 426 HISTORY OF SURVEYING

2 credits
Selective study of the history of land surveying. Emphasis on the development of surveying 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, written 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.
489 SPECIAL TOPICS IN SURVEYING
1-3 credits
Prerequisite: permission. Special lecture/laboratory courses offered once or only occasionally in areas where no formal course exists. (May be repeated for a maximum of six credits.)

490 WORKSHOP IN SURVEYING
$1-3$ 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. (May be repeated for a maximum of six credits.)

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 INDEPENDENT STUDY
1-3 credits
Prerequisites: permission of instructor. Directed study in a special field of interest chosen by student in consultation with instructor (may be repeated for a total of six credits).

## GEOGRAPHIC AND LAND INFORMATION SYSTEMS

## 2985:

101 INTRODUCTION TO GEOGRAPHIC AND LAND INFORMATION SYSTEMS 3 credits Introduction to the principles and concepts of Geographic Land Information Systems used in surveying and mapping application. Laboratory.
201 INTERMEDIATE GEOGRAPHIC AND LAND INFORMATION SYSTEMS PROJECT 3 credits 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. Practical application and presentation techniques using the principles and concepts of cartography and geographic information systems. Laboratory.

280 TOPICS IN PROFESSIONAL PRACTICE
2 credits
Topics in applicational areas of Geographic and Land Information Systems (GIS/LIS) 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/laboratory courses offered once or only occasionally in areas where no formal course exists.

291 GEOGRAPHIC AND LAND INFORMATION SYSTEMS INTERNSHIP
3 credits Prerequisite: permission of program director. Supervised professional experience in GIS/LIS agencies or related setting.
295 WORKSHOP IN GEOGRAPHIC AND LAND INFORMATION SYSTEMS $1-3$ credits Prerequisite: permission of instructor. Group studies of special topics in GIS/LIS. May be used for elective credit only to a maximum of three credits.

## 299 INDEPENDENT STUDY

$1-3$ credits
Prerequisite: permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor.

## CONSTRUCTION ENGINEERING TECHNOLOGY

## 2990:

125 STATICS
3 credits
Prerequisites: 2820:161 and 2030:153. Forces, resultants and couples. Equilibrium of force systems. Trusses, frames, first and second moment of areas, friction.
131 BUILDING CONSTRUCTION
2 credits
Materials and methods used in construction. Encompasses buildings constructed with wood, steel, concrete or a combination of these materials.
150 BLUEPRINT READING
2 credits
Prerequisite: 131. The language of construction. Symbols, scales, plan views, elevation views, sections and details.
234 ELEMENTS OF STRUCTURES
3 credits
Prerequisites: 125,241 . Principles of stress and structural analysis of members in steel, timber and concrete members.

237 MATERIALS TESTING I
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 MATERIALS TESTING II 2 credits
Prerequisite: 2030:153. Mix design of concrete. Laboratory testing of concrete containing ordinary Portland cement and pozzolanic admixtures. Experiments demonstrate physical properties as related to design and quality control.

241 STRENGTH OF MATERIALS
3 credits
Prerequisite: 125. Stress, strain and stress-strain relationships. Tension, compression, torsion, beams. Shear and moment diagrams. Combines stresses.
245 CONSTRUCTION ESTIMATING
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.

310 RESIDENTIAL BUILDING CONSTRUCTION
3 credits
Introduction to building design, wood framing and mechanical systems 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 QUALITY 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 FIELD MANAGEMENT AND SCHEDULING
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 credits
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 APPLICATIONS IN CONSTRUCTION
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 ESTIMATING 3 credits
Prerequisite: 245 or permission of the instructor. This course focuses on estimating and bidding for public and private construction. Includes heavy/highway, residential and building construction with the use of computer software to facilitate bid price.
359 CONSTRUCTION COST CONTROL
3 credits
Prerequisite: 6200:201or 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 temporary wood structures.

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 construction 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. Includes 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.

3 credits
 Prerequisite: 2030:255. Introduction to hydrology. Flow in closed conduits and open chane
distribution, systems, storage requirements and basic concepts of hydraulic structures. Basic distribution, systems, storage requirements and basic
concepts of seepage and working knowledge of pumps.

468 CONSTRUCTION MANAGEMENT
3 credits
Prerequisites: 352, 358 and senior-level 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
$1-3$ credits
Prerequisite: permission of instructor. (May be repeated for up to six credits.) Special lecture/laboratory courses offered once or only occasionally in areas where no formal courses exist.

## 490 WORKSHOP IN CONSTRUCTION

$1-3$ credits
Prerequisites: permission of instructor. (May be repeated for up to six credits.) Group studies of special topics in construction. May not be used to meet undergraduate major requirements in construction. May be used for elective credit only.

498 INDEPENDENT STUDY IN CONSTRUCTION
1-3 credits
Prerequisite: permission of instructor. (May be repeated for up to six credits.) 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 STRATEGIES FOR LIBERAL ARTS AND SCIENCE MAJORS
2 credits
Students engage in comprehensive career planning and develop job search strategies. Course topics include navigating a search, creating resumes/cover letters, interviewing and portfolio development. No prerequisites required.
301 COOPERATIVE EDUCATION
(May be repeated) For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required.

## PAN-AFRICAN STUDIES

## 3002:

201 INTRODUCTION 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 variety of issues related to role and minority group relations which normally stand outside the compass of any one subject matter area.

420 SPECIAL TOPICS IN PAN-AFRICAN STUDIES
1-3 credits
(May be repeated for a maximum of three semester credits). Prerequisite: permission of instructor.
498 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

## INTERDISCIPLINARY PROGRAM

INTERNATIONAL DEVELOPMENT

## 3004:

201 INTRODUCTION TO INTERNATIONAL DEVELOPMENT
Uses multiple perspectives: economic, geographical, anthropological, political etc. to study relationships between industrialized and developing countries, poverty, productivity, justice and other aspects of development

401 INTERNATIONAL DEVELOPMENT PROJECT
1-3 credits
Prerequisite: 21 credits towards International Development Certificate. Research project to be carried abroad. Students must arrange international experience through channels outside the Certificate program. Project report is capstone requirement of Certificate.

INTERDISCIPLINARY PROGRAM

## INSTITUTE FOR LIFE-SPAN

 DEVELOPMENT AND GERONTOLOGY
## 3006:

450 INTERDISCIPLINARY SEMINAR IN LIFESPAN 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, demographics, service systems, and current issues.
485 SPECIAL TOPICS
$1-3$ 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.

486/686 RETIREMENT SPECIALIST
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 gerontology. May not be used to meet certificate requirements. May be used for elective credit only.
495 PRACTICUM IN LIFE-SPAN DEVELOPMENT
1-3 credits
AND GERONTOLOGY
(May be repeated) Prerequisite: permission. 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 ENVIRONMENTAL STUDIES
2 credits
Specific environmental topic or topics from interdisciplinary viewpoint each semester. The direc
tor 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 FIELD/LAB STUDIES IN ENVIRONMENTAL 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 WRITTEN 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 ELI 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 ELI GRAMMAR AND ORAL COMMUNICATION
3 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language gram mar with an emphasis on oral skills, designed to help students speak fluently and correctly. May be repeated an unlimited number of times as course is noncredit.

034 ELI LISTENING COMPREHENSION
3 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language listening 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 WRITING PROFICIENCY
4 academic progress units Prerequisite: permission of instructor. Provides intensive instruction in English as a second language writing. Students develop effective composing strategies while learning to write for a variety of academic purposes. May be repeated an unlimited number of times as course is noncredit.

042 ESL READING: DEVELOPING READING PROFICIENCY
4 academic progress units Prerequisite: permission of instructor. Provides intensive instruction in English as a second language reading. Students acquire effective reading and vocabulary development strategies for a range of academic purposes. May be repeated an unlimited number of times as course is noncredit

## 043 ESL GRAMMAR: DEVELOPING ORAL PROFICIENCY

4 academic progress units Prerequisite: permission of instructor. Provides intensive instruction in English as a second language grammar for speaking purposes. Students review grammar basics and expand their knowledge and usage of patterns. May be repeated an unlimited number of times as course is noncredit.
044 ESL LISTENING: DEVELOPING AURAL PROFICIENCY
4 academic progress units Prerequisite: permission of instructor. Provides intensive instruction in English as a second language 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 WRITING AND STUDY SKILLS
5 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language writing 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 READING AND STUDY SKILLS
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 unlimited number of times as course is noncredit.
053 ESL GRAMMAR AND SPEAKING SKILLS
5 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language grammar. Students learn 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 LISTENING AND STUDY SKILLS
5 academic progress units Prerequisite: permission of instructor. Intensive course in English as a second language listening and study skills. Students learn and practice techniques for comprehending spoken English in an academic setting. May be repeated an unlimited number of times as course is noncredit.

## 091 ENGLISH LANGUAGE INSTITUTE: WRITING

4 academic progress units Provides intensive instruction in English writing for native speakers of languages other than English who are planning to seek admission to a U.S. university.

092 ENGLISH LANGUAGE INSTITUTE: READING
4 academic progress units Provides intensive instruction in English vocabulary and reading skills for native speakers of languages other than English who are planning to seek admission to a U.S. university.
093 ENGLISH LANGUAGE INSTITUTE: SPEAKING/GRAMMAR 4 academic progress units Provides intensive instruction in English grammar, with an emphasis on oral skills, for native speakers of languages other than English who are planning to seek admission to a U.S. university.
094 ENGLISH LANGUAGE INSTITUTE: LISTENING
4 academic progress units Provides intensive instruction in English listening skills for native speakers of languages other than English who are planning to seek admission to a U.S. university.
095 ENGLISH LANGUAGE INSTITUTE: COMPREHENSIVE 12 academic progress units Provides intensive instruction in English writing, reading, listening and speaking for speakers of languages other than English who are planning to seek admission to a U.S. university. Offered only during the summer.
096 ELI 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 INDEPENDENT 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 governing 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 INTRODUCTION TO BIOLOGICAL 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 BIOLOGY I
4 credits
Molecular, cellular basis of life; energy transformations, metabolism; cell 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 BS/MD 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 DELIVERY SYSTEMS
1 credit each
Health-care principles and practices. Restricted to the student in NEOUCOM, six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences.
200 HUMAN 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 LABORATORY I
1 credit
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, urinary 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 experience using models, dissections of various animals, virtual dissection, and physiological exercises. Not available for credit toward a degree in biology.
211 GENERAL GENETICS
3 credits
Prerequisite: 112. Principles of heredity, principles of genetics.
212 GENETICS LABORATORY
1 credit
Prerequisite or corequisite: 211. Laboratory experiments in genetics with emphasis on scientific method; techniques in molecular biology.
217 GENERAL ECOLOGY
3 credits
Prerequisite: 112. Study of interrelationships between organisms and environment.
225 BIOLOGY OF AIDS
1 credit
Prerequisite: permission. Course examines the Human Immunodeficiency Virus and the disease of AIDS. Virus structure, replication, therapy, transmission, epidemiology, disease process and social consequences are studied. Not available for credit toward a degree in biology.

265 INTRODUCTORY HUMAN PHYSIOLOGY 4 credits
Study of physiological processes in human body, particularly at organ-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 BS/MD 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 cells, with emphasis on both classical and modern approaches to understanding organelles, energy balance, protein synthesis, and replication.
315 EVOLUTIONARY BIOLOGY DISCUSSION
1 credit
Prerequisite: 211. Informal discussions of various aspects of organic evolution of general or special interest.

316 EVOLUTIONARY BIOLOGY
3 credits
Prerequisite: 211. History of evolutionary thought; Darwinian and post-Darwinian concepts, mechanisms of evolution; molecular evolution; evolutionary history of plants and animals.

331 MICROBIOLOGY
4 credits
Prerequisites: 112, 211 and prerequisite or corequisite 3150:263. Survey of monera with emphasis on the bacteria: 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 flora. Laboratory and field trips.
363 ANIMAL PHYSIOLOGY
4 credits
ANIMAL PHYSIOLOGY
Prerequisites: 112,3150 : 153 . 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.

366 HISTOLOGY II 3 credits
Prerequisite: 365. Microscopic study of animal tissue preparations and histochemical stains; emphasis on functional differences. Laboratory.
392 BIOLOGY OF AGING
3 credits
Prerequisite: 112 or 265 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, including 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 phylogenetic reconstruction.

412 ADVANCED ECOLOGY
3 credits
Prerequisite: 217. Advanced study of the ecology of individuals, populations, communities, and conservation/applied ecology. Active participation/discussion of primary literature in ecology is required.
418 FIELD ECOLOGY
4 credits
Prerequisite: 217 (statistics strongly recommended). Introduction to sampling methods, design of experiments and observations, and computer analysis; some local natural history.

421 TROPICAL FIELD 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 LIMNOLOGY
4 credits
This course explores the diversity of aquatic life and key biotic characterizations of freshwater ecosystems with emphasis on the Great Lakes. Includes field trips.
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 first-hand experience in observing, describing and interpreting animal behavior

430 COMMUNITY/ECOSYSTEM ECOLOGY
4 credits
Prerequisite: 217. History of the ecosystem concept; components, processes and dynamics of communities and ecosystems; analysis and design of ecosystem experiments. Laboratory.
433 PATHOGENIC BACTERIOLOGY
4 credits
Prerequisite: 331. Study of major groups of bacteria which produce infections in humans. Biochemical properties of microorganisms 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-antibody 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 year 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.
444 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 plants-bryophytes, club-mosses, whisk ferns, 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 families 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 PARASITOLOGY
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, anatomy, physiology, natural history, and commercial exploitation of fishes. Laboratory incorporates field-based exercises and fish taxonomy.

456 ORNITHOLOGY
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 Ohio species. Laboratory.
458 VERTEBRATE ZOOLOGY
4 credits
Prerequisite: 316 or permission. Biology of vertebrates, except birds evolution, ecology, behavior, systematics and anatomy. Laboratory with field trips.
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 current research presented.
466 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 473 . Study of the physiological mechanisms of reproduction through out the animal kingdom with special emphasis upon mammalian endocrinological control. Controversial issues in the field will be examined and current research presented.
469 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 1 credit
Required of anyone working with animals, and covers government regulations, care of animals and a lab to teach basic animal handling and measurement techniques.

## 471 PHYSIOLOGICAL GENETICS

4 credits
Prerequisite: 211 or equivalent; 202 or 363 or 473 . The integrative study of how genetics and physiology influence complex systems from molecular to behavioral in plants and animals. Laboratory.
472 BIOLOGICAL 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: 112. Study of respiration, circulation, digestion, metabolism, osmoregulation and excretion in a variety of invertebrate and vertebrate animals. Adaptation to the environment is emphasized.

474 COMPARATIVE ANIMAL PHYSIOLOGY LABORATORY
1 credit
Prerequisite: 112. Corequisites: 473. Laboratory experiments in animal physiology (respiration circulation, metabolism, osmoregulation). Presentation of results in scientific format and as oral reports.

480 MOLECULAR BIOLOGY 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
3 credits
Prerequisite: 211. Nature of the gene; genetic codes; hereditary determinants; mutagenesis and genes in population. Lecture and seminar.
482 NEUROBIOLOGY
3 credits
Prerequisites: 111, 112. History of Neuroscience; organization, function and development of the central nervous system; electrophysiological properties of nerve cells; learning and memory; molecular basis for mental diseases.

484 PHARMACOLOGY
3 credits
Prerequisite: 311 or 209 or permission of instructor. Interactions of drugs and living systems with emphasis on absorption, mechanisms of action, biotransformation and elimination. Clinical aspects not considered in detail.

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 WORKSHOP 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 undergraduate or graduate major requirements in biology. May be used for elective credit only.
495 SPECIAL TOPICS: BIOLOGY
$1-3$ credits
Prerequisite: permission. Special courses offered occasionally 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 credits each
Prerequisite: permission. Honors-level work, usually consisting of laboratory investigations. A maximum of 4 credits may apply toward the major degree requirements.
499 SENIOR HONORS PROGRAM IN BIOLOGY
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 CHEMISTRY AND SOCIETY
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-on, laboratory instruction in the fundamental concepts of chemistry for genera education and middle-level licensure for pre-service and in-service teachers.

110 INTRODUCTION TO GENERAL,
3 credits
ORGANIC AND BIOCHEMISTRY I (LECTURE)
Sequential. Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation.
111 INTRODUCTION TO GENERAL,
1 credit
ORGANIC AND BIOCHEMISTRY I (LABORATORY)
Prerequisite/Corequisite: 3150:110. Sequential. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry.

112 INTRODUCTION TO GENERAL,
3 credits
ORGANIC AND BIOCHEMISTRY II (LECTURE)
Prerequisite: 110. Sequential. Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation.
113 INTRODUCTION TO GENERAL,
1 credit
ORGANIC AND BIOCHEMISTRY II (LABORATORY)
Prerequisite/Corequisite: 3150:112. Sequential. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry.
151 PRINCIPLES OF CHEMISTRY I
3 credits
Prerequisite: placement in 3450:149 or higher or permission. Introduction to basic facts and principles 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 PRINCIPLES OF CHEMISTRY LABORATORY 1 credit Pre/Corequisite: 151, Laboratory course applying principles of thermodynamics, chemical analysis and laboratory practice.
153 PRINCIPLES OF CHEMISTRY 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 QUALITATIVE ANALYSIS
2 credits
Prerequisite: 152. Pre/Corequisite: 153. Laboratory course applying principles of chemical equilibrium to inorganic qualitative analysis.
199 INTRODUCTORY SEMINAR IN CHEMISTRY
1 credit
Basic concepts in chemistry practice including written and oral communication skills, computer skills, professional ethics, environmental issues, chemical literature, degree options, and career considerations.

263,4 ORGANIC CHEMISTRY 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 ORGANIC CHEMISTRY LABORATORY I, II 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 BIOCHEMISTRY
3 credits
Prerequisite: 264. A one-semester, basic course in biochemistry covering structure/reactivity relationships of biological molecules and the metabolism of carbohydrates, lipids, amino acids and nucleic acids.
313 PHYSICAL CHEMISTRY LECTURE I
3 credits
Prerequisites: 264, 3450:223, 3650:291 or permission. Gases, thermo dynamics, thermochemistry, solutions, dilute solutions, chemical equilibrium, phase rule, chemical kinetics, electrochemistry, electrolytic equilibria.

314 PHYSICAL CHEMISTRY LECTURE II 3 credits Prerequisites: 264, 3450:335, 3650:292 or permission of instructor. Atomic and molecular structure and spectroscopy
380 ADVANCED CHEMISTRY LABORATORY I 2 credits
Prerequisite: 266. A laboratory experience that focuses on the synthetic and spectroscopic techniques 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 INTERNSHIP IN CHEMISTRY
$1-3$ credits Prerequisites: minimum GPA of 2.5; permission of the Department. Work experience focused on career applications of the discipline of Chemistry. (May repeat for a maximum of six credits.)
401 BIOCHEMISTRY LECTURE I
3 credits
Prerequisite: 264. Biochemistry of amino acids, carbohydrates, lipids, and nucleic acids: structure/function relations. Enzymes as catalysts: kinetics and regulation. Cofactors.
402 BIOCHEMISTRY LECTURE II
3 credits
Prerequisite: 401/501. Overview of metabolism; thermodynamics; carbohydrate, fatty acid, amino acid, and nucleoside anabolism and catabolism; hormonal control of metabolism. Photosynthesis.

423 ANALYTICAL CHEMISTRY I
3 credits
Prerequisite: 154 and 263 . Theoretical principles of quantitative and instrumental analysis.
424 ANALYTICAL CHEMISTRY II
3 credits
Prerequisite 154 and 263. Instrumental analysis with emphasis on newer analytical tools and methods.
463 ADVANCED ORGANIC CHEMISTRY 3 credits
Prerequisites: 264. Introduction to study of mechanisms of organic reactions.
472 ADVANCED INORGANIC CHEMISTRY
3 credits
Prerequisite: 314 or permission. Concepts of atomic structure integrated in systematic classification of elements. Periodic table. Chemistry of the representative elements. Transition elements including coordination compounds, organometallics and metal carbonyls.
480 ADVANCED CHEMISTRY LABORATORY III
2 credits
ADVANCED CHEMISTRY LABORATORY III
Prerequisite 381 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, instrumental techniques, and inorganic 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
1-3 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 LITERATURE OF GREECE
3 credits
Prerequisite: 3400:210. Major writers of ancient Greece and their influence on later European literature. No foreign language necessary. Required of majors.
362 THE LITERATURE OF ROME
3 credits
Major writers 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 EGYPTOLOGY I
3 credits
The history and antiquities of ancient Egypt.
404 ASSYRIOLOGY
3 credits
(May be repeated for credit with another cuneiform language) Prerequisite: permission of instructor. The Akkadian language.

407 ANCIENT NEAR EASTERN ARCHEOLOGY 3 credits
(May be repeated for credit with change of subject) Prerequisite: permission of instructor. Palestine, Mesopotamia, Asia Minor, adjacent lands; Old Testament in light of material evidence.

480 READING AND RESEARCH IN CLASSICAL STUDIES $1-3$ credits
Prerequisite: permission of instructor. Directed reading and research for individual and small 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 INTERMEDIATE GREEK
3 credits each
Prerequisites: 121, 122. A survey of readings of the less difficult authors such as Homer, certain dialogues of Plato, Herodotus, Xenophon, New Testament or the like

303,4 ADVANCED GREEK
3 credits each (May be repeated with a change of subject) Tragedy, comedy, philosophy, history, lyric poetry, prose composition or epigraphy.

## ANTHROPOLOGY

## 3230:

150 CULTURAL ANTHROPOLOGY
4 credits
Introduction to study of culture; cross-cultural view of human 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 development. One-hour laboratory using interactive computer programs, casts and Anthropology's cultural collection.

251 HUMAN DIVERSITY
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 AMERICA
3 credits
Prerequisite: 150 or 3850:100 or permission. Survey of aboriginal peoples 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 concerning 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 INDIANS OF NORTH AMERICA
3 credits
Prerequisite: 150 or permission. Ethnographic survey of native cultures of North America, with emphasis on variations in ecological adaptations, social organization and modern American Indians in anthropological perspective. Lecture.
359 ANTHROPOLOGY IN THE 21ST CENTURY
3 credits Prerequisites: 150, 151 or permission of instructor. A seminar on the role, function and current theories in anthropology and the relevance of the discipline in the new century. Includes research methodologies.
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 faculty member.

398 ANTHROPOLOGICAL RESEARCH METHODS
3 credits
Prerequisites: 150 and either 151 or $3240: 100$. Introduction to understanding anthropological evidence, including framing research questions, collecting data and data analysis, from perspectives based in cultural, archaeological and physical anthropology

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 beliefs associated with food cross-culturally.
455 CULTURE AND PERSONALITY
3 credits
Prerequisite: 150 or permission. Examination of functional and causal relationships between culture 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 QUALITATIVE METHODS: BASIS OF ANTHROPOLOGICAL RESEARCH 4 credits Prerequisite: 150 or permission of instructor. Provides hands-on experience in qualitative methods, including key informant interviewing, focus groups, and other methods. Includes the use of computer-based programs for rapid appraisal strategies.
463 SOCIAL ANTHROPOLOGY
3 credits
Prerequisite: 150 or permission. Comparative structural analysis of non-Western systems of kinship and social organization in terms of status, role, reciprocal expectation, nomenclature, nuclear and extended households and other kinship groupings. Lecture.

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 irregularly when resources and opportunities permit. May include archaeological field school, laboratory research or advanced coursework not presently offered by department on regular basis.
494 WORKSHOP IN ANTHROPOLOGY
1-3 credits (May be repeated) Group studies of special topics in anthropology. May not be used to mee departmental undergraduate or graduate major requirements. May be used for elective credit only.
497 SENIOR HONORS PROJECT IN ANTHROPOLOGY
3 credits
The topic and scope of this individually chosen project is directed by an Anthropology faculty member in conjunction with Honors College preceptors under the guidelines of the Honors College.

## ARCHAEOLOGY

## 3240:

100 INTRODUCTION TO ARCHAEOLOGY
3 credits
Introduction to the study of ancient cultures based on material remains. Course covers basic archaeological 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 KINGS 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.

313 ARCHAEOLOGY OF GREECE 3 credits
The ruins and monuments of Greece; history reconstructed by examination of the material remains. No foreign language necessary.
314 ARCHAEOLOGY OF ROME 3 credits
The ruins and monuments of Rome; history reconstructed by examination of the material remains. No foreign language 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.
400 ARCHAEOLOGICAL THEORY
3 credits
Prerequisite: 100. Advanced seminar covering history of scientific archaeological exploration major theoretical paradigms and current trends in archaeology. Required for Certificate in Field Archaeology.

410 ARCHAEOGEOPHYSICAL SURVEY
3 credits
Prerequisite: 100 or 3370:101 or 3350:310. Advanced instruction in principles of subsurface geophysical survey techniques in archaeology. Emphasizes magnetic gradiometry and electrical 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 focusing on cultural evolution and environmental relationships.
440 ARCHAEOLOGICAL LABORATORY METHODS
3 credits
Prerequisite: 100. Laboratory-based course teaching essentials of artifact documentation, handling and analysis. Focus on quantification, statistics, conservation and illustration, lithics, ceramics, paleofaunal, paleobotanical remains and soils.
440 ARCHAEOLOGICAL LABORATORY METHODS LAB
0 credits Corequisite:440/540.

3-6 credits
450 ARCHAEOLOGICAL FIELD SCHOOL
Prerequisite: 100. A field-based course teaching basic archaeological techniques, mapping, excavation of prehistoric and historic sites, survey and documentation. (May be repeated for up to 6 credits).
472 SPECIAL TOPICS IN ARCHAEOLOGY 3 credits
Prerequisite: 100 or permission. Designed to meet needs of students with interests in selected topics in archaeology. May include fieldwork, laboratory research or advanced courses not regularly offered

## ECONOMICS

## 3250:

100 INTRODUCTION TO ECONOMICS
3 credits
May not be substituted for 200, 201, 244. Economics primarily concerned in a broad social science context. Adequate amount of basic theory introduced. Cannot be used to satisfy 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 if 244 already 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 already taken
226 COMPUTER SKILLS FOR ECONOMIC ANALYSIS
3 credits
Prerequisites: 100 or 200 or 244 . Application of word processing, spreadsheets, presentation packages, SAS, the Internet, library resources, and other computer tools in communicating economic analysis.
230 ECONOMICS OF SOCIAL POLICY ISSUES
3 credits Prerequisite: 100 or permission of the instructor. Investigation of selected labor and social policy issues. Examples include health care, economic demography, anti-poverty programs, immigration, discrimination, and the impact of unemployment and inflation.

244 INTRODUCTION TO ECONOMIC ANALYSIS
3 credits
Recommended for engineering and mathematical science majors. Intensive introduction to analysis of modern 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 $244 ; 3470: 261,262$. Application 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 credits Prerequisite: 200 or 244. Theoretical tools used in analysis of problems of labor in any modern economic system. Emphasis given to examination of determinants of demand for and supply of labor.

360 INDUSTRIAL ORGANIZATION AND PUBLIC POLICY
3 credits
Prerequisites: 200 or 244 . Role of industrial structure and firm conduct in performance of industry 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.
385 ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT 3 credits Prerequisites: 100 or 200 or 244 or permission. Introduction to economic analysis of use of natural resources and economics of environment. Problems of water and air pollution, natural environments, natural resource scarcity, conservation, economic growth.
400 INTERMEDIATE MACROECONOMICS
3 credits Prerequisites: 201 and 3450:145 or equivalent. Changes in national income, production, employment, price levels, long-range economic growth, short-term fluctuations of economic activity.
405 ECONOMICS OF THE PUBLIC SECTOR
3 credits Prerequisites: 200 and 201, or 244 . Considers nature and scope of government activity, rationale for government intervention, problems of public choice, taxation and revenue-raising, cost-benefit analysis, program development and evaluation.
410 INTERMEDIATE MICROECONOMICS
3 credits
Prerequisites: 200 or 244 , and $3450: 145$ or equivalent. Advanced analysis of consumer demand, production costs, market structures, determinants of factor income.

423 APPLIED GAME THEORY
3 credits
Prerequisite: 200; graduate student in Economics or permission of the Economics department. Application of the basic concepts of game theory (analysis of strategic behavior) to relevant economics issues including bargaining, cartels, voting, conflict resolution and non competitive pricing.
426 APPLIED ECONOMETRICS
3 credits APPLIED ECONOMETRICS
Prerequisites: 200 and 201 or 244; 3470:261 and 262. Application of regression analysis to economic 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; graduate student in Economics or permission of the Economics department. Methods for building, identifying, fitting and checking dynamic economic models and use of these models for forecasting. Emphasis on application of available computer software systems.

430 LABOR MARKET AND SOCIAL POLICY
3 credits Prerequisite: 333; graduate student in Economics 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 244. 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 MARKET 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.
440 SPECIAL TOPICS: ECONOMICS
3 credits
Prerequisite: permission; graduate student in Economics or 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; graduate student in Economics 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; graduate student in Economics or permission of the Economics department. International trade and foreign exchange, policies of free and controlled trade, international monetary problems.

475 DEVELOPMENT OF ECONOMIC THOUGHT
3 credits
Prerequisites: 200 and 201, or 244; graduate student in Economics or permission of the Economics department. Evolution of theory and method, relation of ideas of economists contemporary to conditions
481 MONETARY AND BANKING POLICY
3 credits
Prerequisites: 380, 400; graduate student in Economics or permission of the Economics department. Control over currency and credit, policies of control by central banks and governments, 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; graduate student in Economics or permission of the Economics department. Analysis of urban issues from an economic perspective. Emphasis on urban growth, land-use patterns, housing, income distribution, poverty and urban fiscal policy.
490 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: graduate student in Economics or 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 400level. Supervised placement in appropriate position in public or private sector organizations. Reports and written assignments required.

496 SENIOR PROJECT IN 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-level 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 credits
(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 ENGLISH COMPOSITION I 4 credits
Extensive and varied experience in developing writing skills, with practice in expressive, reflective, and analytic forms of writing.
112 ENGLISH COMPOSITION II
3 credits
Prerequisite: 111. Designed to develop skills in analyzing and writing persuasive arguments.
113 AFRICAN AMERICAN LANGUAGE AND CULTURE I: COLLEGE COMPOSITION 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: COLLEGE COMPOSITION 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 LITERATURE
3 credits
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 fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English.

## 251 TOPICS IN WORLD LITERATURE

3 credits
Prerequisites: 111 and 112; and 3400:210 or permission of instructor. Close reading and analysis of various themes represented in world literatures, both ancient and modern. This course fulfills 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 contemporaries. This course fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English.

## 275 SPECIALIZED WRITING

3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated for different topics, with permission) Principles and practice of style, structure and purpose in writing, with special applications to writing demands 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 writing 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
Prerequisite: Completion of 111 and 112 or their equivalents, or 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. Individual conferences with instructor to direct student's reading and writing.

279 INTRODUCTION TO SCRIPT WRITING
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor Practice in writing scripts. Study of various techniques in script writing, using contemporary models for study. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing.
280 POETRY APPRECIATION
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 FICTION APPRECIATION
3 credits
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 FILM 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 WRITING
3 credits
Prerequisite: 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 LITERATURE
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 cultural and intellectual background which produced them. Literature to be read will include both major and minor poetry, prose and drama.

302 ENGLISH LITERATURE 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 intellectual backgrounds and to the development of various modes and genres
315 SHAKESPEARE: THE EARLY PLAYS
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Introduction to early drama of Shakespeare with close reading of tragedies, histories and comedies. Includes 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 LITERATURE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Historical survey of major and minor American writers to 1865.

342 AMERICAN LITERATURE II 3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Readings in major and minor American writers from 1865 to present.
350 BLACK AMERICAN LITERATURE
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 particular attention to historical and social backgrounds.
360 THE OLD TESTAMENT AS LITERATURE
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 World.

361 THE NEW TESTAMENT AND APOCRYPHA AS LITERATURE
3 credits
Prerequisite: Completion of 111 and 112. These two bodies of literature read with emphasis on form of gospel and epistle, and concept of apocalypse. Both are viewed against their historical and social backgrounds.

362 WORLD LITERATURES
3 credits
The course is a study of short fiction, poems, plays, and novels of the non-Western world from early antiquity to the present.
366 EUROPEAN BACKGROUNDS OF ENGLISH LITERATURE
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 LINGUISTICS
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Scientific introduction to the study of written and spoken linguistic behavior in English. History of English, varieties of English, and acquisition of English also introduced.

## 376 LEGAL WRITING

3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor Intensive practice in writing for pre-law students through assignments based on actual legal situations 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 WRITING
3 credits
Prerequisites: 277, and 111 and 112 or their equivalents, or permission of the instructor Advanced practice in writing poems, emphasis on shaping publishable works. Survey of market Class discussion of student poems; individual conference with instructor.
378 ADVANCED FICTION WRITING
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.

380 FILM CRITICISM 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 SPECIAL TOPICS: LITERATURE AND LANGUAGE
3 credits
Prerequisite: Completion 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 WRITING I
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 business writer. Stresses theory and practice of written and oral communication in business organization. Individual and group performance, relating to communication theories, concepts of semantics. Functional writing as well as special needs of business are illustrated by actual cases. Adapting style and organization is practiced.
391 PROFESSIONAL WRITING I
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 INTERNSHIP IN ENGLISH
1-3 credits
Prerequisite: Minimum GPA of 2.5, permission of the instructor. (May be repeated for a maximum of six credits.) 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
3 credits
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 literature and to its 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 Canterbury Tales and Troilus and Criseyde in Middle English.
407 MIDDLE ENGLISH LITERATURE
3 credits
Prerequisite: Completion of 111 and 112. Study of genres, topics, styles and writers of the Middle English literary works from 12th to 15th Centuries. Readings in Middle English.
421 SWIFT AND POPE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. An intensive study of the major satires of Swift and Pope. Concentration on the rhetorical 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.

424 EARLY ENGLISH FICTION
3 credits
Prerequisite: Completion of 111 and 112. Development of English novel before 1830. Focus on works of Defoe, Richardson, Fieldling, Smollet, Sterne, Austen and Scott.

## 25 STUDIES IN 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 PROSE
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor Poetry, prose of the late 19th Century, excluding fiction, with attention to Tennyson, Browning Arnold, Carlyle, Ruskin and other major writers.
431 VICTORIAN FICTION
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor Reading of at least five major novels of Victorian era, of varying length, by Emily Bronte, Dickens, Eliot, Thackeray and Hardy. Characterization, theme and attitude toward life emphasized.

435 20TH CENTURY BRITISH 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 Lewis, Dylan Thomas and others.

436 BRITISH FICTION: 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 Virginia Woolf, with attention to their innovations in narrative and style, their psychological realism and symbolism. Brief consideration of other important fiction writers of the period, including Wells, Bennett and Mansfield.
437 BRITISH FICTION SINCE 1925
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Study of important British novelists since 1925, excluding Lawrence, Joyce and Woolf. Attention to development of British short story from 1925 to present.

448 AMERICAN ROMANTIC FICTION
3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor Examination of early American fiction, tracing its genesis, romantic period and germinal movements toward realism. Writers discussed include Cooper, Poe, Hawthorne and Melville.

## 49 AMERICAN FICTION: REALISM AND NATURALISM

3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor Examination of American writers of realistic and naturalistic fiction (e.g., Howells, James, Crane, Dreiser), tracing developments in American fiction against background of cultural and historical change.

450 MODERN AMERICAN FICTION
3 credits
Prerequisite: Completion of 111 and 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 AMERICAN 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 AMERICAN POETRY
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor Survey of 20th Century American poetry beginning with Edwin Arlington 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 tradition, women's relationships, conceptions of art and of the artist-as woman, and the debate between "public" and "private" poetry.

454 20TH CENTURY AMERICAN DRAMA 3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. Examination of major, established playwrights (including O'Neill, Miller 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 genre, from Washington Irving to the present.

456 THOREAU, EMERSON, AND THEIR CIRCLE
3 credits
A study of work and life of Henry David Thoreau, Ralph Waldo Emerson, and other key figures of the American Renaissance.

467 MODERN EUROPEAN FICTION
3 credits
Prerequisite: 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.

469 EROS AND LOVE IN EARLY WESTERN LITERATURE 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 Western World from Greco- Roman times to 1800 , with special emphasis on how sexuality and "romantic" love are used as allegorical, satiric, 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. Development of English language, from its beginnings: sources of its vocabulary, its sounds, its rules; semantic change; political and social influences on changes; dialect origins; correctness.

471 U.S. DIALECTS: BLACK AND WHITE
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 varieties. 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 lan guages, with emphasis on English.
473 SEMINAR 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 learning 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 AFRICAN AMERICAN ENGLISH
3 credits
African American English grammatical structure, pronunciations, origins, and cultural role. Comparisons with academic 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 modern theories of rhetoric, with attention to classical oration, "topics" of rhetoric and their application to teaching of English.

482 SENIOR HONORS PROJECT IN ENGLISH
$1-3$ credits
(May be repeated for a total of six credits). Prerequisites: Completion of 1100:111 and 1100:112 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.
485 SCIENCE FICTION
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.
489 SEMINAR IN ENGLISH
2-3 credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated with different topics.) Special studies, and methods of literary research, in selected areas of English and American literature and language.
490 WORKSHOP IN ENGLISH
$1-3$ credits
Prerequisite: Completion of 111 and 112 or their equivalents, or permission of the instructor. (May be repeated with different topics) Group studies of special topics in English. Cannot be used to meet undergraduate or graduate major requirements in English; for elective credit only.

## 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
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 human landscapes; emphasis on world patterns and issues from a regional perspective.

305 MAPS AND MAP READING 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 EARTH 3 credits
Introduction to Geographic Information Systems (GIS), remote sensing, and cartography, including 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 distribution of these environmental elements and their significance to society. Laboratory.
314 CLIMATOLOGY
3 credits
Prerequisite: 310 or permission. Analysis and classification of climates, with emphasis on regional distribution. Basic techniques in handling climate data.
320 ECONOMIC GEOGRAPHY 3 credits
Geographical basis for production, exchange, consumption of goods. Effect of economic patterns on culture and politics.
340 CARTOGRAPHY
3 credits
Use of graphic/cartographic principles and techniques as a means of presenting geographical information on maps and producing maps. Laboratory.

350 GEOGRAPHY OF THE UNITED STATES AND CANADA 3 credits
Regional and topical study of United States and Canada, with emphasis on environmental, economic and cultural patterns and their interrelationships.

351 OHIO: ENVIRONMENT AND SOCIETY 3 credits
Regional and topical analysis of cultural, economic and environmental patterns; also in comparison with other states.

353 LATIN AMERICA 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 analysis of cultural, economic and environmental patterns.
360 ASIA
3 credits
Environmental, cultural and economic geography of East, Southeast, South Asia and Middle East with emphasis on the contemporary.
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 OF CULTURAL DIVERSITY
2 credits
Evaluation of cultural elements unique to various geographical regions to explain why different people utilize resources differently, and how cultural diversity affects regional conflicts.
397 SPECIAL PROBLEMS
1-3 credits
(May be repeated for a total of five credits) Prerequisite: permission of instructor. Directed reading and research in special field of interest.
405 GEOGRAPHIC INFORMATION SYSTEMS
3 credits
Prerequisites: 305 or permission. Introduction to the principles and concepts underlying 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-on experience with both raster and vector GIS. Laboratory.
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 urban change; contemporary urban geographic problems; urban and regional planning issues.
422 TRANSPORTATION SYSTEMS PLANNING
3 credits
Study and analysis of transportation systems from a geographic perspective. Emphasis on transportation problems and issues, elements of transportation planning.
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 political, economic, social and legal forces that have shaped existing land-use legislation.
433 PRACTICAL APPROACHES TO PLANNING
3 credits Introduction to the history, theories and forms of urban planning
437 PLANNING ANALYSIS AND PROJECTION METHODS 3 credits Introduction to the primary analytic techniques for small-area 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 PLANNING
3 credits
Origins of human settlements and planning from the perspective of urban design and related societal trends. Comparison of world regional and historical urban forms. Experience in "reading" settlements as visual landscapes.
442 THEMATIC CARTOGRAPHY
3 credits Prerequisite: 340 or permission. 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.
444 APPLICATIONS IN CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS 3 credits Prerequisite: 340 and 405 or permission. Application of analytic and presentation techniques from cartography and geographic information systems to practical problems in geography and planning. Laboratory.

447 REMOTE SENSING
3 credits
Prerequisite: 305 or permission. Concepts, systems, and methods of applying aerial photography, satellite imagery, and other remote-sensing data for analyzing geographic, geological, and other earth phenomena

448 ADVANCED CARTOGRAPHY
3 credits
Prerequisite: 340 or permission. Advanced study of cartographic principles with an emphasis on the use of color for map design and production. (Laboratory)
449 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 alternative approaches.
481 RESEARCH METHODS IN GEOGRAPHY AND PLANNING
3 credits
Prerequisites: 12 credits in Geography and Planning. Investigation of library and archive resources. Emphasis on development of professional writing skills.

483 SPATIAL ANALYSIS
3 credits
Prerequisite: 12 credits in Geography and Planning. Analysis of mapped statistical surfaces. Principles for use of map as model for statistical evidence, prediction, hypothesis testing.

485 GEOGRAPHY AND PLANNING INTERNSHIP
1-3 credits
Prerequisite: permission. (May be repeated for a total of six credits.) Supervised professional experience in planning agencies or related settings. Only three credits can be used toward a degree in Geography and Planning.
489 SPECIAL 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 FIELD RESEARCH METHODS
3 credits
Prerequisite: 12 credits in Geography and Planning. Field work enabling student to become competent in collecting, organizing and analysis of data while carrying out field research projects.
497 REGIONAL FIELD STUDIES
1-3 credits
Off-campus intensive study of geographic features of a region or regions through direct observations and travel using appropriate field study methods. May be repeated for up to 6 credits.
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 scholarly 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 portfolio.

## GEOLOGY AND <br> 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.
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.

103 NATURAL SCIENCE: GEOLOGY
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 credit
Prerequisites: 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 credits
Inrtoduction of physical geology to engineers, including mechanics, hydraulics, and case studies that illustrate interactions between geology adn engineering. Laboratory.
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
Catastrophic changes in plants and animals have occurred throughout earth history. The causes of these extinctions have sparked debate which has enlivened the scientific world.
125 EARTHQUAKES: 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 credit
Introductory course covering the effects of the ice age on the geology, vegetation, fauna and economy of Ohio.

128 GEOLOGY OF OHIO 1 credit
Survey of Ohio's geologic setting and history, natural resources, landforms, and their significance in terms of human activity, from early settlement 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 health through dose-response relationships.
132 GEMSTONES AND PRECIOUS 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 include: karst processes and the origin of caverns; carbonate depositional environments and the origin of limestones; environmental problems associated with karst landscapes
135 GEOLOGY OF ENERGY RESOURCES
Topics include the origin of hydrocarbon and coal deposits, methods of petroleum exploration global distribution of hydrocarbon resources.
137 EARTH'S ATMOSPHERE AND WEATHER
Structure and composition of the atmosphere; 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 MOUNTAIN 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 China. Geography and geology of geoparks will be presented and discussed as examples.
171 INTRODUCTION TO THE OCEANS
3 credits
Provides a basic introduction to the oceans. Topics include formation of the oceans, ocean circulation, waves and tides, marine animals, marine communities, and climate change.
200 ENVIRONMENTAL GEOLOGY
3 credits
Analysis of geologic aspects of the human environment with emphasis on geologic hazards and environmental impact of society's demand for water, minerals and energy.
201 EXERCISES IN ENVIRONMENTAL GEOLOGY I
Prerequisite or corequisite: 200. Recognition, evaluation of environmental problems related to geology through field, laboratory exercises and demonstrations which apply concepts from 200. Laboratory.
202 GEOLOGY OF THE NATIONAL PARKS
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 and/or currently affect them, including the rock cycle, evolution of landscapes and plate tectonics

## 203 EXERCISES IN ENVIRONMENTAL GEOLOGY II

1 credit Prerequisites: 200 (or corequisite) and 201. Recognition and evaluation of environmental problems related to geology. (Continuation of 201) Laboratory.
230 CRYSTALLOGRAPHY AND NON-SILICATE MINERALOGY
4 credits Prerequisites: 101 and $3150: 151$, 152. Crystallography and chemistry of minerals. Topics also covered include physical, chemical and optical properties, occurrences and uses of the common nonsilicate minerals. Laboratory.
231 SILICATE MINERALOGY AND PETROLOGY
4 credits Prerequisites: 101 and $3150: 151,152$. Physical and chemical properties, occurrence, 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.
310 GEOMORPHOLOGY
3 credits Prerequisite: 101. Study of landforms as a function of structure, process, and time. Laboratory.

## 324 SEDIMENTATION AND STRATIGRAPHY

4 credits Prerequisites: 102 and 231. Introduction to sedimentary processes and environments; stratigraphic principles and techniques. Hand specimens, thin sections, and sedimentary sequences studied. Laboratory.
350 STRUCTURAL GEOLOGY
4 credits
Prerequisite: 101 or permission. Origins and characteristics of folds, faults, joints and rock cleavage. Structural features of sedimentary, igneous and metamorphic rocks. Laboratory.
360 INTRODUCTORY INVERTEBRATE PALEONTOLOGY 4 credits Prerequisite: 102 or permission. Introductory course emphasizing morphology and evolution of major invertebrate groups with consideration of practical applications of paleontology. Laboratory.
371 OCEANOGRAPHY
4 credits Prerequisite: 101. Study of the dominant feature of our planet, the oceans, emphasizing ocean basins evolution, and physical, chemical and biological processes in the various marine environments.
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, zooarchaeology, taphonomy, and remote sensing. Laboratory.

407 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.
410 REGIONAL GEOLOGY OF NORTH AMERICA
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.
411 GLACIAL GEOLOGY
3 credits
Prerequisite: permission. Causes and effects of Pleistocene expansion of polar ice masses with emphasis on glacial deposits and world climatic changes. Laboratory.
421 COASTAL GEOLOGY
3 credits
Prerequisites: 101,324 or permission of instructor. Study of the origins and evolution of coasts and coastal deposits with particular attention paid to the interaction of waves and currents with sediment, and the development of associated sedimentary features.
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 MINERALOGY-INTRODUCTORY PETROGRAPHY
3 credits
Prerequisites: 230 and 231. Optical techniques for identification, characterization, and classification of minerals and rocks using the petrographic microscope. Laboratory.

## 433 ADVANCED PETROLOGY

3 credits
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.
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.
437 ECONOMIC GEOLOGY
3 credits
Prerequisites: 231 and 350. Study of metallic and nonmetallic mineral deposits emphasizing paragenesis and exploration. Laboratory.
441 FUNDAMENTALS 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 MAGNETISM
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.
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.
449 BOREHOLE GEOPHYSICS
3 credits BOREHOLE GEOPHYSICS
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 credits
Prerequisite: 350 or permission. Fundamental and advanced concepts of structural geology with emphasis on current and developing concepts. Laboratory.
462 ADVANCED PALEONTOLOGY
3 credits
Prerequisites: 360 . Provides advanced training in paleontological subjects. Topics will include paleoenvironmental analysis, biostratigraphic correlation, fossil preservation, diversification and extinction patterns and geochemical signals of fossils.
463 MICROPALEONTOLOGY
3 credits
Prerequisite: 360 or permission. Introduction to techniques of micropaleontology evolution and paleoecology of selected microfossil groups. Laboratory.
470 GEOCHEMISTRY
3 credits
Prerequisite: 101,230 , and $231,3150: 151,152$ and 153 or permission. Application of chemical principles to the study of geologic processes. Laboratory.
472 STABLE ISOTOPE GEOCHEMISTRY
3 credits
Prerequisite: 101 and 102; 3150:151, 152 and 153; 3450:221. Application of stable isotope geochemistry to the study of hydrologic and carbon cycles, modern sedimentary environments, and the interpretation of sedimentary rocks.
474 GROUNDWATER HYDROLOGY 3 credits
Prerequisite: 101. Origin, occurrence, regimen and utilization of groundwater. Qualitative and quantitative presentation of geological and geochemical aspects of groundwater hydrology.Laboratory.
481 ANALYTICAL METHODS IN GEOLOGY
2 credits
Prerequisite: 230,231 . A survey of analytical methods used to solve geologic problems with emphasis on method selection, proper sample collection, analysis of data quality and data presentation.
484 GEOSCIENCE INFORMATION ACQUISITION AND MANAGEMENT 2 credits Prerequisite: Must be a Geology Department graduate student or senior major in Geology, or have permission of instructor. Methods for finding, gathering, managing, and evaluating geoscience information. Emphasis on finding data sources (including electronic), creating valid data sets, visualizing data.
485 INDIVIDUAL READINGS IN GEOLOGY
1-3 credits
INDIVIDUAL READINGS IN GEOLOGY
Prerequisite: permission of instructor. (May be repeated for a total of 4 credits) Independent study and directed readings on a selected topic to fit an individual student's program.
490 WORKSHOP
1-3 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 INTERNSHIP IN GEOLOGY
1-3 credits
Prerequisite: permission of instructor. May be repeated for a total of six credits. Supervised professional experience in geology or geophysics. Only three credits can be used toward a degree in Geology.
493 GEOLOGY FIELD CAMP I
3 credits
Prerequisites: 101 and 102 and permission; Introduction to collection and interpretation of field data and construction of geologic maps.
494 GEOLOGY FIELD CAMP II
3 credits
Prerequisites: 231,350,493/593, or permission. Advanced techniques and methods of field geology necessary for detailed geologic maps and interpretations.
495 FIELD STUDIES IN GEOLOGY
1-3 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 LEARNING
1-3 credits
Prerequisite: permission of instructor. Team service learning project that involves collection, organization, analysis and presentation of geologic data. May be repeated for a maximum of four credits.

497 SENIOR HONORS PROJECT IN GEOLOGY
$1-3$ 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.
498 SPECIAL TOPICS
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 lead-
ing to the completion of a written paper or presentation at a professional meeting.

## HISTORY

## 3400:

200 EMPIRES OF ANCIENT ASIA
3 credits
Comparative study of the formative empires East, South, and western Asia. Emphasis on the origins and development of core institutions and early writings.
210 HUMANITIES IN THE WESTERN TRADITION I: ANTIQUITY TO THE RENAISSANCE 4 credits Prerequisites: 32 credits and completion of 3300:112. Introduction to the human condition in the past as manifested in the ideas, religions, visual arts and music of Western civilization from the ancient Greeks through the Renaissance. Cannot be used to meet major requirements in History.
211 HUMANITIES IN THE WESTERN TRADITION II: REFORMATION TO THE PRESENT 3 credits Prerequisite: 3400:210. Introduction to the human condition in the past as manifested in the ideas, religions, visual arts and music of Western civilization from the Protestant Reformation to the Present. Cannot be used to meet major requirements in History.
250 UNITED 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 1877
4 credits
Survey of United States history from the end of Federal Reconstruction to the present
300 IMPERIAL CHINA
3 credits
Selective study of institutional, intellectual, political and artistic developments in Chinese civilization from antiquity to 18th Century. Emphasis on general features of traditional Chinese culture.

301 MAO'S CHINA
3 credits
History of China from 1911-1976 emphasizing the role of Mao Zedong in China's revolutionary experience, particularly from 1928-1976.
303 JAPAN
3 credits
Survey of history of Japan from 1600 to present. Emphasis on modernization and the rise of Japanese empire, 1894-1945.
307 ANCIENT NEAR EAST
3 credits
Mesopotamia, Egypt; Israel, and neighbors to Persian Empire.
3 credits
308 GREECE
crats
Minoans and Mycenaeans; classical Greece to triumph of Macedon.
3 credits
310 HISTORICAL METHODS
3 credits
313 EASTERN ROMAN EMPIRE
credt
Byzantine culture and history from 324 to the fall of 1453.
3 credits
317 ROMAN REPUBLIC
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 EMPIRE
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: RENAISSANCE 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 Modern Europe from the Thirty Years War to the French Revolution.
323 EUROPE FROM REVOLUTION TO WORLD WAR, 1789-1914
3 credits
Surveys the political, economic, social, and cultural history of modern Europe from the French Revolution to the First World War.
324 EUROPE FROM WORLD WAR I TO THE PRESENT
3 credits
A survey of European political and social history from World War I to the present.
3 credits
325 WOMEN IN MODERN EUROPE
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 3 credits
Survey of Russian history from Kievan period to death of Paul I, emphasizing development of autocratic government, Russian culture, reigns of Peter and Catherine.

336 RUSSIA SINCE 18013 credits
Survey of 19th and 20th Centuries. Special emphasis on problems of modernization, 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 cultural/artistic trends of modern French history.

338 ENGLAND TO 16883 credits
Survey of English history from the Anglo-Saxon conquest to the Revolution of 1688. Medieval and early modern institutions, social and cultural life.

339 ENGLAND SINCE 1688
3 credits
Survey of English history from 1688 to the present. The reform of English institutions and life, modernization of the economy, the welfare state, society and war.
340 SELECTED TOPICS
3 credits
Includes experimental offerings such as those crossing subject of chronological lines, and subjects not listed in this General Bulletin. See departmental office for current subject.
341 ISLAMIC FUNDAMENTALISM AND REVOLUTION
3 credits
The political and socio-economic roots of Islamic reformism and militancy in the Middle East and North Africa since the 1960s.
342 THE CRUSADES THROUGH ARAB EYES
3 credits
Political and military struggles, diplomatic practices and intellectual traditions of the Medieval Islamic/Arab world 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. WOMEN'S HISTORY
3 credits
History of American women's experiences and exploration of gender as a changing structure shaping American life from the colonial period through the 20th century.

351 GLOBAL HISTORY: ENCOUNTERS AND CONFLICTS 4 credits
This course explores historical encounters between societies to explain the development of the integrated economic, political, and cultural systems presently characterizing the modern world.

## 352 THE AMERICAN WEST

3 credits
Examination of westward movement 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 arrival.
355 AMERICAN RELIGIOUS HISTORY 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 HISTORY SINCE 18653 credits An examination of the reciprocal relationship between sports and various institutions of society: culture, religion, politics, education, economics, race, ethnicity, diplomacy and gender.
358 URBAN AMERICA 3 credits
This course looks at the significance of cities and urban development in shaping American society.
360 UNITED STATES MILITARY HISTORY
3 credits
Survey of United States military history from the colonial era to the present.
361 AFRICAN-AMERICAN HISTORY, 1492 TO 1877
3 credits
This course focuses on African American history, culture and heritage from 1492 to 1877.
362 AFRICAN-AMERICAN HISTORY, 1877 TO PRESENT
3 credits
This course focuses on African American history, culture and heritage from 1877 to present.
381 HISTORY OF CANADA
3 credits
Survey of Canadian history from the age of the explorers to the present. Special emphasis will be placed on the history of French-Canadians, on economic development and on Canadian-American relations.
382 THE VIETNAM WAR 3 credits
An examination and evaluation of all aspects of the war in Vietnam, political, military, diplomatic and economic, including its impact domestically then and later

385-391 WORLD CIVILIZATIONS
Courses 385 through 391 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses can not be used to meet major requirements in History.
385 WORLD CIVILIZATIONS: CHINA 2 credits Prerequisite: 64 credits.
386 WORLD CIVILIZATIONS: JAPAN 2 credits Prerequisite: 64 credits.
387 WORLD CIVILIZATIONS: SOUTHEAST ASIA 2 credits Prerequisite: 64 credits.
388 WORLD CIVILIZATIONS: INDIA 2 credits Prerequisite: 64 credits.
389 WORLD CIVILIZATIONS: NEAR EAST 2 credits Prerequisite: 64 credits.
390 WORLD CIVILIZATIONS: AFRICA 2 credits Prerequisite: 64 credits
391 WORLD CIVILIZATIONS: LATIN AMERICA
2 credits Prerequisite: 64 credits.
392 INTERNSHIPS IN HISTORY
3 credits
Prerequisites: Junior standing, History or Secondary Education major with History/Social Science concentration, and prior completion of a minimum of 16 credits in History, not including Humanities in the Western Tradition or World Civilizations. Field experience in applied History setting under the supervision of a History Department faculty member.
397 INDIVIDUAL STUDY OR RESEARCH IN HISTORY
1-3 credits
(May be repeated for a total of four credits) Prerequisite: permission. For individual study or research in history, including special projects, summer study tours or specialized training.

400/500 WOMEN IN REVOLUTIONARY CHINA
3 credits
Prerequisites: 300,301 or 385, or permission of instructor. A study of the changes in women's lives in China during the late imperial (1644-1911) and socialist (1949-1989) periods.

401/501 JAPAN AND THE PACIFIC WAR, 1895-1945 3 credits
The rise of Japanese militarism, Japan's drive to create an 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 middle and late Republic, the age of Augustus, or the fall of western Empire.
416/516 MODERN INDIA
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.
424/524 THE RENAISSANCE
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.
425/525 THE REFORMATION
3 credits
Europe in 16th Century; its religious, cultural, political and diplomatic development, with special emphasis on Protestant, Anglican and Catholic reformations.

429/529 EUROPE IN THE FRENCH REVOLUTIONARY ERA, 1789-1815
Development of Revolution; Napoleon's regime and satellites.

## 438/538 NAZI GERMANY

3 credits
This course covers the social, economic, and political history of Germany from World War I to 1945 with emphasis on the Third Reich.

440/540 TUDOR AND STUART BRITAIN, 1485-1714
3 credits
An examination of the development of, and increasing links between the British kingdoms in the early modern period, with emphasis on culture, politics, and religion.

## 443/543 CHURCHILL'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.

## 451/551 COLONIAL 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.
452/552 THE AMERICAN REVOLUTIONARY ERA: POLITICAL, MILITARY,
3 credits AND CONSTITUTIONAL ASPECTS
The struggle for the rights of Englishmen and independence; the impact of war on American society and the creation of republican institutions.
453/553 AGE OF JEFFERSON AND JACKSON, 1800-1850
3 credits The evolution of the republic in its formative stages from Jefferson through Jackson to the Compromise of 1850. Emphasis upon political, social, intellectual and Constitutional developments.

## 454/554 THE CIVIL 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.

455/555 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.

456/556 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.

457/557 THE UNITED STATES SINCE 1945
3 credits
Nuclear age, cold war, foreign policy and domestic affairs to present. Social, political, constitutional, diplomatic, cultural and economic changes since 1945.
461/561 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.
463/563 U.S. CONSTITUTIONAL HISTORY 3 credits This course examines the evolution of constitutional government from the drafting of the U.S. Constitution (1787) to present.
465/565 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.
467/567 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.
468/568 AFRICAN-AMERICAN SOCIAL AND INTELLECTUAL 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.

## 469/569 AFRICAN-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.

## 470/570 OHIO 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.
471/571 AMERICAN ENVIRONMENTAL HISTORY
3 credits
Utilization, conservation of natural resources from beginnings of American society to present; combination of economic, technological history of extensive treatment of public policy, environmental issues.
472/572 LATIN AMERICA: ORIGINS OF NATIONALITY
3 credits
Pre-Columbian civilizations, discovery and conquests; colonialism, struggle for independence and formation of new societies.
473/573 LATIN AMERICA: THE 20TH CENTURY
3 credits
Social revolution, political ideology and contemporary problems.
476/576 CENTRAL AMERICA AND THE CARIBBEAN
3 credits
Selected aspects of the histories of Central American and Caribbean countries with emphasis on populist and peasant movements, political reform, social revolution, economic and under development, and relations with the United States.

484/584 MUSEUMS AND ARCHIVES
3 credits This course will focus on the work of history museums, historical societies and historic house museums and archives.
485/585 HISTORY, COMMUNITIES AND MEMORY
3 credits Course examines the interactions between the work of academic historians and the public in areas such as local history, monuments, oral history, film and the Internet.
487/587 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 social, economic and political effects.
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.
493/593 SPECIAL STUDIES IN HISTORY
3 credits Includes experimental and interdisciplinary studies, as well as those subjects that are not listed in this General Bulletin. See departmental office for information on particular offerings.

## MATHEMATICS <br> 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 meet General Studies mathematics requirement.

135 EXCURSIONS IN MATHEMATICS
3 credits
Prerequisites: placement test, 100 or 2030:153. Contemporary applications of mathematics 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. Introduction to number theory, functions, algebra and coordinate geometry.
141 ALGEBRA WITH BUSINESS APPLICATIONS
3 credits
Prerequisites: Mathematics Placement Test or completion of 100 with a grade of C - or better. Solving, graphing equations; inequalities; algebraic operations; functions, including exponential, logarithmic; matrix operations; systems of equations; simplex method. For students interested in business. Graphing calculator required.

145 COLLEGE 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.
147 TRIGONOMETRY AND ADVANCED ALGEBRA
3 credits
TRIGONOMETRY AND ADVANCED ALGEBRA
Prerequisites: 145 with grade of C- or better or placement. Topics covered : Trigonometric functions, Analytical Trigonometry, Applications of Trigonometric Functions, Analytical Geometry, Systems of Equations, Sequences, Induction, and the Binomial Theorem.

## 149 PRECALCULUS MATHEMATICS

4 credits
Prerequisite: Completion of 145 with a grade of C- or better or placement. Functions, polynomial functions, complex numbers, exponential and logarithmic functions, systems of equations, trigonometric functions, mathematical inductions, sequences, and binomial theorem.

208 INTRODUCTION TO DISCRETE 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 141 or 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 credits
Prerequisite: Completion of 149 or 145 and 147 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 II
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 integrals, Divergence Theorem.
260 MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS II 3 credits Prerequisite: Completion of 140 with a grade of C - or better. A problem-solving and inquirybased approach 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 DIFFERENTIAL EQUATIONS
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 ideas.

## 410 ADVANCED LINEAR 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 spaces.

411 ABSTRACT ALGEBRA I
3 credits
Prerequisite: Completion of 307 with a grade of C - or better or permission of instructor. Study of groups, rings, fields, integral domains.
412 ABSTRACT ALGEBRA II
3 credits
Prerequisite: Completion of 411 with a grade of $\mathbf{C}$ - or better or permission of instructor. Study of groups, rings, fields, integral domains, vector spaces, field extensions, Galois theory.
413 THEORY OF NUMBERS
3 credits
Prerequisite: Completion of 222 with a grade 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 COMBINATORICS AND GRAPH THEORY
3 credits
Prerequisite: Completion of 222 with a grade of C- or better or permission. Introduction to basic ideas and techniques of mathematical counting; properties of structure of systems.

420 MATHEMATICAL TECHNOLOGY AND COMMUNICATION
3 credits
Prerequisites: Completion of 222 and 312 with grades of C- or better, or permission. Graphical, numerical and algebraic computation with applications using a variety of mathematical hardware and software: symbolic manipulators, dynamic geometry software, programs, scripts and webbrowsers.
421,2 ADVANCED CALCULUS I AND II
3 credits each Sequential. Prerequisite: Completion of 223 with a grade of C- or better; 307 is highly recommended. Real number system, sequences, series, set theory, continuity, differentiation, integration, partial derivatives, multiple integration, maxima and minima, convergence and uniform convergence, power series, improper integrals, transformations, line and surface integrals.
425 COMPLEX VARIABLES
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 APPLIED 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 APPLIED NUMERICAL METHODS II
3 credits
Prerequisites: Completion of 335 and 427 with grades of C- or better or permission. Numerical methods in the solution of ordinary and partial differential equations. Numerical differentiation, Runge-Kutta methods, and iterative methods for ODEs, finite differences for PDEs.
430 NUMERICAL SOLUTIONS FOR PARTIAL DIFFERENTIAL EQUATIONS
3 credits
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, convergence and computer implementation.

432 PARTIAL DIFFERENTIAL EQUATIONS
4 credits
Prerequisite: Completion of 335 with a grade 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 SYSTEMS OF ORDINARY DIFFERENTIAL EQUATIONS
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.
436 MATHEMATICAL MODELS
3 credits
Prerequisite: Completion of 335 with a grade of C - or better, and a six-hour sequence in an approved applied area, or permission. 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 ENGINEERING MATHEMATICS I
3 credits
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 ENGINEERING MATHEMATICS II

3 credits
Prerequisites: Completion of 335 and 312 with grades of $C$ - or better or permission. Special functions, Fourier series and transforms, PDEs.

441 CONCEPTS IN GEOMETRY
4 credits
Prerequisite: 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 INTRODUCTION 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, homeomorphisms, connected spaces, metric spaces.
489 TOPICS IN MATHEMATICS
1-4 credits
(May be repeated for a total of 12 credits) Prerequisite: permission of instructor. Selected topics in mathematics and applied mathematics at an advanced level.
491 WORKSHOP IN 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 INDIVIDUAL READING
1-2 credits
Prerequisites: senior standing and permission. Mathematics or applied mathematics majors only. Directed studies designed as an introduction to research problems, under guidance of selected faculty member.
498 SENIOR HONORS PROJECT
Prerequisite: 489 (honors). Directed study for senior student in the Honors College who has completed 489 (honors). An introduction to research problems in mathematics and applied mathematics under the guidance of selected faculty.

## COMPUTER SCIENCE

## 3460:

125 DESCRIPTIVE COMPUTER SCIENCE
Computer literacy: terminology; methods, media for data representation, storage; elements of a computing system; data organization.

126 INTRODUCTION TO VISUAL BASIC PROGRAMMING
3 credits
Prerequisite: Completion of $3450: 100$ with a grade of C- or better or placement. Windows GU and Microsoft's Visual BASIC programming environment. Design of user interfaces, event-driven programming, basic control structures, simple variables, arrays, and sequential files.
208 INTRODUCTION TO C++ PROGRAMMING
3 credits
Prerequisites: knowledge of C. Introduction to class types and data abstraction. In addition, memory management and dynamic memory allocation will be discussed.
209 INTRODUCTION TO COMPUTER SCIENCE
4 credits
Prerequisite: Completion of $3450: 145$ or $3450: 149$ with a grade of C- or better or equivalent. Introduction to problem-solving methods and algorithms. Programming in a high-level language including how to design, code, debug and document programs with good programming style.
210 DATA STRUCTURES AND ALGORITHMS I
4 credits Prerequisites: 3450:208 and 209 or equivalent with grades of C- or better. Dynamic memory allocation methods, elementary data structures, internal representations, and associated algorithms. Topics include lists, stacks, queues, trees, and sorting methods.

289 SELECTED TOPICS IN COMPUTER SCIENCE
$1-3$ credits
Prerequisite: permission. Selected topics of interest in computer science.
302 PROGRAMMING APPLICATIONS WITH COBOL
3 credits
Prerequisite: Completion of 210 with a grade of C- or better. Applications of COBOL, JCL and file manipulation; intended to introduce business data processing techniques to the business option computer science major. Does not meet major requirements for system option computer science students.

306 ASSEMBLY AND SYSTEM PROGRAMMING
4 credits 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 PROGRAMMING
3 credits
Prerequisite: Completion of 210 or equivalent with a grade of C - or better. Overview of current pro gramming languages, tool and scripting technologies for the Internet and World Wide Web.
316 DATA STRUCTURES AND ALGORITHMS II
3 credits Prerequisites: Completion of 210 and 3450:221 or 3450:215 with grades of $C$ - or better. A continuation of topics in 210. Topics include: graphs and graph algorithms, external sorting, hashing, advanced tree and file structures.

389 INTERMEDIATE 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 INTRODUCTION TO C AND UNIX
3 credits
Prerequisite: programming experience. Syntax of $C$ with flow structures, pointers, and com mand 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 PROGRAMMING
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-driven 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 OBJECT-ORIENTED PROGRAMMING
3 credits Prerequisite: Completion of 316 with a grade of C- or better. Object-oriented design, analysis, and pro gramming using different development models. Comparison with other programming paradigms.
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 contro; deadlock problem. Course is independent of any particular operating system.

428 UNIX SYSTEM PROGRAMMING
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 THEORY OF PROGRAMMING LANGUAGES
3 credits
Prerequisite: Completion of 316 with a grade of C- or better. Advanced concepts underlying programming languages and their applications, formal definitions of programming languages, Backus Normal Form, semantics. Alternative programming paradigms including functional programming.
435 ANALYSIS OF ALGORITHMS
3 credits
Prerequisites: Completion of 316 and 418 with grades of C- or better. Design and analysis of efficient algorithms for random access machines; derivation of pattern classification algorithms.

## 440 COMPILER DESIGN

3 credits
Prerequisites: Completion of 307 and 316 with grades of C - or better. Techniques used in writing and modifying compilers including translation, loading, execution, symbol tables and storage allocation; compilation of simple expressions and statements. Organization of a compiler for handling lexical scan, syntax scan, object code generation, error diagnostics and code optimization. Use of compiler writing languages and boot-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 themes 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 BIOINFORMATICS LABORATORY 1 credit Laboratory course investigating basic tools currently available for biological database searching, sequence alignments, phylogenetic tree construction, protein structure prediction and microarray analysis.
455 DATA COMMUNICATION AND COMPUTER NETWORKS
3 credits Prerequisites: Completion of 316 or 401 with a grade of C- or better. ISO-OSI, TCP/IP, 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 knowledge of $C$. Topics in vector and raster graphics, interactive graphics languages, scan conversion, clipping, geometric transformation, projection, shading, animation and virtual reality.

460 ARTIFICIAL INTELLIGENCE AND HEURISTIC PROGRAMMING
Prerequisite: Completion of 316 with a grade of C- or better. Study of various programs which Prerequisite: Completion of 316 with a grade of C- or better. Study of various programs which intelligence.
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 particular microprocessor architecture and instruction set. Standard device interface components. Real time programming concepts.
470 AUTOMATA, COMPUTABILITY AND FORMAL LANGUAGES
3 credits
Prerequisite: Completion of 418 with a grade of C- or better. Presentation of theory of formal languages 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 PARALLEL PROCESSING
3 credits 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. Parallel paradigms with relation to real world applications.
480 INTRODUCTION TO SOFTWARE ENGINEERING AND FORMAL 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 SCIENCE
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 credits Prerequisite: Must have completed at least 30 hours of 3460 (computer science) courses. Professional 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 INDIVIDUAL 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 PROJECT
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 STATISTICS
$1-3$ credits
Prerequisite: Permission. Selected topics of interest in statistics.
3 credits
360 STATISTICAL INVESTIGATIONS
3 credits
Prerequisites: 250 or 260 or 262 . 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 PROBABILITY AND STATISTICS FOR ENGINEERS
2 credits
Prerequisite: 3450:223. Introduction to probability, statistics, random variables, data descriptions, statistical inference, confidence intervals, hypothesis testing, design of experiments, and applications of statistics to engineering.

450 PROBABILITY
3 credits
Prerequisite: 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 APPLIED STATISTICS I
4 credits
Prerequisite: $3450: 222$ or 216 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 APPLIED 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 RELIABILITY 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 I
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 SCIENCE 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 QUALITY CONTROL 3 credits
Prerequisite: 461 or equivalent. Course provides a solid foundation in the theory and applications of statistical techniques widely used in industry.
480 STATISTICAL 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.
489 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
(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 INDIVIDUAL 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 SENIOR HONORS PROJECT
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 faculty.

## 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 school 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 BEGINNING 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 INTERMEDIATE 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 materials, with emphasis on developing accuracy and self-expression in a wide range of situations.

320 FRENCH CANADIAN LITERATURE 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: SPECIAL TOPICS IN ADVANCED 1-4 credits LANGUAGE SKILLS, OR CULTURE, OR LITERATURE
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.
490 WORKSHOP
1-4 credits
Prerequisite: permission of instructor. (May be repeated for a total of 8 credits) Group studies of special topics in Modern Languages.
497 INDIVIDUAL READINGS IN MODERN LANGUAGES
$1-3$ credits
Prerequisites: 202 and permission of department chair.
$1-3$ credits
498 SENIOR HONORS PROJECT IN MODERN LANGUAGES
College and
(May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and
permission. Open only to language major enrolled in Honors College. Independent study leading to completion of senior honors thesis or other original work.

## LATIN

## 3510:

190 THE MAKING OF ENGLISH WORDS FROM
3 credits

## LATIN AND GREEK ELEMENTS

The influence of Latin and Greek on English vocabulary with some attention to the use of these languages in the scientific and legal fields. No foreign language is necessary.
101,2 BEGINNING LATIN I AND II
4 credits each
Sequential. Prerequisite for 102: 101 or equivalent. Reading, writing and translation; oral and written drill; analysis of grammatical structure and English vocabulary building.
201,2 INTERMEDIATE LATIN I AND II
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
Prerequisites: 202 or equivalent. Satirists, dramatists, philosophical, religious writers, lyric and elegiac poets, medieval writers. (May be repeated for credit with change of subject)

497,8 LATIN READING AND RESEARCH
3 credits each
Prerequisite: permission of instructor. Generally Latin epigraphy, prose composition or philology; numismatics or certain other archaeological topics may be offered. (May be repeated for credit with change of subject)

## FRENCH

## 3520:

101,2 BEGINNING FRENCH I AND II
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 culturally authentic media and texts.

201,2 INTERMEDIATE FRENCH 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 selfexpression in a wide range of situations.

## 301,2 FRENCH COMPOSITION AND CONVERSATION

3 credits each Sequential. Prerequisite: 202 or equivalent. Free composition, special attention to vocabulary and idioms, development of oral expression and conversational ability. Prerequisite for 302 is 301 or equivalent.
305,6 INTRODUCTION TO FRENCH LITERATURE
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.
309,10 FRENCH CULTURE AND CIVILIZATION
3 credits each
Prerequisite: 202 or equivalent. Audio-visual presentation with class discussions of French cultural heritage from its origins to present. Conducted in French.
311 CONTEMPORARY FRENCH SOCIETY
3 credits
Prerequisite: 202 or equivalent. A study of contemporary French society, including customs and political and social issues. Conducted in French. Counts toward Culture and Civilization requirement for major.

312 INDIVIDUAL SUMMER STUDY ABROAD 2 credits
Prerequisites: 202 or equivalent and permission of instructor.
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 rhythm.

350 THEMES IN FRENCH LITERATURE 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 international business.

402 ADVANCED FRENCH GRAMMAR
3 credits
Prerequisite: 302 or equivalent. Advanced study of normative French grammar with emphasis on syntax, morphology, grammatical structure and phonetic principles.

403,4 ADVANCED FRENCH COMPOSITION AND CONVERSATION 3 credits each 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 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.
427 20TH CENTURY FRENCH LITERATURE
4 credits
Prerequisite: 305 or 306 or equivalent. Reading and discussion of the most representative works of period. Conducted in French.

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
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 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 selfexpression in a wide range of situations.
301 GERMAN CONVERSATION AND COMPOSITION
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 COMPOSITION: SPECIAL TOPICS
3 credits each
Prerequisite: 202 or equivalent or permission of instructor. May be repeated for credit. Specia attention to development of oral expression and conversational ability.
310 SEX, VIOLENCE, AND TERROR IN GERMAN FAIRY TALES
3 credits
Exploration of historical context of German fairy tales and interpretation plus modern significance of texts according to Jungian archetypal psychology. Readings and discussions in English.
403,4 ADVANCED GERMAN CONVERSATION AND COMPOSITION
3 credits each
Prerequisite: 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure.

406,7 GERMAN CULTURE AND CIVILIZATION
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 ITALIAN 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 INTERMEDIATE ITALIAN 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 materials, with emphasis on developing accuracy and self-expression in a wide range of situations.

## 301,2 ITALIAN COMPOSITION 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 ITALIAN: 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 INDIVIDUAL READING IN ITALIAN
$1-3$ credits
Prerequisite: 202 and permission of the department chair.

## JAPANESE

## 3560:

101,2 BEGINNING JAPANESE I AND II
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.
422 SPECIAL TOPICS IN LANGUAGE SKILLS, OR CULTURE OR LITERATURE 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 self-expression in everyday situations, through culturally authentic media and texts.
201,2 INTERMEDIATE RUSSIAN 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 materials, with emphasis on developing accuracy and self-expression in a wide range of situations.
497,8 INDIVIDUAL READING IN RUSSIAN
$1-3$ credits each
Prerequisite: 202 and permission of the department chair.

## SPANISH

## 3580:

101,2 BEGINNING SPANISH I AND II
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 culturally authentic media and texts.
111 INTENSIVE BEGINNING SPANISH I
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 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.

112 INTENSIVE BEGINNING SPANISH II
4 credits Sequential. Prerequisite: completion of 101 with a grade of B 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 INTERMEDIATE SPANISH 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 selfexpression in a wide range of situations.
211 INTENSIVE INTERMEDIATE SPANISH I
3 credits 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 SPANISH II
3 credits
Sequential. Prerequisite for 212: completion of 3580:201 with a grade of B or better, or completion 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 SPANISH CONVERSATION
3 credits
Prerequisite: 202 or equivalent. Development of oral expression, listening comprehension and conversational ability.
302 SPANISH COMPOSITION
3 credits
Prerequisite: 202 or equivalent. Development of writing skills through intensive practice 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 SPANISH/SPANISH-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 earn a maximum of two credits.
340 INTRODUCTION TO SPANISH AND SPANISH-AMERICAN LITERATURE
4 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 LITERATURE OF SPANISH-AMERICA IN 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: BUSINESS
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 skills at a level beyond that achieved in 301. Conducted in Spanish.
402 ADVANCED COMPOSITION
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 LINGUISTICS
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 LINGUISTICS: 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.
406 SPANISH LINGUISTICS: SYNTAX
4 credits
Prerequisite: 401, 402, and 403 or permission of instructor. Descriptive study of Spanish syntax; introduction to theories of grammar; overview of Spanish semantics and pragmatics. Conducted in Spanish.
407 SURVEY OF HISPANIC LITERATURE: SPAIN
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 Spain from the Middle Ages to the present. Conducted in Spanish.
408 SURVEY OF HISPANIC LITERATURE: 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 MANIFESTATIONS IN MEDIEVAL AND RENAISSANCE SPAIN 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 learning of problematic Spanish structures.
411 SPAIN DURING THE BAROQUE PERIOD
4 credits
Prerequisite: 407 or 408 or permission of instructor. A comparative study of the different cultural manifestations during the 17th century in Spain. Conducted in Spanish.
412 CERVANTES: DON QUIJOTE
4 credits
Prerequisite: 407 or 408 or permission of instructor. Reading and analysis of Don Quijote as the first modern novel in the historical context of Renaissance and Baroque esthetics. Conducted in Spanish.

413 THE DON JUAN MYTH IN SPANISH 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 POLITICS 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 SPAIN
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 Modernism. Conducted in Spanish.
418 20TH CENTURY SPAIN: THE AVANT-GARDE
4 credits

## IN LITERATURE 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 CIVIL WAR AND ITS CULTURAL IMPACT 4 credits
Prerequisite: 407 or 408 or permission of instructor. Study the impact of the Civil War on Spanish culture.
422 SPECIAL TOPICS IN SPECIALIZED
1-4 credits
LANGUAGE SKILLS, OR CULTURE, OR LITERATURE
Prerequisite: 407 or 408 or permission of instructor. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses.

423 SPANISH-AMERICAN LITERATURE 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 SPANISH-AMERICAN NOVEL
4 credits
Prerequisite: 407 or 408 or permission of instructor. Reading and discussion of representative contemporary Latin American novels. Conducted in Spanish.

427 LATINO CULTURES IN 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 LITERATURE
4 credits
Prerequisite: 407 or 408 or permission 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 HISPANIC CULTURE: SPAIN
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 HISPANIC CULTURE: SPANISH AMERICA
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 Spanish. Conducted in Spanish.

## 497 INDIVIDUAL READING IN SPANISH

1-3 credits
Prerequisite: 407 or 408 and departmental permission.

## PHILOSOPHY

## 3600:

101 INTRODUCTION TO PHILOSOPHY
3 credits
Introduction to philosophic problems and attitudes through acquaintance with thoughts on some leading thinkers of Western 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 criteria 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 PHILOSOPHY OF WORLD RELIGIONS
3 credits
A philosophical examination of the major religious traditions of the world including Christianity, Judaism, Islam, Buddhism, Hinduism, Taoism, tribal religions, and others.

## 211 HISTORY OF ANCIENT PHILOSOPHY

3 credits
History and development of ancient Greek philosophy from pre-Socrates to Aristotle. Readings of primary sources in translation.

312 HISTORY OF MEDIEVAL PHILOSOPHY
3 credits
History of Western 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 17th and 18th Centuries from Descartes through Kant Readings of primary sources in translation.
323 ADVANCED TOPICS 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 POLITICAL PHILOSOPHY
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
331 PHILOSOPHY OF RELIGION 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
An examination of theories of the nature of art and the grounds of aesthetic evaluation. Analysis
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 western philosophy, including topics in ethics, metaphysics, epistemology, and religion.
361 BIOMEDICAL ETHICS 3 credits The identification, analysis and evaluation of ethical issues arising 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 Internet content.
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
Prerequisite: 2.7 GPA and permission of instructor. Placement in appropriate public or private sector organization. Written assignments required. May repeat for maximum 6 credits.

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 AQUINAS 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.

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 concern 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.

## 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
3 credits 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 ultimate explanation of reality. Uses readings from classical and contemporary sources.
480 SEMINAR
3 credits
(May be repeated, for additional credit with change of topic) 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 philosophy 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 Philosophy Department Honors preceptor. Research leading to completion of senior honors thesis involving original work under faculty supervision.
497 INDIVIDUAL STUDY
$1-3$ credits (May be repeated for a total of six credits) Prerequisites: completion of required courses of philosophy 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 faculty 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 LIGHT
4 credits Introductory, qualitative course dealing with the nature of light and the interaction of light with various materials to produce common visual effects. Laboratory activities provide experience in scientific investigation.
261 PHYSICS FOR THE LIFE SCIENCES I
4 credits
Prerequisites: high school algebra, trigonometry or 3450:149 as corequisite or permission. Introductory course for professional work in biology and health 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 LIFE SCIENCES II

4 credits
Prerequisite: 261. Laws of thermodynamics, kinetic theory. Wave phenomena: sound, light, optics; electricity and magnetism; atomic and nuclear physics; radioactivity. Includes laboratory activities.

## 267,8 LIFE SCIENCE PHYSICS COMPUTATIONS I AND II

1 credit each
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 algebra and trigonometry. Particularly recommended for student with modest mathematical preparation.
291 ELEMENTARY CLASSICAL PHYSICS I
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, thermodynamics. Vectors and some calculus introduced as needed. Includes laboratory activities.
292 ELEMENTARY CLASSICAL PHYSICS II
4 credits
Prerequisite: completion of 291 with a passing grade. Fluid mechanics, mechanical and electromagnetic waves and wave phenomena, basic laws of electromagnetism, interference and diffraction, coherence, geometrical and physical optics. Includes laboratory activities.

## 293,4 PHYSICS COMPUTATIONS I AND II

1 credit each
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. Particularly recommended for a freshman and for student with modest preparation in mathematics or physical sciences.
301 ELEMENTARY 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.
322,3 INTERMEDIATE LABORATORY I AND II
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: 262 or 292. Basic principles of thermal and statistical physics. Ensembles, laws of thermodynamics, equilibrium, irreversibility, equipartition theorem, canonical distribution, Maxwell distribution, phase changes, cyclic processes, transport processes.
350 MODELING AND SIMULATION
4 credits
Prerequisites: 292, or 262; one elementary course in Computer Science such as 3460:208 or 209; or permission of instructor. An interdisciplinary course stressing modeling of natural phenomena using fundamental principles, and their simulation. Topics may include growth phenomena, fault propagation, kinetics, chemical reactions, wave phenomena.
399 UNDERGRADUATE RESEARCH
1-6 credits
(May be repeated) Prerequisite: 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 I
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.

442 QUANTUM PHYSICS 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
Prerequisite: 323 or permission of instructor. Experimental techniques, applicable to researchtype projects in contemporary physics. FT-IR spectroscopy, optical spectroscopy, lasers and thin-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 SOLID-STATE PHYSICS
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 II
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 credits
(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 COLLOQUIUM
1 credit
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 <br> 3700:

100 GOVERNMENT AND POLITICS 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 POLITICS AND GOVERNMENTS 3 credits
Introduction to international politics and an examination of the governments and foreign policies of selected states from a comparative perspective.

201 INTRODUCTION TO POLITICAL 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 POLITICS
3 credits Examination of institutions, processes and intergovernmental relations at state and local levels.
300 COMPARATIVE POLITICS
4 credits
Introduction to comparative political analysis; description of political systems of several countries; contrast between democracy and totalitarianism.
302 AMERICAN POLITICAL IDEAS
3 credits
Study of major thinkers and writers of American political thought
3 credits
303 INTRODUCTION TO POLITICAL THOUGHT
Survey of major ideas and concepts of Western political theory from pre-Socrates through period of Enlightenment.
304 MODERN POLITICAL THOUGHT
3 credits
Examination of central concepts of political thought from 19th Century to present. Modern liberalism, communism, fascism and totalitarianism emphasized.

310 INTERNATIONAL POLITICS AND INSTITUTIONS
3 credits
Relations among nations examined in political context.
3 credits

## 311 DEVELOPING STATES IN WORLD POLITICS

attempt to Examines

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 POLITICS
3 credits
Description and analysis of government and politics of France, Germany, Italy and Switzerland, with appropriate references to Scandinavia and Low Countries.
326 POLITICS OF DEVELOPING NATIONS
3 credits
General introduction to concepts and theories of political development and political institutions, elite-recruitment and political processes of selected emerging nations.
328 AMERICAN FOREIGN POLICY 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 conflict, and how legal institutions mediate, reinforce, and challenge existing power relationships.

336 HOMELAND SECURITY 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, POLITICS, AND RESPONSE 3 credits
Survey of terrorist organizations, political implications of terrorism, and governmental response to terrorism.
338 POLITICS OF 9/11 3 credits
Among other topics, we will explore the nature of terrorism and terrorist incidents occurring before and after $9 / 11$, as well as the U.S. government's response to the $9 / 11$ attacks.
339 TERRORISM AND THE CONSTITUTION
3 credits
Primary goals include learning 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 POLITICS 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 POLITICS IN FILM
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 terrorists 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 threats 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 POLITICS OF THE CRIMINAL JUSTICE SYSTEM 3 credits Examines the impact of the political process and political institutions on criminal law and policy.
363 CRIME, PUNISHMENT, POLITICS: 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 credits 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 POLITICS
3 credits Course examines the past, present and future roles of women in politics.
380 URBAN POLITICS AND POLICIES
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 POLITICS
3 credits
Analysis of the state political process in terms of its capacity to deal with a wide range of socioeconomic problems. Special emphasis on legislators, administrators, parties and interest groups.
391 HONORS IN POLITICAL SCIENCE
3 credits
Prerequisites: at least 17 credits and a 3.25 average in political science and permission of adviser.
392 SELECTED TOPICS IN POLITICAL SCIENCE $1-3$ credits
(May be repeated, but no more than three credits can be applied to major in political science) Topics of substantial current importance, specialized topics within political science or experimental courses.

395 INTERNSHIP IN GOVERNMENT AND POLITICS
2-9 credits (May be taken twice for a total of nine hours. No more than four credits 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 professional-level work.
397 INDEPENDENT STUDY
1-4 credits
(May be repeated for a total of four credits) Prerequisites: senior standing, 3.00 grade-point average and permission of adviser.
402 POLITICS AND THE MEDIA
3 credits
Examination of relationships between the press, the news media and political decision makers.
405 POLITICS IN THE MIDDLE 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 CONFLICT
3 credits This is the core course for the certificates in racial and gender conflict. It provides students with an opportunity to intensively examine racial and gender conflict.
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 credits 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 POLICY ANALYSIS
3 credits Prerequisite: 201. Examines variety of methods available for analyzing public policies. Techniques of cost benefit analysis, evaluation research quasi-experimentation are covered as well as consideration of ethical questions in policy analysis, the practical problems facing policy analysts.
443 POLITICAL SCANDALS AND CORRUPTION
3 credits
This course will provide information on major political scandals, including media coverage, public opinion, the role of special prosecutors, and the impacts of scandals.
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 conflicts in a correctional environment.
461 THE SUPREME COURT AND CONSTITUTIONAL LAW emphasis on federal judicial, legislative and executive power; separation of powers; and federalism.
462 THE SUPREME COURT AND CIVIL LIBERTIES
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.

## 470 CAMPAIGN MANAGEMENT I

3 credits
Prerequisite: permission of instructor. Reading, research and practice in campaign management decision making.

471 CAMPAIGN MANAGEMENT II 3 credits Prerequisite: 470 . 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 FINANCE
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 POLITICAL OPINION, BEHAVIOR AND ELECTORAL POLITICS
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 political science or permission. Reading and research on the development, structure and function of interest groups in the United States.

## 476 AMERICAN POLITICAL PARTIES

3 credits
Prerequisites: six credits of political science or permission. Reading and research on the development, structure and function of parties in the United States.

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 POLICE 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
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 POLITICAL SCIENCE 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.

## 97 SENIOR HONORS PROJECT IN POLITICAL SCIENCE

1-3 credits (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 overview of the field of psychology including educational requirements, career opportunities and professional issues for students considering a psychology major.
110 QUANTITATIVE 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 apparatus, 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 BIOPSYCHOLOGY
4 credits
Prerequisite: 100. Relationship between behavior and its biological/physiological foundations including brain structure and function, sensation, behavior genetics, learning and memory, and other topics.
335 DYNAMICS OF PERSONALITY
4 credits Prerequisite: 100. An overview of theory and research involving the development, maintenance and assessment of personality and individual differences.
340 SOCIAL 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 COGNITIVE PROCESSES
4 credits
Prerequisite: 100. Survey of the basic phenomena, concepts and theories in the areas of human perception, learning, memory and cognition.

380 INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY
4 credits
Prerequisite: 100. Survey of the applications of psychology to the workplace including an emphasis on organizational (e.g., motivation) and personnel issues (e.g., selection).
400 PERSONALITY
4 credits
Prerequisites: 400-100 and 335; 500—admission 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 CHILDREN
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. Behavioral data and treatment approaches 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 CLINICAL AND COUNSELING PSYCHOLOGY I
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.

442 CLINICAL AND COUNSELING PSYCHOLOGY II
4 credits
Prerequisite: 441. Overview of individual counseling and psychotherapy, group counseling, personality and ability testing, marriage and family counseling, hypnosis, sex therapy, psychopharmacology and related specialties. 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.
444 ORGANIZATIONAL THEORY
4 credits
Prerequisites: 444-100 and 380; 544 - admission to the Graduate School. 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 credits
Prerequisites: 445-100; 545—admission to the Graduate School. Intensive investigation of factors affecting behavior and performance in small groups including effects of personality, social structures, task, situational and social-cognitive variables.

446 RESEARCH DESIGN AND ANALYSIS
4 credits
Prerequisites: 100, 110 and 220. Review of psychological methodology including research design and analysis, internal and external validity, measurement of constructs and specific analytic techniques.
450 COGNITIVE DEVELOPMENT
4 credits
Prerequisite: 450-100 and 345; 550—admission to the Graduate School. Theory and research on life-span changes in cognitive processes including concept formation/categorization, 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 developmental 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 ADULTHOOD AND AGING
4 credits
Prerequisites: 100 and 230. Psychological aspects of human development from adolescence to older adulthood including age-related changes in socialization, personality, intelligence, sensation, perception, learning, memory and clinical applications.
480 SPECIAL TOPICS IN PSYCHOLOGY
1-4 credits
(May be repeated to a maximum of 8 credits) Prerequisite: 100 and 64 credits completed.
Comprehensive survey of contemporary status of specialized topics and issues in psychology. Emphasis
on original source materials, critical analysis and synthesis of empirical and theoretical aspects.
485 APPLIED DEVELOPMENTAL PSYCHOLOGY
4 credits
Prerequisite: 100. Conceptual and methodological issues in life-span developmental psychology. The approach is data-based, multidisciplinary and problem-focused.
488,9 HONORS PROJECT IN PSYCHOLOGY
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 WORKSHOP 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

1 credits (May be repeated to a maximum of 6 credits). Prerequisites: 100, 105 and 110 and eight additional credits in psychology. 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 6 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 faculty 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 SOCIAL RESEARCH 4 credits
Prerequisites: 100,301 and Arts \& Sciences math requirement. The basis of this course is learning to apply course material to improve thinking, 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 learning fundamental principles in statistics. Other key topics include quantative techniques and application to sociological data. Required of all majors.
310 SOCIAL 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 SOCIAL 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 SOCIAL INEQUALITY
3 credits
Prerequisite: 100 or permission. Study of the way social rankings occur in societies and how particular rankings affect individual behavior, group relations and social structures. Lecture.
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.
330 CRIMINology
3 credits
Prerequisite: 100. Major focus on interrelationships and analysis of crimes, criminals, criminal justice systems and society. Lecture.

334 SOCIAL ORGANIZATION
3 credits
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 SOCIAL 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 POLITICAL 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 SOCIOLOGY 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 AGING
3 credits
Prerequisite: 100 or permission. Examination of process of aging from perspective of behavioral and sociological aspects. Lecture.
344 SOCIOLOGY OF GENDER
3 credits
SOCIOLOGY OF GENDER
Prerequisite: 100 or permission. Review of theories and research on origins, characteristics and changes in gender. An examination of gender as structure, process and experience in industrialized 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 SOCIETY

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 SPECIAL 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. Individual study of problem area of specific interest to individual student under guidance of department member. Preparation of a research paper.
410 SOCIAL STRUCTURES AND PERSONALITY
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 psychology, 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 RELATIONS
3 credits
Prerequisite: 100 or permission. Analysis of structure and dynamics of race and ethnic relations from a variety of perspectives emphasizing both historical and contemporary issues. Lecture.
423 SOCIOLOGY OF WOMEN
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.
425 SOCIOLOGY 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 VICTIM IN SOCIETY
3 credits
Prerequisites: 100 or permission of instructor. Study of the nature, causes, and consequences of victimization with special focus on crime victimization.

## 430 JUVENILE DELINQUENCY

3 credits
Prerequisite: 100 or permission. Analysis of social structure and process from which delinquency develops. Emphasis on current and past research. Lecture/discussion.

3 credits
Prerequisites: 330 or 430 . Theories, beliefs and practices of community and institutional correc tions systems, including 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.
441 SOCIOLOGY 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.

444 SOCIAL ISSUES IN AGING
3 credits
Prerequisite: 100 or permission. A look into the major issues and problems facing older persons, Special attention is given to the unmet needs of the elderly as well as an examination of current societal policy and programs to meet these needs.

450 SOCIOLOGY OF MENTAL ILLNESS
3 credits
Prerequisite: 100 or permission. The social history of the mental hospital, theories and epidemiology of mental illness, community-based treatment models, the organization of mental health services, the role of personal social networks and mutual support groups.
455 FAMILY 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 contemporary theoretical work.
471 FIELD PLACEMENT IN CORRECTIONS
Prerequisite: 431. Placement in selected community or institutional agency. Minimum 80 hours. Student must receive permission from instructor for placement.
495 FIELD INTERNSHIP
(May be repeated for a total of nine credits) Prerequisites: permission of a faculty supervisor. Placement in community organization for supervised experience related to degree requirement. Student must submit an application to the intern coordinator during semester prior to enrollment.

496 SENIOR HONORS PROJECT 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 AND 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 reinforce the student's educational and career choices. Small groups meet weekly, led by an upperclass engineering student. This interactive peer environment fosters personal development for first-year students.
120 MINORITY ENGINEERING SEMINAR AND PEER GROUPS
1 credit
Provides overview of disciplines/opportunities in engineering through dynamic speakers, tours, and group discussions. Reinforces educational/career 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 alternative 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 written reports of this experience. 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. Offered 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 include torsion, shear flow, buckling, fracture and fatigue of beams and plates.
400 AEROSPACE 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 planner, 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 TEAMWORK I
1 credit
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 ENGINEERING COMPUTATIONS
2 credits
Prerequisites: 101 or permission. Computer programming language, flowcharting, introductory simulation and introductory numerical analysis.
194 CHEMICAL ENGINEERING DESIGN I
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 MATERIAL AND ENERGY BALANCES

4 credits Prerequisites: 121, 3450:221 and 3150:154. Introduction to material, energy balance calculations applied to solution of chemical problems.

210 PROJECT 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 management and information technology skills.
225 EQUILIBRIUM THERMODYNAMICS
4 credits
Prerequisites: 200 and 3450:223. Second law of thermodynamics, entropy, applications, comprehensive treatment of pure and mixed fluids. Phase and chemical equilibria, flow processes, power production and refrigeration processes covered.

294 CHEMICAL ENGINEERING DESIGN II
1-2 credits
Prerequisites: 121, 200 and permission. Supervised individual or group design project. Analysis of multi-unit process using simulation and/or experimental techniques. Written report and oral presentation required.
305 MATERIALS SCIENCE
2 credits
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 under-
graduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project 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 transfer equations for binary systems. Analogy and dimensionless 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 rheology 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 teamwork, communications, presentation, project management and information technology skills.

421/521 FUNDAMENTALS OF MULTIPHASE TRANSPORT PHENOMENA
3 credits
Prerequisite: 4200:321 Transport Phenomena or equivalent, and instructor permission. Major topics to be covered: Intraphase and interphase transport phenomena, Transport phenomena in multiphase fluids, Transport in Porous Media, Transport in Gas/liquid 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, distillation columns, and heat pumps.

441 PROCESS DESIGN I
3 credits
Prerequisites: 330, 351, 353. Application of chemical engineering fundamentals to the design of a multi-unit process. Emphasis on use of process simulators. Advanced equipment design, oral and written communication skills and teamwork.

442 PROCESS DESIGN II
3 credits
Prerequisite: 441 or permission. Teaches methods of process conceptualization, preliminary optimization. Specific topics include: chemical process design methodology, design heuristics, energy 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 SOLIDS 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 INDUSTRIAL ENZYME TECHNOLOGY
3 credits
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 process economics aspects.

463/563 POLLUTION CONTROL
3 credits
Prerequisite: 353 or permission. Air and water pollution sources and problems. Engineering aspects and methodology.

466/566 DIGITIZED DATA AND SIMULATION
3 credits
Prerequisite: permission. Data acquisition and analysis by digital devices, digital control applica-
tions and design.

## 470/570 ELECTROCHEMICAL ENGINEERING

3 credits
Prerequisites: 322,330. Chemical engineering principles as applied 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
Prerequisite: 330 or permission of instructor. 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 scale-up of bioreactors for various biological processes.

## 488 CHEMICAL PROCESSES DESIGN

3 credits
Prerequisite: Permission of instructor or senior standing. Process design and analysis of emerg ing chemical technologies. Case studies, such as in-situ processing, alternative fuels, bioremediation, and engineering materials manufacture.
494 DESIGN PROJECT
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 fuels processing, bioengineering, simultaneous heat and mass transfer phenomena and new separation techniques.

497 HONORS PROJECT
1-3 credits
(May be repeated for a total of six credits) Prerequisite: special permission. Individual creative project pertinent to chemical engineering culminating in undergraduate thesis, supervised by faculty member of the department.

499 RESEARCH PROJECT 1-3 credits (May be repeated for a total of six credits) Prerequisite: permission. Individual research project pertinent to chemical engineering under faculty supervision. Report required.

## CIVIL ENGINEERING

## 4300:

101 TOOLS FOR CIVIL ENGINEERING
3 credits
Corequisites: 3450:149. Introduction to Civil Engineering. Basic concepts of engineering practice including communication skills, problem solving skills, professional ethics/goals, and teamwork. Introduction to professional level software including CAD, graphics presentation, spreadsheets, database, and mathematical computation
120 INTRODUCTION TO CIVIL ENGINEERING
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, resultants, couples; equilibrium of force systems; distributed forces; centers of gravity, analysis of simple structures; moments of inertia; kinematics.
202 INTRODUCTION TO MECHANICS OF SOLIDS
3 credits
Prerequisite: 201. Axial force, bending moment diagrams, axial stress and deformation; stressstrain diagrams; torsion; flexural stress; flexural shearing stress; compound stresses; indeterminate beams; columns.

230 SURVEYING
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 SOIL MECHANICS
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 GEOTECHNICAL ENGINEERING
3 credits
Prerequisite: 313. Limiting equilibrium within a soil mass. Design of retaining walls, bulkheads, shallow, deep foundation systems. Slope stability. Laboratory study of soil properties and behavior.

321 INTRODUCTION TO ENVIRONMENTAL ENGINEERING
3 credits
Prerequisites: 3150:153, 3450:222. Basic principles of ecosystems, microbiology, chemical reactions, and material flow that environmental engineers use to protect our water, air and soil.

323 WATER SUPPLY AND POLLUTION 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 ENGINEERING
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 credits
Prerequisite: junior standing. Introductory survey of transportation topics including transportation planning requirements and techniques, introduction to design of highways, airports and railroads and introduction to traffic engineering.
380 ENGINEERING MATERIALS LABORATORY
3 credits
Prerequisite: 202. Fundamentals and applications of materials science, mechanics of solids and study of laboratory instrumentation and standard techniques in testing of engineering materials.
390 CIVIL ENGINEERING SEMINAR
1 credit
A civil engineering seminar discussing contemporary issues in civil engineering, our professiona and ethical responsibilities, and our impact and interaction with society.
401 STEEL DESIGN
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 steel; diagonal tension; stirrups; development length; one-way slab; T-beams; two-way slabs; columns; isolated and combined footings.

404 ADVANCED STRUCTURAL DESIGN 3 credits Prerequisites: 401, 403. Composite design; plate girders; plastic design; cantilever retaining walls; torsion in R/C members; deflection of R/C members; continuous girder bridge design.
407 ADVANCED STRUCTURAL ANALYSIS
3 credits Prerequisite: 306. Energy methods for beams and frames. Stiffness and flexibility formulations for framed structures using classical and matrix methods. Introduction to stability and plastic analysis Warping-Torsion behavior of beams. Analysis of axisymmetric circular plates 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 SOIL AND ROCK EXPLORATION
3 credits
Prerequisite: 314 or permission. Site exploration criteria and planning. Conventional boring, sam pling 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 college chemistry. General, physical, organic biochemistry, equilibrium, and colloid chemistry concepts applied to Environmental Engineering. Concepts are used in wate and wastewater laboratory.
424 WATER-WASTEWATER LABORATORY
1 credit
Corequisite: 323 or permission. Analysis of water and wastewater.
426/526 ENVIRONMENTAL ENGINEERING 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 QUALITY MODELING AND MANAGEMENT
3 credits
Prerequisite: 323. Analysis and simulation of the physical, chemical and 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 SOLID WASTES
3 credits
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 non-technical constraints outlined.
441 HYDRAULIC DESIGN
3 credits
Prerequisite: 341 . Collection and critical evaluation of hydraulic data related to actual design problem selected by instructor. Development and analysis of design alternatives. Preparation of reports.

443/543 APPLIED HYDRAULICS
3 credits
Prerequisite: 341. Review of design principles: urban hydraulics, 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 their analysis. Hydrologic simulation, reservoir planning and water supply studies. Analysis of rainfall and floods.
448 HYDRAULICS 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 PLANNING
2 credits
Historical developments in urban planning; urban 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 credits
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 complex structural systems; vibration analysis using microcomputers.
452 STRUCTURAL VIBRATIONS AND EARTHQUAKES
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. Elastic plastic systems. Earthquake analysis of design. Earthquake codes.
453/553 OPTIMUM STRUCTURAL DESIGN
3 credits
Prerequisite: 306. Basic concepts in structural optimization. Mathematical programming methods including unconstrained minimization, multidimensional minimization and constrained minimization.

## 454/554 ADVANCED MECHANICS OF MATERIALS

3 credits Prerequisite: 202 or equivalent. Three-dimensional 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 PLANNING
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 planning problems, especially in urban areas.

## 464/564 HIGHWAY DESIGN

3 credits
Prerequisite: 361. Study of modern design of geometrical and pavement features of highways. Design problem and computer use. Graduate students will produce a more complete design.

## 465/565 PAVEMENT ENGINEERING

3 credits
Prerequisite: 361. Theories of elasticity, of viscoelasticity and of layered systems as applied to pavements. Pavement materials characterization; pavement design, pavement restoration for rigid and flexible pavements.

466/566 TRAFFIC ENGINEERING
3 credits Prerequisite: 361. Vehicle and urban travel characteristics, traffic flow theory, traffic studies, accidents and safety, traffic signs and marking, traffic signal planning, traffic control and transportation administration.
467 ADVANCED HIGHWAY 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, manufacture and properties of portland cement concrete, properties of asphaltic materials, design and testing of hot mix asphalt pavement mixes and of surface treatments. Laboratory preparation of specimens and determination 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 highway materials topic.
471 CONSTRUCTION ADMINISTRATION
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 framework and dewatering.

473 CONSTRUCTION MATERIALS
2 credits
Prerequisites: 380, 4200:305. Composition, structure and mechanical behavior of structural materials 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 individual job. Design of underground openings, support systems and linings.
480 RELIABILITY-BASED DESIGN
3 credits Prerequisite: 3470:261 and senior standing. Probability concepts in civil engineering. Risk analysis and reliability based design.
481 CIVIL ENGINEERING 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 engineering design of complex civil engineering projects.

## 482 SPECIAL 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.

## 490 SENIOR DESIGN

3 credits
Prerequisites: senior standing. A civil engineering design project that emphasizes interdisciplinary teamwork to solve a substantial, currently relevant problem.
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 civil engineering, supervised by faculty member of the department.

## ELECTRICAL ENGINEERING

## 4400:

101 TOOLS FOR ELECTRICAL AND COMPUTER ENGINEERING
3 credit
Corequisite: 3450:221 or 149 . Orientation to degree programs and design practice in electrical and computer engineering and in computer science. Introduction to computer applications and resources for engineering studies.
230 CIRCUITSILABORATORY
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 CIRCUITS I
3 credits
Prerequisite: 3650:291. Corequisite: 230, 3450:223, 3650:292. Fundamentals of circuit analysis including loop and nodal methods, phasor techniques, resonance, polyphase circuits and magnetic coupling
263 SWITCHING AND LOGIC
4 crealits
Prerequisites: 101 or 230,231. Analysis of computer circuits. Introduction to use of Boolean algebra and mapping techniques in analyzing switching circuits. Sequential circuits.

320 BASIC ELECTRICAL ENGINEERING
4 credits
Prerequisite: junior standing in engineering; corequisite: 3450:335. Covers fundamental aspects of electrical circuits, electronics and electrical machinery. Not open to an electrical engineering major.
330 CIRCUITS II LABORATORY 1 credit
Corequisite: 332. Computation, computer aided circuit analysis, circuit theorem confirmation, report writing to include data analysis and reduction, intermediate electrical measurements
332 CIRCUITS II
3 credits
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: 263,343 . 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 ELECTROMAGNETICS I

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 ELECTROMAGNETICS II
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 closed-boundary guiding structures.
360 PHYSICAL ELECTRONICS
3 credits
Prerequisite: 263, 332. PN junction, diffusion, tunneling, FET and BJT device physics, equivalent circuits for electronic devices, time and frequency analysis, biasing and logic families.
361 ELECTRONIC DESIGN
4 credits
Prerequisites: 343, 360. Power amplification, feedback, oscillators, linear integrated circuits, modulation and demodulation circuits.

371 CONTROL SYSTEMS I
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 CONVERSION
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
$1-3$ credits
(May be taken more than once) Prerequisite: permission of department head. Select comprehensive problems, supervised discussions and computation periods.
400 SENIOR SEMINAR
1 credit
Students present Senior Design Project proposals, progress reports, and final reports. Professional and societal impact aspects of design are considered.
401 SENIOR DESIGN PROJECT I
2 credits
Prerequisites: senior standing 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 ACTIVE CIRCUITS
3 credits
Prerequisite: 343. Applications of operational amplifiers including bilinear transfer functions, scaling, cascade design, biquad circuits, lowpass, high pass, bandpass-filters, Butterworth and Chebyshev response, sensitivity, delay filters, frequency transformations, ladder design, simulated element design, leapfrog simulation and switched-capacitors.
447 RANDOM SIGNALS
3 credits
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.

448 OPTICAL COMMUNICATION NETWORKS 3 credits
Prerequisites: 341, 354. Optical waveguides and integrated components. Optical transmitters and receivers. Optical communications network design.
449/549 DIGITAL COMMUNICATION
3 credits
Prerequisite: 341. Introduction to digital communication theory and systems; coding of analog and digital information; digital modulation techniques. Introduction to information theory.
451 ELECTROMAGNETIC COMPATIBILITY
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, self and mutual impedances. Equivalence principle, radiation from aperture antennas.
455/555 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 WIRELESS COMMUNICATIONS
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.

## 461 OPTICAL ELECTRONICS AND PHOTONIC DEVICES

3 credits
Prerequisites: 360, 341; 354 or 451. Lightwave engineering, photonic principles and optical electronic device technology.
465/565 PROGRAMMABLE LOGIC 3 credits
Prerequisite: 263. Digital design with programmable devices. PLD and FPGA architectures. Logic design and technology mapping tools.

470 MICROPROCESSOR INTERFACING
3 credits
Prerequisites: 3460:209 or 4450:208. Microprocessor structure, Bus Interface. Digital controller devices and their relationship to both the microcomputer and physical environment.
472/572 CONTROL SYSTEMS II
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.
484/584 POWER ELECTRONICS LABORATORY AND DESIGN PROJECT
2 credits
Prerequisite: 483/583 or equivalent. Experiments on different types of power electronic converters: $A C / D C, D C / D C, D C / A C$, and $A C / A C$. Design project to include design, simulation, building, and testing of a power electronic circuit.
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 engineering, supervised by faculty member of the department.

498/598 TOPICS IN ELECTRICAL ENGINEERING
1-2 credits
(May be taken more than once) Prerequisite: permission of department head. Special topics in electrical engineering.

## COMPUTER ENGINEERING

## 4450:

208 PROGRAMMING FOR ENGINEERS
3 credits
Prerequisite: 4400:101 or permission. Introduction to programming. Environment and tools. C programming language. Machine level data forms and organization.
330 COMPUTER SYSTEMS
3 credits
Prerequisite: 4400:263, 3460:209. Introduces the design and architecture of modern 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, 465 .Use of VSLI design environments in the development of large digital systems. Schematic capture, simulation and verification. Integration of standard building blocks. Design project.
375 OPERATING SYSTEMS CONCEPTS
3 credits
Prerequisites: 330, 3460:316. Process communication and resource sharing. Deadlock resolution. Memory management. File systems. Introduction to network operating systems.
410 EMBEDDED SCIENTIFIC 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. III-conditioned problems.

432 SYSTEM SIMULATION
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.

442 KNOWLEDGE ENGINEERING 3 credits
Prerequisite: 441 or equivalent. Study of knowledge acquisition and expert system project management.
443 FRAME-BASED EXPERT SYSTEM DESIGN 3 credits
Prerequisite: permission. Introduction to the design and development of frame-based expert systems.
444 FUZZY LOGIC EXPERT SYSTEM DESIGN 3 credits
Prerequisite: permission. Introduction to the design and development of fuzzy logic expert systems.

## 445 APPLIED DATA MINING

3 credits
Prerequisite: senior standing or permission. Introduction to the design and development of data mining systems. Extensive use of data mining software to build systems applied to real-world problems.
470/570 VLSI CIRCUITS AND SYSTEMS
3 credits
Prerequisite: 370. Advanced VLSI design. MOSFET structures, design rules and fabrication. Static, dynamic CMOS. PLAs, ROMs and RAMs. Layout methodologies and tools. System architecture.
480 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.

497/597 SPECIAL TOPICS: COMPUTER ENGINEERING
1-2 credits (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 processing, 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 ANALYSISI

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 thermodynamics. Pure substances, closed and open systems, and the first and second laws of thermodynamics. Entropy, vapor power cycles and vapor compression refrigeration.

301 THERMODYNAMICS II
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: 3650:292. 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.
310 FLUID MECHANICS I
2 credits
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. External viscous flows and potential flow. Fundamentals of compressible flow. Concepts of computational fluid dynamics.

## 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, velocities, accelerations and introduction to plan motion mechanisms. Introduction to design of gears, gear trains and cams.
336 ANALYSIS OF MECHANICAL COMPONENTS
3 credits
Prerequisite: 4300:202. Corequisite: 3450:335. Analysis of stress and strain at a point. Mohr's circles, 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: analog, 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.

380 MECHANICAL METALLURGY 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 standards, intellectual property, product liability, safety issues, technical writing, diversity, and job opportunities.

410/510 HEATING AND AIR CONDITIONING
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, cooling 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. Prandtl-Myer theory. Applications to design and analysis of compressors, turbines and propulsion devices.

## 412/512 FUNDAMENTALS OF FLIGHT

3 credits
Prerequisite: 311 or permission. Introduction to basic aerodynamics, airplane performance, stability 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 airfoil 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; propulsion principles for turbojets, turbofans, ramjets, 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, modern 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 FINITE ELEMENT METHOD
3 credits
Prerequisite: 315 and 4300:202. Introduction to matrix and finite element methods. Stiffness and flexibility 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 MECHANICAL VIBRATIONS
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 error, root-locus, frequency domain. Compensation techniques. Multivariable and nonlinear design methods and computer-aided control design.
442/542 INDUSTRIAL AUTOMATIC CONTROL
3 credits Prerequisite: 441 or permission. Operation of basic control mechanisms. Study of mechanical, hydraulic, pneumatic, fluidic control systems, including application areas. Tuning of control devices for optimum performance of system. Case studies on control applications from industry, e.g. boilers, 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 including computer utilization and applications.

444/544 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 transfer/fluid/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 DESIGN PROJECT I
2 credits Corequisites: 400, 441, 460. Detailed senior design project. Design, feasibility and cost analysis.
462/562 PRESSURE VESSEL DESIGN
3 credits Prerequisite: 336 or permission. Introduction to modern 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 SENIOR DESIGN PROJECT II
2 credits
Prerequisite: 461. Detailed senior design project. Final design and implementation.
483 MECHANICAL ENGINEERING MEASUREMENTS LABORATORY
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 MECHANICAL ENGINEERING LABORATORY
2 credits
Prerequisite: $301,311,315,380,431,483$. Corequisite: 441 . Laboratory experiments in area of dynamics, vibrations, thermodynamics, fluids, heat transfer and controls.
486 SPECIAL TOPICS
1-3 credits
Prerequisite: permission. Brief description of current content 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, supervised by faculty member of the department.
498 EXPERIMENTAL INVESTIGATION IN
1-2 credits MECHANICAL ENGINEERING
Individual independent laboratory investigations in areas relevant to mechanical engineering.
Student suggests a project and makes appropriate arrangements 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 or 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 INTRODUCTION TO BLENDING AND COMPOUNDING 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, materials, molds, equipment, computer-aided design.

450 ENGINEERING PROPERTIES OF POLYMERS
3 credits
Prerequisites: 4700:281, 4700:381 and 4600:336 or equivalent. Introductory course to engineering properties and processing of polymers. Analysis of mechanical tests of polymers in the glassy, rubbery, and fluid states. Product design. Concepts of rheology, rheometry 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, 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 designed oriented if used in place of 4700:499.

499 POLYMER ENGINEERING DESIGN PROJECT
2 credits
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 drafting.
111 INTRODUCTION TO BIOMEDICAL ENGINEERING DESIGN
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 BIOMEDICAL ENGINEERING SOPHOMORE SEMINAR
1 credit
Prerequisite: 101. A seminar format to allow students to learn about current research and careers in Biomedical Engineering. Topics in technical communications will also be covered.
220 BIOMEDICAL COMPUTING
3 credits
Prerequisite: 101. Corequisite: 3450:223. Programming in BASIC and Visual Basic for data acquisition, analysis and display. Object-oriented programming using biomedical engineering examples. High-level 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 MODELING AND SIMULATION OF BIOMEDICAL SYSTEMS
3 credits
Prerequisite: $3450: 335$. Modeling and simulation of physiological systems and their interactions with therapeutic devices, such as the artificial kidney.
325 DESIGN OF MEDICAL DEVICES
Prerequisites: Junior/senior standing in the College of Engineering, the College 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 MECHANICS

3 credits
Prerequisites: $3450: 335,3150: 133,3650: 292$, and 4600:203. Introduction to the fundamentals of fluid 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 BIOMECHANICS 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 BIOMATERIALS

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: 4400:343. Introduction to the basic problems associated with biological signal and image processing applications, and appropriate approaches to dealing with them.
422/522 PHYSIOLOGICAL 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 IMAGING SYSTEMS
3 credits
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 magnetic 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 principles 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 analyzed with respect to their potential activation of biological mechanisms.
445 EXPERIMENTAL TECHNIQUES IN BIOMATERIALS TISSUES ENGINEERING 3 credits
Prerequisite: 440. Laboratory experience that applies engineering concepts and practices to the analysis of biomaterials and tissue engineering.
460/560 EXPERIMENTAL TECHNIQUES IN 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 IN BIOMEDICAL ENGINEERING 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 I
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 ENGINEERING DESIGN II
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 experience in business, industry 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 INTRODUCTION 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 SKILLS
1 credit Elective Course: Computer Skills for education majors with little or no computer experience. Includes word processing, databases, 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 learners Pre-K through adult. Identifies learner needs, roles of teachers and schools in fostering optimal development. ( 10 hours of field experience included.)
211 TEACHING AND LEARNING 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 instructional 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 EDUC. EQUITY AND EXCELLENCE IN A CULT. PLURALISTIC SOCIETY
3 credits Prerequisites: 200, 220,5500:230, 5610:225. Corequisite: 5500:360. Engages teacher candidates in inquiry-based seminars and service learning that facilitate their developing pedagogical competence implementing equity and excellence in education in a culturally pluralistic society.
410 PROFESSIONAL ISSUES IN EDUCATION
3 credits
Prerequisites: 5050:310, 5050:311, 5050:320, 5050:330. coursework applies social and philosophical 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

## INSTRUCTIONAL MATERIALS

3 credits (20 clinical hours)
Design, adaptation, and preparation of instructional materials using graphics, transparency production, video equipment, computer authoring software, mounting and laminating processes, photography, 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 PROJECT: FOUNDATIONS
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: 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 concern in professional education.
490/590 WORKSHOP 1-3 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 program and professional goals.

## EARLY CHILDHOOD EDUCATION

## 5200:

100 ORIENTATION TO EARLY CHILDHOOD 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.
215 THE CHILD, THE FAMILY, AND SCHOOL
3 credits (10 clinicalffield hours)
Prerequisite: $5100: 220,5610: 225$. The purpose of this course is to learn about why we create reciprocal working relationships with parents and methods of creating these types of relationships.
310 INTRODUCTION TO EARLY CHILDHOOD EDUCATION
3 credits (10 clinical hours)
Prerequisite: 7400:265. Provides the student with background information on who is serviced, types of programs available, role of the adults and goals of early childhood education.
315 ISSUES AND TRENDS IN EARLY CHILDHOOD EDUCATION 3 credits (10 clinical hours) Prerequisite: 7400:265. In-depth examination of issues impacting on children from birth to kindergarten, their families and the early childhood three to grade three educational process.
316 KINDERGARTEN CURRICULUM AND INSTRUCTION
4 credits
Prerequisite: 7400:265, 5100:210 and 211, admission to Teacher Education Program, Developmentally appropriate curriculum for five- and six-year old children will be explored. The educational, social and political issues impacting kindergarten programming will be identified.
319 INTEGRATED EXPRESSIVE 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 INSTRUCTIONAL TECHNIQUES: 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 ( $K-8$ ), and strategies that promote appropriate levels of language proficiency and competency for young learners.

325
and 4 credits ( 33 field and 27 clinical hours) Prerequisite: 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 standards.
333 TEACHING SCIENCE TO YOUNG CHILDREN
3 credits
Prerequisites: 5500:310, 311 or instructor permission. Development of a point of view toward science teaching and study of methods of presenting science material.
338 TEACHING OF SOCIAL STUDIES TO YOUNG CHILDREN
3 credits
Prerequisites: 5500:310, 311 or instructor permission; admission to Teacher Education Program.
Trends in social studies instruction in early childhood/middle level classrooms will be discussed as well as varied means of implementing programs.
340 DEVELOPMENTAL WRITING IN EARLY CHILDHOOD
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 enrollment in 550:370. Trends in mathematics instruction in early childhood/middle level classrooms. Procedures for the development of mathematics concepts and skills.

355 LANGUAGE AND LITERACY IN EARLY CHILDHOOD 3 credits
Prerequisite: 5500:310 and 7400:265. A framework for the development of literacy from birth to age 8. Factors influencing emerging literacy will be explored. Emphasis on young children's literature.
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 learned in the pre-kindergarten program as they participate with young children.
365 COMPREHENSIVE MUSICIANSHIP FOR EARLY CHILDHOOD
3 credits
Prerequisite: Admission to the Teacher Education Program. Designed to afford a prospective
classroom teacher the opportunity to develop individual musical skills in creativity, performance, and listening as a means of enhancing teaching through use of music.
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 FIELD EXPERIENCE
$1-3$ credits
Independent field work in area selected by student's adviser, based on student's needs.
420 INTEGRATED PRIMARY CURRICULUM
4 credits ( 25 field and 35 clinical hours) Prerequisite: completion of or concurrent enrollment in 550:370. Course models an inquiry-based format that integrates math, science, social studies, and technology standards where students learn how to create, implement, manage, and evaluate student-centered learning environments.
425 ADVANCED INTEGRATED PRIMARY CURRICULUM 4 credits ( 25 field and 35 clinical hours) Prerequisite: admission to teacher education program; 420. This course further explores an inquirybased format that integrates math, science, social studies, and technology standards by having students implement, manage, and evaluate their own and their students' learning.
430 SENIOR HONORS PROJECT: EARLY CHILDHOOD
1-6 credits
Prerequisites: senior standing in Honors College and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (May be repeated for a total of six credits).
450 INTEGRATED CURRICULUM APPLICATION IN THE ELEMENTARY SCHOOL
3 credits
Prerequisite: admission to Teacher Education Program. Focus on the design and presentation of integrated lessons and on becoming an effective decision maker in delivering integrated, multidisciplinary instructional programs to diverse populations.

480 SPECIAL TOPICS: ELEMENTARY 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.
490,1,2,3/590,1,2,3 WORKSHOP
1-3 credits each
Elective workshop for elementary education major who would pursue further refinement of teach ing skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices.

495 STUDENT TEACHING (PRE-K 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 adviser and department head. Specific area of curriculum investigation pertinent to elementary education as determined by student's academic needs.
498 STUDENT TEACHING COLLOQUIUM
1 credit
Prepares 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 ORIENTATION TO MIDDLE LEVEL EDUCATION
0 credits
Corequisites: 5100:200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development.
300 MIDDLE LEVEL EDUCATION
Corequisite: 5500:360. This course will review nature/needs of early adolescents; developmentally appropriate middle schooling; philosophy of school organizations; curriculum, pedagogy, and assessment; cultural and community contexts.

333 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.
338 TEACHING SOCIAL STUDIES TO MIDDLE CHILDHOOD 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 MIDDLE LEVEL LEARNERS 3 credits Corequisite: 5500:370. Modern strategies of psychology and methodology in middle childhood mathematics on exploratory, structural and mastery levels of learning,
350 INTEGRATING LANGUAGE ARTS AND MEDIA
3 credits
This course provides preservice middle grade teaches with strategies for integrating the language arts in the areas of reading, writing, speaking, listening, media and drama.
351 MODES OF WRITING FOR THE MIDDLE GRADES
3 credits
Prerequisite: Admission to College of Education's Teacher Education Program. This course will provide middle school languages arts teachers the understandings and skills necessary to teach writing in varieties of forms and modes including newswriting.

430 SENIOR HONORS PROJECT: MIDDLE LEVEL EDUCATION
1-6 credits
Prerequisites: senior standing in Honors College and permission of student's preceptor Carefully defined individual study demonstrating originality and sustained inquiry. (May be repeated for a total of six credits.)

480 SPECIAL TOPICS: MIDDLE SCHOOL
1-4 credit
Prerequisite: permission of instructor. (May be repeated with change of topic.) 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.
495 STUDENT TEACHING (GRADES 4-6)
6 credits
Planned teaching experience in schools selected and supervised by Office of Field Experience
496 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 portfolio; senior status. Corequisite: 498. Planned teaching experience in schools selected and supervised by Office of Field Experience.

Prerequisite: 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 TEACHING COLLOQUIUM: 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 ORIENTATION TO THE AYA/P-12/MULTI-AGE 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 successfu in the program, including portfolio development
311 INSTRUCTIONAL TECHNIQUES 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 fields.

317 INSTRUCTIONAL TECHNIQUES: MODERN LANGUAGES - SECONDARY 3 credits Focus on theories of language acquisition, models of instruction for teaching foreign languages/cultures and strategies that promote levels of proficiency/competency for adolescent learners.

325 CONTENT READING IN SECONDARY SCHOOLS
3 credits (30 clinical hours)
Instructional principles and practices for helping secondary school youth and adults learn subject matter through application of reading and study skills
330 TEACHING ADOLESCENT/MIDDLE LEVEL LITERATURE
3 credits ( 30 clinical hours) Student develops skills for selection of literature that is well-suited for adolescent/middle level children. Student develops, uses, and experiences methods for teaching adolescent/middle level literature in the classroom.
395 FIELD 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 defined 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.

490,1,2,3/590,1,2,3 WORKSHOP 1-3 credits each Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units.
494/594 EDUCATIONAL INSTITUTES
1-4 credits
Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations.
495 STUDENT TEACHING
8-11 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. 496. Planned teaching experience in schools selected and supervised by Office of Field Experience.

496 STUDENT TEACHING COLLOQUIUM
1 credit
Concurrent with Student Teaching; emphasis on applied decision making, group problem solving, and commitment to life-long learning.

## 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 commensurate 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 vocational concepts, utilization of audio-visual materials, evaluation procedures.
395 FIELD EXPERIENCE
$1-3$ credits
Prerequisite: upper-college 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 learner and studies issues, factors, and strategies pertinent to successful facilitation of learning in a variety of postsecondary occupational learning environments. Delivered in a totally online format and face-to-face format with Web enhancements.

401 LEARNING WITH TECHNOLOGY
1 credit 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 WORKPLACE 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
3 credits Prerequisite: 401 or may be taken as a corequisite or with permission of the instructor. 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 SYSTEMATIC CURRICULUM DESIGN FOR POSTSECONDARY INSTRUCTION 3 credits Prerequisite or corequisite: 40, 420. admission to program or permission of instructor. Procedure of breaking down an occupation to determine curriculum of their laboratory and classroom, 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, measurements. Delivered in a totally online format and face-to-face format with Web enhancements.

## 451/551 FAMILY AND CONSUMER SCIENCES JOB TRAINING

3 credits
Prerequisite: senior standing or permission of instructor. Concept development in vocational 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.

## 467 FIELD EXPERIENCE

3 credits
475 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 GPAMay be taken with 475. Micro teaching and portfolio development. Delivered in a totally online format and face-to-face format with Web enhancements.
480 SPECIAL TOPICS: WORK FORCE EDUCATION AND TRAINING
$1-3$ 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 enhancements.

490,1,2/590,1,2 WORKSHOP
$1-3$ credits 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.
495 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 portfolio. Delivered in a totally online format and face-to-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 LITERACY DEVELOPMENT

## AND PHONICS

3 credits (10 hours of service learning) Prerequisite: admission to Teacher Education Program. Children's literacy development is explored through an integrated instructional model, with emphasis on the role of comprehension, phonics, and functional spelling in language learning.
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 software and film.
310 INSTRUCTIONAL DESIGN
3 credits
Prerequisite: 5100:210, 5100:211; Corequisite: 311. Design and teach lessons using instructional models, strategies, and resources for students with different characteristics and design appropriate assessments to measure content mastery.

## 311 INSTRUCTIONAL RESOURCES

3 credits
Prerequisites: 5100:210, 5100:211; Corequisite: 310. Examines existing and developing media, technological, human and environmental resources as they relate to learning. Includes identifying, locating, evaluating, using, designing, and preparing educational resources.
320 DIVERSITY IN LEARNERS
3 credits Prerequisites: 5100:210, 5100:211. Students learn 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 behaviors will be presented.

341 LABORATORY PRACTICUM IN READING
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. 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 IMPLEMENTATION:
INSTRUCTION, ASSESSMENT \& CLASSROOM MANAGEMENT
3 credits
Prerequisite: 360, 5100:300. Interpretation and application of standards-based thematic units and lesson plans; classroom assessment and organization, including mediation of student behaviors and classroom management.
440/522 CONTENT AREA LITERACY
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 DIVERSE LEARNERS
3 credits
Prerequisite: 245 and 286. The course is designed to provide a student with knowledge, skills and attitudes which will enable employment of effective methods of teaching reading to culturally different learners, and/or learners whose language patterns are nonstandard.

445 EVALUATING LANGUAGE LITERACY
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.
475 INSTRUCTIONAL TECHNOLOGY APPLICATIONS
3 credits
Prerequisite: $5500: 230$. Focus on developing learner competencies in the use of instructional
technologies to enhance both the instructor's personal and professional productivity.
480/580 SPECIAL TOPICS
1-4 credits
Group study of special topics of critical, contemporary concern in professional education. (May be repeated with change in topic.)
481/570 MULTICULTURAL EDUCATION IN UNITED STATES 3 credits
Inquiry into multicultural dimensions of American education. Comparisons of urban, suburban and rural educational settings with reference to socioeconomic differences.

482/571 CHARACTERISTICS OF CULTURALLY DIVERSE POPULATIONS 3 credits Study of characteristics of culturally different youth with focus on youth in low-income areas. Emphasis on cultural, social, economic and educational considerations and their implications.

483/572 PREPARATION FOR TEACHING CULTURALLY DIVERSE POPULATIONS 3 credits Designed to help prepare trainees to teach culturally different youth from low-income back grounds. Through use of multimedia source materials trainees gain knowledge of background and culture of culturally different learners, determine role of teacher, explore techniques of discipline and classroom management, survey motivational and instructional techniques and examine, prepare and adapt variety of instructional materials for individual, small group and large group instruction.
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.
485/541 TEACHING LANGUAGE LITERACY 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 language, culture stresses.

486/542 TEACHING MATHEMATICS, SOCIAL STUDIES AND SCIENCE
3 credits TO BILINGUAL 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.
487/543TECHNIQUES FOR TEACHING ENGLISH AS A SECOND
4 credits LANGUAGE IN THE BILINGUAL 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
0.5 credit each

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 onehalf semester. Permission of coach necessary for enrollment in varsity sports(170-181).**

120 ARCHERY
121 BADMINTON
122 BASKETBALL
123 BOWLING
126 FITNESS AND WELLNESS $\ddagger$
127 GOLF
132 KARATE $\ddagger$
133 LIFEGUARD TRAINING $\ddagger$
135 RACQUETBALL
138 SCUBA $\ddagger$
139 SELFDEFENSE $\ddagger$
141 SKIING (downhill)
142 SOCCER
144 SQUARE AND FOLK DANCE
146 SWIMMING (beginning)
147 SWIMIING (intermediate)

150 TENNIS (beginning)
151 VOLLEYBALL
155 BASIC KAYAKING $\ddagger$
170 VARSITY BASEBALL
171 VARSITY BASKETBALL
172 VARSITY CROSS COUNTRY
173 VARSITY FOOTBALL
174 VARSITY GOLF
175 VARSITY SOCCER
176 VARSITY SOFTBALL
177 VARSITY SWIMMING
178 VARSITY TENNIS
179 VARSITY TRACK
181 VARSITY VOLLEYBALL
182 VARSITY RIFLERY
183 VARSITY 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, billiards, intermediate and advanced bowling, intermediate and advanced golf, advanced self defense.
200 LIFEGUARD INSTRUCTOR
2 credits
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 Pre-K to adult.

206 ORIENTEERING 1 credit
This course teaches map and compass skills and introduces the sport of orienteering. This is an active, hands-on course. No previous experience is necessary.

207 INTRODUCTION TO ROCK CLIMBING
1 credit
This course teaches basic rock-climbing skills. No previous experience in necessary.
208 BACKPACKING
1 credit
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 STUDIES
3 credits
Provides student with general overview of career opportunities within sport/exercise studies Emphasis placed on the understanding of the field of sport studies, exercise science and wellness education.

102 PHYSICAL EDUCATION ACTIVITIES I:
2 credits (30 clinical hours) FITNESS AND CONTEMPORARY ACTIVITIES
Presentation of knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of fitness and contemporary activities. One hour lecture, two hours lab.
110 INTRODUCTION TO ATHLETIC TRAINING
1 credit
Provides an overview of the Sports Medicine team and the components of a comprehensive athletic healthcare program. Introduces the student to the profession of athletic training.
130 PHYSICAL EDUCATION ACTIVITIES FOR CHILDREN
2 credits ( 30 clinical hours)
For a physical education majors only. Participation in methods, activities and issues relating to pre-K through elementary physical education programs. One lecture and two laboratory periods per week.

150 CONCEPTS IN HEALTH AND FITNESS
3 credits
Introduction to basic health and fitness 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.

193 ORIENTATION TO TEACHING
3 credits (10 field hours, 22 clinical hours)

## PHYSICAL EDUCATION

Investigation of teaching elementary, middle school, secondary physical education. Teacher concerns such as lesson planning are considered. Observations done in school settings. Three hours lecture
** Varsity sports are one credit each.
$\ddagger$ One credit each. Two periods each week.
$\ddagger \ddagger$ Two credits each.

194 SPORTS OFFICIATING
2 credits (8 clinical hours) Knowledge 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 teaching/learning process in physical education at all ages
200 AQUATIC FACILITY MANAGEMENT
3 credits
This course is designed to explore, acquire, and discuss knowledge and techniques for aquatic facility operation and management.
201 KINESIOLOGY
3 credits (8 clinical hours)
Prerequisites: 3100:206/207 or 3100:208/209. Application of basic principles of anatomy and mechanics to human 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:
2 credits ( 30 clinical hours)
TEACHING INDIVIDUAL AND DUAL SPORTS
The purpose of this course is to teach students how to teach individual and dual sports.
205 PHYSICAL EDUCATION ACTIVITIES III: TEAM SPORTS

## 2 credits ( 30 clinical hours)

 The purpose of this course is to teach students how to teach team sports.211 FIRST 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 illness/emergencies 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 standards. Instruction and skills practice for sud den illness/emergencies is provided.

3 credits
33 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.
235 CONCEPTS OF MOTOR LEARNING
3 credits (10 field hours, 10 clinical hours) AND DEVELOPMENT
This course will introduce key motor learning concepts and analysis of developing fundamental motor skills. Three hours lecture

240 CARE AND PREVENTION 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 INJURIES LAB
1 credit (50 clinical hours) Prerequisites: 3100:200/201. Corequisite: 3100:200/202; 240. This course is designed to allow 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 compe tencies.

245 ADAPTED PHYSICAL EDUCATION
3 credits ( 30 clinical hours, 10 field hours) Identification of atypical movement among various exceptional individuals, with adapted physical education programming experience in a laboratory setting. Two hours lecture and two hours lab.

250 PRINCIPLES OF ATHLETIC TRAINING 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 athletic 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 elderly. Three hours lecture
302 PHYSIOLOGY OF EXERCISE*
3 credits ( 30 clinical hours)
Prerequisites: 3100:206/207 or 3100:208/209. A course designed to study the physiologica effects of exercise relative to physical education activities, athletics and athletic training. Two hours lecture, two hours laboratory.
305 CLINICAL EXPERIENCE I
3 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 ACTIVITIES IV*
2 credits (30 clinical hours) BADMINTON AND GOLF
Course presents knowledge, fundamental skill development, and psychomotor skill analysis fo the content areas of badminton and golf. One hour lecture, two hours lab.
307 PHYSICAL EDUCATION ACTIVITIES V*
2 credits ( 30 clinical hours) TENNIS AND VOLLEYBALL
Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of tennis and volleyball. One hour lecture, two hours lab.

* Students must be in the College of Education to take 300/400 level courses.

308 PHYSICAL EDUCATION ACTIVITIES VI*
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.
335 MOVEMENT EXPERIENCES FOR
3 credits ( 20 clinical hours, 10 field hours)

## CHILDREN*

Prerequisites: 130, 193, 235. Course focuses on use of fundamental motor skill analysis to structure movement lessons for children from early childhood through elementary years. One hour lecture, two hours lab.

336 MOTOR LEARNING AND DEVELOPMENT
2 credits (10 field hours) FOR EARLY CHILDHOOD*
Physical fitness, fundamental motor skills, motor development and learning for early childhood, birth to age eight. Creating an environment of motor experiences for young children.
345 INSTRUCTIONAL TECHNIQUES FOR CHILDREN
3 credits ( 30 clinical hours)

## IN PHYSICAL EDUCATION*

Prerequisites: 130 and 193 . Microteaching experience with the purpose being to improve preservice 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/skills/behaviors for effective teaching of secondary physical education via microteaching. Two hours lecture, two hours lab.

352 STRENGTH AND CONDITIONING FUNDAMENTALS*
3 credits
Prerequisite: 200, 201, 202, 203. This course will address CAAHEP competencies in the area of strength and conditioning of physically active individuals.
360 PRACTICUMI
1 credit
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.
395 FIELD EXPERIENCE*
1-6 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: UPPER EXTREMITY

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: LOWER EXTREMITY
3 credits Prerequisites: $3100: 200,3100: 202,201$ and 240 . This course includes lecture laboratory activities to provide the student a comprehensive learning experience in lower extremity musculoskeletal anatomy.
403 EXERCISE TESTING*
3 credits
Prerequisite: 302. This course will cover basic knowledge 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 appropriately prescribe exercise for various populations (young, middle-aged, elderly, pregnant, diseased-states).
405 CLINICAL EXPERIENCE II
2 credits Prerequisite: by permission only. Improves the student's performance in the following domains of athletic training: injury prevention, injury recognition/evaluation and management, education and counseling.
409 HUMAN DYNAMICS OF SPORTS AND EXERCISE
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 INTRODUCTION TO SPORT SOCIOLOGY

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; 3100:206/207; 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.
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 PLANNING/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, management, and supervision. Course also will examine current sport leadership research as well as the fundamental governance structure of amateur and professional sport organizations.
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. Carefully defined individual study demonstrating originality and sustained inquiry.

432 THERAPEUTIC EXERCISE \& REHABILITATION: UE
3 credits
Prerequisites: $3100: 200,201,202,203$. This course will address CAAHEP standards and guidelines for competencies and proficiencies in exercise and rehabilitation techniques of the upper extremity in a physically active population.
433 THERAPEUTIC EXERCISE \& REHABILITATION: UE LAB
1 credit
Prerequisites: $3100: 200,201,202,203$. This course will address CAAHEP 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 students via application of a neurodevelopmental model and alternate methods. Three hours lecture.

439 ADVANCED ATHLETIC INJURY MANAGEMENT: UPPER EXTREMITY LAB 1 credit
Prerequisites: by permission only. Corequisite: 441 . This course is designed to allow students to learn, practice, and become competent and proficient in the psychomotor skills associated with upper extremity evaluation as defined by the NATA. Includes 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 coach.

441/541 ADVANCED ATHLETIC INJURY MANAGEMENT/ 3 credits

## UPPER EXTREMITY*

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 MODALITIES AND PHARMACOLOGY
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 MODALITIES AND PHARMACOLOGY 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.
444 THERAPEUTIC EXERCISE AND REHABILITATION LAB
1 credit
Prerequisites: 201, 302 and $3100: 200 / 201,3100: 202 / 203$. Corequisite: 445 . 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 athletic training as defined by the NATA.

445 THERAPEUTIC EXERCISE AND REHABILITATION
3 credits
Prerequisites: 201 and 302,3100:200/201/202/203. Corequisite: 444. This is a comprehensive course covering exercise prescription for injured active individuals, determination of therapeutic goals and selection of rehabilitation techniques.
449 ORGANIZATION AND ADMINISTRATION 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 education, intramural, and athletic programs. Includes tournament designs, supplies and equipment, liability, curriculum, and general administration. Three hours lecture.

## 451/551 ASSESSMENT AND EVALUATION 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 instructional objectives and activities for handicapped students. Three hours lecture.
452 FOUNDATIONS OF PHYSICAL EDUCATION*
3 credits
Overview of the emergence of physical education as a profession and the supporting role of underlying scholarly and scientific disciplines. Three hours lecture.
453/553 PRINCIPLES IN COACHING
3 credits (10 clinical hours)
Basics 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 credits
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 development process, including practicum preparation, 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 overview 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 REHABILITATION
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
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: $3100: 200,201,202,203$. This course will discuss common musculoskeletal pathology and surgical procedure associated with a physically active population
475 ADVANCED ATHLETIC INJURY MANAGEMENT: LOWER EXTREMITY
3 credits Prerequisites: 240, 241 and 201; 3100:200, 201, 202, 203. Corequisite: 476 . This is a comprehensive course designed for the student to display knowledge/psychomotor skills in injury evaluation/recognition of the lower extremity.
476 ADVANCED ATHLETIC INJURY MANAGEMENT: LOWER EXTREMITY LAB 1 credit Prerequisites: 201, 240, 241 and $3100: 200 / 201,3100: 202 / 203$. Corequisite: 475 . This course is designed to allow students to learn, practice, and become competent and proficient in the psychomotor skills associated with lower extremity evaluation as defined by the NATA.

490,1,2,3/590,1,2,3 WORKSHOP*
1-3 credits each
Practical, intensive and concentrated involvement with current curricular practices in areas related to physical education.

494 STUDENT TEACHING COLLOQUIUM FOR PHYSICAL AND HEALTH EDUCATION*
Prerequisites: Core courses, program studies courses; corequisite: Student Teaching, 495. Students meet during student teaching to discuss concerns about student teaching and analyze previous learning as it relates to their future as a professional educator
495 STUDENT TEACHING FOR PHYSICAL
10 credits (480 field 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 portfolio. Corequisite: 494. Planned teaching experience in schools selected and supervised by the Office of Extended Field 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 SENIOR 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. Carefully defined individual study demonstrating originality and sustained inquiry

440 INTRODUCTION TO OUTDOOR PURSUITS
3 credits
The purpose of this course is to introduce students to the varied but interrelated topics of Outdoor Pursuits, Adventure Education, Project Adventure, and New Games philosophy as they relate to Physical 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 curriculum.
452/552 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 organizational techniques unique to an extended, overnight, resident outdoor education program. Off-campus location for four days and three nights.
456/556 OUTDOOR PURSUITS
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
Prerequisites: 452,454 . Closely supervised practical experience in conjunction with regularly scheduled classroom meetings. 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 adventure experiences therapeutic processes will be analyzed and explored.

464 WILDERNESS EDUCATION ASSOCIATION OUTDOOR LEADERSHIP
3 credits
This is the Wilderness Education Association Standard Program for Outdoor Leadership Certification.

490/590 WORKSHOP: OUTDOOR EDUCATION
1-3 credits
Practical application of contemporary ideas, methodologies, knowledge relevant to outdoor education. Emphasis on participant involvement in educational practices, utilizing the natural environment.

494/594 EDUCATIONAL INSTITUTES: 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 first-hand knowledge and experience with existing outdoor education programs.

## HEALTH EDUCATION

## 5570:

101 PERSONAL HEALTH
2 credits (5 clinical hours)
This course applies the current principles and facts pertaining to healthful, 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 health education are considered.

202 STRESS, LIFE-STYLE AND YOUR HEALTH
3 credits (20 clinical hours) 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 health edu cation topics in a factual and comfortable manner in schools and community. Three hours lecture.
350 MEASUREMENT AND EVALUATION IN
3 credits (20 clinical hours)

## HEALTH EDUCATION*

Prerequisites: 101, 201, 202, 320. Presentation of measurement inventories and evaluation techniques in health education. Testing instruments, administering tests and evaluation procedures 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 health education programs within the school and community.

395 FIELD EXPERIENCE IN HEALTH EDUCATION* 1-3 credits (30-90 field 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 health 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 human life.

420 COMMUNITY HEALTH*
2 credits (20 clinical hours)
Study of current public health problems. Organization and administration of various agencies and their role in the solution of community health problems

421/521 COMPREHENSIVE SCHOOL HEALTH
4 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 health program are presented: instruction, services, and the environment.

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 instruc tional resources and delivery of health education content and teaching processes (pre K-12).
430 SENIOR HONORS PROJECT: 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 participafion in a community health organization, agency or resource.

497 INDEPENDENT STUDY IN HEALTH EDUCATION*
1-2 credits (30-60 field hours) Prerequisite: permission of the adviser. Analysis of a specific topic related to a current problem in health education. May include investigative procedure, research or concentrated practical 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 COUNSELING PROBLEMS RELATED TO LIFE-THREATENING
3 credits ILLNESS AND DEATH
Prerequisite: permission. Consideration of the global issues, current research, coping behavior support systems and family and individual needs in regard to life-threatening situations.

## SPECIAL EDUCATION

## 5610:

100 ORIENTATION TO INTERVENTION SPECIALIST 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 EXCEPTIONALITIES
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.
395 FIELD EXPERIENCE: SPECIAL EDUCATION
1-3 credits
Supervised work with youngsters, individually and in groups in school and/or community settings.
403 STUDENT TEACHING COLLOOUIUM: SPECIAL EDUCATION
1 credit
An examination of problems, issues, and practices encountered during the student teaching experience.
430 SENIOR HONORS PROJECT: SPECIAL EDUCATION
1-6 credits
(May be repeated for a total of six credits) Carefully defined individual study demonstrating originality and sustained inquiry.
440/540 DEVELOPMENTAL CHARACTERISTICS
OF EXCEPTIONAL INDIVIDUALS
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 intervention strategies for exceptional children and youth across educational and community settings.

447/547 INDIVIDUALS WITH MILD/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 INDIVIDUALS WITH MODERATE/INTENSIVE EDUCATIONAL NEEDS
4 credits CHARACTERISTICS AND IMPLICATIONS
Prerequisites:7400:265 and 440/540. Survey of the etiology, diagnosis, classification and developmental characteristics of individuals with moderate/intensive educational needs.

450/550 SPECIAL EDUCATION PROGRAMMING: EARLY CHILDHOOD 3 credits (20 field hours) Prerequisites: $225,447 / 547$ or $449 / 548$. Developmental patterns of young children with disabilities and developmentally/exceptionality appropriate practices with respect to programming and adaptations.

451/551 SPECIAL EDUCATION PROGRAMMING: MILD/MODERATE I 3 credits (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 SPECIAL EDUCATION PROGRAMMING:

## SECONDARY/TRANSITION

3 credits (20 field hours) Prerequisites: 225 , and $447 / 547$ or $448 / 548$. Study of diagnostic prescriptive service delivery systems designed to accommodate developmental patterns of secondary-level students with exceptionalities.
453/553 SPECIAL EDUCATION PROGRAMMING: 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/P development, instructional practices based upon legal/ethical principles for individuals with moderate/intensive educational needs.
454/554 SPECIAL EDUCATION PROGRAMMING: MODERATE/INTENSIVE II

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 SPECIAL EDUCATION PROGRAMMING: MILD/MODERATE II 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.

459/559 COLLABORATION \& CONSULTATION IN SCHOOLS AND COMMUNITY 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 FAMILY DYNAMICS AND COMMUNICATION IN 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.
461/561 SPECIAL EDUCATION PROGRAMMING:
3 credits (20 field hours) EARLY CHILDHOOD 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 SPECIAL 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 SPECIAL EDUCATION
Prerequisites: 225 and 448/548. The assessment of children (three to eight) and their environment who are at risk for disabilities or currently in special education.

467/567 MANAGEMENT STRATEGIES IN SPECIAL EDUCATION
3 credits 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 CLINICAL PRACTICUM IN SPECIAL EDUCATION
3 credits
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 SEMINAR: 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 SPECIAL EDUCATION 8 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: 403. Planned teaching experience in schools selected and supervised by Office of Field Experience.
486 STUDENT TEACHING: MILD/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 portfolio. Corequisite: 403. Planned teaching experience in schools selected and supervised by Office of Field Experience.

487 STUDENT TEACHING: MODERATE/INTENSIVE EDUCATIONAL NEEDS 8 credits
Two full-time, five week supervised teaching experiences in the role of Intervention Specialist for students with moderate/intensive educational needs at the elementary and secondary levels.

490,1,2,3/590,1,2,3 WORKSHOP 1-3 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: SPECIAL 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 experience 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 learning experience for program graduate focusing on critical topics.

## SPECIAL EDUCATIONAL PROGRAMS

## 5800:

490/590 WORKSHOP IN ECONOMIC EDUCATION OR IN SOCIAL STUDIES
$1-3$ credits
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.
491/591 WORKSHOP IN ARITHMETIC OR IN PHYSICAL SCIENCE
$1-3$ credits
Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.
492/592 WORKSHOP IN READING
$1-3$ credits
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
$3-6$ credits
On-the-scene 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, industry, or governmental agency. Comprehensive performance evaluation and written report required.

## GENERAL BUSINESS

## 6100:

101 GLOBAL BUSINESS CONCEPTS AND PRACTICES
3 credits
An introductory course presenting the business firm throughout the world as an integrative unit that uses information from various functional fields in decision-making.
201 INTRODUCTION TO eBUSINESS
3 credits
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 INTERNSHIP IN BUSINESS ADMINISTRATION
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 faculty in the student's major field. Periodic reports and term papers are required.

497 HONORS PROJECT IN BUSINESS ADMINISTRATION
2-3 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 FINANCE
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 FINANCE
3 credits
(For non-College 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.) Fundamentals of investing in stocks, bonds, derivatives, mutual funds, and closed-end investment companies for the individual investor.

## ACCOUNTANCY

## 6200:

201 ACCOUNTING PRINCIPLES I
3 credits
Prerequisite: 24 hours of college credit. Introduction to accounting concepts and terminology. Accounting for assets, liabilities, and equity.
202 ACCOUNTING PRINCIPLES II
3 credits
Prerequisite: 201. Information needs of management. Analysis of cash flow and financial state ments. Study of product costing systems; standard costs; planning, budgeting, and control systems; activity-based costing and activity-based management; cost-volume profit analysis; relevant costing; and capital budgeting

250 MICROCOMPUTER APPLICATIONS FOR BUSINESS
3 credits
Prerequisite: Computer proficiency and either 201 or 24 semester credit hours completed Introduces analysis, design and development of business information systems. Provides handson experience with microcomputer applications such as spreadsheets, database management systems and Internet applications development.
301 COST MANAGEMENT AND ENTERPRISE RESOURCE PLANNING
3 credits
Prerequisites: 3250:200, 250, and grades of not less than "C" in 201, 202 and 320 or 6500:350 Accounting majors must take 320. Product cost accumulation, cost management strategies, performance evaluation, role of cost in business decisions, and use of enterprise resource planning (ERP) systems as a cost management enabler.

316 FINANCIAL APPLICATIONS DEVELOPMENT
3 credits
Prerequisite: 201, 6500:315. Analysis, design and development of financial and control applications. Integration of intelligent agents into financial information systems for risk 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 AIS concepts, business modeling, accounting transaction cycles and internal control.
321 INTERMEDIATE ACCOUNTING I
3 credits
Prerequisite: 201, 202. Accounting for cash, receivables, inventories, property, plant and equipment, intangibles and liabilities.
322 INTERMEDIATE ACCOUNTING II
3 credits
Prerequisite: 321; (finance majors only). Accounting for owners' equity, investments, revenue recognition, tax allocations, pensions, leases, accounting changes, cash flows, segments, and interim periods.
325 FINANCIAL ACCOUNTING SYSTEMS AND ENTERPRISE RESOURCE PLANNING 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 FINANCIAL REPORTING AND ANALYSIS
3 credits Prerequisites: 201, 202 and 6400:301 or equivalent. Understanding international accounting standards, preparing and analyzing foreign financial statements, international tax issues, accounting for foreign currency transactions, understanding transfer pricing and international auditing.
410 TAXATION FOR FINANCIAL PLANNING
3 credits
Provides students preparing for careers in financial planning with the necessary knowledge of federal tax law as applied to individuals and businesses. Not open to accounting majors.
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 satisfy tax electives in the Master of Taxation program

431/531 TAXATION II 3 credits
Prerequisite: $430 / 530$ or permission. Federal income tax law related to partnerships, corporations, trusts and estates; also includes an overview of federal estate and gift tax law.

440/540 AUDITING 3 credits Prerequisites: admission to the College of Business Administration and 320,321, 430, and 6500:221. Examines auditing standards and procedures used by independent auditors in determining whether a firm has fairly represented its financial position.

## 441 INFORMATION SYSTEMS AUDIT AND CONTROL

3 credits Prerequisite: 440 and 454 or permission of instructor. Learn the fundamental concepts and practices of information systems audit control. Use control objectives and standards by information systems control, audit and security organizations.

## 454 INFORMATION SYSTEMS SECURITY

3 credits
Prerequisites: 202, 250 and 320 (must be taken by accounting 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
3 credits
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 INSTITUTIONAL ACCOUNTING
3 credits
Prerequisites: 321 or 601. Theory and procedures involved in application of fund accounting, budgetary control, appropriations and various accounting systems to governmental units, educational, medical and other nonprofit institutions.
490/590 SPECIAL TOPICS IN ACCOUNTING
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 (starting or buying a small business, working for fast growth business or corporation, new product family business or franchising). Open to all University students.
330 FINANCING NEW VENTURES
3 credits
Prerequisite: 201 or by permission of instructor. Exploration of financing, legal, taxation, and insurance issues involved with entrepreneurial ventures.

## 360 ENTREPRENEURIAL FIELD 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, or 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:

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 FINANCE
3 credits
Prerequisites: $3250: 200 ; 3450: 141$ or 3450:289A 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 BUSINESS LAW I
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 BUSINESS LAW II
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.
332 PERSONAL FINANCIAL PLANNING
3 credits
Prerequisite: $301 ; 6200: 250$ or 255; or permission of instructor. Theory and case study applications of the comprehensive personal and professional planning process.
338 FINANCIAL MARKETS AND INSTITUTIONS
3 credits
Prerequisite: 301 or 6140:370 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 credits
Prerequisites: 6500:221; 301 or 6140:370; 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: 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 PRINCIPLES: 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: 301 or 6140:370 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 FINANCE
3 credits
Prerequisites: 301 or 6140:370 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 policy issues.
415 RISK MANAGEMENT AND INSURANCE
3 credits
Prerequisite: 301 or 6140:300; or permission of instructor. Concepts of life and health insurance, property and casualty insurance, and risk and risk management are addressed, including analysis of employee benefit issues.
417 RETIREMENT AND ESTATE PLANNING
3 credits
Prerequisites: 301, 6410:370 or permission of instructor. An in-depth examination of retirement and estate planning objectives, methods,and strategies including 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, rights and obligations of parties, and the various state and federal regulations. 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: 332 or permission of instructor; and 6200:410, 6400:343 and 415 must be taken prior to or concurrently. 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: 301 or 6140:370; 6200: 250 or 255 ; 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.

## 438/538 INTERNATIONAL BANKING

3 credits
Prerequisite: 301 or 602. Examination of recent trends in the expansion of international banking activities and associated revenue maximizing strategies.

447 SECURITY AND PORTFOLIO ANALYSIS
3 credits
Prerequisite: 343 ; and $6200: 250$ or 255 ; or permission of instructor. Application of quantitative and qualitative techniques of analysis to fixed income and equity securities, and their composition weights in portfolios during different time periods.
473 FINANCIAL STATEMENT ANALYSIS
3 credits
Prerequisites: 301 ; $6200: 250$ or 255 ; 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 permission of instructor. Theory and practice of financial wealth maximization in the international business enterprise.
485 FINANCIAL STRATEGY
3 credits
Prerequisite: senior standing; 379; or permission of instructor. 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 FINANCE
$1-3$ credits
Prerequisite: $301 ; 6200: 250$ or 255 . Provides opportunity for study of special topics not covered in current finance courses.

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## MANAGEMENT

## 6500:

221 QUANTITATIVE BUSINESS ANALYSIS I
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; Chi-square tests; simple and multiple linear regression; nonparametric procedures; forecasting. Case analysis with written individual and team reports will be used.
301 MANAGEMENT: PRINCIPLES AND CONCEPTS
3 credits Prerequisites: 48 completed credit hours. An interdisciplinary approach to the study of the basic principles of general management theory and practice.
302 ORGANIZATIONAL BEHAVIOR AND LEADERSHIP SKILLS
3 credits
Prerequisite: 301. Investigation of applications of behavioral and social sciences as they relate to individual, group behavior in organizations.
310 BUSINESS 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 DEVELOPMENT FOR BUSINESS PROCESSES
3 credits
Prerequisite: 6200:250 and 48 completed hours. Analysis and automation of business operations and processes. Development of applications based on a simulated enterprise-wide database.

324 DATA MANAGEMENT FOR INFORMATION SYSTEMS
3 credits
Prerequisites: 6200:250 and 48 completed hours. An introduction to database design and management, including data modeling, relational theory, Structured Query Language, and database applications, development, using database management systems.

325 ANALYSIS, DESIGN AND DEVELOPMENT OF INFORMATION SYSTEMS
3 credits Prerequisite: 324. An introduction 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 PRINCIPLES OF OPERATIONS MANAGEMENT
3 credits
Prerequisites: 301 and 221 or equivalent. An overview of the terminology, fundamental concepts and functional scope of responsibility encountered in the field of operations management.

333 SUPPLY CHAIN AND OPERATIONS ANALYSIS
3 credits
Prerequisites: 222 and 330. Application of quantitative models in the analysis and design of systems in the supply chain and in manufacturing and service operations environments.

334 SERVICE OPERATIONS MANAGEMENT
3 credits
Prerequisite: 330. An overview of the fundamental terminology, principles, concepts and problem solving methods encountered in the contemporary field of service operations management.

341 HUMAN RESOURCE 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 organizations.
342 LABOR RELATIONS
3 credits
Prerequisite: 64 completed credit hours and 341. Analysis of management, 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 ENTERPRISE RESOURCE PLANNING
3 credits
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 PRINCIPLES OF SUPPLY CHAIN MANAGEMENT
3 credits
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 TOPICS IN ENTREPRENEURSHIP
$1-3$ credits
Prerequisites: upper-college or graduate standing and 301 or 600 or equivalent. Facilitates comparative international study of entrepreneurship, introduction of entrepreneurship to large organizations, or application of student's entrepreneurial skills. Six hour limit.
420 TELECOMMUNICATIONS FOR BUSINESS
3 credits
Pre-requisites: 310 and 64 completed credit hours. Principles of telecommunications technologies and their use for competitive advantage.
421 OPERATIONS RESEARCH
3 credits
Prerequisite: 330. Examines the use of operations research techniques in managerial decisionmaking processes; constrained linear optimization, non-linear optimization, network analysis, queuing theory, simulation

425 DECISION SUPPORT WITH DATA WAREHOUSES AND DATA MINING 3 credits
Prerequisite: 324. Examines managerial and technical aspects of business decision-making based on the use of data warehouses, on-line analytical processing (OLAP) and data mining.

426 eBUSINESS APPLICATION DEVELOPMENT 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 INTEGRATION 3 credits Prerequisite: 315 . The course provides an understanding of issues and underlying application integration. Topics include a coverage of middleware technologies, B2B standards and XML.
433 SUPPLY CHAIN LOGISTICS PLANNING
3 credits
Prerequisite: 64 completed credits and 390 . Emphasizes the importance of planning in the development of the domestic and global supply chain logistics system that includes transportation, inventory, warehousing and procurement.

## 434 PRODUCTION PLANNING 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 QUALITY 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.
442 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 STAFFING
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 INTERNATIONAL MANAGEMENT
3 credits
Prerequisites: upper-college standing and 301 or equivalent. Management practices and techniques of international business organizations. Focus on structure and processes of resource allocation, design and technology, and the impact of culture.
458 SELECTED TOPICS IN MANAGERIAL ARBITRATION, MEDIATION
$1-3$ credits AND CONCILIATION
Prerequisites: upper-college or graduate standing and 301 or 600 or equivalent. Study of the various methods and mechanisms by which management can understand and deal with internal and external conflict. Six hour limit.

459 SELECTED TOPICS IN INTERNATIONAL MANAGEMENT
1-3 credits
Prerequisites: upper-college standing; 301 or equivalent; and 457; or permission of instructor Selected topics in international management focus on historical or contemporary managerial, production and organizational issues. Includes international simulation game. Six hour limit.

460 SPECIAL 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 majors: 342,442 , and $443^{*}$. Supply Chain/Operations Management majors: 333, 433, 390 and two from 324, 334, 341, 434, 435 and 457*. Industrial Accounting majors: 333, 390, 6200:460 and two from 334, 433, 434, 435 and 6200:321*. Information Systems Management majors: 325, 420, 425, 427 and one from 333, 341,426 and 6200:454**. e-Business Technologies majors: $6100: 201,324,420,426$ and two from $341,425,390,6600: 345,6200: 454^{*}$. Students devel op skills in field-based management problem solving, project management, and requirements analysis under conditions of uncertainty in a collaborative interdisciplinary team environment.
476 SUPPLY CHAIN MANAGEMENT
3 credits
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 practices through computerized or experiential exercises.
480/580 INTRODUCTION TO HEALTH-CARE MANAGEMENT
Prerequisites: upper-college or graduate standing (Students who are required to take 301 or 600 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 management applied to health services organizations. For those registered for graduate credit, a major paper is required.

482/582 HEALTH SERVICES OPERATIONS MANAGEMENT 3 credits Prerequisites: upper-college 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.
485/585 SPECIAL TOPICS IN HEALTH SERVICES ADMINISTRATION
$1-3$ credits Prerequisite: permission of instructor. Special topics in health services administration (e.g., management) focusing on historical and/or contemporary managerial organizational 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 paper is required.
490 BUSINESS POLICY
Prerequisites: 97 credits, admission to the College of Business Administration, and 330 $6200: 202,250 ; 6400: 301,220,321 ; 6600: 300 ; 6800: 305$. 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
$1-3$ 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.

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## MARKETING

## 6600:

275 PROFESSIONAL SELLING
3 credits
Prerequisite: 25 credits or permission from instructor. Builds communication skills while learning 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. 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 MARKETING RESEARCH AND ANALYTICS
4 credits Prerequisites: 300 and $6500: 221$. Student will gain hands-on experience in the understanding and use of appropriate tools and techniques for analyzing, interpreting and presenting information derived from marketing databases. Includes problem definition and solution approach to marketing research decisions.
340 MULTI-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, Internet, event, telephone, etc.

## 350 INTEGRATED MARKETING COMMUNICATIONS

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 credits Prerequisite: 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.

385 INTERNATIONAL MARKETING 3 credits Prerequisite: 300. Provides a basic understanding of the complexities of foreign marketing. It assumes knowledge of the basic international business course.
425 eMARKETING PRACTICES
3 credits eIVARKETING PRACTICES
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 MARKETING LABORATORY
3 credits Prerequisites: $345,350,435$. Course focuses on the process of creating and producing e-based 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 BUSINESS NEGOTIATIONS

3 credits
Prerequisite: 25 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 learning activities relating to the organization, selection, training, motivation, and control of a domestic or global sales force.
490 MARKETING STRATEGY
3 credits
Prerequisites: 90 credits. 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 telemarketing, eMarketing, direct response marketing, direct selling, or other forms of interactive marketing.
496 SPECIAL 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 international business which can also provide a platform for more specialized international 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 alternative business practices and includes a strong component of cross-cultural 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, international exchange programs, or other customized international adventures. All practicums must be approved and supervised by the international business faculty and administration.

496 SPECIAL TOPICS IN INTERNATIONAL BUSINESS
3 credits
(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 governmental agency. Comprehensive performance 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 Western art.
103 ARTS ORIENTATION 0 credits
Corequisite: with first 7100 art course. Orientation to the information and strategies necessary to aid new art students in their understanding of the field of art.
131 FOUNDATION DRAWING I
3 credits
Introduction to drawing materials and techniques with an emphasis on observation, representation, and formal principles of composition and design.
132 INTRODUCTION 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 surfaces, including composition, color and pictorial illusions with lecture and studio experience.

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.

180 FUNDAMENTALS OF GRAPHIC DESIGN 3 credits
A study of graphic design through lecture and studio work in a variety of media. An exploration and enrichment opportunity for the non-art major. No credit toward a major in art.
184 TYPOGRAPHY $1 \quad 3$ credits
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 and influences on societies, rather than historical sequence

213 INTRODUCTION TO LITHOGRAPHY
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 RELIEF PRINTING
3 credits
Prerequisites: 131, 144. Printmaking using found objects, synthetic materials, as well as traditional woodcut and linoleum engraving. Emphasis on aesthetic theory, technique and related history.
216 INTRODUCTION TO INTAGLIO PRINTING
3 credits
Prerequisites: 131, 144. Intaglio printmaking using drypoint engraving, aquatint and soft-ground techniques. Emphasis on aesthetic 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 INSTALLATION 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 DRAWING
3 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. (May be repeated for a total of 6 credits)
234 ANATOMY FOR ARTISTS
3 credits
Prerequisite: 233. Studio/lecture experience in drawing and sculpture with an emphasis on human skeletal, muscular, and surface structure.
243 INTRODUCTION TO PAINTING
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 concerning perception 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 MEDIA
3 credits
Prerequisites: 131, 144. Experimentation with water-based media such as tempra, acrylic and gouache. (May be repeated for a total of 6 credits)

249 FIGURE PAINTING
3 credits
Prerequisites: 233 and 246, or 248 . Painting course with an emphasis on painting the figure from life. (May be repeated for a total of 9 credits)

250 FOUNDATION REVIEW 0 credits
Prerequisites: 131, 144, 145, 233. Credit/noncredit course. Faculty review of art foundation studio work from prerequisite/corequisite courses.

254 INTRODUCTION TO CERAMICS
3 credits
Prerequisites: 131, 144. Studio/lecture course exploring potentials of hand-building techniques in both sculptural and functional forms. Clay processing, glaze application and practical kiln firing.
266 INTRODUCTION TO METALSMITHING
3 credits
Prerequisite: 145,144 . Studio experience in which student is introduced to properties of metals, processes of silversmithing and design and production of jewelry.
268 COLOR IN METALS
3 credits
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 MAJORS
3 credits
A study of photography through lecture, demonstration and studio work. An exploration and enrichment opportunity for the non-art major. 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 INTRODUCTION 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 advertising related photographic projects.
280 DIGITAL IMAGING
3 credits
Prerequisite: 185 or 289. An exploration of contemporary digital image capture, manipulation, output and distribution, emphasizing digital image concepts, aesthetics and production.(May be repeated for a total of six credits)

281 WEB PAGE DESIGN
3 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. (May be repeated for a total of 6 credits)

283 DRAWING TECHNIQUES
3 credits
Prerequisites: 131 and 132. Includes advanced 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 technology.
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 luxu ry arts of medieval Europe from 4th through 14th centuries.
302 ART IN EUROPE DURING THE 17TH AND 18TH CENTURIES
Prerequisite: 101 or permission of instructor. Analysis of major European examples of architec ture, landscape design, painting, prints and sculpture from beginning of the 17th Century until approximately 1850

303 RENAISSANCE ART IN ITALY
3 credits
Prerequisite: 101 or permission of instructor. Study of architecture, painting and sculpture of Italy during 13 th through 16 th Centuries.

## 304 ART IN EUROPE DURING THE 19TH CENTURY

3 credits Prerequisite: 101 or permission of instructor. Study and analysis of major developments in visual arts in Europe from 1800 to 1900.

305 ART FROM 1900 TO 19453 credits Prerequisite: 101 or permission of instructor. Study of significant developments in visual arts from approximately 1900 to 1945.
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.
307 HISTORY 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.
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 REVIEW Ocredits
Prerequisites: 317. A committee of full-time faculty review portfolio of studio work completed in all printmaking courses.

320 ILLUSTRATION/ADVERTISING 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 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. (May be repeated for a total of 6 credits)

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
Prerequisites: 222 or 266 . Bronze and aluminum casting using the lost wax process. Students learn foundry techniques and apply them to individual artistic statements. (May be repeated for a total of 6 credits)

335 INTERMEDIATE LIFE DRAWING
3 credits
Prerequisites: 231, 233. Continued development of the content established in Life Drawing with additional emphasis on draped models, drawing materials and aesthetics. (May be repeated for a total of 9 credits)
348 INTERMEDIATE PAINTING
3 credits
Prerequisites: 243. Development of personal concepts and imagery through investigation of historical and contemporary styles and issues. (May be repeated for a total of 6 credits.)
350 PAINTING/DRAWING PORTFOLIO REVIEW
0 credits
Prerequisite: Two courses in 348. A committee of full-time faculty reviews portfolio of student work completed in prerequisite courses.
354 CERAMICS II
3 credits
Prerequisite: 254. Wheel throwing of both functional and sculptural 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.

3 credits
Prerequisite: 266. Continuation of experiences presented in 266 with further development of skills and expansion of technical knowledge. (May be repeated for a total of 6 credits)

368 COLOR IN METALS II 3 credits Prerequisite: 268. Continuation of 268. Advanced projects designed to develop the student's aesthetic values in color in metals. Emphasis on individual approach and experimentation. (May be repeated for a total of 12 credits)
370 HISTORY OF PHOTOGRAPHY
3 credits
Prerequisite: 101. A lecture course studying the history of photography from its invention to contemporary issues.
374 PHOTOGRAPHY II FOR NON-ART MAJORS
3 credits
Prerequisite: 274 . Continuation of 274 . A 35 mm camera with full manual control 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 meter.

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 Prerequisite: 285. Introduction to the theory and methods of contemporary multimedia production. Exploration of the hardware/software employed in the organization, development and production of multimedia presentations. (May be repeated for a total of 6 credits)
384 GRAPHIC DESIGN PORTFOLIO REVIEW
0 credits Prerequisite: 250; corequisite: 387. BFA Graphic Design Majors only. A committee of fulltime faculty review a portfolio of studio work completed by BFA candidates in required graphic courses.

385 COMPUTER 3-D MODELING AND ANIMATION
3 credits
Prerequisites: 145, 185 or permission. Advanced computer imaging course with an emphasis in three-dimensional modeling and animation. Can be repeated for a total of 9 credits.

387 TYPOGRAPHY 3 credits
Prerequisites: 288. Corequisite: 384. Integration of typography, photography, copywriting and other visual elements into advertising and design. Students also build a junior-level portfolio.
388 PRODUCTION 2
3 credits
Prerequisites: 276, 387. More complex projects with emphasis given to mechanical preparation of finished art for various printing processes.
400/500 ART IN THE UNITED STATES BEFORE WORLD WAR II
3 credits
Prerequisite: 101 or permission of instructor. Consideration of development of art in the United States from earliest evidences to approximately World War II.
401/501 SPECIAL 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.

402/502 MUSEOLOGY 3 credits
Lecture course dealing with museum science, including museum history, staff structures, art handling, storage, and presentation and exhibit preparation.
405/505 HISTORY OF ART SYMPOSIUM 1-3 credits (May be repeated for credit when a different subject is indicated) Prerequisite: one art 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.
409 TIME-BASED MEDIA
3 credits
Prerequisite: 285 . Through the development of increasingly complex projects, students explore the conceptual and aesthetic considerations of creating motion media based presentations. (May be repeated for a total of 6 credits)
410 METHODS OF TEACHING ELEMENTARY ART
3 credits
Prerequisites: $5100: 211,5610: 440,5500: 320,330$. A lecture course presenting the necessary skills and knowledge to successfully implement, plan, instruct, and assess a diverse, art based curriculum for the elementary school. No credit as elective course for art majors.

411 METHODS OF TEACHING SECONDARY ART
3 credits
Prerequisites: $5100: 211,5610: 440,5500: 320,330$. A lecture course providing the knowledge, skills, and experience necessary for the development of curriculum, instruction and assessment appropriate for application at the high school level. No credits as elective for art majors.
412/512 STUDENT TEACHING COLLOQUIUM
1 credit
Prerequisite: Senior status, successful completion of field experience, and permission of instruc-
tor. Corequisite: 5300:495. Lecture course providing the skills and knowledge necessary for art education licensure. Student will gain knowledge in resume building, licensure requirements, and practical pedagogical techniques.
418 ADVANCED PRINTMAKING
3 credits
(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: lithography, screen printing, relief, intaglio.

420 SCULPTURE PORTFOLIO 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
Prerequisite: 250 and 322. Development of individual points of view and sculptural statements. (May be repeated for a total of 15 credits)
450 ADVANCED LIFE DRAWING 3 credits
Prerequisites: 335. Drawing from the live model, with an experimentation leading to an individual style. (May be repeated for a total of 9 credits)
452 SERVICE LEARNING IN ART
3 credits
Prerequisite: Senior Standing. An interdisciplinary, lecture/studio course that integrates fine art and design to promote understanding of the importance of sustained community outreach and serving as arts advocates. May be repeated up to 6 credits.
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 or private studio production. Student may choose a general survey of subject matter or a more concentrated area of study.

455 ADVANCED PAINTING
3 credits
Prerequisites: 231, 348. Exploration of aesthetic and conceptual issues involved in developing an individual stylistic approach to image making, leading to senior portfolio and BFA exhibition. (May be repeated for a total of 15 credits)
456 CERAMICS PORTFOLIO 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
Prerequisites: 250 and 366. Investigation in depth of aesthetic and technical problems of metalsmithing. Student works on individual projects under guidance from instructor. (May be repeated for a total of 18 credits)

467 METALSMITHING PORTFOLIO REVIEW
0 credits
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 MAJORS
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. (May be repeated up to 18 hours.)

## 475 ADVANCED PHOTOGRAPHY

3 credits
(May be repeated for a total of 21 credits) Prerequisite: 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 PORTFOLIO REVIEW
0 credits
Prerequisite: 475. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses.
477 ADVANCED PHOTOGRAPHY: COLOR
3 credits
Prerequisite: 475. Advanced level lecture, studio, and lab experience in color photography introducing students to technical, aesthetic, and conceptual issues of the medium. (May be repeated for a total of 9 credits)

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) Prerequisite: 388 or permission of instructor. Student works on advanced-level individual projects under supervision of instructor.

481 DESIGN X NINE
3 credits
Prerequisite: 388. Course focusing on professional business practices. Students chosen by portfolio review in junior year. Practical experience gained through working with clients and outside sources. (May be repeated for a total of 9 credits)
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 credits
Prerequisite: 482. Students prepare a professional portfolio and resume. The course includes project development, portfolio review and exhibition.

484 ILLUSTRATION
3 credits
Prerequisite: 283 or permission of instructor. Application of painting and drawing skills and aesthetic sensitivity to specific commercial illustration and editorial art assignments. (May be repeated for a total of 9 credits)

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 multimedia.
486 INTERACTIVE MULTIMEDIA DEVELOPMENT
3 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 interactivity. (May be repeated for a total of 6 credits.)

487 PACKAGING DESIGN
3 credits
Prerequisite: 482 . Synthesis of two- and three-dimensional visual thinking. Research in materials applicable to packaging of various products. Assignment of projects stressing development of conventional and experimental package design.

488 TYPOGRAPHY 43 credits
Prerequisite: 387 . Senior level investigation of publication design, promotional brochures, and annual reports from concept to presentation. Focus on good concepts and problem-solving design.
489 SPECIAL TOPICS IN STUDIO 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 credits) Prerequisite: advanced standing in art or permission of instructor. Group investigation of a particular phase of art not offered by other courses in curriculum.

491/591 ARCHITECTURAL PRESENTATIONS I
3 credits
Prerequisites: Junior level or permission. Studio practice in architectural design and presentation methods in residential and commercial interiors.

492/592 ARCHITECTURAL PRESENTATIONS II
3 credits
Prerequisites: 491/591. Continuation of concepts covered in Architectural Presentations I with additional work in color rendering techniques. Emphasis on a variety of rendering mediums.

495 SENIOR EXHIBITION
0 credits
Prerequisite: senior standing and permission. Exit review of work from B.F.A. candidate's major courses.
494 SPECIAL TOPICS: ART EDUCATION
1-3 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 elsewhere in the curriculum.
496 ART INTERNSHIP/PROFESSIONAL EXPERIENCE
1-12 credits
(Repeatable for credit. No more than 6 credits of internship may apply toward the elective 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 on-the-job experience in selected areas of specialization.

497/597 INDEPENDENT STUDIES
1-3 credits
(May be repeated for a total of 7 credits) Prerequisites for art majors: advanced standing in area chosen and permission of instructor. Prerequisite for non-art majors: permission of instructor. Investigation in depth of aesthetic and technical problems within a studio-selected area of specialization. Student must present in writing a proposed study plan and time schedule for instructor approval.

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 established 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 personal characteristics and social/professional orientation.
132 EARLY CHILDHOOD NUTRITION
2 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 technology student.

133 NUTRITION FUNDAMENTALS
3 credits
Study of basic nutrition concepts, contemporary issues, controversies; emphasis on macro/micro nutrient requirements for healthy 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 cultural influences. Discussion of career opportunities.

141 FOOD FOR THE FAMILY
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 history and development of family and consumer sciences with emphasis on profes sional 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 CLOTHING COMMUNICATION 3 credits
Study of cultural, social, psychological and economic aspects of clothing. Emphasis on expres sion and use of clothing in relation to self, society and culture. Lecture/discussion.

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.

250 FOOD SCIENCE LECTURE AND LAB
4 credits
Prerequisites: 133; $3150: 110,111,112,113$. Study of the chemical and physical structure o 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.
257 AUTOCAD FOR INTERIOR DESIGN
3 credits
Prerequisites: 158 or permission from instructor. An introductory course in computer drafting as an alternative to conventional drafting for interior design applications.
258 LIGHT IN MAN-MADE ENVIRONMENTS
Prerequisites: 331 and 2940:250. Comprehensive study of the essential principles of light in a three-dimensional context for man-made environments.

259 FAMILY HOUSING
3 credits
A study of three basic aspects of family housing: physical/design, financial/legal, 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, intel lectual, social, emotional development and learning of children from birth 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 HOSPITAL
2 credits Prerequisite: permission of adviser. Individual learning experiences for students with patients, their families and the hospital personnel in various hospital settings under the direction of hospital and University staff.
296 HOSPITAL BASED CHILD LIFE
.5 credits Prerequisite: permission of advisor. 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 FAMILIES
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 consumers in the market economy and to the complex society in which families function.
303 CHILDREN 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 TAILORING

3 credits
Prerequisite: 123. Advanced theory and principles in construction of couture garment. Construction of coat or suit jacket utilizing custom tailoring techniques. Two hours lecture, four hours laboratory.

## 310 FOOD SYSTEMS MANAGEMENT I

5 credits
Prerequisites: 245 ; $6200: 201$ 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 SEMINAR IN FIBER 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 SYSTEMS MANAGEMENT I CLINICAL
2 credits Prerequisite: 245; 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 NUTRITION
4 credits
Prerequisites: $3100: 202,3150: 113$, or instructor permission. In-depth characterization of composition, metabolism, physiological functions and interrelationships of nutrients. Analysis and interpretation of current literature; assessment of nutrition counseling techniques.
320 CAREER DECISIONS IN NUTRITION
1 credit
Exploration of the nutrition/dietetics profession, including academic/internship routes, career opportunities, professional concepts and attributes. Self-assessment and goal setting with beginning portfolio development.
321 EXPERIMENTAL FOODS
3 credits 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 NUTRITION IN MEDICAL SCIENCE I
4 credits
Prerequisite: 133 or 316, 426, or instructor permission. Analysis of therapeutic health-care concepts. Consideration of nutritional implications of pathological conditions; construction of diets for specific disorders.
329 NUTRITION IN MEDICAL SCIENCE I CLINICAL 2 credits (credit/noncredit) Prerequisites: 316 or 426. CP student only; corequisite: 328. Clinical experiences in area hospitals for application of principles of nutritional care learned in 328.

## 331 INTERIOR DESIGN THEORY

3 credits
Prerequisites: $147,158,259 ; 7100: 144$. A comprehensive study of interior design theories and application in the built environment.

## 333 SPACE PLANNING AND PROGRAMMING

3 credits
Prerequisites: $147,158,259,331 ; 7100: 144,491 ; 2940: 250$. A comprehensive study of space planning principles and the programming phase of the design process.

## 334 SPECIFICATIONS 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 SPECIFICATIONS FOR INTERIORS II
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 PRINCIPLES 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-residential 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 three-dimensional representation.

340 MEAL MANAGEMENT
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 STRATEGIC MERCHANDISE PLANNING
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 internal and environmental forces which impact upon family dynamics.

362 FAMILY LIFE 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.
390 FAMILY RELATIONSHIPS IN MIDDLE AND LATER YEARS
3 credits Exploration of family and individual development during middle and later years of life. Emphases on issues related to intimacy, economics, social policies, psychological and biological changes.
400 NUTRITION 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 FAMILIES IN 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 245 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 CHILDHOOD AND ADOLESCENCE
3 credits
Prerequisites: 201, 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 patterns and financial practices behavior. Cases, exercises, problems and computer analysis.

407 FCS OCCUPATIONAL EMPLOYMENT EXPERIENCE
4 credits
Provides student with knowledge of current 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 II 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 INTERIOR DESIGN I 4 credits
The study of furnishings, interiors, and architecture from antiquity through the eighteenth century , with emphasis on the social-cultural influences shaping their development.
419 HISTORY OF INTERIOR DESIGN II 4 credits
The study of 19th- and 20th-century furnishings, interiors, and architecture, with emphasis on the social-cultural influences shaping their development.
421 SPECIAL PROBLEMS IN FAMILY 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
Prerequisites: Senior status. Comparison of theories associated with projecting and maximizing
Prerequisites: Senior status. Comparison of theories associated with projecting and maximizing
an appropriate professional image consistent with career goals and objectives.
424 NUTRITION IN THE LIFE 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 elderly 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 NUTRITION IN MEDICAL SCIENCE II
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 CLINICAL 3 credits (credit/noncredit)
Prerequisites: 329, CP students only; corequisite: 428 . Clinical experience in hospitals; application of principles of nutritional care learned 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 FAMILY AND CONSUMER SCIENCE
3 credits
Prerequisite: 141 or 250 . Emphasis on development of abilities and strengths in coordination of equipment, materials, motion, speech, and presentation delivery relating to education and industry in Family and Consumer Sciences.
433 SENIOR DESIGN STUDIO I
3 credits
Prerequisites: $334,335,336,337,422$. A comprehensive study of residential design with emphasis on conceptual, analytical, and graphic skills.
434 SENIOR DESIGN STUDIO III
3 credits
Prerequisites: $334,335,336,337,422$. Advanced space planning and problem solving experiences for application in nonresidential design.
435 DECORATIVE ELEMENTS IN 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 procedures appropriate for collectors and small historical agencies.
437 HISTORIC COSTUME
3 credits
Study of costume and textiles from antiquity through the 18th century, with emphasis on social/cultural influences.
438 HISTORY OF FASHION
3 credits
Study of western 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 forecast-
ing of fashion trends. Emphasis on current designers and environmental forces that influence fashion.
440 FAMILY CRISIS
3 credits
Study of family stress and crisis including internal and external variables and their influence on degree of disorganization, coping and recovery. Includes theory, research and application dimensions.

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 NUTRITION 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 literature. Open to dietetics majors only.
446 CULTURE, ETHNICITY AND THE FAMILY
3 credits
Study of the role of culture and ethnicity in adaptation of the family system to environment. Program applications considered.
447 SENIOR SEMINAR: CRITICAL ISSUES IN 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 development, implementation and evaluation of school-age child-care programs for before and after school and vacation periods.

449 FLAT PATTERN DESIGN
3 credits
Prerequisite: 123 . Theory and experience in clothing design using flat pattern techniques.
451 CHILD 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, separation, illness and stress. Examination of strategies for coping.

455 PRACTICUM EXPERIENCE IN A CHILD-LIFE PROGRAM
3 credits
Prerequisite: 451. Field experience in a child-life program and classroom activities including critical 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 credits
Theory, principles and procedures involved in establishing and operating centers for infants, toddlers, preschool and school-age children.
470 THE FOOD INDUSTRY: ANALYSIS AND FIELD STUDY
3 credits
Prerequisite: 245 or permission. Role of technology in extending the food supply. Chemical, physical and biological effects of processing and storage, on-site tours of processing plants.
474 CULTURAL DIMENSIONS 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: 3150:113 and 7400:245. Theory and practice of food analysis by classical and modern chemical and instrumental methods. Principles illustrated by experimentation and demonstration.
476 DEVELOPMENTS IN FOOD SCIENCE
3 credits
Prerequisite: 246. Advanced study of the chemistry and physics of food components, affecting characteristics of foods. Critical evaluation of current basic and applied research emphasized
478 SENIOR PORTFOLIO REVIEW
1 credit
Prerequisites: permission. Corequisites: 434,459 . The development of the interior design portfolio.

479 THE NCIDO EXAMINATION
1 credit
Prerequisites: permission. The course is designed to help candidates prepare for the National Council for for Interior Design Qualification Examination..
480 COMMUNITY 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 COMMUNITY NUTRITION I CLINICAL
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 COMMUNITY NUTRITION II 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 COMMUNITY NUTRITION II CLINICAL
1 credit (credit/noncredit) 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, CHILDREN AND FAMILIES
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 RELIEF: DIETETICS 1 credit (credit/noncredit Prerequisites: 414, CP senior only. Opportunity to function as an entry-level dietitian 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.
488 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 SCIENCES
1-3 credits
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 credits Prerequisite: Senior standing or permission of the instructor. Organization of Career-Technical Family and Consumer Sciences programs in public schools grades 4-12. Emphasis on strategies compliance with state career-technical directives, student organizations, and program planning.
492 CAREER-TECHNICAL FCS JOB TRAINING INSTRUCTIONAL STRATEGIES 3 credits Organization of Career-Technical Work Force Development Family and 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

495 INTERNSHIP: GUIDED EXPERIENCES IN CHILD-LIFE PROGRAM 8 credits Prerequisite: 455 . Field experience in a child-life 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 INTERNSHIP: FAMILY AND CONSUMER SCIENCES
2-6 credits
Prerequisite: permission 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, portfolio development, Praxis III, professional development, and student teaching reflections.
499 SENIOR HONORS PROJECT IN FAMILY AND CONSUMER SCIENCES $1-3$ credits (May be repeated for a total of six credits) Prerequisites: senior standing in Honors College and approval of honors preceptor. Individual study supervised by adviser. Student and preceptor develop goals, objectives and methodology.

## 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 keyboard. Credit not applicable toward music degree
102 INTRODUCTION 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 central to the development of jazz. This course is specifically designed for the non-music major
104 CLASS PIANO I
2 credits
Prerequisite: 101 or permission of instructor. Designed for student with no previous keyboard experience to learn rudimentary keyboard skills such as playing scales, chords, arpeggios and melodic patterns as well as simple music.
105 CLASS PIANO II
Prerequisite: 104 or permission of instructor. Continuation of work begun in 104
2 credits
07 CLASS VOICE
2 credits
Prerequisite: 101 or permission of instructor. Minimum memorization and solo singing require ment: seven songs. Voice literature emphasis; folk songs, ballads, spirituals, sacred songs and easy art songs in English
108 CLASS VOICE II
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 patterns, blues styles will be covered.
121 THEORY AND MUSICIANSHIP I
4 credits
Sequential. Prerequisite: Theory Placement Examination (65\%) or Introduction to Theory (70\%). Analysis, aural/oral skills; Diatonic pitch materials, three clefs; simple-compound meters, rhyth mic divisions and subdivisions.

122 THEORY AND MUSICIANSHIP II
4 credits
Sequential. Prerequisite: 7500: 121, Theory and Musicianship I (70\%). Theory, analysis, aural/ora skills: Seventh chords, secondary function, four-part dictation; asymmetric meters, borrowed subdivision.

154,5 MUSIC LITERATURE I, II
2 credits each
Sequential. Familiarization with large body of musical material from all branches of music writing vocal, instrumental, symphonic and choral music literature. Special attention given to style, form and structural procedures of principal composers.
57 STUDENT RECITAL
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 successful 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 IMPROVISATION 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 style.

211 JAZZ IMPROVISATION II
2 credits
Prerequisite: 210. Advanced study in principles of jazz composition
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 MUSICIANSHIP III
4 credits
Sequential. Prerequisite: Theory and Musicianship II (70\%). Theory, analysis, and aural/oral skills: Chromatic harmony, dictation of mixed and irregular meters, syncopation, dotted rhythms, 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-seria atonality.
254 STRING METHODS
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, II
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.
265,6 DICTION FOR SINGERS II
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 TECHNIQUES FOR CHORAL MUSIC EDUCATION
2 credits Prerequisites: 7510:120 or 121, 7520:124. Corequisite: 265 . Foundational concepts of group vocal techniques. Designed for choral educators to learn physiology of the voice, basics of vocal production, and application for the Pre-K -12 choral classroom.
271 PIANO PEDAGOGY AND LITERATURE I
2 credits
Prerequisite: permission of instructor. Examination of musical content and pedagogical orientation of beginning piano material to include appropriate teaching works, methods and ensemble pieces from a variety of historical periods.
272 PIANO PEDAGOGY AND LITERATURE II
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 horn 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 $O$ 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 MUSIC EDUCATION
2 credits
Introductory hands-on experiences with a wide range of technology applications and strategies to integrate technology into the music curriculum

305 MARCHING BAND ORGANIZATION AND TECHNIQUE
1-2 credits
Prerequisite: Two semesters 7510:126; 289. A discussion of the marching band. Students learn to write complete half-time show, administer marching band program. Required for instrumental music education majors
307 TECHNIQUES 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 LITERATURE OF JAZZ
3 credits
Prerequisite: permission of instructor. Study of origins of jazz music, its development and influence on today's culture. Investigates evolution 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 TECHNIQUES
2 credits
Prerequisite: 262. Study of and familiarization with basic jazz keyboard techniques as they relate to contemporary jazz harmony and theory
310 JAZZ IMPROVISATION III
2 credits
Prerequisite: 211. Advanced study in the principles of jazz improvisation.
311 JAZZ IMPROVISATION IV
2 credits
Prerequisite: 310. Advanced study in the principles of jazz improvisation
315 MUSIC EDUCATION FIELD EXPERIENCE
1 credit
Prerequisite: 289. Guided field experience for the music education major in partial fullfillment of state licensure requirements. May be repeated for up to 2 credits.
320 MUSICAL THEATRE HISTORY AND LITERATURE I
2 credits
From the beginning of Musical Theatre through the 1800s, musicals will be examined for emerging trends and styles in music, dance, and theatre.
325 RESEARCH IN MUSIC
Prerequisites: 155, 222, 262. Techniques of basic research methods; examination of selected music materials; field trips to specialized collections

339 TEACHING GENERAL MUSIC I 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 II
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 $\mathrm{JH} / \mathrm{MS}$ level. Develops competencies in literature selection, rehearsal techniques and assessment of the adolescent voice.
344 SECONDARY CHORAL METHODS
2 credits
Prerequisites: 351,361 . Methods, techniques, and materials for teaching secondary choral music.
Develops competencies in literature, selection, rehearsal techniques, and programming methodology.
345 LOW BRASS METHODS
1 credits
Prerequisites: $222,262,277,289$. 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 MUSIC HISTORY I, II
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.
361 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 dynamic change, 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 LITERATURE
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 GUITAR STYLES
2 credits
Prerequisite: 200 performance level or permission of instructor. Techniques involved in performing musical styles other than those in classical guitar. Included are plectrum styles such as bluegrass, country and rock, as well as flamenco, folk, popular and jazz.
371 ANALYTICAL TECHNIQUES
2 credits
Prerequisite: 222. Techniques for analysis of musical score from all eras of Western music history, with major emphasis on works of Baroque, Classical and Romantic periods.

372 TECHNIQUES FOR THE ANALYSIS OF 20TH CENTURY MUSIC
2 credits
Prerequisite: 222. Techniques for the analysis of musical scores from the 20th and 21st centuries. 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 LITERATURE: 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
2 credits
Prerequisites: 346, 352, 454, 254. 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.
443 INSTRUMENTAL 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 INTRODUCTION TO MUSICOLOGY

2 credits
Prerequisite: 352. Comparative musicology; acoustics; psychology and physiology of music; aesthetics; theory of music theory; historical musicology.

453 MUSIC SOFTWARE SURVEY 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; organization 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 leadership, error detection, tonal development, stylistic accuracy and analysis. One hour lab required.

457 SENIOR RECITAL
0 credits
Permission of applied instructor is required for this course, which is taken only during the semester of the Senior Recital.

458 PERCUSSION METHODS
1 credit
Prerequisites: 346, 352 and acceptance into Music Education Program. A comprehensive approach to the pedagogy and performance of the percussion instruments for the instrumental education major in preparation for teaching music.
462 REPERTOIRE AND PEDAGOGY: ORGAN
3 credits
Prerequisite: permission of instructor. Survey of organ literature of all eras and styles, and of methods of teaching organ, applying principles to literature.
463 REPERTOIRE AND PEDAGOGY: STRING INSTRUMENTS
3 credits
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 credits
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 analysis of selected examples, students make original solo guitar arrangements of works written for other solo instruments and ensembles.
469 HISTORY AND LITERATURE 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. Modern editions and recordings evaluated.

471 COUNTERPOINT
2 credits
Prerequisite: permission of instructor. Designed to give student of theory-composition neces sary knowledge and skills for understanding contrapuntal practices and procedures; emphasis on 20th-Century techniques.

## 490 WORKSHOP IN MUSIC

1-3 credits
Prerequisite: permission of instructor. Investigation of topics not offered in regular 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 elec tive credit only
492 STUDENT TEACHING COLLOQUIUM
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 area bearing on student's own goals.

498 SENIOR HONORS PROJECT: MUSIC
$1-3$ credits
(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.

## IMUSICAL ORGANIZATIONS

## 7510:

102 AKRON SYMPHONY CHORUS
1 credit
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 UNIVERSITY SYMPHONY ORCHESTRA
1 credit
Membership by audition. Organization devoted to study of orchestral literature. Full-length concerts 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. Major conducted ensemble.
105 VOCAL CHAMBER ENSEMBLE
1 credit
Membership open to those enrolled in applied voice study. Coaching and rehearsal of solo and ensemble literature for voices from operatic, oratorio and lieder repertories.
106 BRASS ENSEMBLE
1 credit
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 1 credit
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 contemporary chamber work with staging, costumes and scenery
109 PERCUSSION ENSEMBLE
1 credit
Membership by audition. Study and performance of literature for various percussion groups; develops skill in ensemble performance.
110 WIND 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
Involves three hours a week of accompanying. Keyboard major required to enroll for at leas three years. Music education major may substitute another musical organization for one year.

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 gui tarists. 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 UNIVERSITY 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.
431 SUMMER DRUM CORPS EXPERIENCE
1-4 credits
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 International Summer.

## 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 represent 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-MAJORS
Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level 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/ENGLISH HORN |
| :--- | :--- | :--- | :--- |
| 022 | CLASSICAL GUITAR | 038 | CLARINET/BASS CLARINET |
| 023 | HARP | 039 | BASSOON/CONTRABASSOON |
| 024 | VOICE | 040 | SAXOPHONE |
| 025 | PIANO | 041 | HARPSICHORD |
| 026 | ORGAN | 042 | COMPOSITION |
| 027 | VIOLIN | 061 | JAZZ PERCUSSION |
| 028 | VIOLA | 062 | JAZZ GUITAR |
| 029 | CELLO | 063 | JAZZ ELECTRIC BASS |
| 030 | STRING BASS | 064 | JAZZ PIANO |
| 031 | TRUMPET/CORNET | 065 | JAZZ TRUMPET |
| 032 | FRENCH HORN | 066 | JAZZ TROMBONE |
| 033 | TROMBONE | 067 | JAZZ SAXOPHONE |
| 034 | BARITONE | 068 | JAZZ COMPOSITION |
| 035 | TUBA | 069 | JAZZ VOCAL STYLES |
| 036 | FLUTE/PICCOLO |  |  |

121-469/521-569 APPLIED MUSIC FOR MUSIC MAJORS
2 or 4 credits each
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, usually 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 PIANO
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 FRENCH HORN
133-233-333-433/533 TROMBONE
134-234-334-434/534 BARITONE
135-235-335-435/535 TUBA
136-236-336-436/536 FLUTE OR PICCOLO
137-237-337-437/537 OBOE OR ENGLISH 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 COMPOSITION 2-4 credits each
(May be repeated) Prerequisites: 7500:252 and permission of instructor.
161-261-361-461 JAZZ PERCUSSION
162-262-362-462 JAZZ GUITAR
163-263-363-463 JAZZ ELECTRIC BASS
164-264-364-464 JAZZ PIANO
165-265-365-465 JAZZ TRUMPET
166-266-366-466 JAZZ TROMBONE
167-267-367-467 JAZZ SAXOPHONE
168-268-368-468 JAZZ COMPOSITION
169-269-369-469 JAZZ VOCAL STYLES

[^69]
## COMMUNICATION <br> 7600:

102 SURVEY OF MASS COMMUNICATION
3 credits
Considers entire field of contemporary American mass communication. Presents and explains functions of agencies through which news, views and entertainment reach the general public.

105 INTRODUCTION TO PUBLIC 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 COMMUNICATION

3 credits
Principles of communication in speaker-audience, group and informal settings, and application of the principles in speeches, group discussions and other oral and written assignments.
115 SURVEY OF COMMUNICATION 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 LISTENING
1 credit
Techniques and approaches involved in understanding the listening process and practice of listening improvement techniques.
226 INTERVIEWING
3 credits
Study and practical application of selected interviewing concepts associated with job interviewing, journalistic interviewing, and life review interviewing.
227 NONVERBAL COMMUNICATION
3 credits
Focused study of the principal aspects of nonverbal communication in public, group and interper sonal 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 production companies.

230 WZIP-FM*
1 credit
231 FORENSICS*
1 credit
232 BUCHTELITE* 1 credit
233 TEL-BUCH*
1 credit
235 INTERPERSONAL COMMUNICATION
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, presenting and defending inferences and arguments 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 VOICE TRAINING FOR MEDIA
3 credits
Effective techniques and development of skills for voicework in radio and television.
280 MEDIA PRODUCTION TECHNIQUES
3 credits
Introduction to production techniques used in the mass communication covers sound, image, light ing, fundamentals of conveying messages on slide, film and video.
282 RADIO PRODUCTION
3 credits
Study of radio production techniques 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 NEWSWRITING
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 writing in a lab situation.
301 ADVANCED NEWSWRITING 3 credits
Prerequisite: 300 . Advanced course in writing and editing news, features and analysis for print media. Behavioral approach to communication of information and ideas.

302 BROADCAST NEWSWRITING 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 practitioners emphasizing different approaches for specific publics and specific media.

## 304 EDITING

3 credits
Prerequisite: 300. Copyreading, headline writing, proofreading, makeup, type and typography, printing machines and processes, newspaper methods and systems.
308 FEATURE WRITING
3 credits
Prerequisite: 300. Short newspaper and magazine articles, preparation of articles for publication, human interest situations, extensive writing with class discussion.
307 COMMERCIAL ELECTRONIC PUBLISHING
3 credits
Prerequisite: 300 . Explore basic principles of magazine publishing in its broad definition, layout, type and typography, paint production of magazines.
309 PUBLIC RELATIONS PUBLICATIONS
Prerequisites: 300 and 303 or corequisite 303. Preparation of publications used as communication tools in public relations, advertising and organizations. Emphasis upon design, layout and technology.

325 INTERCULTURAL COMMUNICATION
3 credits
Study of effect on oral communication process of existence of cultural barriers. Includes study of verbal and nonverbal communication in transracial, informal international and diplomatic communicative settings.
344 GROUP DECISION 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: audience analysis; advanced methods for organizing persuasive speeches; techniques of research, style, and delivery; professional speech writing; extensive speaking practice.
355 FREEDOM OF SPEECH
3 credits
Discussion and analysis of the Constitution's free speech guarantee; contemporary issues in freedom of communication; role of the media in free speech issues.

368 BASIC AUDIO AND VIDEO EDITING
3 credits
Prerequisite: 280. Basic audio and video editing theory and practice. Introduction to A/B roll and computerized editing systems.

## 375 COMMUNICATION 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 electronic media. Evaluation of communication policy issues and the impact of technological change on consumers and industries.
384 COMMUNICATION 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 analysis, application and interpretation of data in communication and in media operations.
385 AMERICAN FILM 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 FILM HISTORY: 1945 TO THE PRESENT
3 credits
Continuation of student's survey of film history and film concepts begun in 385 .
387 RADIO AND TV WRITING
3 credits
Prerequisite: 300 . Practical application of broadcast writing principles and techniques 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 RADIO/TV PROGRAMMING
3 credits Prerequisite: 102. Examines programming processes in radio and television; programming philosophies, schedules, feature and syndication acquisition, local productions, issues of staffing and funding.
400 HISTORY OF JOURNALISM IN AMERICA
3 credits
A review and analysis of the historical evolution of journalism in America, focusing primarily on newspapers, magazines, radio, television.
403 PUBLIC RELATIONS STRATEGIES
3 credits
Prerequisites: 300, 303, and 309, or corequisites 303 and 309. 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
Prerequisites: 303, 309, and 403. Continuation of 403. Application of principles of public relations profession in an actual organizational setting.
405 MEDIA COPYWRITING
3 credits
Prerequisite: 309. Selected communication theories and research techniques used to plan, write and analyze commercial messages. Emphasis will be placed on selection of audience, medium, appeal, writing style and evaluation of efforts.
408 WOMEN, MINORITIES 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 JOURNALISM MANAGEMENT
3 credits
This course is designed to educate students in the management of journalistic operations, including the magazine and newspaper industries.
416 NEW MEDIA WRITING
3 credits
Prerequisite: 300. This class will look at how today's professionals practice on-line publishing. Students will work on writing and reporting skills needed in this new media.
417 NEW MEDIA PRODUCTION
3 credits
Prerequisites: 375,416 . Covers practical application of softwares to create on-line multimedia documents and explores design ideas for New Media Journalism content.
420 MAGAZINE WRITING
MAGAZINE WRITING
Prerequisites: 300, 308. An advanced writing course designed to develop the specialized researching, reporting, and writing skills needed in consumer and specialized business magazines today.
425 COMMERCIAL ELECTRONIC PUBLISHING
3 credits
Prerequisite: 300. Explore basic principles of magazine publishing in its broad definition, layout, type and typography, paint production of magazines.
435 COMMUNICATION IN ORGANIZATIONS
Overview of theories and approaches for understanding communication flow and practices in organizations, including interdepartmental, networks, superior-subordinate, formal and informal communication.
436 ANALYZING ORGANIZATIONAL COMMUNICATION
3 credits
Prerequisites: 344,384 and 435 . or permission. Methodology for in-depth analysis and application of communication in organizations; team building; conflict management, communication flow. Individual and group projects; simulations.

## 437 TRAINING METHODS IN COMMUNICATION

3 credits Prerequisite: 345 or permission. Principles and concepts in the design and delivery of communication training programs; integration of theory and methodology; presentation skills; matching methods and learner needs.
438 HEALTH COMMUNICATIONS
3 credits
The course presents an overview of health communication theory and research issues in interpersonal, small group, organizational, 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 permission is granted. Appropriate documentation of work required.
446 WOMEN, MINORITIES \& MEDIA
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, journalism, 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 PUBLIC SPEAKING IN AMERICA
3 credits
Survey and critical analysis of major speakers, speeches and speech movements in American history. Examines how style and content of American speaking influenced events and reflected their times.
459 LEADERSHIP \& COMIMUNICATION
3 credits
Theories of leadership and communication across public, organizational, small group, interpersonal, and political contexts. Assessments tools provided. Guest speakers.
462 ADVANCED MEDIA WRITING
3 credits
Prerequisites: 280, 300, 387 or equivalent. Practical applications of script writing principles and techniques, focusing on the skills and discipline required to finish an entire script.
468 ADVANCED AUDIO AND VIDEO EDITING
3 credits
Prerequisite: 280, 368, 472. Advanced computerized multitrack audio and video editing. Theory and practice of multi-track sound mix for video productions.
470 ANALYSIS OF PUBLIC DISCOURSE
3 credits
dentifies principal textual and contextual elements of public discourse and presents various theories and models to be applied in studying rhetorical acts.
471/571 THEORIES OF RHETORIC
3 credits
Study of key figures in history of rhetorical theory, stressing interrelationships among theories of rhetoric, intellectual climates and social climates.

472 SINGLE CAMERA PRODUCTION 3 credits Prerequisites: 280,368. Principles of electronic image recording; field camera operation; field location lighting practice.
475 POLITICAL COMMUNICATION
3 credits Students explore the relationship between politicians, citizens, and media. Topics include media coverage, campaign technologies, advertising, debates, engagement, rhetoric, and attitudes. Theories and methodologies discussed.
480 COMMUNICATION 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-the-job training. Written permission must be obtained from the School prior to the term for which credit is to be received.

481 FILM AS ART: AN INTRODUCTION TO THE FILM FORM
3 credits
Explores the formal laws that govern a film acquainting the students with the film narrative and stylistic elements.

484 REGULATIONS IN MASS MEDIA 3 credits
Concentration on government regulations and self-regulatory bodies in broadcasting, film and print media.
485 SENIOR HONORS PROJECT IN COMMUNICATION 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 techniques, this course examines the sales and decision-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 projects 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 LANGUAGE I
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 building, 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 INTRODUCTION TO AUDIOLOGY/AURAL REHABILITATION
4 credits
(Not open to speech-language pathology 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 fingerspelling and number systems.

## 201 AMERICAN SIGN LANGUAGE III

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 CLINICAL PHONETICS

4 credits
Prerequisite: 110. Introduction to International Phonetic Alphabet. Transcribing normal and disordered speech. Overview of articulatory and acoustic phonetics. Introduction to distinctive features, phonological processes. Analyzing disordered articulation.
215 INTRODUCTION TO HEARING AND SPEECH SCIENCE
4 credits
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, legal, social, and occupational developments.
230 LANGUAGE SCIENCE AND ACQUISITION
4 credits
Prerequisite: permission. An introduction to language science and the study of the language acquisition process. The characteristics and explanations 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 REHABILITATION
4 credits
Prerequisite: 140. 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.
250 OBSERVATION AND CLINICAL METHODS
3 credits
Corequisites: 245 or 330 or 321 . Introduction to clinical procedures in speech-language pathology and audiology.Observation of speech-language and audiological evaluation and treatment in different settings.
265 ANATOMY AND PHYSIOLOGY OF SPEECH AND HEARING
3 credits
Prerequisites: 3100:265. Corequisites: 266. Study of the anatomy and physiology of organs directly and indirectly responsible for production of speech and perception of acoustical signals.

266 ANATOMY AND PHYSIOLOGY LABORATORY
1 credits
Corequisites: 265. Laboratory to accompany lecture, includes hands-on experience with a variety of laboratory materials, primarily models and virtual 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 COMMUNICATION
4 credits
Prerequisites: 110 and 3100:264, or permission of instructor. Surveys communication disorders that accompany 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 children. Disorders viewed as correlates or sequelae of central nervous system dysfunction or emotional disturbance.

420 SENIOR CLINICAL EXPERIENCE
Prerequisites: 3.0 GPA overall and "B" average in 235, 240, 321, 330. Instruction and clinical experiences in speech-language pathology and audiology.

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 function of language in individual, family 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 assessment/intervention.
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 speech-language pathologists providing services to families and individuals with communication disorders.

450 ASSESSMENT OF COMMUNICATIVE DISORDERS
3 credits
Prerequisite: senior status; 321,330 and 350 , or permission. Introduction to differential diagnosis of communicative disorders. Emphasizes taking case histories, and administration and interpretation of tests and procedures.

460 SPEECH-LANGUAGE AND HEARING DISORDERS IN THE PUBLIC SCHOOLS 2 credits (Not open to speech-language pathology and audiology major) Nature, causes and treatment of speech, hearing and language disorders in public schools. Special reference to role of classroom teacher in identifying and referring student with suspected problems and in working with school clinician.
461 ORGANIZATION AND ADMINISTRATION: PUBLIC SCHOOL
2 credits SPEECH-LANGUAGE AND HEARING PROGRAMS
Prerequisites: Senior or graduate standing. For clinicians who plan to work in public school systems. Covers program requirements and professiona/ethical issues imposed by PL 94-142.

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 SPECIAL 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 AUDIOLOGY $1-3$ 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.
495 INTERNSHIP: SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY 3-6 credits Prerequisite: permission of director of Speech and Hearing Center. Affords opportunity for indepth clinical experience in variety of clinical settings outside The University of Akron Speech and Hearing Center. On-the-job experience with specialized case populations
496 SENIOR HONORS PROJECT: SPEECH-LANGUAGE PATHOLOGY
$1-3$ credits AND AUDIOLOGY
(May be repeated for a total of six credits) Prerequisites: enrollment in the Honors College, senior standing and major in speech-language pathology and audiology.

## SOCIAL WORK

## 7750:

270 POVERTY AND MINORITY ISSUES
3 credits
Introductory course explores issues related to poverty and minority issues as they relate to atrisk populations.

276 INTRODUCTION TO SOCIAL WELFARE
4 credits
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 SOCIAL WORK PRACTICE I
3 credits
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 SOCIAL WORK PRACTICE II
3 credits
Prerequisite: 401; Corequisite 405; or permission of instructor. Concepts and methods of social work practice particularly relating to understanding and working with groups in various settings in our society.
403 SOCIAL WORK PRACTICE III
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 IV
3 credits
Prerequisite: 401, 405, or permission of instructor. Professional social work practice with families in social services; the dynamics of family systems, assessment of family function and dysfunction, professional helping processes.

405 PRACTICE ISKILLS LAB
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 SOCIAL WORK PRACTICE
3 credits
Prerequisite: 401 or permission of instructor. Social work practice, knowledge and skill, social welfare institutions and social policy in relation to women's issues and concerns in the United States.
421 FIELD EXPERIENCE SEMINAR I
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 learning in the field practicum.

## 422 FIELD EXPERIENCE 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 learning 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 ENVIRONMENT I
3 credits
Social work perspective on human development across the life cycle. Human diversity approach consistent with the needs of social work students preparing 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 credits
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 placed on the various social worker roles in relation to research.
441 SOCIAL 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 SOCIAL NEEDS AND SERVICES: AGING
3 credits
Prerequisite: 401 or permission of instructor. Application of knowledge and principles of profes sional 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 SOCIAL 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 SOCIAL WORK IN MENTAL HEALTH
3 credits
Prerequisite: 401 or permission of instructor. Issues, organization, development and methodologies of current professional social work practice in mental-health 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 concerns, case management, institutional functioning.
455 BLACK FAMILY ISSUES
3 credits
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 SOCIAL WORK IN HEALTH SERVICES
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 ADMINISTRATION AND SUPERVISION IN SOCIAL WORK
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-setting and program-implementation problems.
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 SOCIAL WORK PRACTICE
3 credits
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 selected areas of concern. Topics and credits variable.
493 FIELD EXPERIENCE: SOCIAL AGENCY I
4 credits
Prerequisites: 401, 427, and permission of instructor. Corequisite: 421. First of two consecutive courses of supervised internship in a social service setting. Facilitates 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: SOCIAL AGENCY II
4 credits
Prerequisites: 493, 421 and permission of instructor. Corequisite: 422 . Second of two consecutive courses of supervised internship in a social service setting. Facilitates the continued acquisition of generalist practice skills. For senior social work majors only.

## 97 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 SENIOR HONORS PROJECT IN SOCIAL 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 enrolled in Honors College. Independent study leading to completion of senior honors thesis or other original work resulting in writing of research paper in proper scholarly form, supervised by student's honors project adviser within the department.

## THEATRE

## 7800:

100 EXPERIENCING THEATRE
3 credits
Experience the theatre as a live, dynamic art form through an exposure to and participation in University productions.
103 THEATRE ORIENTATION
0 credits
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 TRAINING
3 credits Specialized physical training for the actor.
151 VOICE AND DICTION
3 credits
Speech improvement as it specifically applies to the stage. This course is concerned with the proper techniques and principles of vocal production in their practical application to stage performance.
170 INTRODUCTION TO ACTING FOR NON-MAJORS 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 ACTING
3 credits
Introductory fundamentals of acting through the investigation of the body as an instrument for the stage, improvisation and basic scene study.
200 THEATRE ORGANIZATION AND PRODUCTION MANAGEMENT
3 credits
Study of successful methods of theatre organization and production stage management of profes sional and non-professional performing arts operations.

262 STAGE MAKEUP
3 credits
Theory and practice in the application of stage makeup from juvenile to character. Lecture/Lab.
263 SCENE PAINTING
3 credits
The development of skills and knowledge of stage scenic painting required for the theatre designe 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 Aristotle to today.

265 BASIC STAGECRAFT 3 credits
Basic stagecraft including equipment, construction and handling of two-dimensional scenery and theatrical hardware. Laboratory required.

301 INTRODUCTION TO THEATRE THROUGH FILM 3 credits Prerequisite: 3400:210. A study of the Theatre with emphasis on its cultural and social influences on our society.

306 STAGE COSTUME DESIGN 3 credits Prerequisites: 108, 264. An introduction to various methods of how to read and analyze a playscript for theatre production, utilizing theories and tools from Aristotle to today
307 ADVANCED STAGE COSTUME DESIGN 3 credits Prerequisite: 306. Specialized construction techniques for costumes, armor, masks, jewelry, millinery, and footwear.
321 MUSICAL THEATRE HISTORY II
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 THEATRE I
3 credits
Theatre history from the Greeks to the Restoration with emphasis on the physical theatre, stage con ventions and theatre architecture of each period.
330 DRAMATIC LITERATURE I
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 plays to various cultures.

335 HISTORY OF THEATRE AND DRAMATIC LITERATURE I
3 credits
Prerequisite: 100. The history and theory of dramatic literature and theatre practices from the Greeks through the Restoration, including select non-western theatre traditions,

336 SCENIC DESIGN
3 credits
Prerequisites: 108,264. The theory of scenic design and imagery 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 physical and vocal instrument.

355 STAGE LIGHTING DESIGN 3 credits Prerequisites: 100, 265. The art and technique of stage lighting design: light plotting, color theory, and optical effects.

370 DIRECTING I
3 credits
Prerequisites: 100, 172, 264. Emphasizes fundamentals of play directing, including responsibilities of director, stage nomenclature, play selection, character analysis and rehearsal techniques

373 ACTING II 3 credits
Prerequisite: 172. Continuation of 172. Further emphasis on the psychology of the actor and development of performing techniques through scene study.
374 ACTING III
3 credits
Prerequisite: 373 . Further in-depth actor training with emphasis on the language and interpretation of classic plays including Shakespeare.
403 SPECIAL TOPICS IN 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) Prerequisite: permission. Traditional 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 process involved in mounting a stage musical.

425 HISTORY OF THE THEATRE II
3 credits
Prerequisites: 325 or permission of the instructor. Theatre history from the 18th century to the present with emphasis of the physical theatre, stage conventions, and theatre architecture of each period.

430 DRAMATIC LITERATURE II 3 credits
Prerequisite: 330 or permission of instructor. An in-depth exploration of stage plays from the 19th Century to modern times with an emphasis on the relationship of plays to various cultures.
435 HISTORY OF THEATRE AND DRAMATIC LITERATURE II 3 credits
Prerequisite: 335. The history and theory of dramatic literature and theatre practices from the 18th century through the present, including select non-western theatre traditions.
436 STYLES OF SCENIC DESIGN
3 credits
Prerequisite: 365 . Theatrical styles and periods in scenic design and scenography
461 DIRECTING II
3 credits
Prerequisites: 370 . Emphasizes fundamentals of play directing, including responsibilities of director, stage nomenclature, play selection, analysis, and rehearsal techniques.
467 CONTEMPORARY THEATRE STYLES
3 credits
A detailed examination of representative plays of the contemporary theatre with an emphasis on plays of the 1980s and 1990s.

470 THEATRE IN 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 SENIOR SEMINAR
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.

475 ACTING FOR THE MUSICAL THEATRE 3 credits
Prerequisites: 172 or permission of instructor. A scene study course in analyzing and performing roles in American musicals. Accompanist provided.

480 INDEPENDENT STUDY
1-3 credits
Practice, study, and/or research in selected elements of theatre arts and production including preparation and presentation of creative and technological projects..

## THEATRE ORGANIZATIONS

## 7810:

## 100 PRODUCTION LABORATORY-DESIGN/TECHNOLOGY\#*

Prerequisite: permission of instructor. (May be repeated for a total of 12 credits) 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 instructor. Provides student with practical performance experience theatre productions.

200 PRODUCTION LABORATORY-DESIGN/TECHNOLOGY¥* 1 credit
Prerequisite: permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre.
210 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.
300 PRODUCTION LABORATORY-DESIGN/TECHNOLOGY $\ddagger *$
1 credit
Prerequisite: permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre.
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 $\ddagger * 1$ credit
Prerequisite: permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre.

410 PERFORMANCE LABORATORY*
(May be repeated for a total of 12 credits) Prerequisite: permission of instructor. Provides student with practical performance experience in theatre productions.

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## DANCE <br> 7900:

## 115 DANCE AS AN ART FORM

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 modern dance with an emphasis on body alignment and muscular awareness.
120 MODERN II
2 credits
(May be repeated for a total of four credits) Prerequisite: permission. Continuation of 119. Increasing movement vocabulary, muscular strength and coordination of modern dance.
124 BALLET I
2 credits
(May be repeated for a total of four credits) Emphasis on body placement, muscular awareness.
125 BALLET II
2 credits
(May be repeated for a total of four credits) Prerequisite: permission. Continuation of 124. Basic exercises of classical ballet.
130 JAZZ DANCE I 2 credits
(May be repeated for a total of four credits.) Basic jazz dance technique and jazz dance origins.
144 TAP DANCE I 2 credits
(May be repeated for a total of four credits.) Basic tap dance technique and terminology.
145 TAP DANCE II
2 credits
(May be repeated for a total of four credits.) Prerequisite: 7900:144 or permission. Refinement of Tap technique and stylistic range of Tap dance.
150 BALLROOM 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. Continuation of 120. Introduction to current modern dance styles and techniques.
220 MODERN IV
(May be repeated for a total of four credits.) Prerequisite: Permission. Continuation of 219 credits
Application of basic modern dance theory of current modern dance styles and techniques.
224 BALLET III
3 credits
(May be repeated for a total of six credits) Prerequisite: Permission. Continuation of 125. Emphasis on barre and developing strength.
225 BALLETIV 3 credits
(May be repeated for a total of six credits) Prerequisite: 224 or permission. Continuation of 224. Emphasis on the increase of strength and flexibility.
230 JAZZ DANCE II 2 credits
(May be repeated for a total of four credits.) Prerequisite: 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 non-traditional topics in dance, supplementing courses listed in General Bulletin.

## DANCE ORGANIZATIONS

7910:
101 CLASSICAL BALLET ENSEMBLE**
1 credit
By audition only. Participation in rehearsal and preparation for public performance of classical ballet repertoire.

102 CHARACTER BALLET ENSEMBLE** 1 credit
By audition only. Participation in rehearsal and preparation for public performance of character ballet repertoire
103 CONTEMPORARY DANCE ENSEMBLE**
1 credit
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 performance 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**
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 ENSEMBLE**
By permission only. Participation in technical assistance, preparation and performance of student dance productions: theory and laboratory.

200 SOPHOMORE JURY
0 credits
Prerequisite: Sophomore standing. The passing of the Sophomore Jury is a degree requirement It may not be taken more than twice. Offered on a credit/noncredit basis.

## 201 FRESHMAN JURY AND INTERVIEW

0 credits
Prerequisite: One year of study as a probational dance major. The passing of the Freshman Jury and interview is a requisite for becoming a dance major. It is also a degree requirement. It may only be taken once. Offered on a credit/noncredit basis

## SOMATICS AND WORLD DANCE

## 7915:

101 DANCE SOMATICS: YOGA
Exploration of alternative movement disciplines aimed at increasing body - mind awareness and dancer health.

102 DANCE SOMATICS: PILATES 1 credit
Exploration of alternative movement disciplines aimed at increasing body - mind awareness and dancer health.
103 DANCE SOMATICS: ALEXANDER 1 credit
Exploration of alternative movement disciplines aimed at increasing body - mind awareness and dancer health.

104 DANCE SOMATICS: GYROKINESIS 1 credit
Exploration of alternative movement disciplines aimed at increasing body - mind awareness and dancer health.

111 WORLD DANCE: AFRICA 1 credit Prerequisite: 7920: 122, 228 and permission. Exploration of various dance genres from world and historical traditions: Africa, Asia, Europe, Pacific Rim, Italian Renaissance, French Baroque, etc.
112 WORLD DANCE: ASIA
1 credit
Prerequisite: 7920: 122, 228 and permission. Exploration of various dance genres from world and historical traditions: Africa, Asia, Europe, Pacific Rim, Italian Renaissance, French Baroque, etc.
113 WORLD DANCE: EUROPE
1 credit
Prerequisite: 7920: 122, 228 and permission. Exploration of various dance genres from world and
historical traditions: Africa, Asia, Europe, Pacific Rim, Italian Renaissance, French Baroque, etc.
114 WORLD DANCE: PACIFIC RIM 1 credit Prerequisite: 7920: 122, 228 and permission. Exploration of various dance genres from world and historical traditions: Africa, Asia, Europe, Pacific Rim, Italian Renaissance, French Baroque, etc.
115 WORLD DANCE: RENAISSANCE
1 credit
Prerequisite: 7920: 122, 228 and permission. Exploration of various dance genres from world and historical traditions: Africa, Asia, Europe, Pacific Rim, Italian Renaissance, French Baroque, etc.

116 WORLD DANCE: BAROQUE 1 credit
Prerequisite: 7920: 122, 228 and permission. Exploration of various dance genres from world and historical traditions: Africa, Asia, Europe, Pacific Rim, Italian Renaissance, French Baroque, etc.

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## DANCE PERFORMANCE

## 7920:

116 PHYSICAL ANALYSIS FOR DANCE I
2 credits
Prerequisites: $3100: 200,201$. Required for all dance majors. Recommended to be taken in first two years. Lecture/laboratory. Skeletal and muscular analysis for dance technique.

## 117 PHYSICAL ANALYSIS FOR DANCE II

2 credits
Prerequisite: 116. Support systems, conditioning injury prevention, rehabilitation, nutrition for dancers.

122 BALLET V 4 credits
(May be repeated for a total of 16 credits) Prerequisite: permission. Theory, vocabulary, structure, placement. Concurrent enrollment in pointe class recommended.
141 POINTE I 2 credits
(May be repeated for a total of eight credits) Prerequisite: Permission. Reinforcement of selection principles for pointe shoes, proper holding of foot muscularly and control of heel while ascending and descending from pointe.
222 BALLET VI
4 credits
(May be repeated for a total of 16 credits) Prerequisite: permission. Continuation of 122 , expanding theory on vocabulary, structure, placement. Concurrent enrollment in pointe class recommended.
228 MODERN V
3 credits
(May be repeated for a total of six credits) Prerequisite: permission. The intermediate study of modern dance styles and techniques through the application of more complex movement theories, rhythmic patterns and improvisational studies.

229 MODERN VI 3 credits
(May be repeated for a total of six credits) Prerequisite: permission. Introduction to intermediate theory of current modern dance styles and techniques.
241 POINTE II
2 credits
(May be repeated for a total of 12 credits) Prerequisite: permission. Continuation of 141 . Continued development of strength, coordination and endurance of holding foot muscularly. Further development and emphasis on principles of weight transfer.

## 246 TAP DANCE III

2 credits
(May be repeated for a total of four credits.) Prerequisite: 145. Advancement of Tap dance technique through the use of complex combinations, syncopation, routines, and styles.
270 MUSICAL THEATRE DANCE TECHNIQUES
3 credits
Prerequisites: 7900:119, 7900:124, 7900:130, 7900:144, 7900:230; or permission. Precision, line and vernacular dance; couple and solo dance work for musical theatre.
316 CHOREOGRAPHY I
2 credits
Prerequisite: Permission of the instructor. 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 MOVEMENT FUNDAMENTALS 2 credits Beginning study of Labanotation method of recording movement, and Laban's theories of effort, space, and shape.
321 RHYTHMIC ANALYSIS FOR DANCE 2 credits By permission only. Not open to new freshmen. Lecture and application of basic rhythmic structures used in dance and dance instruction.
322 BALLET VII
4 credits
(May be repeated for a total of 24 credits) Prerequisite: permission. Continuation of 222 . Emphasis on technique, style, line. Concurrent enrollment in pointe class recommended.

## 328 MODERN VII

3 credits (May be repeated for a total of 12 credits) Prerequisite: permission from instructor. Refinement and and stylization of modern techniques for performance for modern dance.
329 MODERN VIII
3 credits
(May be repeated for a total of 12 credits) Prerequisite: permission. Application of advanced modern dance technique and styles.
333 PARTNERING 2 credits
Prerequisite: 7920:122 and 7920: 228 and 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 POINTE III
2 credits
(May be repeated for a total of 16 credits) Prerequisite: permission. 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. Advanced tap combinations, styles, routines.
351 JAZZ DANCE III
2 credits
(May be repeated for a total of four credits.) Prerequisite: 7900:130 or placement audition. Intermediate jazz dance technique and the jazz eras.
361 LEARNING 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 SPECIAL TOPICS IN DANCE $1-4$ 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.
416 CHOREOGRAPHY III
2 credits
Prerequisite: 317, permission. Continuation of 317. Emphasis on form and choreographic analysis.
417 CHOREOGRAPHY IV
2 credits
Prerequisite: 416 and permission. Continuation of 416. Expanding into group choreography and longer works.
422 BALLET VIII
4 credits
(May be repeated for a total of 32 credits) Prerequisite: permission. Continuation of 322 . Advanced level of technique. Concurrent enrollment in pointe class recommended.
430 HISTORY OF MUSICAL THEATRE IN DANCE
2 credits
Prerequisite: 7900:115. Focus on dance styles and choreographers in Musical Theatre from a historical perspective.
431 DANCE HISTORY: PREHISTORY TO 1661
2 credits
Prerequisite: 115 or permission. Study of important developments from prehistory through the Renaissance to the founding of the French Academy of Dance.
432 DANCE HISTORY: 1661 THROUGH DIAGHILEV ERA
2 credits
Prerequisite: 115 or permission. Development of dance beginning with the establishment of the French Academy through the Romantic and Diaghilev Eras and their influence on current dance.
433 DANCE HISTORY: 20th CENTURY
2 credits
Prerequisite: 115 or permission. Development of modern dance as an art form and the further evolution of ballet and concert dance.
445 DANCE PHILOSOPHY AND CRITICISM I
2 credits
Prerequisites: $3400: 210,7900: 115$ and $7920: 431$ or 432 or 433 . Review of historical dance philosophies, performance, attributes, choreographic and theatrical elements of dance and criticism.

446 DANCE PHILOSOPHY AND CRITICISM II 2 credits
Prerequisite: 445. Continuation of 445 . Exploring the philosophy and criticism of contemporary ballet and dance.

## 451 JAZZ DANCE IV 2 credits

(May be repeated for a total of eight credits.) Prerequisite: 351 or permission. Advanced jazz dance technique and styles for the professional dancer.
461 SEMINAR AND FIELD EXPERIENCE IN DANCE EDUCATION 2 credits
Prerequisite: 362. Supervised observation and teaching 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: upper class standing and permission. A forum to develop professional skills to make the transition to a dance career: artistic, academic, or business.
490/590 WORKSHOP IN DANCE
1-3 credits
(May be repeated for a total of eight credits) Prerequisite: Advanced standing or permission. Group study/projects investigating a particular field of dance not covered by other courses.
497 INDEPENDENT STUDY IN DANCE
$1-3$ 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.) Prerequisites: 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, industry, or governmental agency. Comprehensive performance evaluation and written 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 I
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.
225 HEALTH ASSESSMENT
3 credits
Prerequisite: Admission to the College. The skills of taking health histories and performance of basic physical assessment. Supervised practice in the Learning Resource Center.
315 PATHOPHYSIOLOGY FOR NURSES
3 credits
Prerequisite: Satisfactory completion of Sophomore level nursing courses. 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.
325 CULTURAL DIMENSIONS OF NURSING
2 credits
Prerequisites: Satisfactory completion of all required Sophomore level nursing courses. Nursing care of clients of diverse ethnicities is emphasized. Special attention is given to selected ethnic groups' communication patterns, spirituality, health beliefs and practices.

## 330 NURSING PHARMACOLOGY

3 credits
Prerequisite: Satisfactory completion of Sophomore level nursing courses. 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.
336 CONCEPTS OF PROFESSIONAL NURSING
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
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 Sophomore level nursing courses. Acute nursing care of adults with nutrition, elimination, metabolic, sexual, reproductive, and immunological concerns. Includes theory and practice at the advanced beginner level.
370 NURSING CARE OF OLDER ADULTS
5 credits
Prerequisite: Satisfactory completion of Sophomore level 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 Sophomore level 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 INDIVIDUALS

 5 credits Prerequisite: 336, 337. Clinical course for RN's focusing on health care concepts across the life span with emphasis on health promotion.409 INTERNATIONAL HEALTH
2-3 credits
Prerequisite: Junior standing. Study in an international location. Focuses on comparisons of education, ethics, government, demography and geography on health care and nursing roles and responsibilities.
410 NURSING OF FAMILIES WITH 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 NURSING OF INDIVIDUALS WITH COMPLEX HEALTH PROBLEMS
5 credits
Prerequisites: $336,337,405,445$. This five hour course is designed for the registered nurse. The course consists of lecture, seminar and clinical practice related to care of individuals with complex health care problems.

430 NURSING IN COMPLEX AND CRITICAL SITUATIONS
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 multi-system failures.
435 NURSING 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 NURSING RESEARCH/RN ONLY
3 credits
Prerequisite: 336. Exploration of the effects of nursing research on the profession, becoming a knowledgeable consumer of research.
440 NURSING OF COMMUNITIES
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.

445 COMMUNITY HEALTH NURSING/RN ONLY
5 credits
Prerequisites: $336,337,405$. A theoretical synthesis of community health nursing and public health science applied across the life-span, in a variety of community settings with diverse population groups.

446 PROFESSIONAL NURSING LEADERSHIP 5 credits
Prerequisite: 445. Provides the RN student with a clinic and theoretical foundation for leadership and management in a dynamic health care setting.
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 primary 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 presentation of an original investigation of a significant topic or creative work which must meet high standards of scholarship.
489/589 SPECIAL 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 WORKSHOPS
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 and structural characterization, polymerization and copolymerization, experimental demonstrations, typical solid-state and flow properties.
381 POLYMER MORPHOLOGY FOR ENGINEERS
3 Credits
Prerequisites: 281, 3150:151, 3650:292. Fundamental understanding of solid structure, crystallography 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 ENGINEERING PROPERTIES 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, rheology, rheometry and polymer processing concepts.
451/551 POLYMER ENGINEERING LABORATORY
2 Credits
Prerequisite: 4200: 321. Corequisite: 422. Laboratory experiments on the rheological characterization of polymer melts, fabrication of engineering 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 DESIGN PROJECT
2 credits
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 (or equivalent) or permission. An introduction to the science and technology of plastic materials. Lecture and laboratory.
407/507 POLYMER SCIENCE
4 credits
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.


## Directory

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September 2006
D. J. GUZZETTA, President Emeritus of the University; Professor Emeritus of Higher Education (1954-1968) (1971) (Ret. as President 1984) (Ret. 1985) B.A., Ed.M., Ed.D., University of Buffalo, 1953; LL.D., The University of Akron, 1968; D.S.Sc., Marian College, 1971; LL.D., Kent State University, 1971; L.H.D., Walsh College; LL.D., Bellevue College, 1978.
DANNY W. ABOOD, Coordinator Athletic Facilities and Operations Emeritus (1981) (Ret 2004) B.A., The University of Akron, 1981.

IRVING A. ACHORN, Professor Emeritus of Art (1965) (Ret. 1983) B.S., M.A., Kent State University, 1956.
ALEXANDER L. ADAMS, Assistant Professor Emeritus of Physical Education (1970) (Ret. 1989) B.S.Ed., M.S.Ed., The University of Akron, 1970.

RONNIE G. ADAMS, Professor Emeritus of Surveying and Construction Technology (1969) (Ret. 1996) B.C.E., Cleveland State University; M.S.C.E., Lehigh University, 1963
J. THOMAS ADOLPH, Professor Emeritus of Physical Education (1969) (Ret. 1995) B.A., The University of Akron; M.Ed., Ohio University; Ph.D., The Ohio State University, 1969.
STANLEY AKERS, Assistant Professor Emeritus of Bibliography (1967) (Ret. 1997) B.S., M.A., The University of Akron; Ph.D., Kent State University, 1989.
carolyn A. albanese, Associate Professor Emeritus of Home Economics and Family Ecology (1978) (Ret. 1998) B.S., Southern Illinois University at Carbondale; M.S., The Ohio State University, 1969.
M. KAY ALDERMAN, Professor Emeritus of Education (1979) (Ret. 2006) B.S., University of Southern Mississippi; M.Ed., University of Texas at Austin; Ed.D., University of Houston, 1976.
DORIS S. ALDRICH, Associate Professor Emeritus of Home Economics (1973) (Ret. 1988) B.S., M. Ed., Kent State University, 1972

RICHARD W. ALFORD, Associate Professor Emeritus of Hospitality Management (1983) (Ret. 2000) A.D., B.S., M.S., The University of Akron, 1987

VIRGINIA L. ALLANSON, Associate Professor Emeritus of Bibliography (1968) (Ret. 1984) B.S., Purdue University; M.L.S., Kent State University, 1966.
ABDUL AMER ALRUBAIY, Professor Emeritus of Education (1972) (Ret. 1994) B.S., M.A., E.D.S., Eastern Michigan University; Ph.D., Kent State University, 1972.
VINCENT A. ALTIER, Assistant to the Dean Emeritus of the College of Polymer Science and Polymer Engineering (1983) (Ret. 1996) A.B., Youngstown State University; M.S., The University of Akron, 1954.
barbara s. ANANDAM, Assistant Professor Emeritus of Nursing (1973) (Ret. 1993) B.S., M.S., Boston University; Ed.S., Kansas State Teachers College, 1971
WALTER E. ARMS, Associate Professor Emeritus of Education (1968) (Ret. 1989) B.S., Northwest Missouri State College; M.Ed., University of South Dakota; Ed.D., Indiana University at Bloomington, 1968.
barbara n. ARMSTRONG, Professor Emeritus of Home Economics (1972) (Ret. 1989) B.S., M.S., West Virginia University; Ph.D., The Ohio State University, 1970.

BRUCE R. ARMSTRONG, Professor Emeritus of Art (1971) (Ret. 1994) B.F.A., California Institute of the Arts; M.F.A., Washington State University, 1968
WILLIAM J. ARN, Professor Emeritus of Education (1967) (Ret. 1983) B.S.Ed., Ohio Northern University; M.S.Ed., Bowling Green State University; Ph.D., Kent State University, 1967
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ASSISTANT PROFESSORS: Ala R. Abbas, Daren Zywicki.

## Electrical and Computer Engineering

DEPARTMENT CHAIR: Professor Jose Alexis De Abreu-Garcia.
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## Mechanical Engineering

DEPARTMENT CHAIR: Professor Celal Batur.
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ASSOCIATE PROFESSORS: Jerry E. Drummond, Xiaosheng Gao, Michelle S. Hoo Fatt, S. Graham Kelly III, Yueh-Jaw A. Lin, Alex Povitsky, Donald D. Quinn, Scott D. Sawyer, Guo-Xiang Wang.
ASSISTANT PROFESSORS: Shing-Chung Wong, Zhenhai Xia, Jiang John Zhe

## College of Education

## Counseling

DEPARTMENT CHAIR:
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ASSOCIATE PROFESSORS: James Austin, Patricia E. Parr, Linda M. Perosa, John E. Queener, Cynthia A. Reynolds, Karen Scheel, Robert C. Schwartz

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ASSISTANT PROFESSORS: Lynn S. Kline, Barbara K. O'Connor, Denise J. Uitto.

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CLINICAL INSTRUCTORS: Patricia A. Raiff.

## Sport Science and Wellness Education

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ASSOCIATE PROFESSORS: Sean X.Cai, Victor E. Pinheiro.
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CLINICAL INSTRUCTORS: Stacey L. Buser, Rachele M. Kappler.

## College of Business Administration

## Accountancy

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ASSISTANT PROFESSORS: Steven R. Ash, Paramjit S. Kahai

## Marketing

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PROFESSORS: Michael F. D'Amico, Bruce D. Keillor.
ASSOCIATE PROFESSORS: Jeffrey C. Dilts, Douglas R. Hausknecht, Deborah Owens, Timothy J.Wilkinson.

ASSISTANT PROFESSORS: Linda Foley, William J. Hauser, Prashant Srivastava, Andrew Robert Thomas.
INSTRUCTORS: Fredric Marich.

## College of Fine and Applied Arts

## Art

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DISTINGUISHED PROFESSORS: Mark E. Soppeland.
PROFESSORS: Andrew Borowiec, George L. DiSabato, Robert J. Huff, Penny Rakoff, Neil Sapienza, Donna S. Webb.
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INSTRUCTORS: Cydney Spohn.

## Family and Consumer Sciences

DIRECTOR: Associate Professor Richard S. Glotzer.
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ASSISTANT PROFESSORS: Robert Brown, Cinda S. Chima, Sandra L. Hudak, Teena JenningsRentenaar, Lonnie Michael Lowery, Anne Weiner, Victor Romando Wilburn, Baomei Zhao.
INSTRUCTORS: Eston Brown.

## Music

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ASSISTANT PROFESSORS: Guy V. Bordo, Laurie E. Lashbrook.

## Social Work

DIRECTOR: Professor Virginia L. Fitch.
ASSOCIATE PROFESSORS: Linda F. Crowell, Peter K. Li, Timothy M. McCarragher, Nikki W. Wingerson.
ASSISTANT PROFESSORS: Priscilla R. Smith.
INSTRUCTORS: Linda J. McArdle.

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PROFESSORS: Pamela G. Garn-Nunn, Yvonne M. Gillette, Karyn B. Katz, Sharon A. Lesner, James M. Lynn, Denise F. Wray.

ASSOCIATE PROFESSOR: Terry L. Hallett.
ASSISTANT PROFESSOR: Mona L. Klingler.

## College of Nursing

## DEAN:

PROFESSORS: Cynthia F. Capers, Maryhelen Kreider, Karen A. Schwarz, N. Margaret Wineman, Christine A. Wynd.
ASSOCIATE PROFESSORS: Therese M. Dowd, Elaine M. Fisher, Kristine M. Gill, Irene Glanville, Margaret B. Halter, Marlene S. Huff, Mary Agnes Kendra, Susan M. Klein, Katharine Y. Kolcaba, M. Patrice McCarthy, Kathleen M. RossAlaolmolki, Cheryl B. Sadler, Stephanie J. Woods.

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## College of Polymer Science and Polymer Engineering

## Polymer Science

DEPARTMENT CHAIR: Professor Mark D. Foster.
DISTINGUISHED PROFESSORS: Frank W. Harris, Joseph P. Kennedy, Roderic P. Quirk, Ernst von Meerwall.
PROFESSORS: William Brittain, Stephen Z. Cheng, Scott Collins, Ali Dhinojwala, Purushottm Das Gujrati, Gary R. Hamed, Wayne L. Mattice, George R. Newkome, Judit Puskas, Darrell H.
Reneker, Alexei P. Sokolov, Shi-Qing Wang.
ASSOCIATE PROFESSORS: Gustavo Adolfo Carri, Coleen Pugh.
INSTRUCTORS: Marcia E. Weidknecht.

## Polymer Engineering

DEPARTMENT CHAIR: Associate Professor Sadhan C. Jana.
DISTINGUISHED PROFESSORS: Avraam I. Isayev, Thein Kyu
PROFESSORS: Mukerrem Cakmak, Chang D. Han, Arkady I. Leonov, Erol Sancaktar, James L. White.
ASSOCIATE PROFESSORS: Kyonsukum M. Cakmak, Mark Soucek.
ASSISTANT PROFESSORS: Kevin A. Cavicchi.

## School of Law

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ASSISTANT PROFESSORS: Sarah M.R. Cravens, Stefan Padfield.

## Wayne College

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ASSOCIATE PROFESSORS: Thomas E. Andes, Gary A. Bays, Lori A. Brinker, Jennifer L. Holz, Louis M. Janelle, Jr, Jack A. Loesch, Patsy A. Malavite, Richard M. Maringer, Susanne M. Meehan, Paulette M. Popovich, Monica Harrison Smith, Colleen M. Teague, Carol M.Turner, Tyrone M. Turning, Helen F. Walkerly, Douglas B. Woods, Nicholas C. Zingale.
ASSISTANT PROFESSORS: Adil M. Wadia.
INSTRUCTORS: Joseph M. Wilson.

## University Libraries

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ASSISTANT PROFESSORS: Ann D. Bolek, Frank J. Bove, Christen B. Cardina, Lori Jean Fielding, Dianna J. Ford, Jeffrey A. Franks, Nashieli Marcano, Bennie P. Robinson, Russell J. Tinkham, Michael P. Tosko.

## Reserve Officers' Training Corps

## Army

ROBERT J. ARNHOLTER, Assistant Professor of Military Science (2004); Sergeant First Class, U.S. Army.
RONALD J. BECK JR, Assistant Professor of Military Science (2004); Senior Military Instructor; Master Sergeant, U.S. Army.
CHARLES R. PREBLE, Assistant Professor of Military Science (2004), B.S. University of Maine 1997; Captain, U.S. Army.
STANLEY R. YOUNG, Professor of Military Science (2006), B.S., M.S., University of Florida 1999; Lieutenant Colonel, U.S.Army.
JAMES D. YOUNGDAHL, Ohio National Guard Recruiting Liaison (2005); A.A. University of Akron 1989; Staff Sergeant, U.S. Army.

## The Maurice Morton Institute of Polymer Science

FRANK W. HARRIS, Director of The Maurice Morton Institute of Polymer Science; Distinguished Professor of Polymer Science; Distinguished Professor of Biomedical Engineering; Research Associate, IPS (1983) B.S., University of Missouri; M.S., Ph.D., University of lowa, 1968.
WILLIAM J. BRITTAIN, Professor of Polymer Science (1990) B.S., University of Northern Colorado; Ph.D., California Institute of Technology, 1982.
GUSTAVO CARRI, Associate Professor of Polymer Science (1995) License in Physics, Universidad Nacional de La Plata, M.S. Macromolecular Science Case Western Reserve University, M.S., Ph.D., University of Massachusetts-Amherst, 2000.
STEPHEN Z. D. CHENG, R.C. Musson and 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.
SCOTT COLLINS, Professor of Polymer Science (2000) B.Sc., Ph.D., Calgary (Canada), 1983.
ALI DHINOJWALA, Professor of Polymer Science (1997) Ph.D., Northwestern University, 1994.
MARK D. FOSTER, Professor of Polymer Science; Department Chair, Polymer Science; Associate Director, Akron Global Polymer Academy for Polymer Science (1990) B.S., Washington University; Ph.D., University of Minnesota at Minneapolis, 1987.
PURUSHOTTAM DAS GUJRATI, Professor of Physics; Professor of Polymer Science (1983) B.Sc., Banaras Hindu University, India; M.Sc., Indian Institute of Technology, India; M.A., M.Phil., Ph.D., Columbia University, 1978.

GARY R. HAMED, Professor of Polymer Science (1980) B.S.C.E., M.S.C.E., Cornell University; Ph.D., The University of Akron, 1978.
JOSEPH P. KENNEDY, Distinguished Professor of Polymer Science; Distinguished Professor of Chemistry (1970) B.Sc., University of Budapest; M.B.A., Rutgers University; Ph.D., University of Vienna, 1954.
WAYNE L. MATTICE, Alex Schulman Professor of Polymer Science (1986) Ohio Eminent Scholar; B.A., Grinnell College; Ph.D., Duke University, 1968.

GEORGE R. NEWKOME, Vice President of Research and Dean of the Graduate School; Professor of Polymer Science, Professor of Chemistry, James and Vanita Oelschlager Professor of Science and Technology; Intellectual Property Center Fellow (2001) B.S., Ph.D. Kent State University 1966.
COLEEN PUGH, Associate Professor of Polymer Science (1998) B.A., B.S., University of California; M.S., Ph.D., Case Western Reserve University,1990.
JUDIT PUSKAS, Professor of Polymer Science, Lanxess Industrial Chair (2004) Diploma of Organic and Biochemical Engineering (Master's Degree), Candidate of Chemical Sciences (Ph.D.), Technical University of Budapest, Diploma of Economy and Philosophy (M.S.), MLEE College, Budapest, Candidate of Chemical Sciences (Ph.D.), Hungarial Academy of Sciences, Ph.D. Plastics and Rubber Technology (Polymer Engineering), Technical University of Budapest, 1990.

RODERIC P. QUIRK, Distinguished Professor of Polymer Science; Kumho Professor of Polymer Science (1983) B.S., Rensselaer Polytechnic Institute; M.S., Ph.D., University of Illinois, 1967.
DARRELL H. RENEKER, Professor of Polymer Science (1989) B.S., Iowa State University; M.Sc., Ph.D., University of Chicago, 1959.
DANIEL J. SMITH, Professor of Chemistry; Faculty Research Associate, IPS (1977) B.S., Wisconsin State University; Ph.D., University of California at Berkeley, 1974.
ALEXI P. SOKOLOV, Thomas A. Knowles Professor of Polymer Science (1998) Ph.D., Novosibirsk State University, 1986.
CLAIRE A. TESSIER, Professor of Chemistry (1990) B.S., University of Vermont; Ph.D., State University of New York at Buffalo, 1982.
ERNST D. VON MEERWALL, Associate Dean of the College of Polymer Science and Polymer Engineering; Distinguished Professor of Physics; Distinguished Professor of Chemistry; Distinguished Professor of Polymer Science; Faculty Research Associate, IPS (1971) B.S., M.S., Northern Illinois University; Ph.D., Northwestern University, 1970.
SHI-QING WANG, Professor of Polymer Science (2000) B.S. Wuhan University, China; Ph.D., University of Chicago, 1987.
WILEY YOUNGS, Professor of Chemistry (1990) B.A., State University of New York at Albany; Ph.D., State University of New York at Buffalo, 1980.

## Department of Polymer Engineering

SADHAN C. JANA, Associate Professor of Polymer Engineering (1998) Chair, Department of Polymer Engineering (2004) B. Tech., University of Calcutta; M.Tech., IIT, Kanpur; Ph.D., Northwestern University, 1993.
Kyonsukum MIN 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) Associate Director, Akron Global Polymer Academy (2004) B.S., Technical University of Istanbul; M.S., Ph.D., University of Tennessee, 1984.
KEVIN A. CAVICCHI, Assistant Professor of Polymer Engineering (2006) B.S., Cornell University, Ph.D., University of Minnesota, 2003.
CHANG DAE HAN, Benjamin Franklin Goodrich Endowed Professor of Polymer Engineering (1993) B.S., Seoul National University; M.S., Sc.D., Massachusetts Institute of Technology, 1964; M.S., Newark College of Engineering, 1969; M.S., New York University, 1971.
AVRAAM I. ISAYEV, Distinguished Professor of Polymer Engineering (1983) M.Sc., Azerbaijan Institute of Oil and Chemistry; M.Sc., Institute of Electronic Machine Building, Moscow; Ph.D. USSR Academy of Sciences, 1970.
THEIN KYU, Distinguished Professor of Polymer Engineering (1983) B.Eng., Kyoto Institute of Technology; M.Eng., D.Eng., Kyoto University, 1980.
ARKADY I. LEONOV, Professor of Polymer Engineering (1988) B.S., Moscow Technical University of Chemical Engineering; M.S., Moscow State University; Ph.D., USSR Academy of Sciences, 1962; Ph.D., Karpov PhysicoChemical Research Institute, Moscow, 1969.
EROL SANCAKTAR, 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 SOUCEK, Associate Professor of Polymer Engineering (2001) B.S., Eastern Illinois 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

STANLEY E. RITTGERS, Professor of Biomedical Engineering (1987) B.S., State University of New York at Buffalo; M.S., Ph.D., The Ohio State University, 1978.
GLEN O. NJUS, Research Associate Professor in Institute for Biomedical Engineering Research (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.

DANIEL B. SHEFFER, Associate Professor of Biomedical Engineering; Associate Professor of Biology; 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.
BRUCE C. TAYLOR, Associate Professor of Biomedical Engineering; Associate Professor of Electrical Engineering (1988) B.A., Hiram College; M.A., Ph.D., Kent State University, 1971.
MARY C. VERSTRAETE, Associate Professor of Biomedical Engineering (1988) B.S., M.S., Ph.D., Michigan State University, 1988.
YANG HYUN YUN, Assistant Professor of Biomedical Engineering (2004) B.S. Christian Brothers University, Memphis; M.S. University of Memphis; Ph.D. University of Memphis, 1999.

## Presidents

*Deceased.

## Buchtel College

S. H. McCOLLESTER*, 1872-1878, D.D., Litt. D.
E. L. REXFORD*, 1878-1880, D.D.

ORELLO CONE*, 1880-1896, D.D.
CHARLES M. KNIGHT*, 1896-1897, D.Sc. (ad interim)
IRA A. PRIEST*, 1897-1901, D.D.
A. B. CHURCH* ${ }^{*}$ 1901-1912, D.D., LL.D.

PARKE R. KOLBE*, 1913, Ph.D., LL.D.

## The University of Akron

PARKE R. KOLBE*, 1913-1925, Ph.D., LL.D.
GEORGE F. ZOOK*, 1925-1933, Ph.D., LL.D.
HEZZLETON E. SIMMONS*, 1933-1951, M.S., D.Sc. LL.D.
NORMAN P. AUBURN*, 1951-1971, B.A., D.Sc., Litt.D., L.H.D., LL.D., D.C.L.
D. J. GUZZETTA, 1971-1984, Ed.D., LL.D., D.S.Sc., L.H.D.

WILLIAM V. MUSE, 1984-1992, B.S., M.B.A., Ph.D
MARION A. RUEBEL, 1992-, B.A., M.A., Ph.D., (acting) PEGGY GORDON ELLIOTT, 1992-1996, B.A., M.S., Ed.D.
MARION A. RUEBEL, 1996-1998, B.A., M.A., Ph.D
LUIS M. PROENZA, 1999-, B.A., M.A., Ph.D.

## Deans of the Colleges of The University of Akron

* Deceased.

Buchtel College of Arts and Sciences
ALBERT I. SPANTON*, 1913-1938, M.A., Litt.D.
CHARLES BULGER*, 1938-1948, Ph.D., Litt.D.
ERNEST H. CHERRINGTON, JR., 1948-1960, Ph.D.
THOMAS SUMNER*, 1960-1962, Ph.D.
GEORGE W. KNEPPER, 1962-1967, Ph.D.
DON A. KEISTER*, 1967-1969, Ph.D.
JOHN BACHMANN*, 1969-1970, Ph.D. (acting)
ROBERT A. OETJEN, 1970-1977, Ph.D.
CLAIBOURNE E. GRIFFIN*, 1977-1993, Ph.D. RANDY MOORE, 1993-1995, Ph.D.
ROGER B. CREEL, 1995-1997, Ph.D. (Interim)
ROGER B. CREEL, 1997, 2005, Ph.D.
RONALD F. LEVANT, 2005-, Ph.D.
College of Engineering
FREDERIC E. AYER*, 1914-1946, C.E., D.Eng R. D. LANDON*, 1946-1963, C.E., M.S. W. M. PETRY*, 1963-1964, M.S.M.E. (acting) MICHAEL J. RZASA*, 1964-1970, Ph.D. COLEMAN J. MAJOR, 1970-1979, Ph.D. JOSEPH EDMINISTER, 1980-1981, J.D. (acting) LOUIS A. HILL, JR., 1981-1988, Ph.D. GLENN A. ATWOOD, 1988-1989, Ph.D. (acting) NICHOLAS D. SYLVESTER, 1989-1994, Ph.D. CHIOU S. CHEN, 1994-1995, Ph.D. (interim) IRVING F. MILLER, 1993-1998, Ph.D. S. GRAHAM KELLY III, 1998-2003, Ph.D. (interim) GEORGE K. HARITOS, 2003- , Ph.D.

## College of Education

W. J. BANKES*, 1921-1931, M.A. ALBERT I. SPANTON*, 1931-1933, M.A., Litt.D. (acting) HOWARD R. EVANS*, 1933-1942, Ph.D. HJALMER W. DISTAD*, 1942-1944, Ph.D. (acting) HOWARD R. EVANS*, 1944-1958, Ph.D. D. J. GUZZETTA, 1958-1959, Ed.D. LL.D., D.S.Sc., L.H.D. (acting) CHESTER T. McNERNEY, 1959-1966, Ph.D., LL.D. H. KENNETH BARKER, 1966-1985, Ph.D. JOHN S. WATT, 1985-1986, Ph.D. (acting) CONSTANCE COOPER, 1986-1988, Ed.D. JOHN S. WATT, 1988-1989, Ph.D. (acting) WILLIAM E. KLINGELE, 1989-1996, Ed.D. RITA S. SASLAW, 1996-1998, Ph.D. (interim) LARRY A. BRADLEY, 1998-2000, Ph.D. (interim) ELIZABETH J. STROBLE, 2000-2004, Ph.D. PATRICIA A. NELON, 2004- , Ph.D

College of Business Administration
WARREN W. LEIGH*, 1953-1962, Ph.D. RICHARD C. REIDENBACH, 1962-1967, Ph.D ARTHUR K. BRINTALL, 1967-1968, Ph.D. (acting) WILBUR EARLE BENSON*, 1968-1970, Ph.D. JAMES W. DUNLAP, 1970-1989, Ph.D. RUSSELL J. PETERSEN, 1989-1994, Ph.D JAMES INMAN, 1994-1995, LL.M. (interim) STEPHEN F. HALLAM, 1995-2003, Ph.D. JAMES W. BARNETT, 2003-2004 B.S. (interim) JAMES W. BARNETT, 2004-2006, B.S.

## School of Law

STANLEY A. SAMAD*, 1959-1979, J.S.D. ALBERT S. RAKAS*, 1979-1981, J.D. (interim) DONALD M. JENKINS, 1981-1987, LL.M. ISAAC C. HUNT, JR., 1987-1995, LL.B. RICHARD AYNES, 1995-, J.D.

## Graduate School

CHARLES BULGER*, 1933-1951, Ph.D., Litt.D. (Dean of Graduate Work ERNEST H. CHERRINGTON, JR., 1955-1960, Ph.D. (Director of Graduate Studies) ERNEST H. CHERRINGTON, JR., 1960-1967, Ph.D. (Dean of the Graduate Division) ARTHUR K. BRINTALL, 1967-1968, Ph.D. (Dean of Graduate Studies and Research) EDWIN L. LIVELY, 1968-1974, Ph.D. (Dean of Graduate Studies and Research) CLAIBOURNE E. GRIFFIN*, 1974-1977, Ph.D. (Dean of Graduate Studies and Research) JOSEPH M. WALTON, 1977-1978, Ph. D. (Associate Dean of Graduate Studies and Research) ALAN N. GENT, 1978-1986, Ph.D. (Dean of Graduate Studies and Research)
JOSEPH M. WALTON, 1986-1989, Ph.D. (Acting Dean of Graduate Studies and Research) PATRICIA L. CARRELL, 1989-1993, Ph.D. (Dean of the Graduate School)
CHARLES M. DYE, 1993-2000, Ph.D. (Dean of the Graduate School)
GEORGE R. NEWKOME, 2001- , Ph.D. (Vice President for Research \& Dean of the Graduate School)

## Honors College

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University College (formerly General College)
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THOMAS SUMNER*, 1962-1977, Ph.D.
PAUL S. WINGARD, 1977-1978, Ph.D. (acting)
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. MUGLER, 1993- , Ph.D.
Continuing Education and Evening Division

## (formerly Evening College)

L. L. HOLMES, 1932-1934, M.A. (director)
LESLIE P. HARDY*, 1934-1953, M.S.Ed., L.H.D. (director)
E. D. DURYEA, 1953-1956, Ed.D. (dean)
D. J. GUZZETTA, 1956-1959, Ed.D., LL.D., D.S.S.., L.H.D. (dean)
WILLIAM A. ROGERS*, 1959-1967, Ed.D. (dean)
CHARLES V. BLAIR, 1967-1970, M.A. (dean)
JOHN G. HEDRICK, 1970-1974, M.A. (dean)
CAESAR A. CARRINO, 1974-1986, Ph.D. (dean)
WILLIAM H. BEISEL, 1998-2004, Ph.D.
Summit College (formerly Community and Technical College)
W. M. PETRY*, 1964-1974, M.S.M.E.
ROBERT C. WEYRICK, 1974-1985, M.S
FREDERICK J. STURM, 1985-1987, Ed.D. (acting)
JAMES P. LONG, 1987-1989, Ph.D
FREDERICK J. STURM, 1990-1995, Ed.D.
DEBORAH S. WEBER, 1995-1996, M.A. (interim)
DAVID A. SAM, 1996-2000, Ph.D.
WILLIAM H. BEISEL, 2000-2004, Ph.D. (interim)
STANLEY B. SILVERMAN, 2004- , M.A.

## College of Fine and Applied Arts

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GERARD L. KNIETER, 1978-1986, Ph.D.
KELVIE C. COMER, 1986-1987, Ed.D. (acting)
WALLACE T. WILLIAMS*, 1987-1991, Ph.D.
DONALD E. HALL, 1991-1992, Ph.D. (acting)
LINDA L. MOORE, 1992-1998, Ph.D.
MARK S. AUBURN, 1998-2000, Ph.D. (interim)
MARK S. AUBURN, 2000-2005, Ph.D.
JAMES M. LYNN, 2005-,Ph.D. (interim)
College of Nursing
ESTELLE B. NAES, 1967-1975, Ph.D.
LILLIAN J. DeYOUNG, 1975-1988, Ph.D.
ELIZABETH J. MARTIN, 1988-1992, Ph.D.
V. RUTH GRAY, 1992-1996, Ed.D.

JANNE R. DUNHAM-TAYLOR, 1996-1997, Ph.D. (interim)
CYNTHIA CAPERS, 1997-2006, Ph.D.
Wayne College
MARVIN E. PHILLIPS, 1972-1974, M.A. (acting director)
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JOHN G. HEDRICK, 1974-1979, M.A. (dean)
ROBERT L. McELWEE, 1979-1980, M.A. (acting dean)
TYRONE M. TURNING, 1980-1995, Ed. D. (dean)
FREDERICK J. STURM, 1995-1997, Ed.D. (dean)
JOHN P. KRISTOFCO, 1997-, Ph.D. (dean)

College of Polymer Science and Polymer Engineering FRANK N. KELLEY, 1988-2006, Ph.D. (dean)

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May 2006

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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]:    

[^2]:    * Will apply toward the Transfer Module only for students enrolled in the Community and Technical College.

[^3]:    * An ACT English score of 28 and an SAT verbal score of 610 is needed to enroll in 3300:112 without the prerequisite.

[^4]:    * An engineering grade point average of 2.00 is required in all engineering courses attempted (4XXX prefix).
    ** grade point average of 2.50 , effective July 1,1991 , for entering freshmen.
    *** A separate 2.00 is required in the major and a separate 2.00 is required in all business and economics courses.
    † Grade point average of 2.00 overall, and a separate GPA of 2.30 in all courses taken in the School of Communication.

[^5]:    Note: A sliding scale, or the Health and Human Services guidelines on poverty, will be used if the client has no insurance and if the family income and the number of dependents indicates there is a need.
    @ Faculty/staff/students

[^6]:    * Deadline for application is April 15.
    ** Six credits from two different sets.

[^7]:    ** Student must be admitted to program or obtain permission from program director.

[^8]:    ** Some associate degree courses may be applied toward a four-year business education or technica education degree.

[^9]:    * 2040: students can take a minimum of two credits of any of the Area 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
    @ 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

[^11]:    * 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 $1 / 1 / 96$, see an adviser.

[^12]:    $\dagger \dagger$ Changes by subject each semester. Must be taken twice for a total of six credits

[^13]:    ** The following are recommended: 139, Life Saving; 155, Swimming; 173, Self-Defense; or 174, Karate.
    ***Graduates of an Ohio Basic Police Officers Training Academy may receive credit for 2220:xxx Technical Electives, six credits.

[^14]:    $\dagger$ Prerequisites include 7750:427 Human Behavior in Social Work Environment (3) and 3100:103

[^15]:    1 Students must have completed a minimum of 32 semester credits and have completed 3300:112 English Composition II before enrolling for this course. An additional six credits of humanities must also be completed. Please consult an adviser for specific options.
    2 Students must complete two courses totaling four credits from the area studies/cultural diversity options. The engineering student is required to take only one course. Please consult an adviser for specific options.
    3 The mathematics requirement varies by department. Please consult an adviser for specific requirements.
    4 A minimum of eight credits of natural science are required. One course must have a laboratory component. However, departmental requirements may vary. Please consult an adviser for specific information.
    5 Students may satisfy the General Education Requirement in the social sciences area by completing two courses totaling six credits from two different sets in the social science group. Please consult an adviser for specific information.
    6 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 upper-college degree program, i.e., arts and sciences, education, or fine and applied arts.
    7 In the science program, a student is free to choose any electives. However, at least two-thirds of the credits must be in the natural sciences; mathematics, statistics or computer science; engineering; business administration; or nursing department; and should lead to some upper-college degree objective.

[^16]:    $\wedge$ Fulfills course requirements for CompTIA's A+ certification.

    + Fulfills course requirements for CompTIA's Network+ certification.
    \# Fulfills course requirements for Microsoft MCSA certification program
    @ Fulfills course requirements for Novell, Inc. CNE certification program
    @ Fulfills course requirements for Novell, Inc. CNE certification program.
    * $\quad$ Credit hours are variable due to continuous updating of course content
    * Credit hours are variable due to continuous updating of course content and certification requirements by Microsoft and Novell, Inc. It may be necessary to take additional elective credits to fulfill the credit hours necessary for program completion.
    \$ Fulfills course requirements for Comp TIA's A+ OS certification.

[^17]:    @ Fulfills course requirements for Novell, Inc. CNE certification program.

    + Fulfills course requirement for Network+ certification.
    * Credit hours are variable due to continuous updating of course content and certification requirements by Microsoft and Novell, Inc. It may be necessary to take additional elective credits to fulfill the credit hours necessary for program completion.
    \# Fulfills course requirements for Micrsoft MMCSA certification program.
    \$ Fulfills course requirements for Comp TIA's A+ OS certification.

[^18]:    * 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.

[^19]:    * 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.
    ** Geophysics majors must take 3650:291 and 292, Elementary Classical Physics I and II during the second year instead of the humanities credits.

[^20]:    * 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.

[^21]:    * 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.

[^22]:    * Will apply toward the General Education requirement only for students enrolled in the Community and Technical College.
    \# 7900:200 does not meet this requirement for dance majors.

[^23]:    $\dagger$ May also be satisfied by 4300:418 Soil and Rock Exploration.
    $\dagger \dagger$ Undergraduate geology adviser may approve substitution of 3650:261,2.

[^24]:    * This course will count towards the requirement of 47 credits of $300 / 400-$ level credits
    ** The courses 3450:100, 113-138, 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 $300 / 400-$ level credits

[^25]:    * This course will count towards the requirement of 47 credits of 300/400-level credits
    ** The courses 3450:100, 113-138, 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 $300 / 400$-level credits

[^26]:    $\dagger$ Additional physics courses are usually necessary to satisfy the admission requirements of

[^27]:    ** Can use 3250:244 toward General Education Requirement. (If 3250:200 and 3250:201 have been completed, $3250: 244$ is not required.

    * Can use 3600:120 or 3600:170 toward General Education requirement (3 credits only).

[^28]:    * 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 year must satisfy this requirement. See adviser for clarification.
    $\dagger$ These seven credits will substitute for seven of the required free electives.

[^29]:    + Computer engineering majors must have completed all required 300-level courses.
    Computer engineering majors must achieve C- or better in 4400:231 Circuits I to take 4400:332 Circuits II.

[^30]:    * Undergraduate students must obtain permission to take this course.

[^31]:    * These requirements do not apply to non-teacher licensure degree programs. See specific program requirements for those areas.

[^32]:    @ Variations will occur in P-12 licensure fields. See Program Plan sheets for specific courses.

    * Those receiving less than a "B" must take the PRAXIS I and pass for admission.

[^33]:    * Required for admission to College of Education.
    @ This program has been suspended until further notice due to low enrollment
    \# These courses are not required of Athletic Training for Sports Medicine (NATA/non-NATA)
    ** Student must earn a "C" or better in all Physical Education courses to be recommended for licensure.

[^34]:    * Required for admission to College of Education.

    1 Take these courses together
    2 Take these courses together

[^35]:    * Course requires clinical sport rotation.
    \# Course requires clinical hours.

[^36]:    \# Course requires clinical hours.

    * To qualify for practicum placement in exercise science, student must have a 2.50 average overall and a 2.50 in all required major courses (with no less than a " $C$ " in any of these courses.

[^37]:    * To qualify for practicum placement in sport science, student must have a 2.50 average overall
    and a 2.50 in all required major courses (with no less than a " C " in any of these courses).
    ** Substitutions for courses in concentrated areas may be made with academic adviser approval.

[^38]:    * Required for admission to the College of Education. Total of 29 credits.

[^39]:    ** Those receiving less than a "B" must take the PRAXIS I and pass for admission.

    * Required for admission to the College of Education. Total of 29 credits.

[^40]:    * During the phase-in of these courses, students who have completed 3450:145 College Algebra $(4$ credits) may 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 I.

[^41]:    \# 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.

[^42]:    * Students who elect to work in public accounting as CPAs should plan to pursue our 150 credit hour joint 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 join BS/MS program should talk with

[^43]:    * 6400:390, 402, 403 and 424 are accepted by the Ohio Real Estate Commission to satisfy course work necessary for the Ohio License requirement.

[^44]:    * Students 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 five options with a minimum number of additional credits. Check with your CBA adviser or the Department of Management web page at http://hww.uakron.edu/cba/manage to determine the specific requirements for the dual options of your choice.

[^45]:    * 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 determine 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 requirements for any other major, minor, or certificate that has been

[^46]:    * 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 determine 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 requirements for any other major, minor, or certificate that has been earned.

[^47]:    @ May take one 7100:368 Color in Metals II in place of one 7100:466.

[^48]:    $\ddagger$ Required for B.S. in dietetics

    * 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 credits 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 Dietetic Association requirements.

[^49]:    * 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 earn 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.

[^50]:    * 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 earn 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.

[^51]:    * 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 earn 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.

[^52]:    * Eight semesters in a major conducted ensemble
    $\ddagger$ Passage to the 300 level in the primary applied area is required before graduation

[^53]:    *Eight semesters in a major conducted ensemble

[^54]:    * Eight semesters in a major conducted ensemble
    ** Acceptance in the Jazz Program is by permission of the coordinator of Jazz Studies.
    $\ddagger$ Passage to the 300 level in the primary applied area is required before graduation

[^55]:    * Courses in the Department of Biology (3100:265) and Speech-Language Pathology and Audiology (7700:265, 266) are required to fulfill the natural sciences requirement . A.B.A. 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).

[^56]:    ** Sign Language may be taken in place of a foreign language.

[^57]:    $\dagger$ Fulfills General Education requirements.
    Note: Electives. Students may select courses numbered 100 and above as electives. A list of suggested elective courses is available through Academic Advising or the College of Nursing. Electives are not prerequisite for admission to the College.

[^58]:    * Can also be used for General Education credit.
    \# NOTE: Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors.

[^59]:    * Can also be used for General Education credit.
    \# NOTE: Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors.

[^60]:    \# Courses not applicable to the minor in physics without written permission by a faculty committee are 3650:399, 488, 490, 497 and 498.
    ** 3650:261,2, Physics for the Life Sciences, may be substituted for 3650:291,2, in whole or in part.

[^61]:    Summit College
    2260:265 Women and Addiction

[^62]:    * Students may use this course only at the discretion of the Director, based on the nature of the internship

[^63]:    Internship (3 credits)

[^64]:    $\dagger$ The awarding of this certificate is not contingent upon completion of a degree program. Undergraduate certificate programs require a 2.00 grade-point average; graduate certificate programs require a 3.00 grade-point average.
    ** Choice to be decided in consultation with the program director.

[^65]:    ** Graduate-level courses only. See Graduate Bulletin.

[^66]:    ** 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

[^67]:    * 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.

[^68]:    * 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.

[^69]:    * Total repeats not to exceed eight credits.
    (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.)

[^70]:    * Required of all theatre majors.
    $\neq$ Majors are required to enroll in at least one credit production lab every semester they are in residence.

[^71]:    * 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.

