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University of Akron

AKRON, OHIO

JUNE, 1948

Annual Catalog 1947 - 1948

With Announcements For 1948 - 1949



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THE UNIVERSITY CALENDAR

1948

- JANUARY 5, MONDAY.....Classes resumed.
- JANUARY 26 TO 31, INCL.....Semester final examinations for Day and Evening Sessions.
- FEBRUARY 2 TO 4, INCL.....Orientation Program.
- FEBRUARY 5 AND 6.....Final classification of students in Day Session.
- FEBRUARY 9, MONDAY.....Classes begin for Day Session.
- FEBRUARY 9, MONDAY, 7 P. M.....Examinations for admission to Evening Session.
- FEBRUARY 9 TO 14.....Registration and classification of Evening Session students.
6 TO 8:30 P. M.
- MONDAY THROUGH FRIDAY
- SATURDAY—9 A. M. TO 12 NOON
- FEBRUARY 16, MONDAY.....Evening Session classes begin.
- FEBRUARY 23, MONDAY.....Washington's Birthday—a holiday.
- MARCH 22 TO 27, INCL.....Spring recess.
- MARCH 29, MONDAY.....Classes resumed.
- APRIL 20, TUESDAY.....Qualifying examinations for student teaching.
- MAY 15, SATURDAY.....Examinations for candidates for graduate degrees with a major or minor in psychology or education.
- MAY 31, MONDAY.....Memorial Day—a holiday.
- JUNE 7 TO 12, INCL.....Semester final examination week.
- JUNE 15, TUESDAY.....Commencement.
- JUNE 18 AND 19.....Final registration for Summer Session.
FRIDAY AND SATURDAY
- JUNE 21, MONDAY.....Day and Evening Summer Session classes begin.
- JULY 5, MONDAY.....Independence Day—a holiday.
- JULY 31, SATURDAY.....Six-week Summer Session ends.
- AUGUST 14, SATURDAY.....Summer Session closes.
- AUGUST 30 TO SEPTEMBER 7, INCL.....Registration and classification of entering students.
- SEPTEMBER 13 TO 16, INCL.....Orientation Program.
MONDAY THROUGH THURSDAY
- SEPTEMBER 16, 17, 18.....Final registration and classification for Day Session.
- SEPTEMBER 20, MONDAY.....Classes begin for Day Session.
- SEPTEMBER 20, MONDAY, 7 P. M.....Examinations for admission to Evening Session.
- SEPTEMBER 20 TO 24, INCL.....Registration and classification for Evening Session students.
6-8:30 P. M.
- SEPTEMBER 25, 9-12 A. M.
- SEPTEMBER 27, MONDAY.....Evening classes begin.
- NOVEMBER 16, TUESDAY.....Qualifying examinations for student teaching.
- NOVEMBER 25 TO 27, INCL.....Thanksgiving recess.
- DECEMBER 18, NOON TO
- JANUARY 1, 1949, INCL.....Christmas recess.

Returns
7/3/5

1949

- JANUARY 3, MONDAY.....Classes resumed.
- JANUARY 24 TO 29, INCL.....Semester final examinations for Day and Evening Sessions.
- JANUARY 31 TO FEBRUARY 2, INCL.....Orientation Program.
- FEBRUARY 3, 4 AND 5.....Final classification for Day Session.
- FEBRUARY 7, MONDAY.....Classes begin for Day Session.
- FEBRUARY 7, MONDAY, 7 P. M.....Examinations for admission to Evening Session.
- FEBRUARY 7 TO 11, 6-8:30 P. M.....Registration and classification of Evening Session students.
- FEBRUARY 12, 9-12 A. M.....
- FEBRUARY 14, MONDAY.....Evening Session classes begin.
- FEBRUARY 22, TUESDAY.....Washington's Birthday—a holiday.
- APRIL 11 TO 16, INCL.....Spring recess.
- APRIL 18, MONDAY.....Classes resumed.
- APRIL 19, TUESDAY.....Qualifying examinations for student teaching.
- MAY 14, SATURDAY.....Examinations for candidates for graduate degrees with a major or minor in psychology or education.
- MAY 30, MONDAY.....Memorial Day—a holiday.
- JUNE 6 TO 11, INCL.....Semester final examinations.
- JUNE 14, TUESDAY.....Commencement.
- JUNE 17 AND 18.....Final Registration for Summer Session.
- JUNE 20, MONDAY.....Day and Evening Summer Session classes begin.
- JULY 4, MONDAY.....Independence Day—a holiday.
- JULY 30, SATURDAY.....Six-week classes end.
- AUGUST 13, SATURDAY.....Summer Session ends.

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SEPTEMBER 1948 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	OCTOBER 1948 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	NOVEMBER 1948 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	DECEMBER 1948 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
JANUARY 1949 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	APRIL 1949 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	JULY 1949 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	OCTOBER 1949 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
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MARCH 1949 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	JUNE 1949 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	SEPTEMBER 1949 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	DECEMBER 1949 SUN MON TUE WED THU FRI SAT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

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ending classes for 12

UNIVERSITY FACULTY AND ASSISTANTS

1947 - 1948

NOTE: The dates in parentheses indicate the beginning of service at Buchtel College or the University of Akron; unless otherwise stated, service began in the month of September.

- HEZZLETON E. SIMMONS, *President of the University* (1910)
B.S., Buchtel College; M.S., University of Pennsylvania, 1912;
D.Sc., College of Wooster; LL.D., University of Toledo.
- PAUL ACQUARONE, *Associate Professor of Botany and Geology* (1931)
B.S., Pennsylvania State College; Ph.D., Johns Hopkins University, 1929.
- AUBREY ALLMAN, *Instructor in Natural Science* (1946)
B.S., University of Akron, 1940.
- ‡JOANNA ALOGDELIS, *Instructor in Speech* (June, 1942)
B.A., University of Akron; M.A., State University of Iowa, 1941.
- WESLEY ALVEN, *Assistant Professor of Psychology* (1945)
Th.B., Northern Baptist Theological Seminary; Ph.B., Loyola University;
M.A. in Education, University of Akron, 1944.
- DAVID E. ANDERSON, *Director of Testing Laboratory and Assistant Professor of Chemistry* (1923)
B.A., Augustana College; M.S., University of Chicago, 1923.
- EINAR ANDERSON, *Instructor in Accounting* (1947)
B.S., B.A., University of Akron, 1942.
- JULIA ANICH, *Instructor in English* (1946)
B.A., University of Akron, 1946.
- †FREDERIC E. AYER, *Dean Emeritus of the College of Engineering, including the Daniel Guggenheim Airship Institute* (March, 1914)
C. E., Lafayette College, 1900; D.Eng., University of Akron, 1947. P.E., Ohio.
- MILDRED BABCOCK, *Associate Professor of Primary Education* (1946)
A.B., Western Reserve University; M.A., Columbia University, Teachers College;
D.Ed., New York University, 1940.
- *FRANK BAILEY, *Instructor in Physics* (1946)
A.B., Glenville State College; M.A., West Virginia University, 1940.
- PAUL R. BALDACCI, *Assistant Professor of Physical Education* (1942)
B.S., College of William and Mary, 1931.
- SUMMERFIELD BALDWIN, 3RD, *Professor of History* (February, 1943)
A.B., A.M., Ph.D., Harvard University, 1928.
- *BILL BARKLEY, *Instructor in Psychology* (1946)
B.S., University of Akron, 1946.
- GEORGE BATIUK, *Instructor in Aeronautical Engineering at the Daniel Guggenheim Airship Institute* (1945)
B.M.E., University of Akron, 1944.
- RUSSELL J. BEICHLY, *Director of Athletics, Assistant Professor of Physical Education and Basketball Coach* (March, 1940)
B.A., Wittenberg College, 1926.
- PAUL BENNETT, *Instructor in English* (1946)
B.A., University of Akron, 1935.
- MAXWELL P. BOGGS, *Treasurer of the University* (March, 1927)
B.A., Muskingum College, 1924.
- ‡BORIS W. BOGUSLAVSKY, *Professor of Civil Engineering* (June, 1942)
B.S.C.E., M.S.C.E., University of Washington;
D.Sc.C.E., Massachusetts Institute of Technology, 1938. P.E., Ohio.
- MRS. HELEN BOYD, *Instructor in Psychology* (January, 1946)
B.A., Fairmont State Teachers College; M.A. in Education, University of Akron, 1947.
- CHARLES BULGER, *Dean of Graduate Study, Dean of Buchtel College of Liberal Arts, and Hilton Professor of Modern Languages* (February, 1910)
Ph.B., Buchtel College; A.M., Ph.D., University of Wisconsin, 1925.

*Resigned 1947.

†Retired June 1947.

‡Resigned 1948.

- RENA NANCY CABLE, *Assistant Professor of Art* (1927)
B.E., M.Ed., University of Akron, 1931.
- ANNA BELLE CHALFANT, *Instructor in French* (1947)
B.A., Ohio State University; M.A., Middlebury College, 1934.
- FRANCES CLARK, *Instructor in Accounting* (1946)
B.S., University of Akron; M.Educ., University of Pittsburgh, 1946.
- KENNETH COCHRANE, *Director of Athletics and Associate Professor of Physical Education* (September, 1948)
B.E., University of Akron, 1932.
- WALTER A. COOK, *Professor of Chemistry* (1926)
B.A., M.A., Ph.D., University of Cincinnati, 1924.
- E. O. DAVIDSON, *Instructor in Marketing and Salesmanship* (February, 1947)
B.S., Grove City College; M.S., Temple University, 1940.
- EMILY DAVIS, *Professor of Art* (1945)
B.A., Ohio State University; M.A., Columbia University Teachers College; Ph.D., Ohio State University, 1936.
- RICHARD C. DAVIS, *Instructor in Mathematics* (1946)
B.S.Ed., University of Akron, 1938.
- HARMON O. DEGRAFF, *Professor of Sociology* (1930)
B.A., M.A., State University of Iowa; Ph.D., University of Chicago, 1926.
- HJALMER W. DISTAD, *Professor of Education* (1934)
B.S.Ed., M.A., Ph.D., University of Minnesota, 1926.
- MAUD DOHERTY, *Professor of Nursing Education* (1945)
B.S., M.A., Columbia University, 1936.
- *JOHN DOUGHMAN, *Area Coordinator of Apprenice Instruction, State Department of Education* (May, 1946)
B.S.Ed., Wilmington College, 1926.
- HOWARD M. DOUTT, *Professor of Secretarial Science and Chairman of the Division of Applied Arts* (February, 1926)
B.A., University of Akron; M.A., University of Chicago, 1934.
- †DALLAS L. DOWNING, *Professor of Vocational Education* (1937)
B.A., Indiana State Teachers College; M.A., Columbia University; D.Ed., Indiana University, 1941.
- CHARLES DUFFY, *Pierce Professor of English Literature* (1944)
Ph.B., University of Wisconsin; M.A., University of Michigan; Ph.D., Cornell University, 1939.
- THEODORE DUKE, *Instructor in Latin and Greek* (1946)
B.A., University of Akron; M.A., Western Reserve University; Ph.D., Johns Hopkins University, 1946.
- AUGUSTUS DYCUS, *Instructor in Natural Science* (1946)
University of Akron.
- ELMER ENDE, *Associate Professor of Music* (1930)
B.Mus., American Conservatory of Music, Chicago; M.A., Ohio State University, 1930.
- HOWARD R. EVANS, *Dean of the College of Education and Professor of School Administration* (1929)
B.A., Indiana State Teachers College; M.A., Columbia University; Ph.D., Northwestern University, 1930.
- THOMAS EVANS, *Assistant Football Coach and Instructor in Physical Education* (April, 1948)
B.A., College of Wooster, 1935.
- †A. JOHN B. FAIRBURN, *Professor of Electrical Engineering* (February, 1942)
B.S., Pennsylvania State College; M.A., Columbia University, 1929. P.E., New York and Ohio.
- ROBERT FERCUSON, *Special Instructor in Music* (1946)
B.Mus., University of Pittsburgh, 1939.
- ELDORA FLINT, *Associate Professor of Secretarial Science* (1929)
B.Ed., University of Akron; M.S.Ed., Syracuse University, 1935.
- VAUGHN WILBUR FLOUTZ, *Associate Professor of Chemistry* (1941)
B.A., Olivet College; M.A., Ph.D., University of Colorado, 1932.
- OMER R. FOUTS, *Associate Professor of Physics* (1926)
B.A., Wittenberg College; M.A., Ohio State University, 1925.
- *THOMAS A. FOX, *Instructor in Civil Engineering* (February, 1947)
C.E., University of Akron, 1947.

*Resigned 1947.

†Resigned 1948.

- MRS. ARDATH FRANCK, *Instructor in Speech* (1946)
B.S.Ed., M.A., Kent State University, 1947.
- *GWENDOLYN GALLOWAY, *Instructor in Physical Education* (1946)
B.S., University of Akron; M.A., Columbia University, 1946.
- DONFRED H. GARDNER, *Dean of Students and Professor of History* (1924)
A.B., A.M., Princeton University, 1923.
- MARY GIRVES, *Instructor in Secretarial Science* (1946)
B.S.Ed., University of Akron; M.S., Boston University, 1945.
- *WALTER H. GIVENS, *Assistant Professor of Accounting* (February, 1946)
B.S., Northwestern University, 1937; C.P.A., State of Illinois, 1937.
- JAMES W. GLENNEN, *Assistant Professor of Modern Languages* (1934)
B.A., University of Akron; M.A., Western Reserve University;
Ph.D., University of Pennsylvania, 1943.
- DENNIS GORDON, *Assistant Professor of Accounting* (1946) *B.A. Univ Chicago*
M.B.A., University of Chicago, 1938. *C.P.A. Ohio, 1947*
- THOMAS GRAHAM, *Instructor in Psychology* (1947)
B.S. in Ed., M.A., Kent State University, 1947.
- PETER GRANDE, *Instructor in Chemistry* (1946)
B.S., University of Akron, 1946.
- FRED S. GRIFFIN, *Professor of Mechanical Engineering* (1921)
M.E., Ohio State University, 1911. P.E., Ohio.
- OSSIAN GRUBER, *Instructor in Business Administration* (1946)
B.A., University of Minnesota; M.B.A., Northwestern University, 1928.
- EMILE GRUNBERG, *Assistant Professor of Economics* (1946)
M.A., Ph.D., University of Frankfurt, 1930.
- MRS. IRENE GRUNBERG, *Instructor in German* (1946)
University of Frankfurt; University of Geneva.
- GORDON HAGERMAN, *Adviser of Men* (July, 1941)
B.A., University of Akron, 1941.
- E. K. HAMLEN, *Assistant Professor of Mechanical Engineering* (March, 1946)
B.M.E., University of Akron, 1928. P.E., Ohio.
- MRS. PHYLLIS HARDENSTEIN, *Instructor in Speech* (February, 1947)
B.A., University of Akron, 1946.
- LESLIE P. HARDY, *Director of Adult Education and Director of the Summer Session; Assistant to the President* (1934)
B.S.Ed., Kent State University; M.S.Ed., University of Akron, 1935.
- MRS. WANDA HARE, *Instructor in Physics* (1947)
B.S., University of Akron, 1947.
- *MRS. BEATRICE HAWKINS, *Instructor in Mathematics* (February, 1947)
B.E., B.A., University of Akron, 1936.
- MRS. ELIZABETH HELMKAMP, *Instructor in Accounting* (February, 1946)
B.S., University of Akron, 1945.
- GERARD V. HERRBACH, *Instructor in French and Spanish* (1945)
A.B., A.M., Gonzaga University, 1930.
- WILLIAM HOUGHTON, *Head Football Coach and Assistant Professor of Physical Education* (April, 1948)
B.A., Ohio Wesleyan University, 1933.
- FRED F. HOUSEHOLDER, *Professor of Physics and Chairman of the Division of Natural Science* (1918)
B.A., M.A., University of Wisconsin, 1916.
- JOHN HULL, *Instructor in English* (1946)
B.A., University of Akron; M.A., Harvard, 1938.
- PAUL O. HUSS, *Professor of Meteorology at the Daniel Guggenheim Airship Institute* (January, 1941)
B.S.Ed., B.S.E., M.S.E., Sc.D., University of Michigan, 1935.
- DONATO INTERNOSCIA, *Associate Professor of Modern Languages* (1938)
B.A., Broadview College; M.A., Ph.D., Northwestern University, 1938.
- EDWARD W. JONES, *Assistant Professor of Geography* (January, 1944)
B.S., Western Reserve University; M.A., Kent State University, 1940.

*Resigned 1947.

- ‡SICURD JORGENSEN, *Professor of Music* (1945)
B.M., M.M., MacPhail School of Music; Ph.D., Ohio State University, 1945.
- GERTRUDE KAIN, *Instructor in Home Economics* (1947)
B.A., University of Akron, 1943.
- MRS. H. LOUISE KATZ, *Instructor in Zoology* (1947)
B.S., M.A., Ohio State University, 1947.
- *VERGIL L. KECK, *Instructor in Physics* (1942)
B.A., M.S., University of Akron, 1946.
- DON A. KEISTER, *Professor of English and Director of the Introductory Course in the Humanities* (1931)
B.A., M.A., University of Akron; Ph.D., Western Reserve University, 1947.
- DAVID KING, *Associate Professor of Political Science* (1927)
B.A., Maryville College; M.A., University of Chicago, 1925.
- WALTER C. KRAATZ, *Professor of Biology*, (1924)
B.A., University of Wisconsin; M.A., Ph.D., Ohio State University, 1923.
- RICHARD P. KRAFT, JR., *Instructor in Modern Languages* (1946)
B.A., University of Connecticut; M.A., Yale University, 1940.
- †EMERY L. KUHNES, *Professor of Education* (1923)
B.S., Upper Iowa University; Pd.M., Ph.D., New York University, 1915.
- LUCILLE D. LAMKIN, *Assistant Professor of Physical Education* (1943)
B.S.Ed., M.A., Ohio State University, 1934.
- R. D. LANDON, *Dean of the College of Engineering, including the Daniel Guggenheim Airship Institute, and Professor of Civil Engineering* (February, 1946)
C.E., M.S., University of Cincinnati, 1927. P.E., Texas and Ohio.
- EBBA LARSON, *Assistant Registrar* (August, 1926)
University of Akron.
- CLARENCE LECKEY, *Instructor in History* (1946)
A.B., A.M., Pennsylvania State College, 1932.
- WARREN W. LEIGH, *Professor of Commerce and Business Administration* (1926)
B.A., University of Utah; M.B.A., Ph.D., Northwestern University, 1936.
- CLARENZ LIGHTFRITZ, *Special teacher of Piano* (November, 1941)
Bowling Green State University; private instruction with Ernest White and Miss Rena Wills.
- MARJORIE LIITT, *Instructor in Political Science* (1946)
B.A., M.A., University of Chicago, 1946.
- *JOHN F. LINCKS, *Instructor in English* (March, 1946)
B.A., University of Akron, 1946.
- WILL LIPSCOMBE, *Associate Professor of Mathematics* (1921)
B.S., Florida College; M.S., Ohio State University, 1926.
- BURDETTE LOWE, *Instructor in Mathematics* (1947)
B.S., Montana State College; M.S., University of Colorado, 1925.
- JAMES McLAIN, *Instructor in Economics* (1946)
B.A., University of Akron; M.A., Western Reserve University, 1942.
- ANDREW MALUKE, *Instructor in Physical Education and Assistant Coach of Football* (February, 1946)
B.S. in Ed., University of Akron, 1944.
- IDA MANN, *Instructor in English* (February, 1946)
B.A., University of Akron; M.A., University of Wisconsin, 1943.
- DOROTHY MARTY, *Instructor in Spanish* (1946)
B.A. in Ed., University of Akron, 1943.
- MARGARET EVELYN MAUCH, *Assistant Professor of Mathematics* (1945)
B.S., Huron College; M.S., Ph.D., University of Chicago, 1938.
- MRS. HELEN METZ, *Instructor in Modern Languages* (1945)
B.A., Smith College, 1920.
- *MRS. STELLA MEYER, *Assistant Professor of Modern Languages* (1946)
B.A., M.A., University of Missouri, 1923.
- JOHN MICKELSON, *Assistant Professor of Education* (1947)
B.A., M.A., Occidental College; Ed. D., University of Southern California, 1947.

*Resigned 1947.

†Retired 1947.

‡Resigned 1948.

- ELLEN MILLISOR, *Assistant Professor of Physical Education* (1946)
B.S., Ohio State University, 1935.
- ‡CHESTER MILLS, *Assistant Professor of Vocational Education* (July, 1947)
B.S. in Ed., M.A., Ohio State University, 1940.
- MRS. HELEN MITCHELL, *Special Instructor in Voice* (1947)
B.M., University of Michigan; Juillard Graduate School, 1938.
- *MRS. MARIAN MONDL, *Instructor in Modern Languages* (1946)
B.S. in Ed., University of Akron, 1937.
- CHESTER MORGAN, *Instructor in Accounting* (1946)
B.S., Ohio University, 1941.
- WILLIAM MUIR, *Assistant Football Coach and Instructor in Physical Education*
(September, 1948)
B.S., Springfield College, Mass., 1938.
- CURTIS C. MYERS, *Professor of Industrial Production and Resident Director of the Daniel Guggenheim Airship Institute* (April, 1943)
M.E., M.M.E., Cornell University, 1905. P.E., New York.
- RAYMOND J. NELSON, *Professor of Philosophy* (1946)
B.A., Grinnell College, 1941.
- MRS. ESTHER NEUENSCHWANDER, *Instructor in English* (February, 1946)
Ph.B., Heidelberg College, 1914.
- *LEE NEWCOMER, *Instructor in History* (1946)
B.A., DePauw University; M.A., Ohio State University, 1936.
- MRS. AGNES ODELL, *Instructor in Political Science* (1946)
B.A., M.A., University of Washington, 1939.
- JAY L. O'HARA, *Professor of Economics and Chairman of the Division of Social Sciences* (January, 1934)
B.A., University of Michigan; Ph.D., University of Minnesota, 1927.
- MRS. VIRGINIA OLIVO, *Assistant Professor of Economics* (February, 1946)
B.A., University of Akron; M.S., University of Chicago, 1938.
- *WAYNE S. OVERMYER, *Instructor in Accounting and Business Administration*
(February, 1947)
B.S. in Bus. Adm., Ohio State University, 1940.
- MRS. CHARLOTTE PACKAN, *Instructor in Art* (1946)
B.S., University of Akron; M.A., Western Reserve University, 1940.
- MRS. HELEN PAINTER, *Assistant Professor of Education* (1945)
B.A., M.A., Ed.D., Indiana University, 1941.
- WILLIAM I. PAINTER, *Associate Professor of Education* (1945)
B.A., Oakland City College; M.A., Ph.D., Indiana University, 1933.
- FRANK PAKE, *Instructor in Physics* (1947)
B.S., Carnegie Institute of Technology, 1947.
- MRS. GLADYS PALMER, *Adviser of Women* (November, 1946)
B.A., St. Lawrence University; M.A., Teachers College, Columbia University, 1945.
- HELEN PARK, *Instructor in Biology* (1947)
B.S., Ottawa University; M.A., Nebraska University, 1923.
- EDWARD PAUL, *Instructor in English* (February, 1947)
B.A., University of Akron, 1947.
- ROBERT H. PEALY, *Assistant Registrar* (February, 1946)
B.S. in Sec. Sc., University of Akron, 1937.
- W. M. PETRY, *Assistant Professor of Mechanical Engineering* (1946)
B.S.M.E., University of Missouri, 1937. P.E., Ohio.
- MRS. RUTH PUTMAN, *Assistant Professor of English* (1934)
B.A., Howard College; M.A., Western Reserve University, 1938.
- ELLEN RAW, *Instructor in Economics* (1946)
B.A., University of Akron, 1946.
- RUTH MARCUERITE RAW, *Assistant Professor of English in the College of Engineering*
(1929)
B.A., M.A., Hiram College; M.A., Columbia University, 1924.
- CLEO RESLER, *Special Instructor in Voice* (1946)
B. Mus., Cincinnati College of Music; M.A., Ohio State University, 1940.
- *DALLAS RIDDLE, *Instructor in Business Administration* (1946)
B.S., University of Akron; M.B.A., Harvard University, School of Business Administration, 1948.

*Resigned 1947.

‡Resigned 1948.

- MABEL RIEDINGER, *Assistant Professor of Education* (February, 1947)
B.A., Mt. Union College; M.A., University of Chicago; Ed.D., Teachers College,
Columbia University, 1946.
- DONALD W. RINKOSKI, *Instructor in Aeronautical Engineering at the Daniel Guggen-
heim Airship Institute* (December, 1946)
B.S.M.E., Case Institute of Technology, 1943.
- EDGAR C. ROBERTS, *Assistant Professor of English* (1926)
B.S.Ed., M.A., Ohio State University, 1924.
- MRS. GLADYS C. ROBINSON, *Assistant Professor of Physiology* (1942)
B.A., Louisiana State Normal College; M.S., University of Chicago, 1931.
- *LOUIS RODABAUGH, *Assistant Professor of Mathematics* (1946)
B.A., Miami University; M.A., Ph.D., Ohio State University, 1938.
- CLARA G. ROE, *Associate Professor of History* (1947)
B.A., University of Michigan; M.A., University of Chicago; Ph.D., University of Michigan, 1943.
- **JEROME ROGOFF, *Instructor in Mathematics* (February, 1946)
B.S., University of Akron; M.A., Harvard University, 1941.
- ROBERT S. ROSS, *Associate Professor of Aeronautical Engineering, and Technical
Director of the Daniel Guggenheim Airship Institute* (May, 1942)
B.S.M.E., M.S.M.E., Ph.D., Case Institute of Technology, 1945.
- LOUIS ROSS, *Instructor in Mathematics* (February, 1946)
B.S., B.A., M.A. in Ed., University of Akron, 1939.
- *ROBERT R. RUGGLES, *Instructor in Aeronautical Engineering* (January, 1944)
B.S. Mech. Eng., Case Institute of Technology, 1943.
- RICHARD SCHIER, *Instructor in Political Science* (1947)
B.A., M.A., University of Iowa, 1947.
- RICHARD H. SCHMIDT, *Registrar and Professor of Chemistry* (April, 1918)
B.A., Wesleyan University; M.A., Columbia University, 1915.
- FREDERICK S. SEFTON, *Professor of Physical Education* (1915)
B.S., Colgate University; M.Ed., Harvard University, 1925.
- SAMUEL SELBY, *Professor of Mathematics* (1927)
B.A., M.A., University of Manitoba; Ph.D., University of Chicago, 1929.
- MRS. LUCY T. SELF, *Assistant Professor of Secretarial Science* (February, 1933)
B.A., Ohio Wesleyan University, 1920.
- PHILIP S. SHERMAN, *Assistant Dean of Students* (August, 1936)
B.A., University of Akron, 1936.
- ROY V. SHERMAN, *Professor of Political Science and Director of the Introductory
Course in Social Science* (1929)
B.A., M.A., Ph.D., State University of Iowa, 1927.
- KENNETH F. SIBILA, *Associate Professor of Electrical Engineering* (February, 1940)
B.S.E.E., M.S.E.E., Case Institute of Technology, 1937. P.E., Ohio.
- FRANK SIMONETTI, *Assistant Professor of Business Administration* (February, 1942)
B.S., University of Akron; M.B.S., Boston University, 1941.
- MARY VERNON SLUSHER, *Assistant Professor of Accounting* (1947)
B.S., M.S., Virginia Polytechnic Institute, 1931.
- EUCLID SMITH, *Assistant Professor of Home Economics* (1945)
B.S., Texas State College for Women; M.A., Columbia University, 1925.
- HAROLD E. SMITH, *Instructor in Sociology* (1947)
B.S., Juniata College; M.S., Virginia Polytechnic Institute; Ph.D., Cornell University, 1947.
- HARRY A. SMITH, *Associate Professor of Physical Education* (1928)
B.E., M.Ed., University of Akron, 1929.
- HENRY SMITH, *Assistant Professor of Music Education* (1947)
B.M., Illinois Wesleyan; M.A., Carnegie Institute of Technology, 1941.
- PAUL C. SMITH, *Associate Professor of Electrical Engineering* (1925)
B.S.E.E., Purdue University, 1917. P.E., Ohio.
- R. B. SMITH, *University Physician* (June, 1946)
B.A., M.D., Ohio State University, 1940.
- †ALBERT I. SPANTON, *Dean Emeritus of Buchtel College of Liberal Arts* (1900)
Ph.B., Buchtel College; M.A., Harvard University; Litt.D., University of Akron, 1938.

**On leave.

*Resigned 1947.

†Retired June 30, 1948.

- JOHN F. STEIN, *Special teacher of Voice* (1933)
Private instruction with Herbert Witherspoon, Enrico Rosati, and Maria Kurenko.
- FREDERICK J. STIMLER, *Instructor in Aeronautical Engineering at the Daniel Guggenheim Airship Institute* (October, 1944)
B.M.E., University of Akron, 1943.
- †CLYDE STINER, *Assistant Professor of Vocational Education* (July, 1946)
B.A., B.S., Miami University; M.A., Teachers College, Columbia University, 1946.
- *CLAYTON STRAW, *Instructor in Physics* (1946)
B.A., University of Akron, 1934.
- ERNEST A. TABLER, *Assistant Director of Adult Education and Assistant Professor of Mathematics* (1935)
B.S., Kent State University; M.A., Western Reserve University, 1933.
- MRS. HELEN S. THACKABERRY, *Assistant Professor of English* (February, 1940)
B.A., M.A., State University of Iowa, 1937.
- ROBERT E. THACKABERRY, *Assistant Professor of English* (1938)
B.A., M.A., Ph.D., State University of Iowa, 1937.
- MRS. AUDRA TENNEY TUCKER, *Associate Professor of Secretarial Science* (1926)
B.A., University of Akron; M.A., New York University, 1936.
- PAUL E. TWINING, *Professor of Psychology* (November, 1941)
B.S., Ottawa University (Kansas); M.A., University of Kansas; Ph.D., University of Chicago, 1938.
- CLARENCE R. UPP, *Associate Professor of Mechanical Engineering* (1925)
M.E., Ohio State University, 1910. P.E., Ohio.
- ULYSSES S. VANCE, *University Editor and Associate Professor of Journalism* (1923)
B.A., State University of Iowa, 1923.
- DONALD S. VARIAN, *Associate Professor of Speech* (1934)
B.A., M.A., University of Wisconsin, 1934.
- ALFRED VON DER HEYDT, *Instructor in German* (1947)
University of Frankfurt am Main; M.A., Yale University; Ph.D., Cornell University, 1947.
- *FRANK WALLACH, *Instructor in Industrial Management* (1946)
B.B.A., College of the City of New York, 1940.
- LESTER WEINBERG, *Instructor in Civil Engineering* (June, 1946)
B.C.E., University of Detroit, 1946.
- CHARLES FRANKLIN WEST, *Associate Professor of Political Science* (February, 1947)
B.A., M.A., Ohio Wesleyan University; M.A., Harvard University; LL.D., National University, 1933.
- GEORGE STAFFORD WHITBY, *Professor of Rubber Chemistry and Director of Rubber Research* (1942)
A.R.C.Sc., B.S., University of London; M.S., Ph.D., D.Sc., McGill University, 1939.
- MRS. FLORENCE N. WHITNEY, *Assistant Professor of English* (1936)
B.A., Dakota Wesleyan University; M.A., Columbia University, 1913.
- NELLIE WHITTAKER, *Special Instructor in Piano* (1945)
B.E., M.Ed., University of Akron, 1935.
- BERNARD WIECZOREK, *Instructor in Mechanical Engineering* (1947)
B.S.M.E., Case Institute of Technology, 1947.
- EARL R. WILSON, *Associate Professor of Mechanical Engineering* (1929)
B.M.E., Ohio State University, 1916. P.E., Ohio.
- †ISABELLA C. WILSON, *Professor of Home Economics* (1942)
B.A., University of Illinois; M.A., Ph.D., Teachers College, Columbia University, 1936.
- MARY H. WILSON, *Assistant Professor of Home Economics* (April, 1943)
B.S., Iowa State College, 1932.
- EUGENE WITTERS, *Assistant Professor of Music* (1941)
B.S. in Ed., Bowling Green State University, 1933.
- MRS. B. EVANGELINE WITZEMAN, *Associate Professor of Psychology* (1942)
B.S., M.S.Ed., University of Akron; Ph.D., Western Reserve University, 1940.
- ALVIN C. WOLFE, *Assistant Professor of Chemistry* (October, 1942)
B.A., M.S., Ph.D., Ohio State University, 1941.
- WINNIGENE WOOD, *Instructor in Home Economics* (1944)
B.S., Miami University; M.A., Teachers College, Columbia University, 1939.

*Resigned 1947.

†Resigned 1948.

MRS. GEORGE WRIGHT, *Instructor in Speech* (February, 1947)

B.A., M.A., Southwestern University, 1935.

*ALBINA YAKAITIS, *Instructor in Biology* (1946)

B.S., University of Chicago, 1945.

JOHN ZIEGLER, *Instructor in Accounting* (February, 1947)

B.S.Ed., Kent State University; A.B., University of the Philippines;
M.B.A., Ohio State University, 1940.

PART-TIME FACULTY AND ASSISTANTS

(On A Temporary Basis)

STANLEY ABRAMSON, *Instructor in Physics* (1946)

B.S., University of Akron, 1947.

MRS. EDNA ARCHER, *Instructor in Art* (1947)

B.E., University of Akron; M.A., Columbia University.

JOHN A. BAILEY, *Instructor in Business Law* (February, 1947)

Kenyon College; University of Akron; Akron Law School, LL.B.

EDITH BAUSHER, *Instructor in English* (1947)

B.A., University of Akron, 1947.

MICHAEL BEZBATCHENKO, *Instructor in Engineering Drawing* (February, 1947)

University of Akron.

MRS. SERAPHIMA BOCUSLAVSKY, *Instructor in Biology* (February, 1947)

B.S., University of Washington, 1935.

RAY CAMPBELL, *Instructor in Hygiene* (1947)

B.A. in Ed., University of Akron, 1947.

MRS. RUTH CLAYTON, *Instructor in Psychology* (February, 1948)

B.A., M.A., Ohio State University; Ph.D., Western Reserve University, 1943.

MRS. DOROTHY COLIEN, *Associate Professor of Bacteriology* (1947)

Ph.D., University of Chicago, 1933.

PAUL DEWEY, *Instructor in Commerce* (1947)

University of Akron.

PHILIP J. DIETRICH, *Instructor in Journalism* (1947)

B.J., Northwestern University, 1931.

ROBERT GARDNER, *Instructor in Physics* (1947)

University of Akron.

SAMUEL GREEN, *Instructor in Elementary Surveying* (1947)

University of Akron.

JOHN HAMMAN, *Instructor in Heat Power Engineering* (1947)

B.M.E., University of Akron, 1944.

OSCAR HIMEBAUGH, *Instructor in Chemistry* (1943)

B.S., Ohio Northern University; M.A., Ohio State University, 1927.

DONALD HOFFMAN, *Instructor in Engineering Drawing* (1947)

B.C.E., M.C.E., University of Pittsburgh, 1936.

IRENE HORNING, *Instructor in Biology* (1946)

B.S., Western Reserve University, 1934.

MRS. ROSALIND IRISH, *Instructor in English* (February, 1946)

B.S., B.A., University of Akron; M.S., Columbia University, 1924.

JAMES JACKSON, *Instructor in Journalism* (1947)

B.A., Middlebury College, 1926.

HARRY JOHNSON, *Instructor in Humanities* (1947)

B.A., University of Akron, 1946.

ROBERT KLINE, *Graduate Assistant in Chemistry* (1947)

B.S., Ohio University, 1947.

ROSE MARY KRAUS, *Instructor in Art* (1947)

B.E., University of Akron; M.A., Columbia University, 1926.

MRS. EILEEN LATHAM, *Instructor in Home Economics* (1947)

B.A., University of Akron; M.A., Teachers College, Columbia University, 1944.

CECIL LUTZ, *Instructor in Shop Practice* (February, 1948)

University of Akron.

CATHERINE MARES, *Instructor in Social Science* (February, 1947)

B.A., University of Akron, 1947.

MARVIN MARQUARDT, *Instructor in Commerce* (February, 1948)

B.S. in Bus. Adm., University of Akron, 1940.

GEORGE MORRIS, *Instructor in Commerce* (February, 1948)

B.A., Michigan State College; M.B.A., Northwestern University, 1946.

MARY MOSTENIC, *Instructor in English* (1946)

B.A., B.E., University of Akron, 1931.

*Resigned 1947.

- BEATRICE OFFINEER, *Instructor in Journalism* (1947)
B.A., University of Akron, 1938.
- JAMES PACHARES, *Instructor in Physics* (February, 1948)
University of Akron.
- GEORGE PITMAN, *Instructor in Physics* (February, 1948)
University of Akron.
- EVAN REED, *Instructor in Business Law* (1946)
B.A., Juris Doctor, University of Michigan, 1933.
- ALVIN RICHARDS, *Instructor in Elementary Surveying* (1947)
University of Akron.
- NICHOLAS RICHARDS, *Instructor in Electrical Engineering* (February, 1948)
Bowdoin College; University of Akron.
- DALLAS RIDDLE, *Instructor in Business Administration* (February, 1948)
B.S. in Bus. Adm., University of Akron; M.B.A.; Harvard University, School of Business Administration, 1943.
- JOHN L. ROBINSON, *Instructor in Physics* (February, 1948)
Central Michigan College, University of Akron.
- MRS. GLENNA SNOW, *Instructor in Home Economics* (February, 1947)
B.S. in Ed., M.S., Ohio State University, 1920.
- HELEN SULLIVAN, *Instructor in Physical Education* (1947)
B.E., B.A., M.A. in Ed., University of Akron, 1944.
- EVELYN THOMAS, *Instructor in Psychology* (February, 1947)
B.A., Tulane University, 1946.
- DAVID WALTHER, *Graduate Assistant in Zoology* (1947)
B.S., University of Akron, 1947.
- DON WILLIAMS, *Instructor in Engineering Drawing* (February, 1947)
University of Akron.
- JEROME WILLIAMS, *Instructor in Humanities* (1947)
University of Akron.

LIBRARY STAFF

- DOROTHY HAMLIN, *Librarian and Professor of Bibliography* (February, 1936)
B.A., University of Akron; B.S.L.S., Western Reserve University, 1942.
- GENIE J. PRESTON, *Associate Professor of Bibliography* (1939)
B.A., Northwestern University; M.A., University of Illinois, 1936.
- GRACE ROHRER, *Instructor in Bibliography* (1944)
B.A., Kent State University; B.S.L.S., Western Reserve University, 1944.
- FREDA MAE STEWART, *Instructor in Bibliography* (1944)
B.S.Ed., University of Akron, 1944.
- MARTHA LEFEVRE, *Instructor in Bibliography* (1945)
B.A., University of Akron, 1945.
- MARY DAGUE, *Instructor in Bibliography* (May, 1946)
B.S.Ed., University of Akron; B.S.L.S., Western Reserve University, 1945.
- ZOLA JONES, *Instructor in Bibliography* (1946)
A.B., M.A., Bob Jones College; B.S.L.S., Western Reserve University, 1946
- *LOIS REED, *Assistant in Reserve Room* (1946)
B.S., University of Akron, 1946.
- MRS. LOIS MYERS, *Librarian in Charge of Audio Visual Aids and Assistant in the Reference Department* (1946)
A.B., Wittenberg College; B.S.L.S., Carnegie Institute of Technology, 1939.

UNIVERSITY HEALTH SERVICE

- R. B. SMITH, *M.D., University Physician.*
- MRS. MARJORIE GOLDEN, *Nurse.*
- MISS LOIS PATTERSON, *Nurse.*

*Resigned 1947.

PART-TIME INSTRUCTIONAL STAFF

(Not on regular Day Session staff)

CRITIC TEACHERS FOR SUMMER SESSION—1947

MARY BANKES	Spicer	E. R. DZURIK.....	Barberton High School
MRS. MARY HOWES.....	Spicer	VINCENT BIONDO.....	South High School
GRACE ROSS	Spicer	HARRY SCHALLER.....	South High School
EMILY GIBSON	Spicer	VIDA HALL	South High School
L. L. EVERETT.....	Barberton High School	CYRIL JONES.....	South High School
JOSEPHINE FLICKINGER		FRED WEBER.....	South High School
.....	Barberton High School		

TEACHERS IN SPICER DEMONSTRATION LABORATORY SCHOOL

MARY LOUISE BEVERLY.....	Principal	EULALIE SAUVE	4B
CATHERINE REDINGER	Kindergarten	GRACE ION	5B
BESSIE MILLER	1B	EMILY GIBSON	5B-A
MABEL LAMB	1B	ESTHER PSARRAS	6B-A
GLADYS MCCOY.....	1B	VIRGINIA GILLOOLY	6A-7B
JEANETTE MARSH	2B	OLGA ZEMLANSKY	7A
DOROTHY SCHORLE	2B	VESTA LEIGHT	8B
MARY REDINGER	3B	FAN WALCOTT	8A
ROSE KRAUS	3B	MARIAN McMILLAN.....	Music (Itinerant)
CAROLINE FRENCH	4B	LUCILLE WORKMAN	Sight Saving

CRITIC TEACHERS—FALL 1947

EVELYN KIRK	Firestone Park	CLARENCE C. COX	
CLARA BELLE ANDERSON.....	Crouse	.....	Portage Jr. H. S. (Barberton)
FRANCES GIBBS	Shumacher	CLINTON ENSWORTH	Shumacher
MARY HARVEY	King	LILLIAN STARKEY	East
ROSE AHERN	Portage Path	KATHRYN WYRE.....	Cuyahoga Falls H. S.
VIRGINIA LLOYD	Lincoln	ANITA CAHILL	East
DOREEN BERNEL	Betty Jane	LUCILLE WEISENBORN.....	Barberton H. S.
MINNIE J. SPULLER.....	Goodrich	MARY JANE QUEEN.....	Barberton H. S.
FLORENCE MOORE	Seiberling	ESTHER DAVIS	Mason
ELIZABETH WASHKO	Leggett	MRS. ADELINE McLELAND	East
DOROTHY LUNDELL	Henry	MRS. EDNA ARCHER.....	Board of Ed.
ALMA BAIRD	Miller	JANE BIXLER RAPP.....	Mason
MARDIS WILLIAMS	Grace	HELEN SULLIVAN	East
BETTY L. JACKSON.....	Bryan	MIKE KRINO	East
VIRGINIA KNOX	Lincoln	JAMES APPLEBY	Lincoln
MRS. IVA JAMES	Betty Jane	MOULTON ORMEROID	Garfield
MARGARET ALLEN	West	JOHN TEBELAK.....	Highland Jr. H. S.
RUTH ARMSTRONG	East	.....	Rose St. School, Barberton
MRS. SARAH CALDWELL.....	Garfield	M. R. TEDROW	Kenmore
VERNON CULP	West	OLGA ZEMLANSKY	Spicer

CRITIC TEACHERS — SPRING, 1948

ALMA BAIRD	Miller School	MRS. J. LOUDELL BOYES.....	Garfield H. S.
MRS. ALTA BARBER.....	Leggett School	ANITA CAHILL	East H. S.
MRS. GLADYS BARTOO.....	North H. S.	MRS. SARAH CALDWELL.....	Garfield H. S.
MARY BAUS	Rankin School	JAMES M. CAMPBELL	
SISTER BERNICE	St. Vincent	.....	186 N. Portage Path
KATHRYN H. BIETZ.....	East H. S.	LILLIAN F. CHRISTENSON	
JEAN M. BLAKE.....	East H. S.	.....	1571 Preston Ave.
ESTHER BOWDLE.....	Highland Jr. H. S.	LILLIAN CLARK	West H. S.

ROBERT B. COLE.....44 S. Canton Rd.	VIRGINIA LLOYD.....Lincoln School
MRS. VERA L. CULBERTSON	KATHERINE O'NEIL.....Schumacher
.....Betty Jane School	GLADYS PARSHALL.....Central H. S.
VERNON CULP.....West H. S.	MRS. BESSIE PETROFF.....
MRS. FLORENCE H. DOUGHERTY .....	.....36 E. Mapledale Ave.
.....Schumacher School	PAUL PUGH.....Garfield H. S.
RUSSELL ESTEY.....East H. S.	MRS. JANE BIXLER RAPP.....Mason School
MRS. LULA L. FRATER	LAWRENCE RICKER.....East H. S.
.....1121 Hardesty Blvd.	JOHN VAN SICKLE.....Buchtel H. S.
HARLAN FRY.....Norton Township H. S.	JESSIE G. SMITH.....Garfield H. S.
JOHN GRIFFITHS.....Garfield H. S.	MRS. MARY E. STAFFORD.....
LLOYD M. HAINES.....352 Greenwood	.....616 Sackett Ave., Cuy. Falls
VIDA HALL.....South H. S.	HELEN SULLIVAN.....East H. S.
MRS. GLADYS HARDMAN.....Rankin School	MRS. MARY JANE QUEEN.....
MRS. LAURETTE D. HARRISON.....	.....Barberton H. S.
.....Central H. S.	MRS. ELIZABETH WASHKO.....
MRS. BLANCHE L. HART.....Miller School	.....Leggett School
FOREST HAWK.....	MRS. LUCILLE WEISENBORN.....
.....473 Thomas Ct., Cuy. Falls	.....Barberton H. S.
ONA HENDERSON.....Mason School	MARDIS WILLIAMS.....Grace School
MATHILDA C. HERMAN.....	MRS. CATHERINE WYRE.....
.....R.D.1, Box 386, Cuy. Falls	.....Cuyahoga Falls H. S.
MRS. NADINE JENNINGS.....Garfield H. S.	CHARLES HESS.....Kenmore
ISA KECK.....Central H. S.	ELIZABETH KERR.....Seiberling
MRS. MARIAN L. KLINE.....Leggett School	EVA MORELOCK.....Betty Jane
CHESTER R. LEO.....North H. S.	HELEN SCHURR.....Lincoln
	OLGA ZEMLANSKY.....Spicer

AKRON PUBLIC SCHOOL OFFICERS COOPERATING WITH THE COLLEGE OF EDUCATION

OTIS C. HATTON, M.A.....	.....Superintendent of Schools
A. J. DILLEHAY, B.Ed., M.A.....	.....Executive Director
GEORGE F. WEBER, M.A.Ed.....	.....Executive Director
MARY LOUISE BEVERLY, B.S.Ed., M.S.Ed.....	.....Principal of Spicer School

OTHER COOPERATING SCHOOLS

WALTER S. CREWSON, B.S., M.S.....	.....Superintendent of Schools, Barberton
H. A. PIEFFER, B.S., M.A.....	.....Principal, Barberton High School
GORDON M. DEWITT, B.A., M.A.....	.....Principal, Cuyahoga Falls High School
GILBERT ROBERTS, B.A.....	.....Superintendent of Schools, Cuyahoga Falls
ROBERT L. AMSDEN, B.A., M.A.....	.....Principal, Old Trail School
SISTER M. BERNICE, O.P.....	.....Principal, St. Vincent
ROBERT BROWNFIELD, B.A.Ed., M.A.Ed.....	.....Principal, Lincoln School, Barberton
CLARENCE C. COX, B.S.Ed.....	.....Principal, Portage Junior High School, Barberton
C. A. SEESE, B.S., M.A.....	.....Principal, Highland Junior High School, Barberton

1947-48 EVENING SESSION FACULTY

LAWRENCE ABBOTT.....	Bible Literature
A.B., Tufts College; STB Tufts College School of Religion; STM, Meadville Theological School, 1933	
HARRY E. ALBERT.....	Physical Chemistry
B.S., Chem. Engr., University of Penn., 1938; M.S., University of Akron; Ph.D., Yale University	
GLENN ALLICER.....	Physical Chemistry
B.S., Washington State; M.S., Ph.D., University of Iowa	
JOSEPH C. AMBELANG.....	Chemistry
B.S., University of Akron; Ph.D., Yale University	
EDNA K. ARCHER.....	Art for the Grades
B.E., University of Akron; M.A., Columbia University	
CHARLES H. BAIR.....	English
A.B., University of Pittsburgh, 1938.	

NELSON G. BALL	Personnel Relations
B.S., Mount Union College, 1926.	
JAMES R. BERRY	Business Policy
B.S. in Bus. Adm., University of Akron, 1939.	
MRS. BERNIECE BLICKLE	Shorthand
B.S., in Sec. Sc., 1935.	
JAMES K. BOUGHTON	Electrical Drafting Lab.
B.S. in E.E., Illinois Institute of Technology, 1944.	
MRS. MARY BROWN	Advanced Clothing
Rochester Institute of Technology; Vogue School of Design, Chicago, 1945.	
RAYMOND BROWN	Race Relations
B.S., University of Akron; 1929.	
DONALD BUNTING	Retail Advertising
B.A., College of Wooster	
PAUL BURKETT	Air Conditioning
B.S. in M.E., Tri-State College, 1921.	
JAMES M. CAMPBELL	English
B.A., University of Akron; M.A., Western Reserve University, 1938.	
MARVIN COLLINS	Personnel Management
Heidelberg College	
CARMEL D'ANDRE	English
B.A., University of Akron; B.S. in L.S., Drexel Institute, 1943.	
GEORGE DAVERIO	Federal Taxation
B.S., Ohio State; L.L.B., Akron Law School, 1939; C.P.A., 1933.	
LUCILLE M. DAVISON	Foods
B.Ed., University of Akron, 1933.	
EDWARD EATON	Engineering Drawing
B.S. in Chem. Engr., Northeastern University	
MRS. WILLIAM FARLEY	Speech
A.B., Westminster College, 1942.	
JAMES E. FIELD	Physics
B.S., Heidelberg College; M.S., Ph.D., University of Michigan, 1936.	
MADELINE FIFER	English
B.S. in Sec. Sc., New York University; M.S. in Ed., New York University, 1933.	
ANNA MAE FLINT	Shorthand
B.S., in Sec. Sc., University of Akron, 1932.	
FLORA FLINT	Secretarial Procedure
B.S., in Sec. Sc., University of Akron, 1941.	
ARTHUR FREEDER	Mathematics
B.S., B.E., M.S., University of Akron, 1926.	
LEROY GARVER	Economics
A.B., Baker University, 1920.	
A. E. GENTER	Municipal Recreation
B.P.E., Springfield College, 1926.	
EARL GILLELAND	Industrial Management
B.A., University of Akron, 1923.	
NORMA GREER	Clothing
B.A., University of Akron, 1943; Traphagen School of Design, New York.	
JOHN GRIFFITH	Algebra
B.E., University of Akron; M.E., University of Akron, 1942.	
LELAND J. HANCOCK	Accounting
B.S., West Virginia University; Litt. M., University of Pittsburgh, 1946.	
MRS. ADENA HANDWERK	Business English
B.A. in Ed., University of Akron, 1941.	
ROBERT C. HARE	Natural Science
B.S., M.S., University of Akron, 1939.	
VICTOR HASSELQUIST	Machine Drawing
B.M.E., Ohio State, 1925.	
WILLIAM F. HENRY	Transportation
Asst. Chief, Traffic Bureau, A C & Y R R	

R. W. HERBERICH	Insurance
B.A., Harvard University, 1943; Graduate work, Harvard School of Education.	
JOHN HICKMAN	Industrial Management
A.B., Columbia University; M.S., Syracuse University, 1940.	
RUTH HOSTETLER	Foods
B.S., University of Akron, 1944.	
F. J. ILSE	Electrical Engineering
B.S. in E.E., University of Minnesota, 1937.	
T. DONALD JOHN	Journalism
Asst. News Editor, Akron Beacon Journal	
J. T. KIDNEY	Industrial Safety
Manager, Employee Division, Goodyear Tire & Rubber Company	
PERRY KIMMELL	Accounting
B.S., Bucknell University; Penn State College, Allegheny College	
ROSEMARY KRAUS	Handicrafts
B.F., University of Akron; M.A., Columbia University	
ARTHUR H. KRUSE	Community Organization
B.A., University of Akron; M.A., Syracuse University; M.Sc., Western Reserve University, 1942.	
WILLIAM LANTZ	Purchasing
University of Akron	
CARL C. LEWIS	Accounting
B.S., University of Akron; M.B.A., Harvard Graduate School, 1943.	
ALFRED LOWDERMILK	Chemistry
B.S., Chem. Eng., North Carolina State College, 1938.	
F. J. LOWES	Metallurgy Lab
University of Akron	
PAUL MCKAY	Bible Literature
A.B., Greenville College; M.A., New York University; B.D., Union Theological Seminary; Ph.D., New York University	
H. T. MCKEE	Advanced Accounting
B.S., M.A., University of Pittsburgh, 1929.	
MRS. MARY MILES	English
A.B., Otterbein College, 1924.	
FRIEDEL MOCH	Metalcrafts
Cleveland School of Art.	
PAUL B. MONTGOMERY	Mathematics
B.C.E., University of Akron, 1941.	
DONALD MORRIS	Credits and Collections
B.S., University of Akron; L.L.B., Akron Law School, 1933.	
WILFORD MORRIS	Physics
A.B., Miami University; Ph.D., University of Michigan, 1941.	
GEORGE MURPHY	Maintenance of Plants and Equipment
Mech. Eng., Carnegie Institute of Technology.	
KENNETH MYERS	Selling
B.S., M.S., University of Pittsburgh	
DONALD W. NIESS	Advertising
B.S. in Bus. Adm., University of Akron, 1946.	
JOHN L. O'BRIEN	Retail Advertising
A.B., Miami University, 1935.	
JOHN T. O'CONNOR	Metallurgy
B.S., Massachusetts Institute of Technology, 1942.	
SARAH ORLINOFF	Mathematics
B.A., University of Akron, 1935.	
KARL PEARSON	Marketing
A.B., Princeton University; J.D., University of Michigan Law School, 1930.	
THOMAS POWERS	Business Law
A.B., Cornell University; L.L.B., Cleveland Law School, 1927.	
H. T. PROTHEROE	Figure Drawing
B.S., University of Akron, 1941; Cleveland School of Art.	
CHARLES QUERRY	Evening Theatre Adviser
B.S. in Ed., University of Akron, 1934.	
K. L. REYNOLDS	Personnel Relations
B.S., University of Illinois, 1927.	
DALLAS RIDDLE	Business Organization and Management
B.S., University of Akron; M.B.A., Harvard University, School of Business Administration, 1943.	
ELLIS SCHONER	Algebra
A.B., Wittenberg College, 1929.	
GUY SMART	Accounting
Public Accountant	

RUSSELL L. SMITH	<i>Time and Motion Study</i>
B.S. in Bus. Adm., Kent State University, 1940.	
JOHN K. SMUCKER	<i>Auditing</i>
B.S. in Bus. Adm., Ohio State, 1945; C.P.A.	
JANE STEINER	<i>English</i>
A.B., University of Akron; A.M., Western Reserve University, 1945.	
LEONA STERLEY	<i>Shorthand</i>
B.S. in Sec. Sc., University of Akron, 1936.	
L. C. TURNER	<i>Business and Professional Speaking</i>
B.A., Hiram College; M.A., University of Akron, 1929.	
GRANT TYTE	<i>Psychology</i>
A.B., A.M., Western Reserve University, 1933.	
SUMNER VANICA	<i>Bacteriology</i>
B.A., M.A., University of Akron, 1944.	
JOHN VAN SICKLE	<i>Conservation of Natural Resources</i>
B.A., University of Akron, 1935.	
CARLTON W. VOBBE	<i>Industrial Management</i>
B.B.A., University of Toledo, 1935.	
MRS. BETTY WETTSTYNE	<i>Typing</i>
B.S. in Sec. Sc., University of Akron; M.B.A., University of Chicago, 1944.	
NEWELL WILLIAMS	<i>Electrical Drafting</i>
B.S. in E.E., University of Akron, 1937.	
ROBERT WILSON	<i>Radio Speaking</i>
Manager, W A D C Broadcasting Station	
CHARLES WINSLOW	<i>Psychology</i>
B.A., Wesleyan University; M.A., Ph.D., Columbia University, 1933.	
RICHARD T. WISE	<i>Engineering Drawing</i>
Tech. M. E. Degree, University of Cincinnati, 1939.	
FRANK WOLTZ	<i>Colloid Chemistry</i>
B.S., Bethany College; M.S., West Virginia University and Ph.D., 1943.	
BETTY WOODFORD	<i>Shorthand</i>
B.S. in Ed., University of Akron, 1947.	
HARRY WRIGHT	<i>Mathematics</i>
B.E., University of Akron, 1932.	

THE DANIEL GUGGENHEIM AIRSHIP INSTITUTE

CURTIS C. MYERS, <i>Professor of Industrial Production and Resident Director</i> (April, 1943)
M.M.E., Cornell University.
ROBERT S. ROSS, <i>Associate Professor of Aeronautical Engineering and Technical Director</i> (May, 1942)
B.S. Mech. Eng., M.S. Mech. Eng., Ph.D., Case Institute of Technology, 1945.
PAUL O. HUSS, <i>Professor of Meteorology and Chief, Meteorology Division</i> (January, 1941)
B.S.Ed., B.S.E.E., M.S.Ed., Sc.D., University of Michigan, 1935.
DONALD PORTMAN, <i>Assistant, Meteorology Division</i> (May, 1947)
B.S., University of Michigan, 1945.
FREDERICK J. STIMLER, <i>Instructor in Aeronautical Engineering and Chief, Parachute Division</i> (October, 1944)
B.M.E., University of Akron, 1948.
GEORGE BATHUK, <i>Instructor in Aeronautical Engineering and Assistant, Parachute Division</i> (1945)
B.M.E., University of Akron, 1944.
CREIGHTON HARTMAN, <i>Assistant, Parachute Division</i> (August, 1947)
University of Akron.
DONALD RINKOSKI, <i>Instructor in Aeronautical Engineering and Chief, Wind Tunnel Division</i> (December, 1940)
B.S.M.E., Case Institute of Technology, 1943.
HENRY FRITSCH, JR., <i>Assistant, Wind Tunnel Division</i> (October, 1947)
B.M.E., University of Akron, 1947.
EMERY WHITE, <i>Chief, Instrument Division</i> (June, 1947)
B.E.E., University of Akron, 1947.

RUBBER RESEARCH STAFF

DR. C. STAFFORD WHITBY, *Professor of Rubber Chemistry, Director of Rubber Research*

PETER SALATIELLO, *Research Chemist (December, 1947)*

B.S., M.S., Holy Cross College, Worcester, Massachusetts, 1947.

NATHAN WELLMAN, *Research Chemist (July, 1947)*

B.S., Chem. Eng., Purdue University; M.S., Ohio State University, 1936.

*PETER CANTERINO, *Assistant (1946)*

B.S., Manhattan College; M.S., D.Sc., University of Cincinnati, 1946.

*ALBERT J. GREENE, *Assistant (May, 1946)*

B.S., Providence College, 1941.

*MORTIMER GROSS, *Assistant (1946)*

B.S., Polytechnic Institute of Brooklyn, 1942.

*LESTER WEIL, *Research Chemist (June, 1946)*

A.B., Brooklyn College; M.A., Ph.D., Columbia University, 1945.

R. O. T. C. STAFF

EDMUND M. GREGORIE, *Professor of Military Science and Tactics (1946)*

The Citadel; Colonel, Infantry.

GEORGE C. NORMAN, *Professor of Air Science and Tactics (1946)*

University of Indiana, B.S. in Bus. Adm., 1934; Lieutenant Colonel, Air Force.

EDWARD L. NICELY, *Assistant Professor of Military Science and Tactics (March, 1946)*

University of Akron, B.S., in Ed., 1941; Major, Infantry.

***ROBERT I. CIRALDO, *Assistant Professor of Military Science and Tactics (April, 1945)*

University of Akron; Major, QMC.

DAVID L. CAEDE, *Assistant Professor of Air Science and Tactics (October, 1946)*

Ohio State University, B.A., 1940; Captain, Air Force.

WILFRED C. FORD, *Assistant Professor of Military Science and Tactics (1947)*

United States Military Academy; B.S. in M.E., 1942; Captain, Cavalry.

GEORGE J. BREINDEL, *Assistant Professor of Air Science and Tactics (October, 1947)*

City College of New York, B.S., 1935; Captain, Air Force.

CHARLES D. ALLEN, *Assistant Professor of Military Science and Tactics (October, 1947)*

University of Maine, B.A. in Bus. Adm., 1943; Captain, Infantry.

ROBERT R. FOWLER, *Assistant Professor of Air Science and Tactics (December, 1946)*

King College, Tenn., B.A., 1942; 1st Lieutenant, Air Force.

LYLE F. FISHER, *Instructor, Military Science and Tactics (February, 1946)*

M/Sgt., Army Ground Forces.

RAYMOND W. HUGHES, *Instructor, Military Science and Tactics (February, 1946)*

M/Sgt., Army Ground Forces.

MORRIS E. TAYLOR, *Instructor, Air Science and Tactics (1946)*

M/Sgt., Air Force.

GILBERT C. CANTER, *Instructor in Air Science and Tactics (1946)*

M/Sgt., Air Force.

ROBERT D. TROUTMAN, *Instructor in Air Science and Tactics (1946)*

T/Sgt., Air Force.

***HERBERT W. GIMPLE, *Assistant Instructor, Military Science and Tactics (July, 1946)*

Sergeant, Army Ground Forces.

***CHARLES A. HERMANN, *Assistant Instructor, Military Science and Tactics (June, 1946)*

Technician 4th Grade, Army Ground Forces.

MICHAEL J. TROCH, *Instructor in Military Science and Tactics (June, 1947)*

T/Sgt., Infantry.

WILLIAM W. BLACK, *Instructor in Military Science and Tactics (July, 1947)*

M/Sgt., Infantry.

WILLIAM F. HARDY, *Assistant Instructor in Military Science and Tactics (February, 1948)*

Technician 3rd Grade, Army Ordnance.

*Resigned 1947.

***Transferred 1947.

COMMITTEES OF THE UNIVERSITY FACULTY

1947 - 1948

EXECUTIVE

Simmons, Bulger, Evans, Hardy, Gardner, Landon, Boggs, Welch (Secretary).

COMMITTEE OF DEANS

Landon (Chairman), Bulger, Evans, Gardner.

ADMISSIONS, ADVANCED STANDING, AND RETENTION

Schmidt, Bulger, Gardner, Evans, Landon, Hardy.

LIBRARY

D. Hamlen, Landon, Bulger, Evans, Gardner.

DISCIPLINE

Simmons, Bulger, Evans, Landon, (Members ex officio: Gardner, President of the Student Council, and President of the Women's League).

EXTRA-CURRICULAR ACTIVITIES

Philip Sherman, Hagerman, Hardy, Distad, Palmer, R. Berry, President of the Student Council, Treasurer of Student Council, President of the Women's League, President of the Evening Session Senate, one member appointed from Student Council, (Student Building Manager, and Buchtelite Editor — members ex officio).

ASSEMBLY

Varian (Chairman), Palmer, Duffy, Wm. Painter, Jorgensen, Fairburn, President of the Student Council, President of the Women's League, Student Building Manager.

ADULT EDUCATION — ADVISORY

Hardy, Bulger, Landon, Evans.

STUDENT LOANS AND GRANTS

Boggs, Hardy, Hagerman, Palmer.

PIXLEY SCHOLARSHIPS

Schmidt, Bulger, Evans, Philip Sherman.

VISUAL AIDS

Wm. Painter, E. W. Jones, Keister, Sibila, D. Hamlen, Baldwin, R. Ross.

ATHLETICS

Evans, Anderson, Boggs, Duffy, Griffin, Beichly, O'Hara, President Student Body (ex officio).

FACULTY COMMITTEE ON UNIVERSITY IMPROVEMENT

E. Wilson (Chairman), Baldwin, Internoscia, Duffy, Tucker, D. Hamlen, Keister.

GENERAL INFORMATION

HISTORICAL STATEMENT

The University of Akron was created as a municipal institution by an ordinance of the Akron City Council, passed on August 25, 1913. This ordinance accepted in behalf of the city the offer of the Trustees of Buchtel College to give to the city the entire plant and endowment of the college as the nucleus of a municipal university, the Council promising in behalf of the city to support properly the new institution thus created. After the transfer of property had been completed by President Kolbe and Secretary Olin for the Trustees of Buchtel College, Mayor Rockwell on December 15, 1913, together with City Solicitor Taylor accepted the deeds of transfer in behalf of the city and appointed nine citizens of Akron as members of the Board of Directors of the Municipal University of Akron.

Buchtel College, the institution thus turned over to the city of Akron, was founded in 1870 by the Ohio Universalist Convention and took its name from its most generous benefactor, Hon. John R. Buchtel, who consecrated his life and his wealth to its support. It was chartered by the Ohio Legislature in the same year as a College of Liberal Arts and first opened its doors for the admission of students in September, 1872.

By the terms of transfer to the City of Akron, provision was made that Buchtel College retain its name and identity as Buchtel College of Liberal Arts of the municipal university.

In September, 1926, by action of the Board of Directors, the name of the university was changed to the University of Akron.

The University of Akron, being supported in large part by public taxation, is entirely non-sectarian.

PRESIDENTS OF BUCHEL COLLEGE

*S. H. MCCOLLESTER, D.D. LITT.D.....	1872-1878
*E. L. REXFORD, D.D.....	1878-1880
*ORELLO CONE, D.D.....	1880-1896
*CHARLES M. KNIGHT, Sc.D. (ad interim).....	1896-1897
*IRA A. PRIEST, D.D.....	1897-1901
*A. B. CHURCH, D.D., LL.D.....	1901-1912
*PARKE R. KOLBE, Ph.D., LL.D.....	1913-1914

PRESIDENTS OF THE UNIVERSITY OF AKRON

*PARKE R. KOLBE, Ph.D., LL.D.....	1914-1925
GEORGE F. ZOOK, Ph.D., LL.D.....	1925-1933
HEZZLETON E. SIMMONS, D.Sc., LL.D.....	1933-

*Deceased.

ADMISSION TO THE UNIVERSITY

Students are admitted to the University by high school certificate and the Orientation examinations or by honorable dismissal from other colleges and universities, or if qualified by reason of maturity and experience and over 21 years of age, as adult students. See special section.

ADMISSION FROM OTHER COLLEGES

Candidates for admission with advanced standing should have transcripts (together with an honorable dismissal) sent directly from the institution last attended, to the University Registrar.

For admission, the student must be eligible to re-enter the institution from which he desires to transfer, and must have a satisfactory scholastic record.

In general, 16 credit hours a semester represent a full allowance of credit. Such evaluations and credit allowances are tentative, and depend upon a satisfactory quality of work at the University of Akron. Their validity also depends upon the completion of the course in the standard length of time.

A degree will not be granted a student entering with advanced standing from another college or university unless he spends a full year in residence and completes 32 credit hours of work, three-fourths of which must be done in the college granting the degree. It is expected that the student will do his last year's work at the University of Akron.

REQUIREMENTS FOR DEGREES

Students on the full-time basis must present 128 semester hours with necessary quality points. Engineering students must present 155 semester hours (142 during the accelerated program) with the necessary quality points.

Candidates for a degree are required to file an application with the Registrar by March 1 of their senior year.

DEGREE WITH DISTINCTION

Students who have an average grade of 90 per cent, (or a quality point ratio of 3.25) or better over all work taken during the four undergraduate years shall be graduated with distinction. Students who transfer from another college must maintain a quality point ratio of 3.25 or better, at the University of Akron. The words "with distinction" shall appear upon the diploma and the commencement program.

MILITARY SCIENCE AND TACTICS

In 1919 the United States Government established at the University of Akron a unit of the Reserve Officers' Training Corps. All men students are required to take Military Science and Tactics unless exempted because of physical disability, age, or other reasons.

In 1946 the United States Army Air Force established a unit of the Air Force Reserve Officers' Training Corps.

STANDARDS

The University of Akron maintains high academic standards and is accredited by the North Central Association of Colleges and the Ohio College Association. It is a member of the American Council on Education, the Association of American Colleges, the Association of Urban Universities, and the American Association of Colleges for Teacher Education. It is included in the approved list of the Association of American Universities for admission of graduates to graduate and professional schools, and is approved for pre-medical work by the American Medical Association. The Committee on Professional Training of the American Chemical Society has approved the work of the University of Akron in the field of chemistry for the professional training of chemists. Curricula in Electrical Engineering and Mechanical Engineering (including Aeronautical and Industrial options) are accredited by the Engineers' Council for Professional Development. Women graduates of the University with approved degrees (requiring at least two years or a minimum of 60 credit hours of non-professional, non-technical work which would be credited toward an A.B. degree) are eligible to membership in the American Association of University Women.

BUILDINGS AND EQUIPMENT

The University campus lies on Buchtel Avenue at the head of College Street, only a short distance from the city's business center.

Buildings on the campus include Buchtel Hall, in which are located the administration offices and eight classrooms; Carl F. Kolbe Hall, housing Bierce Library; Knight Chemical Laboratory; Crouse Gymnasium; R.O.T.C. Armory; Curtis Cottage, housing the department of home economics, including laboratories and the University Health Service; Olin Hall, occupied by the department of biology, with laboratories; Simmons Hall, housing the departments of commerce, secretarial science, political science and physics as well as some units of the College of Engineering in classroom and laboratory; and the central heating plant.

The University Student Building, first occupied in 1939, was constructed by means of a loan and grant from the Public Works Administration. It contains dining room facilities, and a little theatre with lighting equipment, carpenter shop, and dressing rooms. Other space in the building is occupied by offices of student publications, meeting and game rooms, and lounge.

The Music Department is housed in a two-story building at 227 East Center Street. This building contains two large rooms for orchestra, band, and choral groups on the first floor, and a number of small rooms on the second floor for offices, studios, and practice rooms.

T-1 is a temporary building, a reconstructed army barracks which was moved during 1947 from Camp Perry to the west part of the campus. It houses the laboratories for Electrical Engineering.

T-2, likewise a reconstructed army barracks was moved here in 1947 from Wright Field, Dayton under the Federal Program. The north half houses the library for the College of Education. The south half is occupied by the Office of the Dean of the College of Education and the Office of the Director of Alumni and Public Relations.

The Quonset Hut on the campus was erected in 1946 in order to accommodate the University bookstore, the Air ROTC, and some faculty offices.

In March, 1948, construction was started on a new Engineering Building which will house engineering laboratories and will provide additional classroom and office facilities.

The facilities of Bierce Library are open to the citizens of Akron.

Through the courtesy of the Board of Education of the Akron Public Schools, the College of Education occupies a part of the nearby Spicer School building for classroom and office purposes.

The athletic field and stadium are situated about two blocks from the campus. The intercollegiate contests in football are held at the Akron Rubber Bowl or the athletic field, and basketball games are played at Goodyear Gymnasium.

BIERCE LIBRARY

The University Library, known as Bierce Library in recognition of a bequest received from General L. V. Bierce in 1874, occupies Carl F. Kolbe Hall. It contains 76,152 catalogued volumes, 18,748 pamphlets, and a considerable amount of other material (not counted) concerning the history of Buchtel College and the University of Akron, as well as 622 current periodicals, and 1,280 music recordings. In addition 18,223 mounted pictures are available for circulation. A collection of 83 films is available for instructional purposes.

THE TESTING LABORATORY

The Testing Laboratory was created January 1, 1914, by a proposal made by the Board of Directors and accepted by the Akron City Council. Until November, 1930, it was known as the Bureau of City Tests. Much of the chemical and physical testing work of the city is done in the laboratory. The laboratory is conveniently close to the testing equipment of the engineering laboratories.

THE DANIEL GUGGENHEIM AIRSHIP INSTITUTE

The Guggenheim Foundation for the promotion of Aeronautics which was established in 1926 by the late Daniel Guggenheim, made a gift in October, 1929, to the University of Akron and the California Institute of Technology jointly for the study of lighter-than-air problems. This gift was supplemented by a contribution from the City of Akron, especially for the erection of a suitable building. These gifts were secured largely through the efforts of Dr. George F. Zook.

The Guggenheim Airship Institute building is located at the northwest corner of the municipal airport. The main building, four stories in height, was completed in 1932, and a one-story addition to accommodate a gust tunnel was built in 1936. For further information concerning the equipment of the Institute, see the College of Engineering section of this catalog.

On October 19, 1934, the original contract expired, and upon agreement of the parties concerned, control of the Institute was transferred to the University of Akron. In April, 1943, Mr. Curtis C. Myers became Resident Director. Dr. Theodor von Karman, who had served as Director for the five years, is now Technical Consultant. Dr. Robert S. Ross is Technical Director. In connection with the fundamental research carried on at the institute a certain amount of testing is done for industry and for governmental agencies on a contract or fee basis.

At the June 7, 1940, meeting of the Board of Directors, the Daniel Guggenheim Airship Institute was made an integral part of the College of Engineering, and certain members of the staff of the Institute were given academic status as members of the College of Engineering faculty.

GOVERNMENT LABORATORIES

Early in 1944, the University, at the request of the Rubber Director, assumed, under contract with Rubber Reserve Company, the management of a Government-owned pilot plant and evaluation laboratory on West Wilbeth Road. The institution was dedicated to the service of the nation on June 28, 1944. It now consists of six buildings housing equipment for the production and testing of experimental rubbers in connection with research studies designed to increase the ease of fabricating rubber goods and improving their quality.

In the pilot plant are 16 five gallon, 12 twenty gallon, 2 eighty gallon and 2 five hundred gallon reactors in which synthetic rubber latex may be made. All auxiliary equipment necessary to convert the rubber into dry, solid material is also installed. Well equipped physical and chemical laboratories are provided for evaluating the quality of experimental rubbers and, through research studies, for perfecting better methods of determining their quality. Physical tests are conducted not only at room temperatures but at elevated and reduced temperatures.

For testing at low temperatures, there are two cold rooms: one of about 80 square feet for testing at or around minus 10 degrees F., another of about 200 square feet which can be cooled to minus 55 degrees F.

EXTRA-CURRICULAR AFFAIRS

The University of Akron offers a well-rounded student program of extra-curricular activities through such organizations as the Student Council, Women's League, Y.W.C.A., The Akron Buchtelite (student newspaper), The Tel-Buch (student yearbook), athletics for men and women, departmental clubs, sororities and fraternities. The program is facilitated by the Student Building lounge, cafeteria, dining room, and recreation rooms.

INTRAMURAL SPORTS

All day students carrying eight credit hours or more may participate in intramural athletics. The sports are conducted for everyone with the aim of providing wholesome recreation and physical exercise. To attain this end the department makes an effort to have each student in the University enroll in one or more of the scheduled activities.

INTERCOLLEGIATE ATHLETICS

Intercollegiate sports are under the administration of a Faculty Committee appointed by the President.

ATHLETIC INJURIES

Students training for, or participating in, athletic competition, do so voluntarily and assume the risks incident thereto. The University assumes no legal responsibility or obligation to meet the expense of the treatment of injuries received by athletes while training for, or participating in, intramural or intercollegiate sports, unless the treatment is first authorized by the University medical officer for athletes.

STUDENT ACCIDENTS

The University of Akron assumes no responsibility for accidents to students which may occur incident to attendance at or participation in classroom, gymnasium, or laboratory work.

GYMNASIUM LOCKERS

Gymnasium lockers are obtained by depositing \$1 at the office of the Treasurer of the University.

THE UNIVERSITY HEALTH SERVICE

To provide for the student body necessary phases of health promotion not included in the field of physical education, the University Health Service has been established. Complete physical records and a follow-up system are maintained. The medical examinations conducted by the Health Service and the posture and physical efficiency tests conducted by the Department of Physical Education are combined. The University Physician is in his office in Curtis Cottage one ~~and one-half~~ hour each day. A registered nurse is on duty daily.

EMPLOYMENT FOR STUDENTS

The Office of the Dean of Students serves as a clearing center for employment opportunities which come to the University. Students who need some employment in order to earn money to meet their expenses should make application at this office and they will be informed of available openings. Students who must earn a large portion or all of their expenses may carry lighter schedules.

DISCIPLINE

The University reserves the right to penalize any student whose conduct at any time is in its judgment detrimental to the institution.

GENERAL OBJECTIVES OF THE UNIVERSITY OF AKRON

The University of Akron is a municipal university supported in large measure by city taxes. It, therefore, aims to devote its efforts to the work of higher education especially for the people of Akron.

The University of Akron has as its aims:

To give students a survey of the chief fields of knowledge and thus acquaint them with the world of nature and human life; to develop their ability to make sound judgments and to profit from experience; to arouse their intellectual curiosity and stimulate their scholarly growth; to aid them to develop their physical well-being; to help them to appreciate beauty in all its forms and thus to furnish them with resources for enjoying their leisure hours.

To develop and strengthen in students a sense of social responsibility so that they have a proper regard for the rights of others; to prepare them for a sane and loyal family life and an active and intelligent citizenship.

To prepare students for greater social and individual effectiveness in public service, commerce and industry, and the professions; for the professions of teaching and engineering; for entering the professional schools of law, medicine, and dentistry, and for advanced study in other fields; for careers in art, music, home economics, and secretarial science.

In the attainment of these objectives, the University of Akron proposes to utilize its available resources to the utmost. Students who are admitted will be expected to have a satisfactory degree of intellectual maturity, and adequate scholastic preparation along with the necessary aptitudes and interests. It is also expected that their educational objectives will harmonize with those of the University.

The University has further aims:

To provide expert advice for various civic and educational agencies; to furnish a scientific testing service for commerce and industry; to offer educational programs for the dissemination of culture and knowledge.

ORGANIZATION OF THE UNIVERSITY

I. THE GENERAL COLLEGE

The purpose of the General College is two-fold: (a) to furnish a general cultural education for (1) students who plan to enter an Upper College and secure an academic degree, and (2) students who desire approximately two years of general education, but who do not desire or are unable to enter an Upper College; (b) to furnish pre-professional courses or terminal courses of an occupational nature for students who do not desire or are unable to enter an Upper College.

II. THE UPPER COLLEGES

After completion of the work in the General College, the student may begin work in his field of concentration in one of the Upper Colleges.

BUCHTEL COLLEGE OF LIBERAL ARTS

The departments of the Liberal Arts College are grouped in four divisions as follows:

<i>Humanities</i>	<i>Social Sciences</i>	<i>Natural Sciences</i>	<i>Applied Arts</i>
Latin and Greek	Economics	Biology	Art
Literature	History	Chemistry	Commerce
Modern Languages	Political Science	Mathematics	Home Economics
Music	Sociology	Physics	Journalism
Philosophy			Secretarial Science
Speech			

THE COLLEGE OF ENGINEERING

The departments of the College of Engineering are:

Civil Engineering Electrical Engineering Mechanical Engineering

THE COLLEGE OF EDUCATION

There are no divisions in the College of Education, but preparatory courses are offered in a variety of teaching fields.

Art	Home Economics	Physical Education
Commerce	Kindergarten	Psychology
Elementary	Music	Vocational Education
High School	Primary	Nursing Education

GRADUATE STUDY

In certain colleges and departments — especially in the College of Education — opportunity is offered properly qualified persons to study for the Master's degree. In some of the departments graduate courses given in connection with the work in Adult Education have been arranged on a rotating plan to enable candidates to meet the requirements for a major or a minor.

For details as to the colleges and departments which offer courses of graduate rank see the catalog material under the various colleges and departments and also the section on graduate study.

DEGREES

For completion of his work in the Upper College a student is expected to have taken at least 50% — and it is desirable that he take not more than 75% — of his total work (outside the 36 to 42 hours of required work in general education) in the major division.

A statement of degrees conferred upon completion of courses of study is given under the descriptive matter of each college. To receive a second bachelor's degree in course from the University of Akron, the student must complete all requirements for the degree with a minimum of 32 semester hours of work not counted for the first degree.

DIVISION OF ADULT EDUCATION

THE EVENING SESSION

All colleges of the University offer courses in the evening. Credit is given toward a degree for regularly prescribed subjects. Full-time or part-time schedules are possible for new and former students in degree, diploma, and certificate courses. Candidates for a diploma or degree must satisfy the entrance requirements of the University.

THE SUMMER SESSION

A Summer Session of six weeks furnishes instruction to teachers and other persons who seek opportunities for training. Courses are offered to meet the needs of students in all colleges of the University. In 1942, the first 12-week session was held in order to enable students to complete their college work in a shorter time. See section on Summer Session. In 1948, a summer session of eight weeks will be offered.

INSTITUTES

Non-credit courses to meet the needs of many persons who already have a degree or desire practical training for a particular vocation or avocation are offered on a short-term basis. A program of apprentice training for local industries, designed to parallel factory work with classroom training, is now in its ninth year of operation. For further information see section on Community Co-operation.

GENERAL REGULATIONS

THE SEMESTER HOUR—The unit of instruction is one hour per week for one semester. Three hours of laboratory work (including time for writing reports) shall be considered as equivalent to one recitation hour with preparation therefor. This unit is known as a "semester hour" or "credit."

GRADING SYSTEM

93-100 inclusive	Excellent	A
85-92 inclusive	Good	B
77-84 inclusive	Fair	C
70-76 inclusive	Poor	D
Below 70	{ Conditioned	E
	{ Failed	F
Incomplete		I

The grade "*Conditioned*" may be given only for the first semester's work in a subject continuing through two or more semesters, such as first-year chemistry or first-year foreign language.

"*Conditioned*" means that although the semester's work is not of passing grade the deficiency may be made up without repeating the course in class. Failure to remove the deficiency satisfactorily by the close of the student's next semester in the University converts the grade to "F." No higher grade than "D" is given for the removal of a "*Condition*."

"*Incomplete*" means that the student has done passing work in the course, but some part, for good reason, has not been completed. Failure to make up the omitted work satisfactorily within the first nine weeks of the following semester converts the grade to "F."

QUALITY REQUIREMENTS

For graduation from the University, the student must present at least 128 credit hours with a quality point ratio of 2 for all work attempted. Quality points are given as follows:

- For each credit hour of A, 4 quality points.
- For each credit hour of B, 3 quality points.
- For each credit hour of C, 2 quality points.
- For each credit hour of D, 1 quality point.
- For each credit hour of F, 0 quality point.

No student is eligible for a degree unless he has the same ratio of quality points in his major subject as is required for graduation.

PROBATION AND FAILURE

In the General College a student who fails at any time to maintain a quality point ratio of 2 may be subject to change of courses, suspension, or some other form of academic discipline.

In an Upper College a student whose scholarship is unsatisfactory may be placed on probation, suspended for a definite period of time, or dropped from the University at any time by the Dean of the college in which the student is enrolled.

The load for every probationary student is determined by the Dean who has jurisdiction over him.

Students who have been dropped from the University are not eligible to register for any college courses in Day, Evening, or Summer Sessions. Such individuals may, however, enroll for non-credit work in the Community College. Reinstatement of dropped students is under the control of the Committee on Admissions and Retention, and is a prerequisite for enrolling in college work.

CHANGES IN STUDENTS' PROGRAMS

No Upper College student is allowed to drop a study after the opening of a semester, or in any way change his selection of studies for any semester, without permission of the Dean of the college in which he is registered.

For Upper College students, all changes from one field of concentration to another shall be subject to the approval of the Dean.

Students in the General College will secure the permission at the Office of the Dean of Students.

Students who withdraw from a course *with the permission of the Dean* are given a grade of work at the time of withdrawal. (This grade is used for statistical purposes.)

If a student withdraws from a course on the recommendation of the Dean, it shall not count as work attempted except in the compilation of statistical averages.

If a student leaves a course *without the recommendation of the Dean*, or is *dropped* from any course by the Dean, he is given a failing grade in the course and it is counted as work attempted.

All grades received by students whether passing or failing, withdrawn or dropped, are used in the compilation of statistical averages for student groups.

No student is allowed to enter a course after the first week of the semester.

First-year students are not permitted to elect work above the freshman year except by special permission.

WITHDRAWAL

A student desiring to withdraw from the University is requested to notify the Dean of the college in which he is enrolled. Otherwise "F" grades may be received in all work carried.

STUDENT LOAD

Sixteen hours a semester are counted as full work for a student. No student is allowed to take more than 17 hours a semester without the consent of the Dean of the college in which he is enrolled. An excess load charge is made for work taken in excess of 18 hours, except in the case of certain definitely prescribed curricula.

ABSENCE

Students are expected to be present at all meetings of classes for which they are registered, and may be dropped by the Dean from a course at any time for absence on recommendation of the instructor.

In case of prolonged absence, students may be reinstated in classes only by the Dean on recommendation of the instructor, and are required to make up the omitted work at the discretion of the instructor.

PROMOTION TO AN UPPER COLLEGE

For promotion to an Upper College the student must make a quality point ratio of 2 for the work taken in the General College and must complete at least 64 hours of work including all the required general courses. At the discretion of the Division a point ratio higher than this may be required. (It is understood that certain exceptions may be made in the operation of this ruling in the College of Engineering and in the Division of Natural Science.)

The admission of students to the Upper College shall be a responsibility of the academic deans in consultation with administrative officers of the General College and the heads of the departments concerned.

At the discretion of the Division, an examination over the courses preparatory to the work of that Division may be required.

GENERAL FINAL EXAMINATIONS

A general final examination covering the major field of study is required in certain departments of instruction. In divisions and departments of the University which give a general final examination, the passing of that examination is a requirement for graduation.

The administration of these examinations is in the hands of a committee consisting of the Registrar as chairman, and one member from each college faculty appointed by the deans of the respective faculties.

In the College of Education the fourfold qualifying examinations at the close of the junior year are regarded as the general final examination.

SYSTEM OF NUMBERING

1-99. Courses given in the General College. (Numbers 1-19 are reserved for required courses in General Education.)

100-199. Courses of Upper College rank.

200-299. Undergraduate courses for which graduate credit may be obtained for a greater amount and a higher quality of work than that required of undergraduates.

300-399. Graduate courses to which a few undergraduates who have shown unusual ability may be admitted.

400-499. Graduate courses for which the prerequisite is a bachelor's degree.

FEES AND EXPENSES

Payment of fees is a part of the registration procedure. All fees must be paid at the Treasurer's office at the time of enrolment.

CLASSIFICATION OF CHARGES

TUITION is not charged to legal residents of Akron. Tuition charges for those not legal residents of Akron are shown below.

A MAINTENANCE FEE is paid by all students. The amount of the fee depends upon the number of credit hours taken.

A LIBRARY FEE is payable by all students enrolled for 6 or more credit hours.

STUDENT ACTIVITY FEE (*Day Session*) payable by all undergraduate students enrolled for 6 credit hours or more. Payment of this fee provides support for the extra-curricular activities program.

(*Evening Session*) payable by all evening session students. Payment of this fee aids in the support of activities of the evening students.

(*Summer Session*) payable by all summer session students. Payment of this fee aids in the support of activities of the summer students.

STUDENT BUILDING FEE, payable by all students in all sessions, makes available the facilities of the student building.

LABORATORY FEES AND BREAKAGE DEPOSITS are charged in some courses to cover the materials used. See listings on page 37 and 38.

A GRADUATION FEE is payable in connection with the Bachelor's degree and Master's degree.

LATE REGISTRATION FEE.

COMMUNITY COLLEGE FEES.

EXCESS LOAD FEE.

REFUNDS.

SUMMARY STATEMENT

For ease in determining approximate costs for each semester, the following tabulation indicates a typical charge for a student enrolled in day classes for a normal full-time schedule of work of 16 hours each semester of the academic year.

	First Semester	Second Semester
Tuition fee, for non-residents of Akron.....	\$ 90.00	\$ 90.00
Maintenance fee, for all students	35.00	35.00
Student activity fee, for all students	7.00	3.00
Student building fee	3.00	3.00
Library fee	1.50	1.50
Total for non-residents of Akron	\$136.50	\$132.50
Total for residents of Akron	\$ 46.50	\$ 42.50

Laboratory fees, deposits and books are additional and vary with the courses taken.

All fees are payable at the Treasurer's office before the student enters classes. Deferred payments have been discontinued.

VETERANS' EXPENSES

Students who are veterans of World War II, and who are eligible for admission to the University may, if certified by the Veterans Administration, register for courses of study without payment of fees. In this instance the educational cost or its equivalent* including necessary books and supplies will be paid by the Federal Government. This is done upon the basis of an agreement between the University and the Veterans Administration based upon the provisions of Public Law 16 (Veterans Rehabilitation) and Public Law 346 ("G. I. Bill") as amended.

If a veteran does not have his Certificate of Eligibility at the time of registration, full payment of fees is required. Upon subsequent presentation of his certificate, the cash payment will be refunded in full.

TUITION FEES

Payable by non-resident students in the day session:	Each Semester
For 1 to 5 credit hours inclusive, per credit hour.....	\$ 6.00
For 6 credit hours	35.00
For 7 credit hours	50.00
For 8 credit hours	60.00
For 9 credit hours	70.00
For 10 credit hours	80.00
For 11 credit hours	90.00
Payable by non-resident students in the evening session:	
For less than 7 hours	no charge
For 7 to 10 credit hours inclusive, per credit hour in excess of 6.....	\$20.00
For 11 credit hours or more	90.00
Payable by non-resident students in the summer session:	
Eight-week Term	
Per credit hour	\$ 6.00
Six-week Term	
For less than 7 hours	no charge
For 7 or more hours, per credit hour in excess of 6.....	\$ 6.00

RULES GOVERNING TUITION

(Adopted March 14, 1941)

Legal residents of the City of Akron shall not be charged tuition in any College or Division of the University.

In applying this rule, the following persons, if citizens of the United States, shall be deemed to be legal residents of Akron unless the circumstances of any particular case may show the fact to be otherwise, viz:

1. An unmarried person under 21 years of age living with parents who are legal residents of the City of Akron.
2. A person over 21 years of age who at the time of his enrolment is a legal resident of the City of Akron.
3. A husband living with his wife, or a wife living with her husband within the City of Akron when such husband and wife are legal residents of the City of Akron.

*The educational cost or its equivalent shall be judged to be a sum equal to the tuition plus such other fees as are applicable to the curriculum in which the student is enrolled.

should at be forty day

In every other case the responsibility of proving legal residence in the City of Akron shall rest with the person claiming exemption from tuition payment.

In order to be a legal resident within the purpose of these rules, a person shall be required to have resided continuously in the State of Ohio for at least one year and in the City of Akron thirty days immediately prior to registering in the University for any semester.

Any person enjoying the right of exemption from the payment of tuition shall forfeit that right upon abandoning the City of Akron as his legal residence but may regain the right upon reestablishing his legal residence in the City of Akron.

No person shall be considered to have gained or lost legal residence status by virtue of any act of himself, his parents, or his guardian, within any semester he or she is enrolled in the University.

In case a legal resident of the City of Akron is appointed guardian of the person of a minor, the legal residence of such minor for the purpose of this rule shall not be considered to be established in the City of Akron until the expiration of one year after such appointment, but no legal residence may be acquired by a minor for whom a legal guardian of the person is appointed solely for the purpose of avoiding the payment of tuition to the University of Akron.

Any person living outside of Akron but owning property within the City of Akron which is taxed, may receive credit on tuition of his child or children during any semester to the extent of taxes actually paid by him for that half-year toward the University levy, upon presenting a certificate from the County Auditor or Treasurer, stating the amount so paid.

MAINTENANCE FEES

Payable by all students both resident and non-resident in the day and evening sessions:
 For 1 to 5 credit hours inclusive, per credit hour.....\$ 6
 For 6 credit hours or more 35

An advance deposit of \$25.00 is required of all freshmen and transfer students who have been accepted for admission to the University. This sum is credited on the maintenance fee at entrance and is not subject to refund. It cannot be transferred to another account but may be applied on a subsequent enrolment.

LIBRARY FEE

Payable by all day or evening students enrolled for 6 or more credit hours\$1.50
 (Not subject to change during a semester because of reduction in number of credits carried).

REGISTRATION FEE

Payable by students enrolled in the Division of Adult Education (evening classes). Per Semester\$1.00

STUDENT ACTIVITY FEE

Payable by all undergraduate students in the day session taking six credit hours or more. (Not subject to change during a semester because of reduction in number of credits earned).

First semester (including athletic and dramatic ticket).....\$7.00
 Second semester, students enrolled first semester 3.00
 Second semester, new entrants (including athletic and dramatic ticket)..... 5.00
 Payable by all evening session students, per semester..... .50

STUDENT BUILDING FEE

Payable by all students in the day session enrolled for six credit hours or more, per semester. (Not subject to change during a semester because credit hours are reduced)	\$3.00
Payable by all students enrolled in the day session taking less than six hours, per semester	1.50
Payable by all evening session students, per semester	.50

FEES FOR 1948 SUMMER SESSION

Six-Week Term

Non-Resident Tuition Fee (in excess of 6 hours), per credit hour	\$ 6.00
Maintenance Fee:	
1 to 4 credit hours, per credit hour	6.00
5 to 6 credit hours	25.00
Student Activity Fee	1.50
Student Building Fee	1.00
Late Fee	5.00

Eight-Week Term

Non-Resident Tuition Fee, per credit hour	\$ 6.00
Maintenance Fee:	
1 to 5 credit hours, per credit hour	6.00
6 or more credit hours	35.00
Library Fee	1.00
Student Activity Fee (6 or more credit hours)	2.00
Less than 6 credit hours	1.50
Student Building Fee	1.50
Late Fee	5.00
Registration Fee (Evening Students only)	1.00

No Student Activity Fee or Student Building Fee is charged in the summer term for registration in which all of the enrolment is in classes scheduled to meet in the evening.

The Student Activity Fee charged at the time of registration will not be reduced should the student later elect to reduce the load.

LATE REGISTRATION FEE

A fee of \$5 will be charged day students, and \$1 for evening students, who have not completed registration, classification, and payment of fees before the closing time of registration in the college in which they are registered. The late fee for summer session students is \$5.

The dates on which this fee will first be payable each semester, 1948-49, are as follows:

First Semester: Monday, September 20, for Day and September 27, for Evening Session.

Second Semester: Monday, February 7, for Day Session. Monday, February 14, for Evening Session.

1948 Summer Session: June 21.

MUSIC

Two individual half-hour lessons per week, each semester, in Piano, Voice, Violin, Organ or Band Instruments	\$60
One individual half-hour lesson per week, each semester, in Piano, Voice, Violin, Organ or Band Instruments	30
Organ rental by special arrangement.	
Semi-private Voice Lesson (Small Group Instruction)	20

GRADUATION FEE

(Payable at time of application for degree)

Bachelor's degree	\$ 5
Master's degree	10

All graduate students presenting a thesis for a Master's degree are required to pay a thesis fee of \$10.00 and the cost of the thesis binding, which is \$2.00 per copy.

AUDITORS

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

COMMUNITY COLLEGE

A fee of \$6.00 is charged for Community College Courses unless otherwise noted in the circular printed each semester which describes the courses.

EXCESS LOAD FEE

A fee of \$6.00 per credit hour is charged for registrations in excess of 18 hours in the regular semester of the day session. In the eight-week summer term, this fee is applied to registration for more than 9 hours. In the six-week summer term, this fee is applied to registration in excess of 6 hours. Exceptions are made in the case of students enrolled for credit hours taken in band, glee club, orchestra, and debate. This fee is not subject to refund.

MISCELLANEOUS FEES

One free transcript of record is furnished a student. A fee of \$1 is charged for each additional copy.

A fee of \$2 is charged for each two-year or three-year certificate.

A fee of \$5 is charged for each examination in college work not taken in course.

LABORATORY FEES

	Each Semester
Art 70, (Occupational Therapy) 102, (General Crafts)	\$ 1.00
Art 104, 105 (Graphic Arts) 170, 176 (Figure Drawing)	1.50
Biology 41, 42 (Geology)	2.50
Biology 47, 48 (Anatomy and Physiology)	3.00
Biology 51, 52 (Botany) 113, 114 (Field Botany)	4.00
Biology 61, 62 (Zoology)	5.00
Biology 91, 135, 136, 233, 236 (Physiology) 141 (Invertebrate Zoology)	4.00
Biology 144 (Entomology) 217 (Plant Anatomy and Histology)	4.00
*Biology 107, 108 (Bacteriology)	7.50
*Biology 107a, 108a (Bacteriology)	3.75
Biology 145, 146 (Genetics)	1.00
Biology 165 (Vertebrate Anatomy)	12.00
Biology 215, 216 (Plant Physiology) 154 (Histological Technique)	6.00
Biology 256 (Embryology)	7.50
Biology 267, 268 (Biological Problems) 367, 368 (Research) per credit hour....	2.00
*Chemistry 21, 22, 43, 44, 55, 56, 105, 106, 107, 108, 309	10.00
*Chemistry 23, 24, 25, 45, 131, 132	5.00
*Chemistry 213, 214, 321, 322, 307, 308	8.00
*Chemistry 327, 328, 330	15.00
*Chemistry 365, 366, per credit hour	5.00
Education 41 (Handicrafts in EL School)	2.00
Education 105 (Tests and Measurements) 312 (Educ. Meas.)	2.00
*Engineering 47 (El. Surveying) 109 (Advanced Surveying) (C.E.)	4.00
*Engineering 108 (Route Surveying) (C.E.)	2.00
*Engineering 49 (Shop Practice) (M.E.)	3.00
*Engineering 58, 123, 124, 149 (E.E. Lab.) (E.E.)	3.00
*Engineering 134, 138, 140 (Metallurgy)	5.00

*Requires a breakage deposit of \$5.00, the unused portion of which will be returned to the student.

LABORATORY FEES	Each Semester
*Engineering 112 (Concrete Lab. C.E.) (C.E.).....	2.00
*Engineering 101 (Strength of Materials) (C.E.)	2.00
*Engineering 171 (A.C. Machines Lab.) (E.E.).....	4.00
*Engineering 173 (Advanced A.C. Machines Lab.) (E.E.).....	4.00
*Engineering 151 (Electron Tube Applications) (E.E.).....	3.00
*Engineering 186 (Motion and Micromotion)	2.00
*Engineering 182 (Mechanical Lab.) (M.E.)	2.00
*Engineering 183 (Mechanical Lab.) (M.E.)	3.00
*Engineering 194 (M.E. Problems) (M.E.)	3.00
*Engineering 167 (Aerodynamics Lab.) 168 (Aeronautical Problems)	3.00
Home Economics 21 (Textiles) 22, 23, (Clothing) 62, (Home Management) 185, 196 (Adv. Clothing)	1.00
Home Economics 41, 42, 43, 45, 46 (Foods)	6.00
Home Economics 44 (Dietotherapy) 65 (Food Economics).....	4.00
Home Economics 65 (Child Care) 197, 198 (Adv. Textiles) 119, 120 (Nutrition)	2.00
Home Economics 115, 116 (Adv. Foods).....	7.50
Home Economics 215 (Household Equipment)	2.00
Home Economics 216 (Quantity Cookery)	5.00
Physical Education 3, 4, 114 (Swimming Men)	2.50
Physical Education 3, 4, 114 (Swimming Women)	6.00
Physics 24, 41, 42, 51, 52, 53, 203, 304, 306, 314.....	2.00
Physics 61, 209, 210, 309, 310.....	4.00
Psychology 42	1.00
Psychology 110, 207, 208	2.00
**R. O. T. C. Basic Course	5.00
†R. O. T. C. Advanced Course	10.00
Secretarial Science 26 (Filing and Machine Calculation)	1.75
Secretarial Science 31, 51, 52, 56, 57, 58, 59 (Typewriting)	4.00
Secretarial Science 74 (Secretarial Training).....	1.50
Secretarial Science 63, 64, 83, 84, 85, 143, 144, 165, 166, 186, 187, 188.....	1.00
Secretarial Science 152 (Transcription)	1.00
Secretarial Science 293 (Office Practice)	2.50
Speech 161, 162 (Play Production)	2.00
Speech 181, (Radio Speaking)	1.00
Speech 287 (Radio Speaking)	1.00

REFUNDS

Tuition and Fees are not returnable either by cash or by adjustment of an account except when withdrawal is caused by:

- (1) Serious illness as evidenced by a written statement of a physician.
- (2) Change in hours of employment as evidenced by a written statement of employer.
- (3) Other circumstances entirely beyond the control of the student.

Application for refund or adjustment of an account will not be considered after the close of the semester for which fees have been charged.

*Requires a breakage deposit of \$5.00, the unused portion of which will be returned to the Student.

**This deposit is returnable at the end of the semester less charges for lost or damaged articles.

†This deposit is returnable only upon completion of the course.

The time of withdrawal is ordinarily taken as the date at which the student formally files his withdrawal request. The date of withdrawal is certified by the Dean or Director.

No refund will be made on the following fees:

- (1) Change of Course.
- (2) Excess Load.
- (3) Swimming Fee.
- (4) Late Registration.
- (5) Special Examination.
- (6) Registration Fee—Evening College.
- (7) Advanced Deposit.
- (8) In case a student is dropped for failure or academic discipline.

To be entitled to a refund, in any case, the student withdrawing must present to the Treasurer of the University in writing a "Withdrawal Request" setting forth the particulars properly supported as they apply to his case. Permission to withdraw does not imply that a refund or adjustment will be made, but serves only as a basis for application on the rules by the Treasurer's office.

The University will refund in full or abate all unpaid charges to students who withdraw from the University by reason of being called for service in the armed forces of the United States.

1. A statement from the Dean of his college that the student is in good standing, is entitled to an honorable dismissal, and is withdrawing with the Dean's permission, from the school or courses designated.
2. A statement from the Military Department, if he is a student in R.O.T.C. that his uniform account is clear.
3. If dropping a laboratory subject, he shall return his deposit card certified by the proper person, showing the amount of the refund due him.
4. If dropping an Evening College or Summer Session subject, he shall present a statement from the Director stating that he is permitted to withdraw from the subject.

When above conditions have been complied with, the request will be ruled upon and refund, if due, will be made in accordance with the following plan:

Evening and Summer Course Fees: In full for courses offered that may not actually be given due to insufficient enrolment.

Student Activity Fee: Upon return of the student athletic ticket, refund or adjustment will be made on the same basis as other regular fees.

Other Regular Fees: The amount actually charged will be refunded or adjusted less the proportion to be retained by the University as follows:

FIRST AND SECOND SEMESTER

<i>Time of Withdrawal</i>	<i>Amount Retained by the University</i>
After registration or	\$5.00 Day Session
During 1st week	\$1.00 Evening Classes
During 2nd week	20% of semester charge
During 3rd and 4th weeks	40% of semester charge
During 5th and 6th weeks	60% of semester charge
During 7th and 8th weeks	80% of semester charge
After 8th week	Full amount of semester charge

SUMMER SESSION

Six-week Term

After registration or	
During 1st week	\$2.00
During 2nd week	40% of term charge
During 3rd week	60% of term charge
After 3rd week	Full amount of term charge

Eight-week Term

After registration or	
During 1st week	\$5.00
During 2nd week	20% of term charge
During 3rd week	40% of term charge
During 4th week	60% of term charge
During 5th week	80% of term charge
After 5th week	Full amount of term charge

THE GENERAL COLLEGE

ENTRANCE REQUIREMENTS

The admission of any student to the University of Akron will depend upon the evidences of his preparation and ability to do college work in a satisfactory manner. The evidences are: (1) graduation from an accredited four-year secondary school or its equivalent; (2) quality of the work done in the secondary school; (3) ranking in certain tests given by the University to determine preparation, ability, and aptitudes; (4) attitude toward college work.

In determining the admission of any applicant, consideration is given to the above factors. A low ranking in any one will require a higher ranking in the others. For example, a student whose secondary school average is low may be admitted if his ranking in the tests is high. Also, an applicant with a fair secondary school record may make such a poor ranking in these tests as not to qualify for admission.

Any student applying for admission is expected to have a satisfactory background in both oral and written English.

Such college courses as Latin and mathematics cannot be taken until the prerequisites are met.

For admission to the engineering course at least $1\frac{1}{2}$ units of high school algebra, 1 unit of plane geometry, $\frac{1}{2}$ unit of solid geometry or $\frac{1}{2}$ unit of trigonometry, and 1 unit of physics or chemistry are required. It is recommended that each candidate desiring college training in technical and scientific lines include in his preparatory work an adequate high school training in mathematics and science, otherwise postponement of his entrance might be necessary.

ADULT STUDENTS

Applicants over twenty-one years of age may be permitted to enroll for not over seven credit hours in any one semester in evening classes and may be permitted to take up to a total of fourteen credits. Such students will be designated as Adult Students. If adult students desire to take any additional work for credit, they must qualify for regular student status by meeting entrance requirements to the satisfaction of the Committee on Admissions. The initiative for change of status rests with the adult student.

SPECIAL STUDENTS

Special students are applicants who do not meet the requirements for admission, but may by special act of the Committee on Admissions, be permitted to take a limited amount of work for which they are qualified by experience. Special students will not receive credit and will be designated as auditors. It is understood that they will not displace any regular students.

AUDITORS

Auditors are students who are required to do all the work prescribed for students enrolled for credit except the taking of credit examinations. The fee is the same as for regular credit enrolment. Designation as an Auditor must be made at the time of registration.

ADMISSION FROM OTHER COLLEGES

The student who wishes to enter the University of Akron with advanced standing should ask the registrar of the institution from which he is transferring to send to the University Registrar a transcript of his record and an honorable dismissal.

No student will be received on transfer from another college or university who does not meet the scholastic requirements of the University of Akron, or who is ineligible to re-enter the institution from which he desires to transfer.

REGISTRATION AND CLASSIFICATION

A student who wishes to gain admission for the fall semester should ask his high school principal to mail a statement of his high school record on a blank supplied by the University Registrar upon request. The applicant is expected to present himself in person to register at the specified time. Fees are due at time of registration.

ORIENTATION WEEK

To aid the freshman in adjusting himself to university life, the week preceding the opening of the regular session is devoted to a program consisting of a general assembly, tests, physical examination, lectures, and payment of fees.

All entering freshmen are *required* to report Monday, September 13, 1948, for the fall session, and attend all sessions, Monday to Thursday, inclusive. Sessions of this program will occupy the time from 8 a. m. to 4 p. m. of the days specified.

REGISTRATION DAYS

The registration days for students in both day and evening sessions will be found in the University Calendar in the opening pages of this catalog.

CURRICULUM OF THE GENERAL COLLEGE

Courses in the General College have been planned and organized in scope, content, method of approach, and method of presentation, to attain as fully as possible the general objectives of the University.

While there are no separate departmental divisions in the General College, the different divisions of the upper colleges, through their various departments, will offer, in addition to certain subjects required for students majoring in the department, other introductory courses, open to all students in the General College, but ordinarily not open to students of the upper colleges.

PRE-PROFESSIONAL AND TERMINAL COURSES

In addition to the work offered in general education, the General College offers certain pre-professional courses and terminal courses of an occupational nature for students who do not desire to remain longer at the University or who are unable to do so.

GENERAL EDUCATION

Ordinarily the work in the General College will cover two years; however, abler students may shorten the time by taking examinations for credit. The required courses in general education are:

1. English, Oral and Written.....6 hours, first year
2. Hygiene, Physical and Mental.....4 hours, first year
3. Introduction to the Social Sciences.....6 hours, first year
- *4. Introduction to the Natural Sciences.....6 hours, first or second year
5. Introduction to the Humanities.....6 hours, first or second year
6. Mathematics, Accounting, or Foreign Language...6 or 8 hours, first or second year
7. Military Science and Tactics (for men).....6 hours
(One from 4 and 5, and one from 6 must be taken the first year)
8. Physical Education.....2 hours, first year

REQUIREMENTS FOR PROMOTION
TO UPPER COLLEGE WORK

For promotion to upper college standing, the student must complete the requirements in general education stated above, and, in addition, certain courses specified by the departments concerned. The departmental requirements, which are in addition to the general requirements, are listed in the following pages.

BUCHTEL COLLEGE OF LIBERAL ARTS

Students who are planning to meet the requirements for promotion to upper college standing in the College of Liberal Arts should consult the list of studies laid down by the department concerned as prerequisite to promotion. It will be seen that some departments lay down specifications which should be taken in the freshman year. This is particularly to be noted in the case of the departments in the Natural Science Division and in commerce, home economics and secretarial science.

In other cases, the choice of a department for a major need not be made until the beginning of the sophomore year because of a smaller amount of prescribed work. It will also be noted that there are some departments which do not specify any requirement until the beginning of the third year in college. Those desiring to major in these departments would not need to make the decision until the beginning of the third year.

THE HUMANITIES DIVISION

ENGLISH—*Required*: English 65-66. *Strongly Recommended*: French, German, or Latin.

LATIN AND GREEK—*Required*: Latin 43-44.

**MODERN LANGUAGES—*Required*: Modern foreign language, both years.

MUSIC—*Required*: Music Orientation 21, The Art of Music 22, Theory I, 41, Theory II, 42. *Recommended*: Psychology 41-43, Philosophy 55-56, Shakespeare 41.

PHILOSOPHY—*Required*: Philosophy 55-56. *Recommended*: Psychology 41, Sociology 41, Literature—especially Shakespeare 41.

SPEECH—*Required*: Speech 41. *Suggested Electives*: Reading Aloud 51 and any other General College speech courses, the basic courses in the social sciences and psychology, Shakespeare 41, Design 21.

Since Upper College work in speech embraces the fields of public speaking, debate, dramatics, speech correction, and interpretation, the student should elect a program in General College that will apply directly to the specific interests in the field of speech which he proposes to follow in Upper College.

*The Introduction to the Natural Sciences may be waived in whole or in part at the discretion of the proper academic officers in the case of certain science majors.

**Second year of German is required for graduation from the Upper College in the case of Chemistry and Pre-Medical majors, the second year of either French or German in the case of Biology and Mathematics majors, and the second year of a foreign language in the case of Physics majors.

In the Humanities, Social Science, and Applied Arts Divisions (except Commerce, Secretarial Science, Industrial Management, and Occupational Therapy), the requirement is the second year of a foreign language on the college level, ordinarily taken in the General College.

THE SOCIAL SCIENCE DIVISION

ECONOMICS—Required: Economics 41, and 9 ~~to be chosen from~~ chosen from 42, 44, ~~or 45~~. Recommended: Accounting 21-22, Business Organization and Management 61, Psychology 41-42, Mathematics 21-22, Sociology 41-42, Political Science 41-42.

HISTORY—Required: None. Recommended: Social Science.

POLITICAL SCIENCE—Required, one of the following: American National Government 41, American State and Local Government 42, Comparative Government 43 or American Diplomacy 44. Recommended: Social Science.

SOCIOLOGY—Required: Sociology 41-42. Recommended: Psychology 41-43, Speech 41, English.

THE NATURAL SCIENCE DIVISION

BIOLOGY—Required: Zoology 61-62, Botany 51-52, Inorganic Chemistry 21-22.
PRE-MEDICAL—Required: Zoology 61-62, Inorganic Chemistry 21-22, Qualitative Analysis 43, Elementary Organic Chemistry 44, Algebra 21, Trigonometry 22, German 21-22.

CHEMISTRY—Required: Inorganic Chemistry 21-22, Qualitative Analysis 43, Elementary Organic Chemistry 44, Algebra 21, Trigonometry 22, Analytics 43, Calculus 45-46.

MATHEMATICS—Required: Algebra 21, Trigonometry 22, Analytics 43, Calculus 45-46.

PHYSICS—Required: Physics 51, 52, Algebra 21, Trigonometry 22, Analytics 43, Calculus 45 (and 46) or Chemistry 21-22. For alternative plan see departmental statement.

THE APPLIED ARTS DIVISION

ART—Required: Appreciation of Art 29-30, Design 21-22, Industrial Design 43, Drawing and Rendering 45-46, Modeling 59-60, Occupational Therapy 70, and the second year of a foreign language. Recommended: Psychology 41-43, Sociology 41, Shakespeare 41.

COMMERCE—Required: Accounting 21, 22, 23, Business Organization 61, Selling and Advertising 81, Economics 41-48. Recommended: Economic Geography 54, Typewriting 31, Sociology 41-42, Psychology 41, 62.

HOME ECONOMICS—Required: Textiles 21, Clothing 22, General Foods 45-46, Home Economics Orientation 53, Consumer Economics 82, Foods and Nutrition majors take in addition Chemistry 23-24 and Chemistry 55-56.

SECRETARIAL SCIENCE—Required: Shorthand Theory 41-42, Typewriting 51-52. Recommended: Accounting 21-22 or 41-42, Business Law 51, Business Organization and Management 61, Economics 41-42, Secretarial Procedure 21, Filing and Machine Calculation 26.

INDUSTRIAL MANAGEMENT. For details concerning this curriculum see under Commerce in Liberal Arts section.

JOURNALISM—Required: News Writing 51 and 52. Recommended: History of Journalism 71, Contemporary Newspapers 72.

THE COLLEGE OF ENGINEERING

Students who are definitely planning on taking a course in engineering have a somewhat different group of subjects arranged for them. The full curriculum is listed in the engineering section of the catalog, and should be consulted by all students enrolled in engineering.

THE COLLEGE OF EDUCATION

The curriculum plan for the first two years is given for those students desiring to go into the College of Education. It should be understood that this is suggestive and not rigid. Differences will occur, depending upon the teaching fields for which preparation is being made.

Freshman Year			
First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
English 1	3	English 2	3
Introduction to Social Science	5	Introduction to Social Science	6
Hygiene, Physical and Mental	15	Hygiene, Physical and Mental	16
Elective	6	Elective	6
Military Training 11 (Men)	1½	Military Training 12 (Men)	1½
Physical Education 3	1	Physical Education 4	1

Sophomore Year			
First Semester		Second Semester	
	Cr. Hrs.		Cr. Hrs.
Introduction to Humanities 7.....	3	Introduction to Humanities 8.....	3
Introduction to Natural Science 9	3	Introduction to Natural Science	
General Psychology 41.....	3	10	3
Introduction to Education 55.....	3	Educational Psychology 52.....	3
Literature	3	Fundamentals of Speech 76.....	3
Military Training 43 (Men).....	1½	Literature	3
		Military Training 44 (Men).....	1½

Further information concerning the requirements for promotion to upper college standing in various divisions of the University may be obtained from the Dean of Students, or from the deans of the several colleges.

REQUIRED COURSES IN GENERAL EDUCATION

1-2. FRESHMAN ENGLISH, ORAL AND WRITTEN. 3 credits each semester.

Instruction in reading, writing, and speaking the English language. Assigned readings, correlated with the general introductory courses, provide models for analysis and stimulate expression, both oral and written, on the part of the student. During the first semester, this material is primarily expository in character; during the second, the narrative and descriptive methods of reporting experiences are stressed. A review of the principles of English usage, and instruction in taking notes and using the library.

Students who demonstrate exceptionally good preparation in English may go directly into English 2 on the condition that they follow it, in the next semester, with another General College course in English. Students who make A in English 1 may substitute another General College course in English for English 2; students who make B may take another General College course in English as well as English 2 in their second semester.

15-16. HYGIENE, PHYSICAL AND MENTAL. 2 credits each semester.

This course has three major objectives. The first is to assist the student to master certain knowledges and to develop attitudes, habits, and skills which will be effective in enabling him to live at a high level of physical efficiency. The second is to enable him to explore, analyze, and evaluate his abilities, interests, and needs as a sound basis for personal and social adjustments. The third is to assist the student in his other school work. One lecture and one discussion group per week.

3-4. PHYSICAL EDUCATION. 1 credit each semester.

Required course in Physical Education activity. For description of sections see Physical Education Department section of this catalog.

5-6. INTRODUCTION TO THE SOCIAL SCIENCES. 3 credits each semester.

The purpose of this course is to give each student an appreciation of, an interest in, and a general comprehension of, the fundamental institutions of modern civilization. It is based upon the thesis of social change and organized primarily around the social, economic, and political problems of our time. It is intended to serve as a terminal course for students who concentrate in other fields, and as a foundation for social science study.

7-8. INTRODUCTION TO THE HUMANITIES. 3 credits each semester.

The chief aim of the course is to assist the beginning student to understand and appreciate the intellectual and cultural achievements and tendencies of his own civilization and of the past. Text, lecture, and discussion are combined to present a broad survey of western civilization.

9-10. INTRODUCTION TO THE NATURAL SCIENCES. 3 credits each semester.

A study of how the development of science has affected the course of human life and made modern civilization a possibility. The course begins with the study of man's placing himself in his universe. Many of the great discoveries in science are discussed. Illustrative material is drawn from the biological and physical sciences. The aims are: to encourage the use of objective methods of reasoning, and to develop an appreciation of the contributions made by the great scientists; to give the student a greater knowledge of the fundamental principles of science.

PRE-PROFESSIONAL AND TERMINAL COURSES

SPECIAL TWO-YEAR CERTIFICATE COURSE IN
SECRETARIAL SCIENCE

A special two-year secretarial course (at least 64 semester hours) is offered for those who feel unable to spend more than two years in college.

This curriculum may be modified in the case of students who have had commercial courses prior to entering the University.

First Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Shorthand Theory 41.....	3	Shorthand Theory 42.....	3
Typewriting 51.....	2	Advanced Typewriting 52.....	2
English, Oral and Written 1.....	3	English, Oral and Written 2.....	3
Hygiene, Phys. and Mental 15.....	2	Hygiene, Phys. and Mental 16.....	2
Introduction to Social Sciences 5	3	Introduction to Social Sciences 6	3
Secretarial Procedure 21.....	3	Filing and Machine Calculation	
Physical Educ. 3.....	1	26.....	3
		Physical Educ. 4.....	1

Second Year

Introduction to Humanities 7.....	3	Introduction to Humanities 8.....	3
Introduction to Natural Science 9	3	Introduction to Natural Science	
Accounting 21 or 41.....	3	10.....	3
Advanced Shorthand and		Accounting 22 or 42.....	3
Transcription 63.....	4	Advanced Shorthand and	
Business Letters 93.....	2	Transcription 64.....	4
		Secretarial Training 74.....	2

PRE-PHYSICAL THERAPY

Admission requirements to schools of physical therapy are:

- A—Graduation from accredited school of nursing or
- B—Graduation from accredited school of physical education or
- C—Two years of approved college training, including satisfactory courses in biology and other sciences. Courses in general physics and chemistry, as well as biology, are highly recommended as preliminary training.

The following two-year program is acceptable to physical therapy schools which take students who have had two years of college work:

First Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
English 1.....	3	English 2.....	3
Hygiene 15.....	2	Hygiene 16.....	2
Social Science 5.....	3	Social Science 6.....	3
Zoology 61.....	4	Zoology 62.....	4
Chemistry 21.....	4	Chemistry 22.....	4
Physical Education 3.....	1	Physical Education 4.....	1

Second Year

Humanities 7.....	3	Educational Psychology 52.....	3
Psychology 41.....	3	Normal Diagnosis and Correc-	
Anatomy and Physiology 31.....	5	tive Exercises 115.....	2
Physics 51.....	4	Physics 52.....	4
Humanities 8.....	3	Electives.....	3 or 4

EDUCATIONAL RECREATION

A course to be offered in the Division of Adult Education on the junior college level. A suggested course of study not recommended toward a degree for those wishing to carry on recreational work in the community.

	Cr. Hrs.
English 1	3
Fundamentals of Speech 76.....	3
Hygiene 15, 16	4
Physical Education 3, 4, 45, 46.....	4-8
Handicrafts 41	2
Story Telling 83 and 84.....	6
Leadership 104	3
Psychology 41	3
Organization and Administration of Industrial Recreation 69.....	2

or

Organization and Administration of Municipal Recreation 70.....	2
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The balance of the program should be worked out with advisers. Courses will be selected from the following:

Games for Elementary Grades 132.....	1
Child Psychology 105.....	3
Psychology of Adolescence 106	2
Drawing and Rendering 45, 46.....	4
Clay Modeling 59.....	2
Weaving	4

NON-DEPARTMENTAL MAJORS

There are available certain courses of study which are non-departmental, including work taken from several departments or divisions. They are:

A—Divisional majors in

Natural Science
Social Science
Humanities

For further details consult the chairman of the appropriate division

B—The American Civilization major.

C—The International Business major.

For information about these two majors, consult the dean of the College of Liberal Arts.

D—The Occupational Therapy course.

The head of the Art department is the adviser in connection with this course of study.

MILITARY SCIENCE AND TACTICS

RESERVE OFFICERS' TRAINING CORPS

GROUND FORCE INSTRUCTORS

COLONEL EDMUND M. GREGORIE, Professor
 MAJOR EDWARD L. NICELY, Adjutant; Assistant Professor
 CAPTAIN CHARLES D. ALLEN, Supply; Assistant Professor
 CAPTAIN WILFRED C. FORD, Plans and Training; Assistant Professor
 MASTER SERGEANT LYLE FISHER, Supply; Assistant Military Instructor
 MASTER SERGEANT RAYMOND HUGHES, Sgt/Major; Assistant Military Instructor
 MASTER SERGEANT WM. W. BLACK, Operations; Assistant Military Instructor
 TECHNICAL SERGEANT MICHAEL J. TROCH, Assistant Military Instructor
 T/3 WILLIAM F. HARDY, Maintenance and Automotive

AIR FORCE INSTRUCTORS

LT. COLONEL GEORGE G. NORMAN, Professor
 CAPTAIN DAVID L. GAEDE, Assistant Professor
 CAPTAIN GEORGE J. BREINDEL, Assistant Professor
 1ST LT. ROBERT R. FOWLER, Assistant Professor
 MASTER SERGEANT MORRIS E. TAYLOR, Assistant Military Instructor
 MASTER SERGEANT GILBERT G. CANTER, Assistant Military Instructor
 TECHNICAL SERGEANT ROBERT D. TROUTMAN, Assistant Military Instructor

In 1919 the United States Government established at the University of Akron a unit of the Reserve Officers' Training Corps. This unit is of the same type as those established at practically all of the large universities and colleges throughout the country, with the idea of producing trained men for the Officers' Reserve Corps. The instruction is divided into two parts; the basic course of the first two years, required of all freshman and sophomore men who are physically fit; and the advanced course of the last two years, elective for the men who have completed satisfactorily the basic course and the first two years of scholastic work, or have served a minimum of one year active service in the Army, Navy, Coast Guard or Marines, and who have been selected by the President of the University and the Professor of Military Science and Tactics.

In 1946 the United States Army Air Force established at the University of Akron a unit of the Air Force Reserve Officers' Training Corps. This unit is of the same type as was established at some 75 other leading universities and colleges throughout the country with the purpose of producing college trained officers primarily for the Air Reserve, and for the Regular Air Force, and for Air Units of the National Guard. The instruction for the basic courses in all R. O. T. C. departments is on subjects which are common to all arms and services; therefore the students in the Air R. O. T. C. department are only distinguished from other sections by indicating during their initial enrolment that they intend to enter the Air Force Section when they become eligible for the Advanced Course.

Requirements for eligibility to enter the Advanced Course Air R. O. T. C. are the same as for the other Advanced Course Section.

THE BASIC COURSE

The basic course in R. O. T. C. is required of all men during the freshman and sophomore years, with the following exceptions:

- a. Aliens.
- b. Men physically disqualified.
- c. Men who have been in the regular military or naval service more than one year.
- d. Men who are taking short professional or pre-professional courses not leading to degrees.
- e. Men carrying less than eight hours of work.
- f. Men who present a certificate of having completed forty-eight semester hours of work at another accredited college or university.
- g. Men above the age of twenty-six.
- h. Men who submit written declaration of valid religious or conscientious objections to military service similar to those in effect during the war entitling one to exemption from service.

The work is given three hours per week for the first two academic years. $1\frac{1}{2}$ hours of credit are given each semester.

During this basic course no compensation is paid the student by the government, but uniforms and equipment are issued for his use. Each student is held responsible for loss or damage to government property issued to him. Uniforms must be turned in at the completion of each year, or at the time of leaving. They are replaced at the beginning of the next academic year. A deposit of \$5 is required, which is returned when the uniform is turned in.

BASIC CURRICULUM

FIRST YEAR	Hours	SECOND YEAR	Hours
Military Organization	8	Leadership, Drill, and Exercise of	
Hygiene and First Aid	10	Command	36
Leadership, Drill, and Exercise of		Physical Development Methods	6
Command	36	Maps and Aerial Photographs	8
Individual Weapons and Marksmanship	20	Military Administration	8
Maps and Aerial Photographs	10	Evolution of Warfare	18
National Defense Act and ROTC	4	Military Law and Boards	12

THE ADVANCED COURSE

This course consists of five hours per week (three hours' credit per semester) during the junior and senior years. The advanced course is open to all students who have satisfactorily completed the basic course or veterans who have been honorably discharged, or transferred to the Enlisted Reserve Corps and relieved from active duty, provided they have been selected by the President of the University and the Professor of Military Science and Tactics. During this course the Government furnishes uniforms (officer type, complete with field overcoat and shoes) and equipment, and also pays a monetary allowance in lieu of subsistence to each student. The applicant must not yet have reached 27 years of age at the

time of initial enrolment. Upon the satisfactory completion of the advanced course and four years of education at college or university level, the student will receive an appointment as second lieutenant, Officers' Reserve Corps.

On the basis of scholastic attainment and demonstrated leadership ability, certain students will be designated distinguished military students, and will be offered commissions in the regular army and air force upon graduation.

The advanced course, once entered upon, must be completed as a prerequisite for graduation.

THE ADVANCED CAMP

Advanced R. O. T. C. camps of six weeks' duration are conducted annually at military reservations designated by the Department of the Army and Air Force. Students will be required to complete the camp program unless sooner discharged from the R. O. T. C. for the convenience of the Government, and will normally attend immediately after completing the first year advanced course. The pay of the seventh enlisted grade while at advanced camp, and travel pay from the University to and from camp at the rate of 5 cents per mile will be paid each student.

INFANTRY CURRICULUM

FIRST YEAR		SECOND YEAR	
	Hours		Hours
Military Leadership, Psychology and Personnel Management	16	Command and Staff	12
Geographical Foundation of National Power	12	Military Teaching Methods	12
Leadership, Drill, and Exercise of Command	16	Psychological Warfare	4
Military Law and Boards	12	Combat Intelligence	4
Tactics and Techniques	96	Military Problems of the United States	12
To be assigned	8	Leadership, Drill and Exercise of Command	16
		Military Mobilization and Demobilization	4
		Tactics and Techniques	88
		To be assigned	8

AIR FORCE CURRICULUM

FIRST YEAR		SECOND YEAR	
	Hours		Hours
Military Leadership, Psychology and Personnel Management	16	Command and Staff	12
Leadership, Drill and Exercise of Command	16	Military Teaching Methods	12
Geographical Foundations of National Power	12	Psychological Warfare	4
To be assigned	8	Leadership, Drill and Exercise of Command	16
Military Law and Boards	12	Military Mobilization and Demobilization	4
Tactics and Techniques of the Army Air Force	96	Combat Intelligence	4
		To be assigned	20
		*Air Force Subjects	88

*One part of the class will receive 88 hours of training in Transportation; the other part will receive 88 hours of training in Administration and Military Management.

THE UPPER COLLEGES

BUCHTEL COLLEGE OF LIBERAL ARTS

CHARLES BULGER, PH.D., DEAN

Buchtel College was founded as a College of Liberal Arts in 1870 by the Ohio Universalist Convention in cooperation with the Honorable John R. Buchtel. It became a part of the Municipal University of Akron (now the University of Akron) December 15, 1913, and is known as Buchtel College of Liberal Arts.

OBJECTIVES OF THE COLLEGE
WITH REFERENCE TO ITS STUDENTS

1. To acquaint them with the world of nature and human life by giving them a survey of the chief fields of knowledge.
2. To train them in the scientific method, and help them form habits of clear thinking.
3. To arouse their intellectual curiosity and stimulate their scholarly growth.
4. To give them the necessary general preparation for post-graduate study; for entering schools of law, medicine, dentistry, and other professions; or for careers in art, music, and other cultural fields.
5. To help them appreciate beauty in all its forms, and thus furnish them with resources for enjoying their leisure hours.
6. To develop and strengthen in them a sense of social responsibility in order that they may have a proper regard for the rights of others, and to prepare them for an active and intelligent citizenship.
7. To help them acquire good manners and develop a moral strength adequate to cope with the various situations in which they find themselves.

DIVISIONS OF THE COLLEGE

Buchtel College of Liberal Arts includes four divisions: Humanities, Social Sciences, Natural Sciences, and Applied Arts.

The allocation of departments and particular fields of study to the several colleges does not mean that election of courses is restricted to students enrolled in a particular college. The student may cross college lines, under proper supervision, should this be necessary to enable him to select the courses best suited to his needs.

SUBJECTS OF INSTRUCTION IN THE DIVISIONS

The departments and subjects of instruction are grouped under the divisions as follows:

HUMANITIES	NATURAL SCIENCES	SOCIAL SCIENCES	APPLIED ARTS
Latin and Greek	Biology	Economics	Art
English	Chemistry	History	Commerce
Modern Languages	Mathematics	Political Science	Home Economics
Music	Physics	Sociology	Industrial Management
Philosophy			Journalism
Speech			Occupational Therapy
			Secretarial Science

OBJECTIVES OF THE HUMANITIES DIVISION

1. To develop in the student an awareness of, and appreciation for, man's cultural heritage in literature, art, music, and philosophy, together with an understanding of the necessity for its preservation and enrichment.
2. To send out into the world men and women who not only can do things but also can understand things; who view the present in its proper relation to the past; who remain hopeful because they have enjoyed an ennobling acquaintance with the aspirations and achievements of the world's great creative artists; who are better citizens because they are thoughtful citizens; who are happier human beings because they can enjoy the use of their own minds.
3. To aid the student in his efforts to express himself clearly and forcefully in his mother tongue.
4. To motivate the student toward independent study so that he may continue to pursue his aesthetic and philosophical interests after he has finished his college work.
5. To offer the student such training in the individual subject fields that he may be able to pursue his chosen study beyond his undergraduate work.
6. To encourage the student to develop latent creative ability.

OBJECTIVES OF THE NATURAL SCIENCE DIVISION

1. To acquaint the student with the various fields of science as an aspect of world culture.
2. To prepare the student for further training in the graduate, professional, and technical schools.
3. To provide that still larger group who either do not desire or are unable to continue their academic training, with such knowledge, techniques, and skills as will enable them to become competent citizens.
4. To make technical service and information available to the city and its industries through the libraries and laboratories of the division.

In order to accomplish these objectives, the division offers courses designed to prepare students for the following fields:

- Graduate study in biology, chemistry, mathematics, physics.
- The study of medicine.
- The teaching of science in high school.
- Technical laboratory work in rubber chemistry.

Technical laboratory work in applied physics.
Position as hospital technician.
Expert technical service.

OBJECTIVES OF THE SOCIAL SCIENCE DIVISION

1. To give students cultural and useful information in the fields of economics, history, political science, and sociology.
2. To prepare students for graduate study in the professions, in public service, and in business, and in so doing to emphasize sound methods of inquiry, fair criticism, and love of truth.
3. To inculcate in students a sense of social responsibility, and a respect for the opinions and rights of others; to equip them with a knowledge of human relationships and with qualities of leadership so that they may function worthily in, and seek to improve, our social order; and to enable them to enjoy human fellowship and to maintain a saving sense of humor in the process of social adjustment.
4. To supply the local community with expert service in the field of social science.

OBJECTIVES OF THE DIVISION OF APPLIED ARTS

1. To give students the necessary preparation for vocations in the fields included in the Division; to encourage general education and an appreciation of cultural values; to provide undergraduate educational programs suitable as a basis for advanced study; to help students in personal development and growth.
2. To encourage the faculty to think in terms of broad educational policy and to provide a means for an understanding of basic problems.
3. To serve the community by providing trained personnel and by being alert to changing community needs.
4. To assist returning veterans in solving their vocational problems and in achieving their vocational objectives.

PROMOTION REQUIREMENTS

In order to be enrolled in a division, the student must have completed, with a quality point ratio of two, 64 semester hours in the General College, including the required courses in general education and such prerequisites as may be prescribed for his field of concentration.

The admission of students to the Upper College is a responsibility of the academic deans in consultation with the Dean of Students and the heads of the departments concerned.

FIELDS OF CONCENTRATION

Each student chooses some field of concentration within the division. These fields of concentration vary, depending upon the student's preparation, interests, and objectives. The chief aim is to have the student pursue, under the guidance of the department head and the divisional chairman, that program of studies which most adequately meets his individual needs. The emphasis is not on any prescribed and inflexible program which all students must take, but rather on the individual student himself and what will best prepare him for his future work.

DIVISIONAL MAJORS

For students who do not desire any narrower field of concentration than the division itself, the following divisional majors are provided:

In Humanities, at least 49 hours in the division, at least 18 hours of which must be in courses of 100 level or above.

In Social Science, irrespective of the introductory courses in general education, each program must include:

- a. At least 54 semester hours in the division. Only courses which count toward the B.A. degree may be included.
- b. At least 18 hours and not more than 21 hours in each of two departments. No hours in excess of 21 in any one department will be accepted for credit unless the student meets requirements of such department for graduation.
- c. At least 9 hours in each of two other departments, or 18 hours in one other department.
- d. At least 24 hours of divisional courses on the upper college level.
- e. At least 24 hours outside the division.
- f. Mathematics 57, Social Statistics.

In Natural Science, at least five semester courses on the upper college level. These courses may be taken in two or more departments, if the student has had the necessary prerequisites.

Students choosing divisional majors in Social Science and Natural Science are required to pass a general final examination in the second semester of the senior year.

AMERICAN CIVILIZATION MAJOR

Students majoring in American Civilization are under the direct supervision of the Dean of the College of Liberal Arts. Those who are considering this major are urged to consult with the Dean of Students as early as possible in the second year. Printed instructions describing the requirements of this field of study are available in the Dean's office.

INTERNATIONAL BUSINESS MAJOR

For those interested in business with or in other countries, a special curriculum in International Business is provided, leading to a bachelor's degree. It includes fundamental business subjects as well as courses in Language, History, and Geography.

Students majoring in International Business are under the supervision of Professor H. M. Douth, chairman of the Applied Arts Division. An outline of this curriculum is available in his office.

DEGREES

The following degrees are granted in the divisions:

The Humanities: Bachelor of Arts.

The Social Sciences: Bachelor of Arts.

The Major in American Civilization: Bachelor of Arts.

The Natural Sciences: Bachelor of Science. (However, at the discretion of the divisional chairman, students majoring in mathematics

may be granted the Bachelor of Arts degree if much of their work is in the humanities or social sciences.)

The Applied Arts: Bachelor of Arts; Bachelor of Science in Art; Bachelor of Science in Business Administration; Bachelor of Science in Secretarial Science; Bachelor of Science in Industrial Management.

REQUIREMENTS FOR GRADUATION

1. A minimum of 128 semester hours, including the work in the General College.
2. A minimum quality point ratio of two in the major field and for all work attempted.
3. The recommendation of the student's major professor.
4. Except in commerce, secretarial science, industrial management, and occupational therapy, completion of the second year of a foreign language on the university level.
5. Exclusive of the required courses in general education in the General College, students are expected to take at least fifty per cent—and it is desirable that they take not more than seventy-five per cent—of their total work for graduation in their major division.

PREPARATION FOR HIGH SCHOOL TEACHING

All Liberal Arts students who wish to prepare for high school teaching must register with the Dean of the College of Education two years prior to the time at which they expect to begin teaching.

Each prospective high school teacher is expected to be prepared to teach in one major and two minor fields, according to the grouping of subjects by the State Department of Education.

Each student will be required to pass the qualifying examination before entering upon practice teaching.

For additional information concerning requirements see College of Education.

Professional requirements and their sequence:

<i>Second Year General College</i>			
First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
General Psychology	3	Educational Psychology	3
Introduction to Education.....	3		
(first or second semester)			
<i>First Year Upper College</i>			
Methods	3	Tests and Measurements.....	2
<i>Second Year Upper College</i>			
Principles of Education.....	3	Student Teaching	6
— or —		School Management	2
Student Teaching	6	— or —	
School Management	2	Principles of Education.....	3

THE ARTS-TEACHERS COMBINATION COURSE

A five-year combination Liberal Arts - Education program, leading to the degree Bachelor of Arts and the degree Bachelor of Arts in Education, is offered students preparing for teaching. Students interested in taking such a combination course should confer with the Dean of the College of Education before entering the Upper College.

SUBJECTS OF INSTRUCTION

ART

Professor Davis, Assistant Professor Cable, Mrs. Packan, Mrs. Archer, Miss Moch, Miss Woolfter, Mr. Protheroe

Prerequisites in the General College: To enter Art as a field of concentration, students should have completed in the General College the following courses in addition to the required courses in general education: Design, 4 credits; Art Appreciation, 4 credits; Industrial Design, 2 credits; Drawing and Rendering, 4 credits; Modeling, 4 credits; Occupational Therapy, 2 credits; and the second year of a foreign language. Courses suggested but not required: Psychology 41-43, Sociology 41, Shakespeare 41.

<i>Required Courses in the Upper College:</i>	Cr. Hrs.
History of Art	9
Commercial Art	4
Graphic Arts	4
General Crafts	2
Costume or Interior Decoration.....	6
Figure Drawing	4
Still Life Painting.....	4
Electives in Art.....	8

Suggested Electives: Ancient and Medieval History, 12 credits; Greek Masterpieces, 4 credits; Drama, 6 credits.

GENERAL COLLEGE

21. DESIGN. *Either semester. 2 credits.*

Basic principles of design and color theory, with adaptation to specific problems.

22. DESIGN. *Either semester. 2 credits.*

Prerequisite, 21. Problems in commercial and advertising design, including suitable adaptation to textiles, wood, metal, and plastics.

23-24. COSTUME—STYLES AND FASHION. *2 credits each semester.*

It would be desirable for Design 21-22 to precede this course. A study of costume design and influences contributing to styles and fashions. Attention is given to the full range of costume and accessories, stressing the relation to the human figure, the occasion and the specific individual. No credit toward major.

29-30. APPRECIATION OF ART. *2 credits each semester.*

Discussion of basic principles of design and color theory and their adaptation to our surroundings and the articles which we use. The development of graphic art and design through the ages.

33-34. HOUSE PLANNING AND DECORATION. *2 credits each semester.*

It would be desirable for Design 21-22 to precede this course. A study of various types of housing and interiors, together with a survey of furniture, textiles, etc., with emphasis on both historic and contemporary styles. The work will be carried on by means of lecture, discussion and demonstration, with some simple laboratory problems. Attention will be given to individual problems. No credit toward major.

43. INDUSTRIAL DESIGN. *First semester. 2 credits.*

Prerequisite, 22. Geometrical construction, lettering, orthographic, isometric and cabinet projection. Consideration of the requirements for Industrial Design, of materials and processes and the carrying out of the full procedure in design to meet these requirements.

45-46. DRAWING AND RENDERING. 2 credits each semester.

Basic course for training the eye in freehand perspective, composition and representation of still life, figures and landscape through the use of various mediums.

50-51. DRAWING AND PAINTING. 2 credits each semester.

It would be desirable for Drawing and Rendering 45-46 to precede this course. The aim is to develop an appreciation of color and composition through laboratory participation. Most of the problems will be in the nature of still life, every effort being made to offer the student as wide a range of painting experiences as possible. The first semester will be oil and the second, water color. No credit toward major.

59. CLAY MODELING. First semester. 2 credits.

Prerequisite, 22. Modeling in the round and relief simple pottery shapes, tiles, masks, etc.

60. MODELING. Second semester. 2 credits.

Prerequisite, 59. Continuation of work in clay modeling, and carving and finishing of wood.

70. OCCUPATIONAL THERAPY. 2 credits.

Prerequisite, 22. Simple crafts which may be adapted to work with handicapped persons, in recreational or educational institutions.

75. HISTORY OF ART, CLASSICAL AND MEDIEVAL. 2 credits.

A consideration of the architecture, painting, sculpture, and the minor arts, from Prehistoric times to the close of the Middle Ages. No credit toward major.

76. HISTORY OF ART, RENAISSANCE. 2 credits.

It would be desirable for History of Art 75 to precede this course. A survey of the arts of Western Europe from 1500. Emphasis will be upon architecture, painting and sculpture. No credit toward major.

77. HISTORY OF ART, MODERN. 2 credits.

It would be desirable for History of Art 76 to precede this course. A consideration of the arts of France and the United States, with considerable emphasis upon contemporary art. No credit toward major.

UPPER COLLEGE

102. GENERAL CRAFTS. 2 credits.

Prerequisite, 70. More advanced work in general crafts with particular attention given to materials and their limitations.

104. GRAPHIC ARTS. First semester. 2 credits.

Prerequisite, 46. Block Printing, Stencil, Provincetown Prints.

105. GRAPHIC ARTS. Second semester. 2 credits.

Prerequisite, 104. Acid and Dry Point Etching, Screen Printing.

106-107. WEAVING. 2 credits each semester.

Prerequisite, 22. Warping and threading of looms; plain and pattern weaving on different types of looms.

108-109. METAL CRAFT. 2 credits each semester.

Prerequisite, 22. Work in copper, brass, pewter, silver, using different methods: hammering, sawing, etching, and stone setting. Making trays, small objects and jewelry.

115-116. STILL LIFE PAINTING. 2 credits each semester.

Prerequisite, 46. Oil paints and water colors are the mediums used for developing a fine skill in handling these materials and in developing a fine feeling for color and composition.

120-121. SCULPTURE. 2 credits each semester.

Prerequisite, 60. Modeling of figures: animal and human figure, group composition, casting. Finishing in permanent form.

131-132. COMMERCIAL ART. 2 credits each semester.

Prerequisite, permission of instructor. A practical course in advertising art — layout, lettering, processes of reproduction, materials and mediums. 1948-49 and alternate years.

141-142. ADVANCED COMMERCIAL ART. 2 credits each semester.

Prerequisite, 132. A continuation of 131-132.

151-152. COSTUME. 3 credits each semester.

Prerequisite, 22. History of costume and its influence on dress of the present day. 1947-48 and alternate years.

171-172. INTERIOR DECORATION. 3 credits each semester.

Prerequisite, 43. History of traditional types of houses; house plans, elevations, and blue prints; study of interiors and furnishings. 1948-49 and alternate years.

175-176. FIGURE DRAWING. 2 credits each semester.

Prerequisite, 46. Study of anatomy, action and proportion of the human figure. Fee, \$1.50 each semester.

179. ILLUSTRATION. First semester. 2 credits.

Prerequisite, 176. Psychology of art for children of different ages; illustration of children's books. 1947-48 and alternate years.

180. ILLUSTRATION. Second semester. 2 credits.

Prerequisite 176. Techniques used in fashion, newspaper and other advertising. Story and book illustration for adults. 1947-1948 and alternate years.

200. HISTORY OF ART, CLASSICAL AND MEDIEVAL. First semester. 3 credits.

A survey of architecture, sculpture, painting and the minor arts as they developed in Prehistoric, Egyptian, Mesopotamian, Aegean, Greek, Roman, Byzantine, Romanesque and Gothic civilizations.

201. HISTORY OF ART, RENAISSANCE. Second semester. 3 credits.

Prerequisite, 200. A survey of the arts in Italy, Spain, Flanders, Holland, Germany, and England with historical background.

202. HISTORY OF ART, MODERN. First semester. 3 credits.

Prerequisite, 201. A survey of the arts of France and America. Study of conditions leading to modern movements and reactions of the present day.

203-204. HISTORY OF ART SEMINAR. 3 credits each semester.

Prerequisite, 202. A restricted field of study to be selected by the individual or group.

225-226. SPECIAL PROBLEMS IN ART. 3 credits each semester.

Prerequisite, permission of head of department. Problems of an advanced nature in the field of special interest.

COURSE IN OCCUPATIONAL THERAPY

The purpose of the course is to provide training and instruction to enable students to fulfill the requirements of a registered occupational therapist.

The first two years conform to the regular General College curriculum of the University of Akron, including some technical subjects.

In the junior year theoretical and laboratory training and clinical lectures are under the supervision of a registered occupational therapist.

The senior year consists of clinical training in hospitals under the direct supervision of a registered occupational therapist.

In order to complete the University requirements in four years, twenty-three hours of electives must be taken during summer sessions. These electives should be chosen in fields recommended by the faculty adviser. All work except the hospital training is done at the University of Akron.

CURRICULUM IN OCCUPATIONAL THERAPY

First Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
English 1	3	English 2	3
Int. to Social Science 5	3	Int. to Social Science 6	3
Hygiene 15	2	Hygiene 16	2
Psychology 41	3	Design 22	2
Drawing and Rendering 45	2	Drawing and Rendering 46	2
Design 21	2	Physical Education 4	1
Physical Education 3	1	Electives	3

Second Year

Literature	3	Literature	3
Int. to Humanities 7	3	Int. to Humanities 8	3
General Zoology 61	2 ²	General Zoology 62	2 ²
Anatomy and Physiology 31	4	Sociology 41	3
O. T. General Crafts 70	2	O. T. General Crafts 102	2
Design 43	2	Textiles 21	3

Junior Year

Kinesiology 124	2	Abnormal Psychology 120	3
Social Attitudes 42	3	Play Production 161	3
Public Speaking 41	3	Weaving 107	2
Weaving 106	2	Modeling 60	2
Modeling 59	2	Theory and Application O.T.	2
Clinical Lectures	2	Clinical Lectures	2
Theory and Application O. T.	2	Electives	2
Art Appreciation 29	2	Art Appreciation 30	2

Senior Year

Electives	11 [†]	Graphic Arts 105	2
Graphic Arts 104	2	Hospital Training	9 months
Electives	11		

BIOLOGY

Professor Kraatz, Associate Professors Acquarone and Colien,
Assistant Professor Robinson, Mr. Vanica,
Miss Park, Mrs. Katz, Miss Horning

Biology major students must secure 36 credits in the department; a few graduate schools require a larger number of credits.

Major students must include Zoology 61-62 and Botany 51-52, in the General College. Either can be taken in the freshman year, and the other in the sophomore year, or both in the sophomore year. If one of these is deferred until the junior year, it will be impossible to work in a sequence of advanced courses in that science in the remaining year.

Upper College courses may be: (1) General Biological, which may include any combination of Upper College biology courses, but including Biology Seminar; (2) Zoological, which must include Biology Seminar, General Genetics, Human Physiology (or General Physiology), and at least two of the following: Invertebrate Zoology, Entomology, Vertebrate Anatomy, Vertebrate Embryology, and Organic Evolution; (3) Botanical, which must include Biology Seminar, Field Botany, Plant Physiology, and General Genetics or Plant Anatomy, or at least one semester of Bacteriology.

Biological Problems is open to seniors, and in exceptional cases to juniors, who desire to work on some definite problems, a type of minor research.

^{*}Lecture only.

[†]At least 6 hours to be chosen from crafts.

Geology and Conservation of Natural Resources do not count in the Biology Major. They are free electives.

Required work in other departments: Chemistry 21-22 and in some cases a second year, preferably either Organic Chemistry 44 and 107 or Organic Chemistry 55 and Physiological Chemistry 56, but for other biology majors, interested more in social sciences or in meeting teaching requirements, only Chemistry 21-22; German 43-44 or French 43-44; and Psychology 41. Recommended are Physics 51-52, Mathematics 21-22, and Sociology 41.

General Final Examination: All Biology Major and Pre-Medical Course students must take a general final examination covering in a comprehensive way all work taken in the department.

PRE-MEDICAL MAJOR COURSE

First Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
English 1	3	English 2	3
Hygiene, Physical and Mental 15	3	Hygiene, Physical and Mental 16	3
Int. to Social Science 5	3	Int. to Social Science 6	3
Mathematics 21	3	Mathematics 22	3
Inorganic Chemistry 21	4	Inorganic Chemistry 22	4
Military Training 11	1½	Military Training 12	1½
<i>Phys Ed 3</i>	<i>3</i>	<i>Phys Ed 4</i>	<i>4</i>
	17½		17½

Second Year

General Zoology 61	4	General Zoology 62	4
Qualitative Analysis 43	5	Organic Chemistry (El.) 44	4
Int. to Humanities 7	3	Int. to Humanities 8	3
German 21	4	German 22	4
Military Training 43	1½	Military Training 44	1½
	17½		16½

Third Year

Vertebrate Anatomy 155	4	Embryology 256	4
Organic Chemistry (Int.) 107	4	Physics 52	4
Physics 51	4	German 44	3
German 43	3	Psychology 41	3
	15		14

Fourth Year

General Physiology 235	3	General Physiology 236	3
Physics (Optics) 53	4	Human Genetics 148	2
Quantitative Analysis 105	4	Quantitative Analysis 106	4
Electives, Humanities or Social Science Division	4-6	Applied Psychology 43	3
	15-17	Electives, Humanities or Social Science Division	3-6
			15-18

Women students must take six more hours elective in Humanities or Social Science divisions in place of the six credits of R. O. T. C.

Biological courses listed in third and fourth years may have to be reversed in the schedule because Biology 155, 256, 235, and 148 are given in alternate years.

PRE-TECHNICIANS' COURSE

The registry of Medical Technologists requires a year of hospital laboratory training preceded by a minimum of two years of college. The two-year schedule comprises (1) Absolute requirements: biology, 8 semester credits; bacteriology, 3 semester credits; inorganic chemistry, 8 credits; quantitative analysis, 3 credits; (2) "Highly recommended" courses: physics, 8 credits; organic chemistry, 4 credits.

A three-year curriculum is arranged which includes: (1) the University required general college introductory courses; (2) the above minimum requirements; and (3) such other courses as are found in other pre-technician curricula and are deemed helpful by hospital technicians.

The student can complete four years with the B.S. degree by fulfilling the additional requirements of the biology major.

University courses included in the three-year curriculum are: English 1 and 2, 6 credits; Hygiene 15 and 16, 6 credits; Social Science 5 and 6, 6 credits; Humanities 7 and 8, 6 credits; Algebra 21, 3 credits; Chemistry 21 and 22, 8 credits; Chemistry 43, 5 credits; Chemistry 55 and 56, 8 credits; Physics 51 and 52, 8 credits; Zoology 61 and 62, 8 credits; Bacteriology 107 and 108, 8 credits; Histological Technique 154, 3 credits; Physiology 135 and 136 or 235 and 236, 6 credits.

GENERAL COLLEGE

No credit is given toward graduation for less than a full year's work in 41-42, 51-52, and 61-62.

33. MICROBIOLOGY. 3 credits.

A survey of the bacteria and other micro-organisms in their relation to mankind. Two lectures and one 2-hour laboratory period a week. Required in the nurses' training curriculum.

35. NATURE STUDY. 3 credits.

Common plants and animals of this region, their life, habits and interrelations. Adapted to use of teachers of nature study. Some field trips will be made.

41-42. GENERAL GEOLOGY. 4 credits each semester.

Study of the earth, its materials, its surface features, and its changes during the ages. Three lectures and one 3-hour laboratory period a week. Lab. fee, \$2.50 each semester.

47-48. ANATOMY AND PHYSIOLOGY. 4 credits each semester.

The anatomy of the human body, chiefly gross anatomy of all organ systems, and the functions or processes of the organ systems. Three lectures and one 3-hour laboratory and demonstration period a week. Required in the nurses' training curriculum. Credit for this course granted only to students in the courses in Nursing or Occupational Therapy.

51-52. GENERAL BOTANY. 4 credits each semester.

The study of plants, their anatomy, physiology, and a survey of plant groups and evolution in the plant kingdom. Required of biology majors. Two lectures and three 2-hour laboratory periods a week. Lab. fee, \$4 each semester.

61-62. GENERAL ZOOLOGY. 4 credits each semester.

The study of animals, their general characteristics and functions. Required of biology, pre-dental, and pre-medical majors. Two lectures and three 2-hour laboratory periods a week. A survey of all the animal phyla. In the laboratory representative animals of the phyla are studied. An explanation of animal evolution and genetics. Lab. fee, \$5 a semester.

71-72. SANITATION. 3 credits each semester.

History and principles of sanitary science and practice, including municipal water, sewage, epidemic disease and other health problems. Three lectures a week.

82. CONSERVATION OF NATURAL RESOURCES. Second semester. 3 credits.

Survey of the principles and practice of conservation of mineral, plant and animal resources. Three class periods a week. 1948-49 and alternate years.

91. INTRODUCTORY HUMAN PHYSIOLOGY. Either semester. 4 credits.

A briefer study of modern human physiology than course 135-136. Adapted especially to the needs of students in Home Economics. Not open to biology and pre-medical majors. No prerequisites in biology. Two lectures and two 2-hour laboratory and demonstration periods a week. Lab. fee, \$4.

UPPER COLLEGE

107-108. BACTERIOLOGY. 4 credits each semester.

Bacteria, their characteristics, growth and relations to man. Pathogenic bacteria are included. Required in pre-technicians' course. Two lecture hours and three 2-hour laboratory periods a week. Prerequisite, 61-62, or 51-52 or equivalent, and some knowledge of chemistry. Lab. fee, \$7.50 each semester; breakage fee, \$5 each semester.

107e-108e. BACTERIOLOGY. 3 credits each semester.

or Lecture separately, 2 credits each semester.

The lectures are the same as for course 107-108. Laboratory for one credit, one 3-hour period a week, in the Evening Session. Lab. fee, \$3.75 each semester; breakage fee, \$5 each semester.

113-114. FIELD BOTANY. 3 credits each semester.

The classification and recognition of plants, principally seed plants of the region. Two lectures and three hours of laboratory a week. Course 51-52 is desirable as background. 1947-48 and alternate years. Lab. fee, \$4 each semester.

215-216. PLANT PHYSIOLOGY. 4 credits each semester.

Water, soil and mineral requirements of plants, and their metabolism, growth and response to stimuli. Two lectures and six hours of laboratory a week. Prerequisite, 51-52 and some knowledge of chemistry. 1948-49 and alternate years. Lab. fee, \$6 each semester.

217. PLANT ANATOMY. First semester. 4 credits.

Structure of cells, tissues and organs of land plants; relation of structure to utilization of plants. Two lectures and six hours of laboratory a week. Prerequisite, 51-52. 1947-48 and alternate years. Lab. fee, \$4.

135-136. HUMAN PHYSIOLOGY. 3 credits each semester.

The physiology or functioning of the human body. The processes going on in all organ systems, including considerable emphasis on metabolism and blood. For biology majors. Not open to pre-medical majors. Two lectures and one 3-hour laboratory period a week. Prerequisite, General Zoology 61-62 or equivalent and some beginning chemistry. 1948-49 and alternate years. Lab. fee, \$4 each semester.

235-236. GENERAL PHYSIOLOGY. 3 credits each semester.

~~1947 cat. A study of all invertebrate groups, their classification and anatomy and life~~ in all organisms, especially in the complicated organ systems of the higher vertebrates. Required of pre-medical students. Prerequisites, Inorganic and Organic Chemistry. Two lectures and one 3-hour laboratory period a week. 1947-48 and alternate years. Lab. fee, \$4 each semester.

141. INVERTEBRATE ZOOLOGY. First semester. 4 credits.

A study of all invertebrate groups, their classification and anatomy and life history of representative types. Two lectures and two 3-hour laboratory periods a week. 1947-48 and alternate years. Prerequisite, 61-62. Lab. fee, \$4.

144. GENERAL ENTOMOLOGY. Second semester. 4 credits.

Insects, their nature, structure, life history, and economic importance. Most of the time is devoted to a study of insect orders, with reference to representative families and types. An insect collection is made. Two lectures and two 3-hour laboratory periods a week. 1948-49 and alternate years. Prerequisite, 61-62. Lab. fee, \$4.

146. GENERAL GENETICS. First or second semester. 3 credits.

Study of the principles of heredity illustrated by plant and animal organisms. Three class periods a week. 61-62 or 51-52 or equivalent desirable as background. 1948-49 and alternate years. Lab. fee, \$1.

148. HUMAN GENETICS. *First or second semester. 2 credits.*

Study of the principles of heredity as illustrated by the human species, and with attention to eugenics problems. Required of pre-medical majors. Prerequisite, 61-62, but for advanced sociology students without this prerequisite. 1947-48 and alternate years.

151. ORGANIC EVOLUTION. *First semester. 3 credits.*

History of the evolution concept. A study of all the fields of evidence for evolution. Trends of animal evolution through the ages. Theories of methods of evolution. Three lectures a week. Prerequisite, 61-62. 1948-49 and alternate years.

154. HISTOLOGICAL TECHNIQUE. *Second semester. 3 credits.*

A course in the methods of preparation of tissues and other specimen materials for microscopical study. No lectures. Nine hours of laboratory work a week. Required in pre-technicians' course. Suitable for biology majors. Prerequisite, 61-62. Lab. fee, \$6.

155. VERTEBRATE ANATOMY. *First semester. 4 credits.*

The vertebrate animals, and the related protochordates. A comparative study of all organ systems from fishes to mammals included. Laboratory work on shark, Necturus, and cat. Required of pre-medical majors. Prerequisite, 61-62. Given each year through 1947-48 and then in alternate years. Two lectures and two 3-hour laboratory periods a week. Lab. fee, \$12.

256. EMBRYOLOGY OF VERTEBRATES. *Second semester. 4 credits.*

General early embryonic development of vertebrates and relatives, and, chiefly, the more detailed embryology of frog and chick. Two class periods and two 3-hour laboratory periods a week. Required of pre-medical majors. Prerequisite, 155. Given each year through 1947-48 and then in alternate years. Lab. fee, \$7.50.

265. BIOLOGY SEMINAR. *First semester. 3 credits.*

Discussions and written reports on biological books and papers from current biological literature. One class period a week. Required of biology major seniors.

267-268. BIOLOGICAL PROBLEMS. *1-3 credits each semester.*

Individual problem work of laboratory type. Open to seniors and, in exceptional cases, to juniors. Two continuous semesters are advisable. Lab. fee, \$2 per credit.

367-368. RESEARCH. *3 or more credits each semester.*

Individual problem work of a more advanced nature. May include thesis work for the master's degree. Open to graduate students. Lab. fee, \$2 per credit.

CHEMISTRY

Professors Cook and Whitby, Associate Professor Floutz, Assistant Professors Anderson and Wolfe, Mr. Grande, Mr. Lowdermilk, Mr. Albert, Mr. Alliger, Mr. Swartzel, Mr. Himebaugh, Mr. Fox, Mr. Woltz, Mrs. Laning

To be properly qualified for admission to the prescribed work (listed below) in the Upper College, the student must have completed in the General College the required courses in general education and in addition the following or their equivalent: Algebra and Trigonometry, 6 hours; Analytics and Calculus, 9 hours; Chemistry 21-22, 8 hours; Chemistry 43, 5 hours; Chemistry 44, 4 hours.

Fees: In addition to laboratory fees, a deposit of \$5 for breakage is required in each course.

GENERAL COLLEGE**21-22. GENERAL INORGANIC CHEMISTRY. *2 credits recitation, 2 credits laboratory each semester.***

A study of the basic facts and principles of chemistry, the occurrence, preparation, and properties of the elements. Production and properties of the more important compounds with emphasis on inorganic chemistry. Laboratory experiments illustrate the principles studied. No credit is given toward graduation for less than the full year's work. Lab. fee, \$10 a semester.

23-24. INORGANIC CHEMISTRY. 2 credits recitation, 1 credit laboratory each semester.

Designed primarily for students in home economics. The course presents the fundamental laws and theories of chemistry together with a study of the more important elements and their compounds. 1948-49 and alternate years. Lab. fee, \$5 a semester.

25. CHEMISTRY FOR NURSES. 3 credits recitation, 1 credit laboratory.

Planned especially for women taking nurses' training course in hospitals. The course covers the necessary fundamentals in inorganic, organic and physiological chemistry. Lab. fee, \$5.

43. QUALITATIVE ANALYSIS. First semester. 3 credits recitation, 2 credits laboratory.

Prerequisite, 22. The classwork emphasizes the mathematical aspects of chemical equilibrium. The semimicro method is employed in the laboratory for separation and identification of ions. Lab. fee, \$10.

44. ELEMENTARY ORGANIC CHEMISTRY. Second semester. 2 credits recitation, 2 credits laboratory.

Prerequisite, 22. A general survey of the field of organic chemistry with particular emphasis on fundamentals. Lab. fee, \$10.

45. ELEMENTARY QUANTITATIVE ANALYSIS. First semester. 1 credit recitation, 2 credits laboratory.

Prerequisite, 22. A course intended primarily for students preparing to become laboratory or hospital technicians. Elementary theory and calculations in quantitative analysis will be studied, and fundamental operations in volumetric, gravimetric, and colorimetric analysis will be performed in the laboratory. One class period and two 3-hour laboratory periods per week. 1948-49 and alternate years. Lab. fee, \$5.

55. ORGANIC CHEMISTRY. Second semester. 2 credits recitation, 2 credits laboratory.

Prerequisite, 24. A course designed especially for students in home economics whose needs are given especial attention. 1947-48 and alternate years. Lab. fee, \$10.

56. PHYSIOLOGICAL CHEMISTRY. Second semester. 2 credits recitation, 2 credits laboratory.

Prerequisite, 55. Planned as a continuation of 55 for students in home economics. Particular attention is given to the chemistry involved in digestion, absorption, and metabolism. 1947-48 and alternate years. Lab. fee, \$10.

UPPER COLLEGE

Third Year	Cr. Hrs.	Fourth Year	Cr. Hrs.
Introductory Physics 51-52.....	8	Advanced Physics 53 and elective.....	8
Intermediate Organic 107.....	4	Physical Chemistry 213-214.....	10
Advanced Organic 108.....	4	Special Topics 309.....	3
Quantitative Analysis 105-6.....	8	German 43-44.....	6
Chemical Calculations 118.....	2		
German 21-22.....	8		

105-106. QUANTITATIVE ANALYSIS. 2 credits recitation, 2 credits laboratory each semester.

Prerequisite, 43. The theory, laboratory technique and calculations of quantitative analysis. Acidimetry and alkalimetry, oxidation and reduction, volumetric precipitation, and gravimetric methods, systematic analysis. The theories and techniques are applied to the analysis of common ores, minerals and alloys. Lab. fee, \$10 each semester.

107. INTERMEDIATE ORGANIC CHEMISTRY. *First semester. 2 credits recitation, 2 credits laboratory.*
Prerequisite, 44. An intensive study of aliphatic and alicyclic compounds. Lab. fee, \$10.
108. ADVANCED ORGANIC CHEMISTRY. *Second semester. 2 credits recitation, 2 credits laboratory.*
Prerequisite, 107. A thorough study of aromatics, heterocyclics, and certain special topics as time permits. Lab. fee, \$10.
118. CHEMICAL CALCULATIONS. *Second semester. 2 credits recitation.*
Prerequisites, 43, 44, 105. A course designed primarily for department majors for the purpose of correlating the mathematics of undergraduate chemistry and giving further practice in the solving of typical problems.
- 131-132. ENGINEERING CHEMISTRY. *See College of Engineering.*
2 credits recitation, 1 credit laboratory each semester.
A study of the basic facts and principles of Chemistry, the occurrence, preparation and properties of the elements and compounds. Emphasis is placed on engineering applications. Laboratory exercises are used to illustrate the principles studied. Lab. fee, \$5 each semester.
- 133-134. METALLURGY. *See College of Engineering.*
- 137-138. METALLURGY. *See College of Engineering.*
- 213-214. PHYSICAL CHEMISTRY. *3 credits recitation, 2 credits laboratory each semester.*
Prerequisites, 106, 107, Physics 52, Mathematics 46. The physical states of matter, thermodynamics, solutions, colloids, equilibrium, the phase rule, thermochemistry, chemical kinetics, electrochemistry, atomic and molecular structure, special topics, problems. Laboratory experiments carried on concurrently with the study of principles. Lab. fee, \$8 each semester.
- 227-228. INTRODUCTION TO RUBBER CHEMISTRY. *2 credits each semester.*
Evening Session. Prerequisite, 106, 107. A study of crude rubber, latex, vulcanization, physical testing, compounding, accelerators, synthetic rubber, reclaimed rubber. A somewhat briefer treatment of the topics listed under course 327-328. No laboratory work. Credit not given for this course and for 327-328.
229. POLYMERS AND POLYMERIZATION. *2 credits recitation.*
Prerequisites, 106, 108, and permission. The principles of addition and of condensation polymerization and of copolymerization in bulk, solution and emulsion; influence of chemical constitution and of molecular weight on the properties of high polymers; the study of specific polymers of importance.
250. INDUSTRIAL CHEMISTRY. *Second semester. 2 credits recitation.*
Prerequisites, 106-107. A lecture course designed to cover unit operations for industrial processes in chemical industries and the type of equipment and instruments used, together with their construction and operation.
- 307-308. ORGANIC ANALYSIS, QUALITATIVE OR QUANTITATIVE.
2 credits laboratory each semester.
Prerequisites, 106, 108. A course of laboratory instruction intended to familiarize the student with the methods of separation of the component of organic mixtures, the characterization and identification of the individual components. Quantitative analytical methods for carbon, hydrogen, nitrogen, sulfur, and the halogens are employed in the determination of the composition of pure substances. Lab. fee, \$8 each semester.

309. SPECIAL TOPICS IN ORGANIC CHEMISTRY. *First semester.*

2 credits recitation, 1 credit laboratory.

A study of special topics in advanced organic chemistry, such as terpenes, dyestuffs, medicinals, alkaloids, heterocyclic compounds, carbohydrates, etc. Lab. fee, \$10.

313-314. CHEMICAL THERMODYNAMICS. *2 credits recitation each semester.*

Prerequisites, 214 and Calculus. The fundamental theories of thermodynamics and their applications in the chemical problems of equilibrium and stability form the basis of the course. Topics covered include laws of thermodynamics, free energy, entropy, partial molal quantities, ideal and non-ideal solutions, electromotive force, problems, sources of data.

321-322. ADVANCED INORGANIC PREPARATIONS. *2 credits laboratory each semester.*

Prerequisites, 106, 214. A study of methods and techniques for preparing and purifying compounds not always available in laboratory stocks of chemicals. Such operations as crystallization, distillation, sublimation, precipitation, and liquefaction will be performed. Exercises will be chosen to illustrate the preparation of different types of compounds as well as colloidal dispersions. Lab. fee, \$8 each semester.

325. COLLOID CHEMISTRY. *First semester. 2 credits recitation.*

Prerequisites, 106, 107. A study of the principles of colloid chemistry. Methods of preparation. A study of the properties and stability of colloids, dialysis, coagulation, aerosols, hydrosols, gels, emulsions, and foams. The emphasis on application.

326. CHEMISTRY OF LATEX TECHNOLOGY. *2 credits recitation.*

Physical and chemical properties of latex. Concentration, testing, compounding. Dipped goods. Vulcanization. Electrodeposition. Cord and fabric impregnation. Sponge and porous products. Molded goods from latex. Adhesives. Synthetic rubber latices.

327-328. CHEMISTRY OF RUBBER TECHNOLOGY. *2 credits recitation.*

2 credits laboratory each semester.

Prerequisites, 106, 107. Topics considered include those given under 227, 228 with additional material and laboratory requirements. Credit is not given for this course and for 227-228. Lab. fee, \$15 each semester.

329. CHEMISTRY OF PLASTICS. *2 credits recitation.*

Prerequisite 107. The production, chemistry and applications of phenolic, urea and other thermosetting resins; cellulose derivatives, vinyl resins, polyamides, and other thermoplastic resins. Permission required to take this course.

330. CHEMISTRY OF PLASTICS LABORATORY. *1 credit laboratory.*

Preparation of typical synthetic resins and plastics in illustration of the subject matter of course 329. Open only to students enrolled for 329. Lab. fee, \$15.

331. PHYSICAL CHEMISTRY OF HIGH POLYMERS. *2 credits recitation.*

Physical and physico-chemical properties of high polymers; condensation and addition polymerization, molecular weight, crystalline polymers, elastic and flow behavior, transition phenomena, kinetic theory of high elasticity, permeability to gases and vapors, dielectric properties, birefringence, infra-red absorption, light-scattering of solutions, fabrication and testing.

365-366. RESEARCH. *1 to 3 credits each semester.*

Open to properly qualified students. Supervised original research in the fields of inorganic, physical and organic chemistry, and in the chemistry and technology of rubber and plastics. Lab. fee, \$5 per credit.

Courses 313-314, 321-322, and 325 are offered only when the demand warrants.

COMMERCE

Professor Leigh, Assistant Professors Gordon, Simonetti, Slusher and Massoglia, Mr. Morgan, Mr. Gruber, Mr. Riddle, Mrs. Helmkamp, Miss Clark, Mr. Powers, Mr. Reed, Mr. Roderick, Mr. Daverio, Mr. Berry, Mr. Bailey, Mr. Lantz, Mr. Smart, Mr. Hickman, Mr. Vobbe, Mr. Gilleland, Mr. Moles, Mr. Kidney, Mr. Neiss, Mr. Nathan, Mr. Ball, Mr. Pierson, Mr. Davidson, Mr. Damon, Mr. Dewey, Mr. Connolley, Mr. Hancock

The Department of Commerce offers professional training to men and women who plan to enter or advance themselves in the fields of business and industrial management. The curriculums aim to develop and apply those principles and techniques of economics and administration, which are common to business and industrial organizations.

The University of Akron, situated in an active trade and industrial center, is particularly qualified to offer training in the areas specified. Lectures, problems, inspection trips integrate theory and practice and keep the student in touch with the actual developments in the various phases of Commerce.

Through its evening courses, institutes, and special lectures, the Department also is especially adapted to give specialized and upgrading training to men and women in Akron industry and business.

BUSINESS ADMINISTRATION

This program is adapted to students desiring to prepare for careers in the fields of business management, accounting, marketing and merchandising, advertising, sales, finance or transportation. The various programs of study offered are presented on the following pages.

The degree of Bachelor of Science in Business Administration will be granted to those students who complete the prescribed work, including seminar.

BASIC CURRICULUM IN BUSINESS ADMINISTRATION

First Semester		Cr. Hrs.	Second Semester		Cr. Hrs.
English 1	.....	3	English 2	.....	3
Hygiene 15	.....	2	Hygiene 16	.....	2
Int. to Soc. Science 5	.....	3	Int. to Soc. Science 6	.....	3
Int. to Nat. Science 9	.....	3	Int. to Nat. Science 10	.....	3
R. O. T. C. 11	.....	1½	R. O. T. C. 12	.....	1½
Accounting 21	.....	3	Accounting 22	.....	3
Physical Education 3	.....	1	Physical Education 4	.....	1
Second Year					
Selling 81 or Typewriting 31	.....	2	Typewriting 31 or Selling 81	.....	2
Economics 41	.....	3	Money and Banking 48	.....	3
Int. to Humanities 7	.....	3	Int. to Humanities 8	.....	3
Bus. Org. and Mgt. 61	.....	3	Econ. Geog. 54	.....	3
R. O. T. C. 43	.....	1½	R. O. T. C. 44	.....	1½
Anal. Accounting 23	.....	3	Production Mgt. 62	.....	3
			(Accounting majors take accounting 44 here)		
Third Year					
Business Law 141	.....	3	Business Law 142	.....	3
Marketing 183	.....	3	Advertising 185	.....	3
Business Finance 171	.....	3	(Accounting majors take Production Mgt. 62 here)		
Elective	.....	3	Elective	.....	4-7
Statistics 148	.....	4	"Major" course	.....	3-6
Fourth Year					
Major	.....	3-6	Major	.....	3-6
Seminar	.....	1	Business Policy 297	.....	3
Elective	.....	9-12	Seminar	.....	1
			Elective	.....	6-9

The courses specified above are common to all curriculums in the Business Administration field. During his Junior year, the student will elect a "major" or field in which he desires to specialize. He must complete a minimum of 14 hours of work in his "major," including Seminar.

Four fields of specialization are available: Accounting; Finance; Marketing, Merchandising and Advertising; and General Business.

The courses applicable and required toward each major are listed below.

ACCOUNTING

Courses	Cr. Hrs	Courses	Cr. Hrs.
*Accounting 44	3	Advanced Accounting 231-232	6
*Cost Accounting 27	3	Federal Taxation 233-234	6
Advanced Cost Accounting 228	3	Accounting Systems 230	3
Auditing 229	3	Budgeting and Control 123	2
Specialized Accounting Problems 236	3		

FINANCE

*Money and Banking 48	3	*Investments 172	3
Economics 208	3	Monetary and Banking Policy (Econ.) 204	3
Insurance and Security 158	3	Security Markets 277	3
Banking Practice and Management 176	3	Problems in Finance 279	3

MARKETING, MERCHANDISING AND ADVERTISING†

Sales Promotion 287	2	*Retailing 192	3
Retail Advertising 187	2	Merchandising 194	2
Sales Administration 291	3	Commercial Art 131-132	4
Market Analysis 296	3	International Economic Relations 268	3
Problems in Marketing 293	3		

GENERAL BUSINESS

*Production Management 62	3	Purchasing 189	2
Cost Accounting 27	3	Problems in Finance 279	3
Transportation 151 or Traffic Management 152	3	*Sales Administration 291 or Retailing 192	3
Personnel Management and Relations 163-4	4	Economic Cycles 291	2
		Advanced Statistics 248	3

GENERAL COLLEGE

21-22. ACCOUNTING. 3 credits each semester.

Recording of important transactions such as the acquisition of assets and their depreciation, incurring of expenses, purchases and sales; the balance sheet, statement of profit and loss, their construction and use. Required of all Commerce sophomores. No credit is given toward graduation for less than the full year's work.

42. SECRETARIAL ACCOUNTING. 3 credits.

A course designed especially for secretarial science students. However, such students may take either this course or Accounting 21-22.

23. ACCOUNTING. 3 credits.

Prerequisite, Accounting 22. This course is designed for students who want a working knowledge of accounting but do not intend to become accountants. The accounting principles and materials learned in courses 21 and 22 are applied primarily for analytical and executive purposes. A great deal of emphasis is placed upon the purposes of accounting, types of accounting analyses and accounting ratios.

25. ENGINEERING ACCOUNTING. 3 credits.

27. COST ACCOUNTING. First semester. 3 credits.

Prerequisite 22. General methods of collecting costs of materials, labor, and burden of incorporating them into the books of account.

28. COST ACCOUNTING AND BUDGETS. 3 credits.

A study of the elementary technique of accounting for costs, covering job order and process cost type of installations. Open to juniors in industrial management. Prerequisite, Engineering Accounting 25.

43. CORPORATION ACCOUNTING. 3 credits for accounting majors.

44. INTERMEDIATE ACCOUNTING. 3 credits.

This is a continuation of 43 which is a prerequisite. Graded problems are used to illustrate the capital expenditures and depreciation policies, determination of cost for inventory valuations, installment accounts, etc.

*Required courses in the particular major.

†Requirements vary depending on whether the student is most interested in Marketing, Retailing or Advertising.

51. BUSINESS LAW. 3 credits.

For students in secretarial science. No credit given in Commerce.

54. ECONOMIC GEOGRAPHY. 3 credits.

Climate, land forms, soils, mineral resources, and vegetation and their influence upon economic activity. Required of all commerce students.

61. BUSINESS ORGANIZATION AND MANAGEMENT. 3 credits.

A survey course in which the business establishment is considered as a unified concern composed of various departments. Required of all commerce sophomores.

62. PRODUCTION MANAGEMENT. 3 credits.

Prerequisite, 61.

81. SELLING. 2 credits.

Examines the characteristics of effective salesmen, the nature of the sales.

82. CONSUMER ECONOMICS. 3 credits.**84. PUBLIC RELATIONS. 2 credits.**

General course in Public Relations covering newspaper publicity, industrial publications, and other types of organizational publicity and public activities.

UPPER COLLEGE

123. BUDGETING. 3 credits.

Prerequisite, 43.

228. ADVANCED COST ACCOUNTING. 3 credits.

Prerequisite, 127. Alternate years. Analysis and use of standard costs; estimated and uniform cost systems; installation and design of the cost system.

229. AUDITING. 3 credits.

Prerequisite, 44. 1948-49 and alternate years. Preparation of accounts for an audit, examination of the books of account, the nature of audits, and the general method of audit procedure.

230. ACCOUNTING SYSTEMS. 3 credits.

Prerequisite, 44. The design and use of accounting forms, the construction of the manual for a wholesale grocery, an automobile agency, and a club.

231-232. ADVANCED ACCOUNTING. 3 credits each.

Prerequisite, 44. First semester, partnership and receivership accounting; second semester, consolidation accounting.

233-234. FEDERAL TAXATION. 3 credits each.

Prerequisite 44. Given in alternate years. Federal Income and Excess Profits taxes, Federal Capital Stock tax, Social Security taxes. First semester, individual taxes; second semester, corporate taxes.

236. SPECIALIZED ACCOUNTING PROBLEMS. 3 credits.

Prerequisite, 44. A study of specific industrial and financial accounting, such as banks, building and loans, mines, clubs, hospitals, etc.

141-142. BUSINESS LAW. 3 credits.

Origin of commercial law, operation and discharge of contracts, law of sales, agency, and negotiable instruments, partnerships and corporations.

144. LAW OF CREDIT AND COLLECTIONS. 2 credits.**146. REAL ESTATE LAW. 2 credits.****148. STATISTICS. 4 credits.**

Prerequisite, 6 credits in Economics.

248. ADVANCED STATISTICS. 3 credits.

Prerequisite, 148.

151. TRANSPORTATION. 3 credits.

Prerequisite, Economics 41 and 183.

152. TRAFFIC MANAGEMENT. 2 credits.

Prerequisite, 151.

153-154. INTERNATIONAL COMMERCE. 2 credits each.

Covers the principles of international trade, balances, distribution machinery, and examines the characteristics and potentials of various foreign markets. Credit will not be given for both Foreign Trade and International Commerce.

156. FOREIGN TRADE. 3 credits.

Prerequisite, Economics 41 and 48.

158. INSURANCE AND SECURITY. 3 credits.

Prerequisite, Economics 41 and 48.

163. PERSONNEL MANAGEMENT. 2 credits.

Prerequisite, 61. Job analysis, selection and maintenance of a labor supply, placement and promotion.

164. PERSONNEL RELATIONS. 2 credits.

Prerequisite, 163. Labor-Management Relations, public interest in labor problems, bases of a working industrial relationship.

268. BUSINESS POLICY. 3 credits.

Required of all commerce seniors. To be taken during last senior semester.

171. BUSINESS FINANCE. 3 credits.

Prerequisite, Economics 41 and 48.

174. CREDITS AND COLLECTIONS. 2 credits.**176. BANKING PRACTICE AND MANAGEMENT. 3 credits.**

Prerequisite, Economics 48. Given only when demand warrants.

272. INVESTMENTS. 3 credits.

Prerequisite, 171.

277. SECURITY MARKETS. 3 credits.

Prerequisite, 171.

279. PROBLEMS IN FINANCE. 3 credits.

Prerequisite, 171.

183. MARKETING. 3 credits.

Prerequisite, Economics 41 and 48. Analyzes the functions of distribution and critically examines the institutions and activities required to move manufactured and agricultural commodities to market. Open to juniors.

185. PRINCIPLES OF ADVERTISING. 3 credits.**186. ADVANCED ADVERTISING. 3 credits.**

Prerequisite, 185.

187. RETAIL ADVERTISING. Evening session. 2 credits.

Prerequisite, Advertising 185, or experience. This course concerns itself with retail advertising problems, the advertising budget, planning and creating newspaper, direct mail, promotional advertising, etc., for small and large stores.

189. PURCHASING AND PROCUREMENT. 2 credits.

Given only when demand warrants.

192. RETAILING. 3 credits.

Prerequisite, junior standing or consent of instructor.

194. MERCHANDISING. Evening session. 2 credits.

Prerequisite, Marketing 183, or experience. This basic course covers the subjects of merchandise buying, inventory and merchandising control, pricing, store layout, merchandise display, etc.

287. SALES PROMOTION. 2 credits.

Prerequisite, Advertising 185. Sales promotion programs will be formulated and executed, and the student will be expected to create and set up folders, booklets, catalogs, merchandise displays, etc.

291. SALES ADMINISTRATION. 3 credits.

Prerequisite, 183.

293. PROBLEMS IN MARKETING. 3 credits.

Prerequisite, 183. The various problems involved in determining marketing channels, methods and sales are applied to specific situations. Given in alternate years.

296. MARKET ANALYSIS. 3 credits.

Prerequisite, 293, or equivalent.

297-298. SEMINAR. 1 credit each.

Required of all senior commerce majors.

INDUSTRIAL MANAGEMENT

The purpose of this curriculum is to give those individuals with the ability and desire to advance to managerial positions in industry, training in basic management skills and knowledge. The content of the courses will center on fundamental principles with application to practical problems. Satisfactory completion of the 128 hours of required work leads to a degree of Bachelor of Science in Industrial Management.

First Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
English 1	3	English 2	3
Hygiene 15	2	Hygiene 16	2
Int. to Soc. Science 5	3	Int. to Soc. Science 6	3
Int. to Nat. Science 9	3	Int. to Nat. Science 10	3
R. O. T. C. 11	1½	R. O. T. C. 12	1½
Accounting 21	3	Accounting 22	3
Physical Education 3	1	Physical Education 4	1

Second Year

Drawing, Interpretation and Sketching 20	1	Cost and Budgets 28	3
Int. to Humanities 7	3	Int. to Humanities 8	3
Economics 41	3	R. O. T. C. 44	1½
Bus. Org. and Mgt. 61	3	Production Mgt. 62	5
R. O. T. C. 43	1½	Money and Banking 48	3
Psychology 41	3	Psychology 62	3

Third Year

Business Law 141	3	Business Law 142	3
Marketing 183	3	Production Planning and Inventory Control 103	3
Industrial Plants Layout and Materials Handling 101	3	Motion and Micromotion Study 158	2
Time Study 157	2	Personnel Relations 164	2
Personnel Management 163	3	Statistics 148	4
Elective	3	Elective	2

Fourth Year

Quality Control 105	2	Industrial Safety 107	2
Maintenance of Plant and Equipment 109	3	Purchasing 139	2
Labor Problems 206	3	Industrial Management Problems 256	3
Business Finance 171	3	Elective	9
Elective	5		

101. INDUSTRIAL PLANTS. First semester. 3 credits.

Prerequisite, 62. Principles, practices, and economics in plant location, building, layout, physical conditions and materials handling.

103. PRODUCTION PLANNING AND CONTROL. Second semester. 3 credits.

Prerequisite, 62. Principles and practices in process and product design, production planning and control, inventory control, warehousing, stores and salvage functions.

105. QUALITY CONTROL. 2 credits.

Prerequisite, 62. Principles and practices in inspecting, testing, correcting and controlling quality of product or service.

107. INDUSTRIAL SAFETY. 2 credits.

Prerequisite, 62. Principles and practices in industrial safety as effected by engineering, education, equipment and enforcement.

109. MAINTENANCE OF PLANT AND EQUIPMENT. 3 credits.

Prerequisite, 62. Organization and administration of maintenance, selection and procurement; stores; power metering; inspection, cleaning, lubrication, and repair; supervision, planning and scheduling; recording analysis, estimating, and control of maintenance costs.

157. TIME STUDY. First semester. 2 credits.

Prerequisite, 62. Principles and practices in analyzing, timing, and setting standards for job performance and wage payment.

158. MOTION STUDY AND MICRO-MOTION STUDY. Second semester. 2 credits.

Prerequisite, 62. One recitation alternating with laboratory period. Lab. fee, \$2. Principles and practices applied to reducing time and effort waste.

256. INDUSTRIAL MANAGEMENT PROBLEMS. Summer session. 3 credits.

Modern principles and practices applied to an actual problem from industry. (Seminar—Senior standing or permission of instructor.)

ECONOMICS

*Professor O'Hara, Assistant Professors Grunberg and Olivo,
Mr. McLain, Miss Raw*

Students emphasizing economics in their field of concentration are expected to take at least 24 hours of work in the field of economics. The courses included in this requirement are determined by the needs and interests of the individual student. In order to insure the best possible sequence of courses to meet the objectives of the student, it is important: (1) that the student select his field of concentration as early as possible in his course, and (2) that he consult the head of his department promptly and arrange his tentative program for the remaining years of his course.

The following courses are accepted in meeting the requirements for a degree in economics. Except as indicated, all have as prerequisites Economics 41 and 48, (offered in the General College). In special cases, these prerequisites may be modified.

For General College courses suggested but not required, see General College section.

GENERAL COLLEGE**41. PRODUCTION, PRICES AND INCOME. Either semester. 3 credits.**

The principles of production, the pricing process or value theory, the distribution of income, and related topics. Prerequisite to all other economics courses.

42. CURRENT ECONOMIC PROBLEMS. Either semester. 3 credits.

The problems of employment and wages, monetary and fiscal problems, foreign trade and exchanges, etc. Designed as a survey of the field of economics for those who do not intend to take courses at the upper college level.

44. DEVELOPMENT OF ECONOMIC INSTITUTIONS. 3 credits.

A study of medieval and modern economic history. The origins and growth of the significant institutions of modern economic life are traced. Offered as demanded.

48. MONEY AND BANKING. Either semester. 3 credits.

The development of money, credit and banking, the place of each in the modern economy.

82. CONSUMER ECONOMICS. Second semester. 3 credits.

UPPER COLLEGE

151. TRANSPORTATION. *First semester. 3 credits.*

171. BUSINESS FINANCE. *First semester. 3 credits.*
Prerequisite, 48.

183. MARKETING. *First semester. 3 credits.*
(Courses 151, 171 and 183 are given in the Commerce Department.)

204. MONETARY AND BANKING POLICY. *Second semester. 3 credits.*
Prerequisite, 48. The exercise of control over currency and credit; policies of control by central banks and governments, with special emphasis upon the U. S. Treasury and the Federal Reserve System.

206. LABOR PROBLEMS. *Second semester. 3 credits.*
The position of labor in modern industrial society; problems of the wage system, trade unionism and labor law.

208. PUBLIC FINANCE. *Second semester. 3 credits.*
The facts, principles and theories of public expenditures, taxation, and debt.

210. COMPARATIVE ECONOMICS. *Second semester. 3 credits.*
A comparative study of the advantages and limitations of Capitalism, Socialism, Communism, Fascism, and Co-operation.

215. MONOPOLY IN INDUSTRY. *Either semester. 2 credits.*
Nature and history of monopoly. Forms of monopoly — public utilities, monopoly of resources, trade associations, etc. The economics of monopoly and monopolistic competition. Solutions of the monopoly problem.

241. ANALYTICAL ECONOMICS. *First semester. 3 credits.*
An advanced course in the principles of economics. Emphasis is placed upon the exercise of discrimination in the evaluation of theories and systems.

250. ECONOMICS OF PUBLIC UTILITIES. *3 credits.*
Characteristics of Public Utilities. Valuation for rate purposes; fair value and fair rates of return; local, state and federal regulations. Prerequisite, 48.

268. INTERNATIONAL ECONOMIC RELATIONS. *Second semester. 3 credits.*
An analysis of the theory of international trade and the foreign exchanges. Policies of free and controlled trade. Trade monopoly. International monetary problems. World economic planning.

291. ECONOMIC CYCLES. *First semester. 2 credits.*
Types of business fluctuation; methods of measurement and correction; comparative study of theories of the cycle and proposals for correction or elimination.

293. DEVELOPMENT OF ECONOMIC THOUGHT. *First semester. 3 credits.*
The evolution of theory. Relation of the ideas of economists to the contemporary conditions of their times. Special emphasis upon the period from 1776 to 1890.

297. METHODS OF ECONOMIC RESEARCH. *3 credits.*
Testing of theories by reference to factual data. Types of index numbers and time series in use; statistical methods of correction and adjustment of data. Typical problems will be investigated. Prerequisites, 48; Math. 57.

298. SEMINAR IN ECONOMICS. *Second semester. 2 credits.*
Each senior major is required to select a field of intensive study and research, and to submit his results in a well-organized and documented report or thesis.

301. THE ECONOMICS OF JOHN MAYNARD KEYNES. *Second semester 3 credits.*

Based upon Lord Keynes' GENERAL THEORY, this course compares earlier equilibrium theories with contemporary views and develops the modern views with respect to such relationships as the following: saving and investment; investment and income; income, consumption and saving, etc. In general, dynamic, process analysis is employed instead of the conventional static, partial analysis of older economics.

ENGLISH

Professors Duffy and Keister; Assistant Professors Putman, Raw, Roberts, H. Thackaberry, R. Thackaberry, Whitney; Miss Anich, Miss Bair, Miss Bausher, Mr. Bennett, Mr. Biondo, Mr. Campbell, Miss Fifer, Mr. Hull, Mrs. Irish, Miss Mann, Miss Mostenic, Mrs. Neuenschwander, Mr. Paul, Miss Steiner

Required courses: Students majoring in English must elect twenty-six hours within the department (exclusive of courses in Journalism). Six of these hours must be English 65-66, which should be taken in the sophomore year. English and American history and three or four years (at the very least, two) of a foreign language are strongly recommended—in order of preference: French, German, Latin.

GENERAL COLLEGE

1-2. ENGLISH, ORAL AND WRITTEN. 3 credits each semester.

Described in the General College section.

41. SHAKESPEARE. 3 credits.

Reading of fifteen or more plays, with explanatory lectures and discussions. Recommended to students who take only one course in literature.

42. THE MAKING OF MODERN ENGLISH. Second semester. 3 credits.

A study of modern English usage, with attention to historical backgrounds and the principles of descriptive grammar.

43. ADVANCED WRITING — IMAGINATIVE. First semester. 2 credits.

A continuation of the composition part of Freshman English, for those who need or desire further training, especially in description and narration. Guided analysis of good models for their techniques; practice; and individual help in classes limited to 20 students.

44. ADVANCED WRITING — FACTUAL. Second semester. 2 credits.

Similar to English 43, except that the writing is factual, ranging from simple exposition to the familiar essay, the character sketch, and the book review. Recommended for those who will have to write term papers or reports later. Classes limited to 20 students.

45. APPRECIATION OF PROSE. Either semester. 3 credits.

46. APPRECIATION OF POETRY. Either semester. 3 credits.

47-48. AMERICAN LITERATURE. 3 credits each semester.

American literature from its colonial beginnings to the present. First semester: Captain John Smith to Melville; second semester: Whitman to the present.

50. APPRECIATION OF THE DRAMA. Either semester. 3 credits.

Courses 45, 46, and 50 constitute the General College program in appreciation of literature. They may be taken in any order. Prerequisite for any of these courses is normally English 2.

Each unit of the work offers a critical approach to specific literary forms, and the three units combine to provide an introduction to general reading and to an understanding of the contribution made by literature to a well-rounded life. Required readings include both standard literary works and contemporary writings.

65-66 ENGLISH LITERATURE. 3 credits each semester.

A survey of literature in English from Anglo-Saxon to modern times. Assigned readings in masterpieces of all periods; explanatory lectures; class discussions. Required of English majors. Preferably taken in the sophomore year.

UPPER COLLEGE

112. MODERN EUROPEAN LITERATURE. 3 credits.

Reading and discussion of representative works in translation of the outstanding personalities in Twentieth-Century European literature, especially of those who, like Proust, Mann, Kafka, and Malraux, have become as well known in America and in England as in their native countries.

113-114. THE ENGLISH BIBLE AS LITERATURE. 3 credits each semester.

Extensive readings in the Bible with reference to literary values. First semester: the Old Testament, exclusive of the Wisdom Books. Second semester: the Wisdom Books, and the New Testament. 1948-49 and alternate years.

143. ADVANCED WRITING WORKSHOP—FACTUAL. First semester. 2 credits.

Prerequisite, 43, 44, or permission. The writings of articles, essays, and other factual compositions at a level above that of English 44, but otherwise similar to that course. The class meets once weekly for two hours, and is limited to 15 students.

144. ADVANCED WRITING WORKSHOP—IMAGINATIVE. Second semester. 2 credits.

Prerequisite, 43, 44, or permission. Similar to English 143, except that students write stories, plays, poetry, according to their needs and desires. The class meets once weekly for two hours, and is limited to 15 students.

201. CHAUCER. First semester. 3 credits.

A study of The Canterbury Tales as one of the masterpieces of English poetry and as a reflection of medieval life.

202. SIXTEENTH CENTURY LITERATURE. Second semester. 3 credits.

A study of the non-dramatic literature of the Tudor period.

203-204. WORLD DRAMA. 3 credits each semester.

The story of the drama from ancient Athens to modern Broadway in plays of masters from Aeschylus to Shaw and Sherwood. Through the reading of a number of the world's most enduring plays, the course aims at a knowledge of the development of the English and American drama, and its enrichment through classical and continental influences.

205. ANGLO-SAXON. 3 credits.

Anglo-Saxon language and literature; linguistic studies of Old English as a predecessor of Modern English; readings in Beowulf and in Anglo-Saxon prose.

207. MIDDLE ENGLISH. 3 credits.

A study of the language and literature of the eleventh to the fifteenth centuries, exclusive of Chaucer.

209. SHAKESPEARE. 3 credits.

Concentrated study of three or four plays, with lectures and discussions.

212. MILTON. Second semester. 2 credits.

Emphasis upon Paradise Lost and Samson Agonistes.

213. SEVENTEENTH CENTURY LITERATURE. First semester. 3 credits.

A survey of important tendencies and achievements in English prose and poetry from Bacon to Dryden, exclusive of the drama. 1947-48 and alternate years.

214. EIGHTEENTH CENTURY LITERATURE. Second semester. 3 credits.

A survey of the literature of the century with emphasis upon the work of Pope and Johnson. 1947-48 and alternate years.

215-216. NINETEENTH CENTURY LITERATURE. 3 credits each semester.

In the first semester, a study of the English Romantic Movement; in the second, the Victorian period. Emphasis upon major writers.

218. ENGLISH LITERATURE, 1890 TO THE PRESENT. 3 credits.

A consideration of recent English prose, poetry, and drama.

219-220. MAJOR AMERICAN WRITERS. 3 credits each semester.

An intensified study of a selected group of authors. First semester: Poe, Hawthorne, Melville; second semester: Whitman, Emerson, Mark Twain.

221-222. ENGLISH FICTION; DEVELOPMENT OF THE NOVEL. 3 credits each semester.

Reading and discussion of the chief English novels, principally from the points of view of technique and aesthetics, but with due attention to psychological, historical, and sociological values. First semester: Defoe to Dickens; second semester, Eliot to Huxley.

231-232. SEMINAR. Either or both semesters, with a total of 2 credits.

Special studies, with instruction in the methods of literary research.

262. HISTORY OF THE ENGLISH LANGUAGE. Second semester. 3 credits.

A study of the development of the English language from the Anglo-Saxon period to the present, with emphasis on its history in America.

401. RESEARCH. 1 to 3 credits.

Writing of a thesis for the Master of Arts degree.

HISTORY

Professor Baldwin, Associate Professor Roe, Mr. Leckey

General Final Examination: In order to be recommended for a degree, a major in history will be required to pass a general final examination covering Historiography, American History, Modern Europe, and two other fields approved by the department.

GENERAL COLLEGE**41. THE UNITED STATES TO 1865. First semester. 3 credits.**

A general course in American history beginning with the period of Exploration and Discovery and continuing through the Civil War.

42. THE UNITED STATES SINCE 1865. Second semester. 3 credits.

A continuation of 41. The Reconstruction period following the Civil War to the present date.

43. ORIENTAL AND GREEK CIVILIZATIONS. First semester. 3 credits.

A study of the development of Oriental and Greek civilizations, and especially of the significant developments of Greek political and historical thought, art and ideals.

44. ROMAN CIVILIZATION. Second semester. 3 credits.

A study of Roman experience, historical, political, and cultural, from the rise of Rome to early Christian times.

45-46. MODERN EUROPEAN HISTORY. 3 credits each semester.

Europe from the Protestant Reformation to the present. The course is divided at 1815. An introductory course.

49. MEDIEVAL HISTORY. 3 credits.

The age of the beginning of West-European history. Some consideration is given to the inheritance from Judaeo-Christian and Classical civilizations.

UPPER COLLEGE

118. THE RENAISSANCE. 3 credits.

The cultural and institutional history of Europe in the fourteenth and the fifteenth centuries. The birth of the lay spirit. The rise of plural sovereignties.

151-152. ENGLISH HISTORY. 3 credits each semester.

In the first half, the emphasis is on the development of the parliamentary constitution; in the second half, upon the growth of the British Empire. The course is divided at 1660.

161. THE WESTERN HEMISPHERE. Either semester. 3 credits.

Latin America, Canada, and other European possessions in the New World from the era of discoveries to the present. The history of these countries will be correlated with that of the United States, and an attempt will be made to show the essential unity of the Americas.

171. THE BYZANTINE EMPIRE AND THE MOHAMMEDAN WORLD. 3 credits.

The Byzantine Empire from Justinian: its rise and fall. The origin and spread of Islamic civilization; the economic and political factors explaining the growth and persistence of Mohammedanism.

222. THE AMERICAN REVOLUTION AND THE CONSTITUTION. First semester. 3 credits.

1948-49 and alternate years. This course covers in considerable detail the formative period in American history, 1763-1790.

223. THE CIVIL WAR. First semester. 3 credits.

1947-48 and alternate years. A study of the slavery controversy, the Civil War and Reconstruction.

224. THE UNITED STATES AS A WORLD POWER. Second semester. 3 credits.

Beginning with the Spanish-American War, the development of the nation will be followed to the present, with primary emphasis on its rise to a dominant position in the world of nations.

241. THE REVOLUTIONARY PERIOD IN EUROPE. First semester. 3 credits.

Background, causes, and results of the French Revolution and subsequent wars for European independence; the development of nationalism, 1789-1848; the congress of Vienna, and the legacy of Bonaparte.

242. HISTORIOGRAPHY AND HISTORICAL METHODOLOGY. 3 credits.

This course aims to provide the student with a knowledge of the history of historical writing, especially in Western Europe and in the 19th and 20th centuries, and to give some practical experience in the use of the various arts and auxiliary sciences used by historians. Prerequisite, 12 credit hours in history.

245. NATIONALISM AND DEMOCRACY IN EUROPE. First semester. 3 credits.

The ascendancy of Prussia after 1848; the unification of Germany and Italy; Bismarck's domestic policy; the growth of German militarism and Pan-Germanism.

246. THE AGE OF CONFLICT, 1900-1946. Second semester. 3 credits.

The causes, grand strategy, and results of two world wars; experiments in revolution, recovery, and international organization.

251. THE DEVELOPMENT OF MODERN RUSSIA. 3 credits.

Factors shaping present society in the Soviet Union. Political, economic, and social changes, particularly since the Revolution, contrasted with developments in other countries. The emergence of a new civilization and a world power.

261. CHINA AND THE FAR EAST. 3 credits.

After sketching the history of Classical China, this course surveys the history of China from the acceptance of Buddhism to the present. Manchu and Japanese imperialism, as well as China's relations with the western world, will receive special attention.

412. INDIVIDUAL READING AND RESEARCH.

Open only to those who have completed an undergraduate major, or at least 24 hours in history, and have received special permission from the chairman of the department. Not more than 3 credits will be given in any one semester.

HOME ECONOMICS

*Professor Wilson, Assistant Professors Smith and Mary Wilson,
Miss Wood, Miss Kain, Miss Davison, Mrs. Brown, Miss Greer*

Home Economics is a program of studies based on sound fundamental training in the physical, biological, and social sciences.

For subjects that home economics majors must take in the General College, see General College section.

Three majors in home economics are offered:

Foods and Nutrition Major, planned for those students whose professional interest may point to such work as that of food analyst, nutritionist, dietitian, institutional manager, or food demonstrator. This field offers a rich opportunity to men as well as to women.

Clothing or Textile Major, for students who wish to prepare themselves to follow some line of clothing work in the commercial field. Students may begin to work on this major in the freshman year.

General Home Economics Major, a non-professional major planned for students who wish a broad cultural background with the emphasis on effective home living.

Following are the home economics subjects required in the Upper College for the respective majors:

FOODS AND NUTRITION*Third Year*

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Quantity Cookery 216.....	3	Advanced Foods 116.....	3
Nutrition in Health 119.....	3	Nutrition in Disease 120.....	3

Fourth Year

Child Development 65.....	3	Institutional Management 212.....	3
Home Economics Education 151.....	3		

TEXTILES AND CLOTHING*Third Year*

Cr. Hrs.	Cr. Hrs.		
Advanced Clothing 105.....	3	Advanced Clothing 106.....	3
		Home Management 62.....	3

Fourth Year

Advanced Textiles 107.....	3	Selection of House Furnishings 58.....	3
Child Development 65.....	3		
Historic Costume 117.....	3		

GENERAL COURSE*Third Year*

Cr. Hrs.	Cr. Hrs.		
Nutrition 42 or 119.....	3	Home Management 62.....	3
Advanced Foods 115.....	3		

Fourth Year

Child Development 65.....	3	Selection of House Furnishings 58.....	3
Household Equipment 215.....	3	Advanced Clothing 106.....	3
Advanced Clothing 105.....	3		

GENERAL COLLEGE

21. TEXTILES. *First semester. 3 credits.*

A study of natural and synthetic fibers, their color, design, the various finishes and wearing quality with reference to selection, use and care. Includes a study of the regulations governing the standardization and labeling of textiles and clothing. Class limited to twenty. Fee, \$1.

22. BEGINNING CLOTHING CONSTRUCTION. *First semester. 3 credits.*

For students with no previous experience in clothing construction. Fundamental problems in machine and hand sewing. Includes the study of commercial patterns. A dress of cotton, linen, or rayon and one other garment will be made. One hour lecture and four hours laboratory. Class limited to twenty. Fee, \$1.

23. CLOTHING CONSTRUCTION AND SELECTION. *Second semester. 3 credits.*

Prerequisite, 22 or its equivalent. Construction of garments requiring the more difficult techniques. A study of line, design, color and type of fabrics suitable to various types of individuals and occasions. Includes wardrobe planning, care and repair of clothing. One hour lecture and four hours laboratory. Class limited to twenty. Fee, \$1.

41. ELEMENTARY FOODS AND NUTRITION. *Evening session. 3 credits.*

This is a basic course in foods for those persons, not majors, who want a fundamental understanding of the preparation of foods for family use. One hour lecture, three hours laboratory. Fee, \$6.

42. ELEMENTARY FOODS AND NUTRITION. *3 credits.*

This course covers the essentials of an adequate diet with emphasis on the selection of the right food in sufficient amounts to meet the requirements of the family group. Two hours lecture, two hours laboratory. Fee, \$6.

43. FOODS AND NUTRITION. *For student nurses. 3 credits.*

A practical course designed to give a knowledge of the basic principles of nutrition and cookery; hygiene of food, selection and care, study of dietary requirements on various age levels, analysis of student's own diet, study of racial differences in dietary habits. Individual practice in food preparation, with special emphasis on cookery for the invalid and on tray service. Two hours lecture, two hours laboratory. Fee, \$6.

45. GENERAL FOODS. *3 credits.*

Composition, selection and preparation of food, with a study of the scientific principles, especially chemical and nutritive. Involves analysis of recipes and study of standard products. Problems of home food preservation; food buying and labor, and time saving methods in preparation. One hour lecture, four hours laboratory.

46. GENERAL FOODS. *Second semester. 3 credits.*

Prerequisite, 45. Problems in time, labor, money and equipment in relation to planning, marketing, care of food, preparation, and service of meals for the family group, considering dietary standards and foods habits; appropriate forms of service for various types of meals; table etiquette; unit on deep freeze included. An opportunity for individual experience in various types of meal service and simple entertaining is afforded. One hour lecture, four hours laboratory. Fee, \$6.

53. HOME ECONOMICS ORIENTATION. *First semester. 2 credits.*

History and development of home economics in the field of women's education; study of the different fields of home economics.

58. SELECTION OF HOUSE FURNISHINGS. *Second semester. 3 credits.*

A study of the fundamental principles which contribute to a satisfactory selection and arrangement of home furnishings. Problems in the selection of floor coverings, wall and window treatments, lighting, furniture, household textiles, china, glassware, silver and accessories for the home will be considered in relation to styles of decoration, color, design and cost. Class limited to twenty.

62. HOME MANAGEMENT. *Second semester. 3 credits.*

Consideration of the management of time, energy, and money in the home; purchase and use of equipment; modern housing problems. Two hours lecture, two hours laboratory. Fee, \$1.

65. CHILD DEVELOPMENT. *First semester. 3 credits.*

Care and feeding of infants and preschool children. A study of the physical, social, mental and emotional development of the child from infancy through adolescence. Child psychology is desirable as a prerequisite. Two hours lecture, two hours laboratory. Fee, \$2.

UPPER COLLEGE

105. ADVANCED CLOTHING. *First semester. 3 credits.*

Prerequisite, 23. This course provides an opportunity to develop some of the professional skill that goes into the making of a custom-made garment, through the construction of a wool suit, coat or ensemble with lining. The remodeling of one wool garment may be included as an extra problem. One hour lecture, four hours laboratory. Class limited to twelve. Fee, \$1.

106. ADVANCED CLOTHING. *Second semester. 3 credits.*

Prerequisite, 105. Advanced problems in clothing design and construction. Creating new designs by use of basic patterns or draping on a dress form. Using paper and muslin for experimental work. The application of one new design in the construction of a spring dress is required. One hour lecture, four hours laboratory. Class limited to twelve. Fee, \$1.

107-108. ADVANCED TEXTILES. *3 credits each semester.*

A study of the construction, color and design of such materials as furs, laces, Oriental rugs, tapestries, brocades, India prints, etc. Fee, \$2 each semester. 1948-49 and alternate years.

115-116. ADVANCED FOODS. *3 credits each semester.*

Prerequisite, 45-46. A study of cookery of the nations with an opportunity to prepare and serve foreign and regional foods. Food demonstrations are given. The second semester is a study of experimental cookery. Individual and group experiments are made. One hour lecture, four hours laboratory. Fee \$7.50 each semester.

117. HISTORIC COSTUME. *First semester. 3 credits.*

Prerequisite, Art 21. A study of costume from ancient times to the present day with emphasis on the influence on our present day styles, and the use of this information as a source of inspiration for creative designers today.

119. NUTRITION IN HEALTH. *First semester. 3 credits.*

Prerequisite, 45-46 and Chemistry 55. Chemical composition, metabolism and physiological functions of the food stuffs. Energy, protein, mineral, water metabolism, vitamins, and dietaries are covered. Nutritive requirements for individuals in different stages of development, and on various economic levels, social backgrounds and occupations, and results of dietary deficiencies are studied. Two hours lecture, two hours laboratory. Fee, \$2. 1948-49 and alternate years.

120. NUTRITION IN DISEASE. *Second semester. 3 credits.*

Prerequisite, 119. A study of the application of principles of normal nutrition to diet in disease. Practice is given in construction of diets for specific disease conditions. Two hours lecture, two hours laboratory. Fee, \$2. 1948-49 and alternate years.

121. FIELD WORK IN HOME ECONOMICS. *3 credits.*

A course providing for additional laboratory or apprentice experience in a specialized field of home economics. Open to seniors in home economics. One hour conference, six hours practice.

151. HOME ECONOMICS EDUCATION. *First semester. 3 credits.*

Organization of home economics in the secondary schools. Two hours observation, two hours lecture. Not accepted toward a degree from the College of Liberal Arts.

212. INSTITUTIONAL MANAGEMENT. *Second semester. 3 credits.*

A discussion course in the standards for good food service and the facts to be considered in food service; food purchasing, time, labor, materials, cost, equipment, and goodwill.

215. HOUSEHOLD EQUIPMENT. *First semester. 3 credits.*

A lecture and laboratory course in the study, selection, care, and use of hand, gas, kerosene, and electrical household equipment. Two hours lecture, two hours laboratory. Fee, \$2.

216. QUANTITY COOKERY. *Second semester. 3 credits.*

A laboratory course in the preparation of all types of food, the care of equipment and utensils, the layout of different types of food preparation and service centers. Six hours laboratory and conference. Fee, \$5.

JOURNALISM

*Associate Professor Vance, Mr. Deist, Mr. Jackson, Mr. John,
Miss Offineer, Mr. Dietrich*

Required for major in Journalism: 24 credit hours, including:

News Writing 51 and 52

Editing 153 and 154, or Newspaper Management 155 and 156, or one semester of each

Feature Writing 59 or Sports Writing 61

Principles of News Photography 131

(But not including News Writing and Editing 53 or Feature Writing 56, both special Evening Session courses.)

Students majoring in Journalism must complete all required courses in general education as prescribed in the General College, including the requirement of the second year of a foreign language on the college level.

Students graduating with a major in Journalism receive the degree Bachelor of Arts.

Freshman English, Oral and Written, is prerequisite to all Journalism courses.

Concurrent work on student or other publications is expected in most of the courses.

The normal sequence of courses for Journalism majors is:

Second Year:

News Writing 51 and 52

History of Journalism 71

Contemporary Newspapers 72

Third Year:

Editing 153 and 154

Feature Writing 59

Special Feature Articles 60

Sports Writing 61

Public Relations 84

Fourth Year:

Newspaper Management 155 and 156

Principles of News Photography 131

Advanced Photography 132

Editorial Writing 157

In addition to sufficient Journalism courses to provide basic training in all fields of publication work, students are urged to take general courses in several other departments, and to pursue more advanced study in one particular field of interest.

GENERAL COLLEGE

51. NEWS WRITING. *First semester. 3 credits.*

Class meets twice a week, but course offers 3 credits. Concurrent reporting on *The Akron Buchtelite* or other publications is required, supplemented by extensive exercise work, class discussions, and illustrative materials. Textbook is used.

52. NEWS WRITING. *Second semester. 3 credits.*

Similar to 51, but with more advanced and specialized work for students in their second semester. May be taken either before or after 51.

59. FEATURE WRITING. *First semester. 2 credits.*

Short newspaper feature articles. Members of the class write for *The Akron Buchtelite* or other publications. Recognition of human interest situations and facility in portraying them. Extensive writing and class discussions.

60. SPECIAL FEATURE ARTICLES. *Second semester. 2 credits.*

Writing and discussion of longer features and magazine articles, and actual preparation and submission of manuscripts with illustrations, for publication.

61. SPORTS WRITING. *First semester. 2 credits.*

A specialized writing course considering articles for the sports pages. Concurrent work on *The Akron Buchtelite* or other publications is required. Emphasis on writing and on complete understanding of various types of athletic events.

71. HISTORY OF JOURNALISM. *First semester. 2 credits.*

Study of newspapers from the earliest beginnings to the present, with emphasis on developments since World War I. Textbook is used, supplemented by lectures and outside readings.

72. CONTEMPORARY NEWSPAPERS. *Second semester. 2 credits.*

A study of today's leading newspapers and newspapermen. Current issues of the papers are used as a textbook, each member of the class reporting on a particular newspaper.

84. PUBLIC RELATIONS. *Second semester. 2 credits.*

Given in the Commerce department. This course may be counted toward a major in Journalism.

53. NEWS WRITING AND EDITING. *First semester. 2 credits.*

Evening Session only. A comprehensive course covering all phases of newspaper work.

56. FEATURE WRITING. *Second semester. 2 credits.*

Evening Session only. Special feature articles, suitable for Sunday newspapers or for magazines, are discussed and prepared for publication. Extensive writing is required.

UPPER COLLEGE

153. EDITING. *First semester. 3 credits.*

Copyreading, headline writing, proofreading, makeup, etc. Actual practice on newspapers is required to supplement exercises. A study of type and typography, printing machines and processes, and newspaper systems and methods. Prerequisite, 51 or 52 or the equivalent.

154. EDITING. *Second semester. 3 credits.*

Similar to 153, but may be taken either before or after it. Advanced work in editing processes. Prerequisite, 51 or 52 or the equivalent.

155. NEWSPAPER MANAGEMENT. *First semester. 2 credits.*

Permission of instructor required for enrolment. The course is limited to students actively engaged in publication work, or preparing to edit or to supervise publications. Critical discussion and study of current issues of University student publications, stressing editorial policies and responsibilities, editing techniques, ethics of journalism, staff organization and management, finances and budgets, advertising, printing, and other problems.

156. NEWSPAPER MANAGEMENT. *Second semester. 2 credits.*

Similar to 155, but may be taken either before or after it.

157. EDITORIAL WRITING. *Second semester. 2 credits.*

Editorials are considered as a special type of essay. Considerable writing is required, and logical reasoning is stressed. Some attention to column writing.

131. PRINCIPLES OF NEWS PHOTOGRAPHY. *First semester. 2 credits.*

Prerequisite, two semesters of Editing or Newspaper Management. This course is intended primarily for majors in Journalism. Principles of photography for the editor or publisher. How to plan photographs. How to order and use photographs. Arrangement of subjects. The use of color. The course explains possible uses of the camera, composition of photographs, lighting, grouping, modern trends and developments, etc., and demonstrates but does not furnish practice in actual use of the camera.

132. ADVANCED NEWS PHOTOGRAPHY. *Second semester. 2 credits.*

Laboratory work with the camera, and in processing films and making prints for publication use. Use of various cameras and auxiliary equipment. Designed for the student who wishes to acquire a working proficiency in publication photography.

LATIN AND GREEK

Mr. Duke

Some knowledge of classical life and thought is indispensable for any comprehension of Western culture as an entirety; any of the courses in this curriculum may be pursued with profit by students of the liberal arts and social sciences inasmuch as the comparative aspects of human culture and activity are heavily stressed. The student who elects to concentrate in the field will gain considerable knowledge of the ancient literature, arts and technologies and of their commanding influence in later times.

Required courses for majors: Latin 43-44, Comparative Literature 61-62, and Archaeology 113-114.

Major: Twenty-four hours.

GENERAL COLLEGE**21-22. ELEMENTARY LATIN. *4 credits each semester.***

No prerequisite. Grammar and reading.

43-44. SECOND YEAR LATIN. *3 credits each semester.*

Prerequisite, 21-22, or two years of high school Latin. Inscriptions, Letters of Pliny, Selections from Vergil, or other material suited to needs or interests of students.

Note: In allowing credit to students who have had high school Latin, the practice of the Modern Languages Department will be followed.

21-22. ELEMENTARY GREEK. *4 credits each semester.*

No prerequisite. Grammar and reading.

Note: Second Year Greek, given on demand, may be taken as Individual Reading or Research 131-132.

61-62. COMPARATIVE LITERATURE. 3 credits each semester.

No prerequisite, and either course may be taken without the other. First semester: study of the major Greek writers in translation, together with a consideration of their influence on later European literature. Second semester: study of the major Roman writers. No knowledge of Latin or Greek required.

99. CLASSICAL MYTHOLOGY. Second semester. 3 credits.

No Prerequisite. The legends and folklore of Greece and Rome; their rebirth in later literature and art. No knowledge of Latin or Greek required.

UPPER COLLEGE

Note: Some of the following courses will be given each year, according to demand. Courses 103-111 require Latin 43-44 or equivalent as prerequisite.

103. ROMAN SATIRISTS. 3 credits.

Selections from Horace, Persius, Juvenal and Martial; lectures on the history of satire, both ancient and modern.

104. ROMAN DRAMATISTS. 3 credits.

Selected plays of Plautus, Terence and Seneca; lectures on the history of comedy and tragedy, with especial attention to stage antiquities.

105. ROMAN HISTORIANS. 3 credits.

Selections from Sallust, Livy and Tacitus; lectures on historiography and the philosophy of history.

106. ROMAN PHILOSOPHICAL AND RELIGIOUS WRITERS. 3 credits.

Selections from Lucretius, Cicero, Seneca and Boethius; lectures on the pagan syncretism and mystery religions.

107. MEDIEVAL LATIN WRITERS. 3 credits.

Selections from St. Augustine or the other Fathers; the Goliards or other secular literature. Special attention to Church Latin. Letters of famous Humanists may be included.

108. ROMAN LYRIC AND ELEGIAC POETS. 3 credits.

Selections from Catullus, Horace, Ovid, Propertius and Tibullus.

111. ROMAN NOVELISTS. 3 credits.

Selections from Petronius and Apuleius; lectures on the Milesian tale and Alexandrian romance.

113. GREEK ARCHAEOLOGY. 3 credits.

No prerequisite. The daily life of the Greeks; their achievements in the arts and sciences. Archaeological aims and methods. No knowledge of Latin or Greek required.

114. ROMAN ARCHAEOLOGY. 3 credits.

No prerequisite. The daily life of the Romans; their achievements in the arts and sciences. Archaeological aims and methods. No knowledge of Latin or Greek required.

131-132. INDIVIDUAL READING OR RESEARCH. 1-3 credits each semester.

Prerequisites depend upon subject, which may be either in the languages or in archaeology.

MATHEMATICS

Professor Selby, Associate Professor Lipscombe, Assistant Professors Tabler and Mauch, Mr. Ross, Mr. Davis, Mr. Lowe, Mr. Freeder, Miss Orlinoff, Mr. Griffith, Mr. Montgomery, Mr. Weiss, Mr. Schoner, Mr. Wright.

All students whose work of concentration lies in the Division of Natural Science, except those in the Biological Sciences, must have taken in the General College Mathematics 21, 22, 43, 45-46. Pre-medical students, however, must take 21, 22, and students taking the Pre-technicians' course must take 21.

Students preparing to teach Mathematics, or who expect to take some engineering courses, must take Physics.

Students majoring in Mathematics must take at least 24 hours of Mathematics. Included in these hours must be course 204, and at least one other 3-hour upper college course.

GENERAL COLLEGE

17. ALGEBRA. *Evening session. 1 credit.*

Open only to students who have had one year or less of high school algebra or to persons who have been out of school for some time. If taken prior to Algebra 21, credit will be allowed only to those students whose high school transcripts show at most one year of high school algebra. This course cannot be counted toward a major, nor substituted for Algebra 21.

21. COLLEGE ALGEBRA. *3 credits.*

A review of algebra through quadratics, and a study of progressions, variation, binomial theorem, theory of equations, permutations, combinations, determinants, and inequalities.

22. TRIGONOMETRY. *3 credits.*

It is recommended that this course be taken following or simultaneously with 21. It begins with the definitions of the trigonometric functions and follows through such topics as the solution of right triangles, trigonometric identities (with special stress on those pertaining to the half angle, double angle, and sum and difference of angles), logarithms, and their application to the solution of right and oblique triangles.

23. SPHERICAL TRIGONOMETRY. *2 credits.*

Prerequisite, 22. Study of right and oblique spherical triangles, and numerous applications to aviation and astronomy.

31. MATHEMATICS OF NAVIGATION AND AVIATION. *2 credits.*

Prerequisite, 22. Solution of problems in navigation and aviation which require the use of mathematics; study of maps, charts, tables, and use of computers.

43. ANALYTIC GEOMETRY. *3 credits.*

Prerequisite, 21, 22. This course shows how geometrical properties of curves and surfaces may be studied by the aid of algebra and various kinds of coordinate systems.

45. DIFFERENTIAL CALCULUS. *3 credits.*

Prerequisite, 43, or concurrently with 43. Theory of limits; development and use of differentiation formulas; use of derivative and differential in problems of maxima and minima, time rates, curvature, motion, approximate error; expansion of functions in Maclaurin's series and Taylor's series; differentiation of functions of two or more variables.

46. INTEGRAL CALCULUS. *3 credits.*

Prerequisite, 45. Formal integration; definite integral and its use in finding areas, volumes, moments of inertia, centroids; methods of approximating an indefinite integral; use of multiple integral.

57. SOCIAL STATISTICS. 3 credits.

This course combines a review of basic mathematics with the fundamentals of statistics, including averages, measures of dispersion, the normal curve, index numbers, simple correlation and time series. Specially planned for students in the Social Science Division. Credit will not be given both for this course and for Statistics 148.

58. BUSINESS MATHEMATICS. 3 credits.

Prerequisite, 21. Simple interest, simple discount, compound interest and compound discount, annuities, amortization and sinking funds, building and loan association, valuation of bonds, stocks, depreciation, straight line method, constant percentage method, sinking fund method, and unit cost method.

UPPER COLLEGE

Courses 104, 121, 125, and 126 are offered only when the demand warrants.

104. HISTORY OF MATHEMATICS. 3 credits.

Prerequisites, 21-22. The origin and development of the elementary mathematical ideas and processes.

112. ENGINEERING MATHEMATICS. 3 credits.

This course is designed specifically for Engineering students. It follows Integral Calculus 46 and stresses application of previous mathematical training to practical problems in engineering.

121. MATHEMATICS OF INSURANCE. 2 credits.

Prerequisites, 21, 58. This course develops formulas for finding the premiums of the most important policies of life insurance, the valuation of these policies, the construction and use of the mortality tables.

125-126. ASTRONOMY. 2 credits each semester.

Prerequisites, 17 or 21-22. A study of the most important of the celestial phenomena and the instruments by which this study is accomplished.

201. ADVANCED CALCULUS. 3 credits.

Prerequisite, 46. A more rigorous treatment of the material covered in 45 and 46 and material on infinite series; infinite, multiple, line and surface integrals; maxima and minima of functions of several variables; partial differentiation, etc.; with applications to geometry and mechanics.

204. DIFFERENTIAL EQUATIONS. 3 credits.

Prerequisite, 46. A study of the methods of forming and solving some important types of ordinary and partial differential equations, and their numerous applications in the fields of science.

205. THEORY OF EQUATIONS. 3 credits.

This course includes the study of complex numbers, solution of cubic and quartic equations, numerical approximation to the roots, theorems of Sturm, Budan, and Descartes, determinants and matrices, simultaneous linear equations, symmetric functions, resultants, discriminants, and elimination.

206. HIGHER GEOMETRY. 3 credits.

Prerequisite, 45. A continuation of 43; analytic geometry of space; topics in non-Euclidean, projective and metric geometry.

207. HIGHER ALGEBRA. 3 credits.

Prerequisite, 45. Special topics in algebra are stressed, such as mathematical induction, partial fractions, complex number system, binomial theorem, multi-nominal theorem, summation of series, limits, infinitesimals, convergency and divergency of series, power series, inequalities, continued fractions and their application to indeterminate equations, theory of numbers, method of least squares.

MODERN LANGUAGES

*Professor Bulger, Associate Professors Internoscia and Glennen,
Mr. Herrbach, Miss Marty, Mrs. Metz, Mr. Kraft,
Mrs. Grunberg, Miss Chalfant,
Mr. von der Heydt.*

Major: At least 24 hours in one language.

Credit for college work in Modern Languages is indicated by the following table:

High school Credits	Course Entered in College	Credit Given
1 unit	First year	Full credit
	Second year	Full credit
2 units	Second year	Full credit
	First year	Half credit
	Third year	Full credit
3 units	Second year	Half credit
	First year	No credit
4 units	Third year	Full credit
	Second year	No credit

GENERAL COLLEGE

21-22. FIRST YEAR FRENCH. *4 credits each semester.*

Reading, speaking, writing and understanding French, with intensive drill in pronunciation. Short stories and simple plays are read. Outside reading begun in second semester.

43-44. SECOND YEAR FRENCH. *3 credits each semester.*

Prerequisite, 21-22. Grammar review. Practice in reading, writing, speaking, and understanding French. Short stories, plays, novels on intermediate level. Outside readings.

21-22. FIRST YEAR GERMAN. *4 credits each semester.*

Reading, speaking, and writing German.

43-44. SECOND YEAR GERMAN. *3 credits each semester.*

Prerequisite, 21-22. Review of grammar; practice in reading, speaking, and writing German.

21-22. FIRST YEAR SPANISH. *4 credits each semester.*

Pronunciation, dictation, elements of grammar, translation into English and into Spanish, and simple conversation. In the second semester comprehension and conversation are intensified and outside reading is begun.

43-44. SECOND YEAR SPANISH. *3 credits each semester.*

Prerequisite, 21-22. Review of grammar, gradually intensified reading, translation and conversation. Independent reading of one novel each semester. In the second semester fluency in conversation is stressed.

UPPER COLLEGE

101-102. THIRD YEAR FRENCH: THE FRENCH NOVEL. *2 credits each semester.*

Prerequisite, 44. A study of the French novel of the 19th Century with reading and class discussion in French of representative works.

103-104. FRENCH COMPOSITION AND CONVERSATION. *2 credits each semester.*

Prerequisite, 44. Advanced composition based on French models with special attention to word and idiom study. Development of oral expression and conversational ability stressed.

105. FRENCH PHONETICS. *First semester. 1 credit.*

Prerequisite, 44. Intensive drill in pronunciation with correction and improvement of student's accent. Emphasis on articulation and intonation by use of phonograph records and individual recordings made by student.

209 to 216. ADVANCED FRENCH. *3 credits each semester.*

Prerequisite, 102 or 104.

One of the following French courses is given each year.

209-210. NINETEENTH CENTURY DRAMA.

A study of the development and tendencies of the French drama during the 19th century and contemporary period.

211-212. SURVEY OF FRENCH LITERATURE.

A survey of French literature from the Middle Ages through the contemporary period. Reading and discussion of the most important works of major writers.

213-214. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY.

A study of the literature of the 18th century with reading and discussion of the works of major writers.

215-216. HISTORY OF THE FRENCH NOVEL TO THE NINETEENTH CENTURY.

A study of the development and tendencies of the French novel during the 17th and 18th centuries.

101-102. GERMAN DAILY LIFE AND COMPOSITION. *3 credits each semester.*

Prerequisite, 44.

207 to 218. ADVANCED GERMAN. *3 credits each semester.*

Prerequisite, 44.

One of the following German courses is offered each year:

207-208. SCHILLER.

209-210. GOETHE.

211-212 SURVEY OF GERMAN LITERATURE.

213-214. MODERN GERMAN DRAMA.

215-216. FAUST.

217-218. SHORT STORY.

One of the following Spanish courses is offered each year:

103-104. APPLIED SPANISH. *3 credits each semester.*

Prerequisite, 44. Intensive reading of Spanish and Spanish-American stories, with class discussion in Spanish. Independent reading of several Spanish-American novels.

106. COMMERCIAL CORRESPONDENCE. *3 credits.*

Prerequisite, 103. Translation of business letters from Spanish into English and from English into Spanish, with some attention to advertising, and some emphasis on the rubber industry.

207-208. MODERN SPANISH LITERATURE. *3 credits each semester.*

Prerequisite, 44.

209-210. SPANISH LITERATURE OF THE GOLDEN AGE AND EIGHTEENTH CENTURY (1550-1800). *3 credits each semester.*

Prerequisite, 44.

211-212. SURVEY OF SPANISH LITERATURE. *3 credits each semester.*

Prerequisite, 44. Study of representative Spanish authors and their contributions to literature. Much class discussion in Spanish.

231-232. INDIVIDUAL READING IN FRENCH, GERMAN, OR SPANISH.

1 to 3 credits each semester.

MUSIC

Professor Jorgensen, Associate Professor Ende, Assistant Professors Smith and Witters, Mr. Stein, Mr. Lightfritz, Miss Whittaker, Miss Resler, Mr. Ferguson, Mrs. Mitchell

Departmental requirements for the B. A. degree with a major in music:

The plan below shows the recommended sequence of music courses. Other courses must be in line with University requirements.

First Year		Second Year	
	Cr. Hrs.		Cr. Hrs.
Music Orientation 21.....	2	Theory 41-42.....	10
Art of Music 22.....	2	String Class 55-56.....	2
Applied Music.....	2	Applied Music.....	2
Music Organization.....	2	Music Organization.....	2
Third Year		Fourth Year	
Woodwind Class 57.....	1	Music Composition 111.....	2
Brass Class 58.....	1	Conducting 112.....	2
History of Music 101-102.....	4	Orchestration 114.....	2
Theory 103-104.....	6	Music Criticism 201.....	2
Music Organization.....	(2)	Music Research 202.....	2
		Applied Music.....	2
		Music Organization.....	(2)

Additional Requirements for Majors in Music: (1) All music majors will be required to pass a general final examination in the Theory and History of Music in the second semester of the senior year, (2) Presentation of both Junior and Senior recitals is recommended.

Music Organizations: Enrolment in University Women's Chorus, University Men's Glee Club, University Band, and University Symphony Orchestra is open to all students of the University. Membership in the University Singers and Theatre Orchestra is by audition and appointment. Not more than 4 credits for music organizations can apply toward graduation.

Applied Music: Enrolment for credit in all Applied Music courses (individual and class instruction) is contingent upon enrolment in Music Orientation. This requirement may be waived upon examination.

Students from other departments enrolled in Applied Music courses are advised to take the Music Orientation course.

Not more than 8 credits in individual instruction may apply toward graduation for Liberal Arts students. All registration in individual instruction requires the payment of additional fees. Two half-hour lessons a week (2 credits each semester), \$60. One half-hour lesson a week (1 credit each semester), \$30.

One semi-private voice lesson a week (1 credit each semester), \$20. All beginning voice students will sign for this course and upon the recommendation of the instructor at the end of the semester will be admitted to private voice lessons. Semi-private voice lessons are of one hour duration with four students per class.

Theoretical Music: All Theory courses may be taken for credit in sequence.

Music Education: Courses in Music Education cannot be counted toward graduation in the Liberal Arts College.

ORGANIZATIONS

UNIVERSITY WOMEN'S CHORUS. 2 hours a week. 1 credit per semester.

Study and performance of modern and classical choral literature. This organization co-operates with the Men's Glee Club in the production of larger choral works for mixed chorus and orchestra.

UNIVERSITY MEN'S GLEE CLUB. 2 hours a week. 1 credit per semester.

Study and performance of music suitable to this group. Co-operates with Women's Chorus in the production of larger choral works for mixed chorus and orchestra.

UNIVERSITY SINGERS. 2 hours a week. 1 credit per semester.

A mixed chorus; membership in which is by appointment through audition to the Head of the Department of Music. Numerous public performances are made throughout the year at various civic organizations, churches, broadcasting stations, and social groups. Two one-year scholarships are awarded each spring to members.

UNIVERSITY SYMPHONY ORCHESTRA. *2 hours a week. 1 credit per semester.*

An organization devoted to the advanced study of orchestral literature. This organization gives one spring concert and performs special programs such as Christmas, Easter, and commencement.

UNIVERSITY THEATRE ORCHESTRA. *Special rehearsal. No credit.*

A small, selected group of orchestra players who perform at all University theatre productions.

UNIVERSITY BAND. *1 credit per semester.*

The University Football Band is organized in the first semester and plays for all games. Rehearsals are on Monday, Wednesday, and Friday, from 4 to 6 p. m. at Buchtel Field. The University Concert Band functions only during the second semester and summer terms. Study and performance of advanced literature for the band. Membership in the concert band granted only by permission of the band director.

THEORETICAL MUSIC

*GENERAL COLLEGE

21. MUSIC ORIENTATION. *2 credits.*

A functional introduction to music embracing notation, terminology, scale construction, simple melodic dictation, and sight singing. Familiarity with the piano keyboard. Prerequisite, a knowledge of the elements of music.

22. THE ART OF MUSIC. *2 credits.*

An introduction to the literature of music using recordings as illustrative material.

41. THEORY I. *5 credits.*

Prerequisite, 21. A detailed study of scales, intervals, triads and chord formations through ear, eye, and keyboard. Advanced melodic dictation.

42. THEORY II. *5 credits.*

Prerequisite, 41. A continuation of Theory I. Harmonic dictation.

*UPPER COLLEGE

101-102. HISTORY OF MUSIC. *2 credits each semester.*

Prerequisite, 22. An historical resumé of the development of music from ancient to modern times, using recordings as illustrative material.

103. THEORY III. *3 credits.*

Prerequisite, 42. Simple two- and three-part modal and tonal counterpoint in the five species.

104. THEORY IV. *3 credits.*

Prerequisite, 103. An analytical study of the forms employed in music, covering both the homophonic and polyphonic devices.

111. COMPOSITION. *2 credits.*

Prerequisite, 104. Creative work based on the simpler homophonic and polyphonic forms. Invention of melodies, their transformation and development with suitable accompaniment.

112. CONDUCTING. *2 credits.*

Prerequisite, 114. Baton technique; practice in reading and interpretation of scores. Organization of the orchestra and band. Problems in programming. Actual practice conducting university ensembles.

114. ORCHESTRATION. *2 credits.*

Prerequisites 55, 56, 57, 58, 103. A study of the theory of instrumentation for various ensembles from the small ensemble to the full band and orchestra arrangements. Reduction of an orchestra score to piano.

201. MUSIC CRITICISM. *2 credits.*

Prerequisites, 101-102 and Philosophy 110. An introduction to musicology, stressing a study of comparative values. To be taken in senior year.

202. RESEARCH. *2 credits.*

Prerequisite, 201. A study of special problems in the theory and history of music; open only to advanced undergraduates.

*Other music courses are listed in the College of Education.

PHILOSOPHY

Professor Nelson

Students selecting Philosophy as a field of concentration are required to take Philosophy 55, 56, 103, 104 and enough other work in Philosophy to total at least 24 hours.

GENERAL COLLEGE

55. INTRODUCTION TO PHILOSOPHY. *Either semester. 3 credits.*

A survey of the fields of philosophy—logic, metaphysics and ethics—and of their relations to problems in science, religion and everyday life. Prerequisite to all Upper College courses except Aesthetics 110.

56. INTRODUCTION TO LOGIC AND SCIENTIFIC METHOD. *Second semester. 3 credits.*

A systematic study of the rules of correct reasoning and of their applications to scientific inquiry and to common sense problems of everyday life. Includes investigation of deductive and inductive inference, problems of meaning, definition and fallacies.

57. ETHICS. *First semester. 3 credits.*

Examination of the problems of moral conduct beginning with an historical survey of theories of value and moral obligation and ending with a systematic inquiry into the contemporary ethical crisis and its relation to a democratic way of life.

58. PHILOSOPHY OF RELIGION. *Second semester. 3 credits.*

Critical analysis of the basic assumptions of philosophies of religion in the Christian tradition. The philosophies studied are the following: Catholicism, Protestantism, Religion of Science, Agnosticism, Ethical Idealism, Modernism and Humanism. 1949-50 and alternate years.

59. COMPARATIVE RELIGION. *First semester. 3 credits.*

An examination of primitive religions and their development into the world's living faiths. The basic beliefs and practices of Christianity, Hinduism, Mohammedanism, Buddhism, etc. are compared and analyzed. 1949-50 and alternate years.

UPPER COLLEGE

103-104. HISTORY OF PHILOSOPHY. *3 credits each semester.*

The history of western thought including its connections with scientific, religious, social and political circumstances from ancient Greece to contemporary times. First semester: Pre-Platonic philosophers, Plato, Aristotle, Epicureans, Stoics and the Scholastics. Second semester: English Empiricists, Continental Rationalists, Kant, Hegel, Mill and Spencer.

110. AESTHETICS. *Summer term. 3 credits.*

A study of aesthetic theory. Course begins with an historical survey of theories of beauty and ends with a systematic analysis of current problems.

124. CONTEMPORARY PHILOSOPHY. *Second semester. 3 credits.*

Survey of contemporary realism, idealism, pragmatism and positivism and of their development out of the tradition of Kant, Hegel, Darwin and 19th century mathematics. Prerequisite 103-104. 1948-49 and alternate years.

129. INTERMEDIATE DEDUCTIVE LOGIC. *First semester. 3 credits.*

An introduction to mathematical logic. Study of propositional and class logic and also of elementary logico-mathematical problems. Prerequisites 56 or permission. 1948-49 and alternate years.

223. PROBLEMS OF PHILOSOPHY. *3 credits.*

Class discussion of basic problems in logic, metaphysics and ethics. Intended to help the student to attain some ability in independent philosophical analysis. Extensive reading with verbal and written reports. Prerequisite, 56 and 124.

PHYSICS

Professor Householder, Associate Professor Fouts, Mr. Pake, Mrs. Hare, Mr. Abramson, Mr. Gardner, Mr. Nelson

The work in the Physics department is planned to give those students in the Arts College who wish to major in the subject a general knowledge of the fundamentals in Physics 51, 52, 53 with a series of more advanced courses to follow, such as 201, 202, 204, 205, 209-210. Courses 51, 52, 53 will supply the information needed for a minor for students in other fields, such as Chemistry, Mathematics and Education. These courses require no mathematics beyond the Freshman year. Courses 24, 41, 42 are designed for Engineering students or others who are interested primarily in the applications of Physics. Majors may take these courses but it will increase the total hours required for a major.

The major requirements are a minimum of 28 credits in Physics, two years of Mathematics and at least one year of Chemistry, in addition to the general requirements of all students who plan to take the Bachelor's degree. Those students who do not plan to go beyond the Bachelor's degree but do plan to prepare for laboratory work in industry may on consultation with the Dean and the Head of the Department substitute Engineering courses for the foreign language. All majors will be required to elect one course in Organic Chemistry if the schedule permits.

GENERAL COLLEGE

24. MECHANICS. 4 credits.

The first course in physics for all engineering students is regularly given in the second semester of the Freshman year but will be offered also in the first semester of the sophomore year. The course covers the principles of mechanics from a strictly engineering point of view. The engineering units will be emphasized and the problem work will be such as to emphasize the engineering applications. No student will be admitted to the course who has not completed the algebra and trigonometry. Three lectures or recitations and one laboratory period per week. Lab. fee, \$2.

Mechanics

41. ~~SOUND~~ AND HEAT. 4 credits.

This is a continuation of Physics 24 and will complete such parts of mechanics as were not covered in 24 and cover ~~sound and~~ heat. Again the engineering phase will be emphasized and the calculus is required, or at least it must be taken simultaneously. Three lectures or recitations and one laboratory period per week. Lab. fee, \$2.

Sound,

42. ~~ELECTRICITY~~, AND MAGNETISM. 4 credits.

This course follows 41 and covers the chief principles of ~~magnetism and~~ electricity with the same emphasis. Three lectures or recitations and one laboratory period per week. Lab. fee, \$2.

sound,

51-52. GENERAL PHYSICS. 4 credits each semester.

An introductory lecture course planned to give a general survey of the mechanics, sound, heat, electricity and magnetism. No mathematics beyond that taken in the high school is required. While the course does not presume to prepare the student for work in applied physics, it is sufficient for the general arts students and for pre-medical students. Three lectures and one laboratory period per week. Lab. fee, \$2 per semester.

53. OPTICS. 4 credits.

Optics is that branch of physics which is concerned with the phenomena of radiation but the major part of this course is concerned with visible light. The principles of geometrical optics and their applications in optical instruments and optical measurements absorb about three-fourths of the semester. The elementary principles of physical optics complete the course. Students will need sophomore mathematics, and Physics 52. Three lectures and one laboratory period per week. Lab. fee, \$2.

The Laboratory work in these courses is very closely integrated with the class room work. No separate credit for the class work or the laboratory work is possible. The two parts must be taken simultaneously. Students who are repeating the course may be excused from the Laboratory work by permission of the Dean and Head of the Department.

61. LABORATORY ARTS. 2 credits.

This course is planned for majors in the Natural Science Division and is open to all persons planning to teach the sciences in high school and to those preparing for the position of laboratory assistant in industrial work. The purpose of this course is to teach the student how to use simple power tools needed in every physics shop, to make and repair such glass joints, valves, and devices as are needed, to prepare scales, to make lantern slides and use projection devices and how to keep in operation the chief instruments used in the physics laboratory. It is an elective course. Lab. fee, \$4.

UPPER COLLEGE

201. ELECTRICITY AND MAGNETISM. 4 credits.

Magnetostatics, electrostatics, dielectrics, electrical images, atmospheric electricity, the electric circuit, the effects, measurement and production of the steady unidirectional electric currents, and the measurement of electrical quantities, particularly the quantity of electricity itself. The laboratory work is primarily concerned with the theory and use of electrical measuring instruments and may be taken either with the classroom work concurrently or later by special arrangements with the department. Three recitations and one lab. period per week. Lab. fee, \$2.

202. ELECTRICITY AND MAGNETISM. 4 credits.

A continuation of 201, beginning with currents in inductive circuits. The facts of inductance and capacitance and their effect on alternating and intermittent currents, transmission of power, generators, transformers, motors form the principal part of the semester's work. Electro-magnetic waves and thermoelectric phenomena complete the course. Prerequisites, Physics 201 and some knowledge of differential equations. Three recitations and one lab. period per week. Fee, \$2.

204. INTRODUCTION TO ATOMIC PHYSICS. 3 credits.

A review of the revolutionary discoveries in physics made since 1890 and the part they have had in establishing the electrical nature of matter. The structure of the atom, the transmutations of matter, and an elementary introduction to the quantum mechanics complete the course. Prerequisites, calculus and optics. Three lectures per week.

205. MECHANICS AND SOUND. 3 credits.

An intermediate course in mechanics and heat with special emphasis on the theory of elasticity and acoustics. Prerequisites, calculus and Physics 52. Three lectures per week.

209-210. PHYSICS MEASUREMENTS. 2 credits each semester.

A laboratory course in advanced physics measurements involving advanced laboratory technics. Some of the more advanced classical experiments will be repeated and certain experimental projects growing out of Physics 204 and 205. A thesis course. Lab. fee, \$4 each semester.

221-222. COLLOQUIUM. 1 credit each semester.

GRADUATE COURSES

302. QUANTUM MECHANICS. 3 credits.

An introductory course in quantum mechanics planned to give the student a thorough knowledge of the failure of the classical mechanics in the domain of atomic physics and a familiarity with some of the more fundamental physical ideas and mathematical methods of the subject. The chief objectives of the course are to prepare the student for an intensive study of the subject and for a study of its applications. Open only to students who have majored in physics and are familiar with the calculus. A knowledge of the matrices is not necessary. Three lectures per week.

304. ELECTRIC CURRENTS THROUGH GASES. 3 credits.

The theory and practice of electric currents in gases and vacuum tubes. The relation of current intensity to gaseous pressure and the characteristics of the more important vacuum tube circuits. A foundation course for future work in electronics. Three lectures per week.

304. LABORATORY. 1 credit.

A series of experiments involving the use of electron tubes and electric circuits to accompany or follow 304. Lab. fee, \$2.

306. PHYSICAL OPTICS. 3 credits.

An advanced course in the physical theory of light including the development of the wave theory and the wave mechanics. The elements of spectroscopy and spectroscopic analysis will be emphasized. Three lectures per week.

306. LABORATORY. 1 credit.

Laboratory exercises in interference diffraction and polarization to accompany or follow 306. Lab. fee, \$2.

307. ELECTRODYNAMICS. 3 credits.

The mathematical theory of the electric field based on Maxwell's equations. The application of these principles, and the more recent findings of the wave mechanics, to electric communication problems will form the nucleus of the course. Three lectures per week.

308. NUCLEAR PHYSICS. 3 credits.

A study of the structure of the nucleus and modern methods of transmutation, with their application to biophysics and chemical physics. Three lectures per week.

309-310. ADVANCED PHYSICAL MEASUREMENTS.

A graduate thesis course. Credit according to work done. Usually about 2 credits per semester. Lab. fee, \$4 each semester.

311-312. THERMODYNAMICS. 3 credits each semester.

A mathematical course covering the fundamental principles of thermodynamics and their physical applications. Simple engineering applications will not be included. Three lectures per week.

314. X-RAYS. 3 credits.

A first course in the theory and applications of X-rays to physical and chemical problems. Extensive use of X-ray camera and interpretation of X-ray photographs. Three lectures per week.

314. LABORATORY. 1 credit.

Laboratory practice in X-ray work to accompany or follow 314. Lab. fee, \$2.

(Courses on the 300 level are offered in alternate years.)

POLITICAL SCIENCE

*Professor Sherman, Associate Professors West and King, Mrs. Odell,
Miss Liitt, Mr. Schier*

Students emphasizing political science in their field of concentration are expected to have at least 24 hours in the field of political science. Students preparing to teach will find that the State Department of Education considers political science and history as one subject major or minor.

Prerequisites: At least three hours of political science in the General College are required. These three hours may be selected from four courses, any one of which will satisfy the requirement: American National Government 41, American State and Local Government 42, Comparative Government 43, and American Diplomacy 44.

GENERAL COLLEGE

41. AMERICAN NATIONAL GOVERNMENT. *Either semester. 3 credits.*

A study of the Constitution, its distribution of powers, the President, the Congress, the courts and the great administrative organization in its contacts with the citizen.

42. AMERICAN STATE AND LOCAL GOVERNMENT. *Second semester. 3 credits.*

A study of the forty-eight states and many county governments, with particular emphasis on Ohio government.

43. COMPARATIVE GOVERNMENT. *Second semester. 3 credits.*

Emphasis is placed on the government of England. Other governmental systems are compared with England and with each other.

44. AMERICAN DIPLOMACY. *First semester. 3 credits.*

This course analyzes the machinery by which the United States conducts its foreign relations and the varying policies adopted toward different major areas of the world.

UPPER COLLEGE

Courses Offered Each Year

103. POLITICAL PARTIES. *First semester. 3 credits.*

The development, organization, functions, and machinery of American political parties.

109. GOVERNMENT AND SOCIAL WELFARE. *First semester. 3 credits.*

A study of the part government has come to play in the social welfare field.

110. GOVERNMENT AND BUSINESS. *Second semester. 3 credits.*

The relationships of government with business in the nature of prohibitions, regulations, supervision, and assistance.

115-116. POLITICAL THEORY. *2 credits each semester.*

The first semester begins with the political thinking at the time of Plato and ends with the seventeenth century; the second semester continues to the present day with emphasis on American political thought.

205. CONSTITUTIONAL LAW. *First semester. 3 credits.*

A study of the Constitution and the American system of government in terms of Supreme Court decisions.

211. INTERNATIONAL RELATIONS. *First semester. 3 credits.*

A study of the basic realities of nation-wide relationships; power politics; the balancing of power; specific foreign policies; economic, cultural, and geographical factors which exert influence.

212. INTERNATIONAL LAW. *Second semester. 3 credits.*

A study of the established rules, practices, and conventions governing the relations of the several national states of the world and their citizens in their relationship with one another.

217-218. FIELD WORK IN PUBLIC ADMINISTRATION. 3 credits each semester.

Open only to senior majors with six hours of public administration. This course is for the student who desires a career in public service.

298. SEMINAR IN POLITICAL SCIENCE. Second semester. 2 credits.

Required for senior majors. Seniors taking 217-218 may be excused from seminar.

Courses Offered 1947-48 and Alternate Years

108. PARLIAMENTARY LAW AND LEGISLATIVE PROCEDURE. Second semester. 3 credits.

A drill course in parliamentary procedure. About one-third of the course is devoted to modern legislative procedure.

207. MUNICIPAL FINANCE. Second semester. 2 credits.

Municipal budgets, purchasing of materials, sources of municipal revenue, and problems of real estate tax.

213-214. PUBLIC ADMINISTRATION. 3 credits each semester.

A study of the principles of administrative organization; of personnel recruitment; of sound budget organization and procedure; of public reporting and public relations.

220. ADMINISTRATIVE LAW. Second semester. 3 credits.

A study of the rights of a citizen before government agencies and the rights and duties of the public official; the customary procedures of government agencies and the legal recourse of both agency and citizen in accomplishing the objectives of each.

301. READINGS IN WORLD AFFAIRS. 1 to 3 credits.**302. READINGS IN PUBLIC ADMINISTRATION. 1 to 3 credits.****303. READINGS IN POLITICS AND PUBLIC AFFAIRS. 1 to 3 credits.**

Not more than 6 credits may be earned in reading courses.

401. RESEARCH AND THESIS IN POLITICAL SCIENCE. 1 to 3 credits.

Courses Offered 1948-1949 and Alternate Years

101. MUNICIPAL GOVERNMENT. First semester. 3 credits.

The development, composition, and governmental organization of American city life.

102. MUNICIPAL ADMINISTRATION. Second semester. 3 credits.

The organization of city government for the performance of services to the public, such as police protection, supervised playgrounds, parks, etc.

206. MUNICIPAL CORPORATIONS. Second semester. 3 credits.

The American city from the legal point of view as established by the many court decisions.

PSYCHOLOGY

Professor Twining

The staff is listed and the courses are described under Psychology in the College of Education section of the catalog. Students emphasizing Psychology in the field of concentration are expected to take at least 24 credits in Psychology. The courses included in the requirement are determined by the needs and interests of the student. Psychology 41 is required in the General College. Social Statistics 57 is required either in the second or third year. Recommended courses in the General College are Psychology 42, 43, Social Science, Biology, Business Organization and Management 61, Philosophy, English and Speech.

All courses in the department except 51 are acceptable in the major. No student, major or otherwise, may present more than two of the courses numbered 43, 52, and 62. All Liberal Arts College requirements for graduation apply to students who major in Psychology, including the requirement of the second year of a foreign language on the college level.

SECRETARIAL SCIENCE

Professor Douth, Associate Professors Flint and Tucker, Assistant Professor Self, Miss Girves, Mrs. Handwerk, Miss Anna Mae Flint, Miss Sterley, Mrs. Blichle, Mrs. Wettstynne, Miss Clark, Miss Flora Flint, Miss Woodford

Students interested in preparing themselves for the higher grade secretarial and office positions may choose between two programs offered in Secretarial Science: a two-year certificate course, listed in the General College, and a degree course which is essentially a combination of the technical work required in business and the broad cultural education needed for effective living. By proper planning, it is possible to complete the 4-year curriculum in three years, including summer sessions. Considerable latitude is allowed for the planning of each individual's program to meet his particular needs.

Admission: Admission to the department is open to all who have satisfactorily met the requirements of the General College and who have completed one year of shorthand and typewriting (41-42 and 51-52 or equivalent). However, it is advisable to elect the other General College courses listed below.

Combination Courses: Two special five-year programs are available, each leading to two degrees: (1) Secretarial Science—Liberal Arts, and (2) Secretarial Science—Education. Those interested should confer with the head of the department.

Graduation: (1) In addition to the regular requirements of the University for graduation, students must pass a general final examination (field of specialization only) in the senior year. (2) At least 60 semester hours of the total program must be in academic subjects. (3) Graduates receive the degree of B.S. in Secretarial Science.

Shorthand and Typewriting: Those who have had shorthand and typewriting before entrance will begin these courses in college at such point as their degree of proficiency permits as indicated by placement tests. Approved electives, preferably academic subjects, will be taken in place of the work omitted. Full credit will not be granted where undue repetition exists.

Credit for Shorthand and Typewriting:

For those who take Shorthand 41-42 or Typewriting:

High School Credits	Course Entered in College	Credit Given
1 unit	First semester	Half credit
	Second semester (or review class)	Full credit
2 units	First semester	No credit
	Second semester (or review class)	Half credit
	Second year	Full credit

For those who take Shorthand 141-142:

High School Credits	Course Entered in College	Credit Given
1 unit	First semester	Full credit
1½ units	First semester	Full credit
2 units	First semester	Half credit
	Second semester	Full credit

A program for students specializing in this field must include:

First Year		Second Semester	
First Semester	Cr. Hrs.	Cr. Hrs.	Cr. Hrs.
Secretarial Procedure 21.....	3	Filing and Mach. Calc. 26.....	3
Second Year			
Typewriting 51.....	2	Typewriting 52.....	2
Accounting 41 or 21.....	3	Accounting 42 or 22.....	3
Third Year			
Shorthand Theory 141.....	3	Intermediate Dictation 142.....	5
Economics 41.....	3	Transcription 152.....	2
Business Law 51.....	3	Economics (Advanced).....	3
Secretarial Training 74.....	2	Business Administration 61.....	3
		Business Correspondence 133.....	3
Fourth Year			
Advanced Dictation 143.....	4	Advanced Dictation 144.....	4
Office Practice 293.....	3	Seminar in Office Management 296.....	3

**ONE YEAR SECRETARIAL CERTIFICATE
PROGRAM FOR COLLEGE GRADUATES**

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Shorthand Theory 141.....	5	Intermediate Dictation 142.....	5
Typewriting 51	2	Transcription 152	2
Secretarial Procedure 21.....	3	Typewriting 52	2
Accounting 41 (or 21).....	3	Filing and Machine Calculation 26.....	3
Business Correspondence 133.....	3	Accounting 42 (or 22).....	3
		Seminar in Office Management 296.....	3

GENERAL COLLEGE

21. SECRETARIAL PROCEDURE. *Either semester. 3 credits.*

The fundamental principles and procedures which relate to the secretarial position.

23. SECRETARIAL PROCEDURE. *Either semester. 2 credits.*

An adaptation of 21 for adults with office experience. Given in the evening only.

25. MACHINE AND SLIDE RULE CALCULATION. *Either semester. 1 credit.*

Techniques of machine and slide rule calculation as applied to business. Credit is not allowed for this course and also for Filing and Machine Calculation 26.

26. FILING AND MACHINE CALCULATION. *Either semester. 3 credits.*

Thorough treatment of all basic filing systems. Fundamental operations of listing, key-type, and crank-driven adding and calculating machines. Fee, \$1.75.

31. TYPEWRITING (*Personal*). *Either semester. 2 credits.*

A basic course intended primarily for those who can devote only one semester to this subject. Credit not allowed for this course and also for 51. Fee, \$4.

35. BUSINESS ENGLISH. *Either semester. 2 credits.*

Fundamentals of English, with stress on areas in which business men have found college graduates to be weak.

41-42. SHORTHAND THEORY. *3 credits each semester.*

Gregg shorthand theory is completed, transcription introduced, and general dictation given between 60 and 80 words per minute.

46. SHORTHAND REVIEW. *Second semester. 3 credits.*

A thorough review of Gregg Shorthand Theory, covering one year's work. Credit not allowed for this course and also for 41-42.

51-52. TYPEWRITING. *2 credits each semester.*

Fundamentals of typewriting, including drill, placement, letters, tabulations, preparation of reports, etc. Fee, \$4 each semester.

56. TYPEWRITING REVIEW. *Second semester. 2 credits.*

A thorough review of typewriting, covering one year's work. Credit not allowed for this course and also for 51-52. Fee, \$4.

57. TYPEWRITING. *Evening session. First semester. 1 credit.*

A beginning course which lays the foundation for advanced work in typewriting through fundamental drills covering the keyboard and paragraph writing. Minimum speed requirement 20-25 words per minute at the end of the course. Fee, \$4.

58. TYPEWRITING. *Evening session. Second semester. 1 credit.*

Prerequisite, 57, or equivalent. Continuation of Typewriting 57, emphasizing letter and manuscript writing. Minimum speed requirements 35-40 words per minute at the end of the course. Fee, \$4.

59. TYPEWRITING. Evening session. First semester. 1 credit.

Prerequisite, 58, or equivalent. Continuation of Typewriting 58, emphasizing tabulation, legal and business forms. Minimum requirements 45-50 words per minute. Fee, \$4.

63-64. ADVANCED SHORTHAND AND TRANSCRIPTION. 4 credits each semester.

Prerequisite, 42 and 52 or equivalent. Vocabulary building; general dictation on letters, articles, and speed takes ranging from 60 to 120 words per minute. Fee, \$1 each semester.

74. SECRETARIAL TRAINING. Either semester. 2 credits.

Prerequisite, 42 and 52, or equivalent. Advanced typewriting, transcription, business forms, duplicating processes, dictating and transcribing machines. Fee, \$1.50.

83-84. INTERMEDIATE DICTATION. Evening session. 3 credits each semester.

Prerequisite, mastery of shorthand and typewriting theory. Vocabulary building, general dictation on letters, articles and congressional record material. Speed from 60 to 100 words per minute. Fee, \$1 each semester.

85. INTERMEDIATE DICTATION. Evening session. First semester. 3 credits.

Prerequisite, ability to take dictation at 100 words per minute and type 40-50 words per minute. Vocabulary building, general dictation on letters and articles. Speed from 100 to 120 words per minute. Fee, \$1.

93. BUSINESS LETTERS. Either semester. 2 credits.

Principles and practice in the writing of business letters.

95-96. OFFICE MANAGEMENT AND PRACTICES. 2 credits each semester.

A study of office functions and of the principles involved in office management, adapted for adults with office experience. Credit not allowed for this course and also for 296.

UPPER COLLEGE

133. BUSINESS CORRESPONDENCE. Either semester. 3 credits.

Prerequisite, English 2. An advanced treatment of business letter writing, including extensive outside reading and reports. Credit not allowed for this course and also for 93.

141. SHORTHAND THEORY. First semester. 5 credits.

Prerequisite, Typewriting 52. This course covers Gregg Shorthand theory. Dictation at speeds ranging from 60 to 80 words per minute.

142. INTERMEDIATE DICTATION. Second semester. 5 credits.

Prerequisite, 141. This course covers vocabulary and phrase building. Dictation of letters, articles, and speed takes ranging from 100 to 120 words per minute.

152. TRANSCRIPTION. Second semester. 2 credits.

This must accompany 142. Drills to increase transcription rate and transcription from dictation given in 142. Fee, \$1.

143. ADVANCED DICTATION. First semester. 4 credits.

Prerequisite, 142. This course consists of the dictation of letters, articles, and congressional record publications. Speed of dictation ranges from 100 to 140 words per minute. Fee, \$1.

144. ADVANCED DICTATION. Second semester. 4 credits.

Prerequisite, 143. Dictation material consists of court cases, letters, and articles. Three transcribed lectures are required. Speed of dictation ranges from 130 to 160 words per minute. Fee, \$1.

165-166. ADVANCED DICTATION. 4 credits each semester.

Prerequisite, 64 or 164, or equivalent. Letters, articles, congressional record material, court cases, and lectures, with speed of dictation ranging from 100 to 160 words per minute. Fee, \$1 each semester.

186. ADVANCED DICTATION. Evening session. Second semester. 3 credits.

Prerequisite, ability to take dictation for five minutes at 110 to 120 words per minute and type from 30 to 35 words per minute. Abbreviated vocabulary, dictation on letters and congressional record material. Speed from 110-130 words per minute. Fee, \$1.

187-188. ADVANCED DICTATION. Evening session. 3 credits each semester.

Prerequisite, 186. Technical vocabulary dictation on letters and articles; court reporting and lectures with speed of dictation from 125 to 160 words per minute. Fee, \$1 each semester.

293. OFFICE PRACTICE. First semester. 3 credits.

Prerequisites, 26 and 142. Laboratory work on duplicating machines, calculating machines, transcribing and dictating machines, filing, long carriage machine and electric typewriter, and part-time office experience. Fee, \$2.50.

296. SEMINAR IN OFFICE MANAGEMENT. Second semester. 3 credits.

Prerequisite, Commerce 61. A seminar with individual projects relating to analyses of various aspects of the office and to problems involved in office management.

SOCIOLOGY

Professor DeGraff, Mr. Smith, Mr. Kruse, Mr. Brown

For General College courses suggested but not required, see General College section.

Students emphasizing Sociology in their field of concentration are expected to take 24 hours in the field of Sociology. The courses in this requirement are selected with special reference to the needs of the individual student. In special cases, either more or less than 24 hours may be required.

Students emphasizing social welfare work as their field of concentration are required to take Field Work 111-112; Technique of Social Case Work 251-252; Theory of Social Work 202; Government and Social Welfare 109; Sanitation 71-72; Community Organization 206; Child Welfare 117; Welfare Aspects of Social Security 209; Community Social Studies 219-220; Specific courses in economics, home economics, and biology are also recommended.

Students may do their supervised field work with the Summit County Children's Home, the Family Service Society, the Juvenile Court, the City Hospital, Department of Public Charities, Y.M.C.A., Y.W.C.A., the Boy Scouts, the Girl Scouts, ~~War Relief~~, Federal Housing, Jewish Center, Catholic Service League, Council of Social Agencies, Red Cross or Travelers' Aid Society. *com. direct*

A course in statistics is required for all students. Mathematics 57, Social Statistics, meets this requirement.

The following courses count toward the 24-hour requirement. The courses all have Sociology 41 and 42 (offered in the General College) as a prerequisite. However, with permission of the head of the department, the prerequisite may be taken collaterally with these courses.

Courses 43, 104, 117, 206, 209, 221, 251 and 252 are planned to meet the needs of both University students and field workers in social agencies and institutions.

Intro to Sociology GENERAL COLLEGE

23. ~~Sociology for Nurses~~ *3 credits (for nurses)*

This course treats of personal adjustment of nurse to patient, patient to nurse, and the nurse's relationship to the community.

41. ~~Introduction to~~ *General* SOCIOLOGY. *Either semester. 3 credits.*

A study of the origin, development, structure, and function of social groups.

42. SOCIAL ATTITUDES. *Either semester. 3 credits.*

Prerequisite, 41. A study of the development of a person and personality, emphasizing the processes by which such are developed as a function of the social group.

43. MODERN SOCIAL PROBLEMS. *3 credits.*

A presentation of social problems from the sociological point of view.

45. SOCIAL ANTHROPOLOGY. *3 credits.*

An elementary course dealing with the fundamental concepts of our cultural heritage.

UPPER COLLEGE

Courses Offered Each Year

109-110. SEMINAR AND THESIS. *2 credits each semester.*

For seniors only. Required. A study of research techniques and a presentation of a paper before a group composed of students, faculty, and special guests.

111-112. FIELD WORK. *3 credits for 150 hours of work at a recognized agency or institution.*

Intended primarily for students interested in welfare or group work. Seniors only. Two semesters recommended.

206. COMMUNITY ORGANIZATION. *First semester. 3 credits.*

A practical study of the social, religious, educational, relief, and character building agencies of a community. A required course.

219-220. COMMUNITY SOCIAL STUDIES. *3 credits each semester.*

No credit is given toward graduation for less than a full year's work. Study and analysis of community problems based upon research with reference to Census Tract Maps.

251-252. TECHNIQUE OF SOCIAL CASE WORK. *2 credits each semester.*

A study of practical techniques with emphasis upon case work interpretation and procedure.

Courses Offered 1948-49 and Alternate Years

114. CRIMINOLOGY. *Second semester. 3 credits.*

A general background course for delinquency and penology. Cause, treatment, and prevention of crime.

117. CHILD WELFARE. *Second semester. 3 credits.*

A study of the relation and responsibility of the state and community to the child.

205. THE SOCIOLOGY OF LEISURE TIME. *First semester. 3 credits.*

A study of the public, private, commercial, and industrial provisions for recreation and leisure time activities.

207. SOCIAL THEORY. *First semester. 2 credits.*

A study and analysis of theoretical basis of modern social thoughts, institutions, and organizations. A required course for majors.

208. SOCIAL ORIGINS. *Second semester. 2 credits.*

A study and analysis of the origin of social institutions, organizations, and systems of social thought. A required course for majors.

209. WELFARE ASPECTS OF SOCIAL SECURITY. *Second semester. 3 credits.*

An analysis of social security as interpreted by social and welfare agencies.

223
222
221. THEORY OF SOCIAL WORK. *First semester. 3 credits.*

An interpretation of the historical and theoretical background of social work, techniques, and philosophy.

231. SOCIAL CONFLICT. *First semester. 3 credits.*

Social conflict will be considered here as a fundamental aspect of social interaction; emphasis will be on principles regarding the nature, causes, results and techniques for resolving conflict. Particular cases of conflict will be used for illustration only. Class discussion will include social conflict, its similarities and differences compared with competition; types of conflict including that between individuals, between small groups, between factions in larger groups, between institutions, e.g., church versus the state and between whole collectivities, e.g., rural versus urban. Social conflict is also considered as a factor in group solidarity as a cultural phenomenon rather than due to instincts or personal antipathies. Techniques for controlling social conflict are considered. Prerequisite, Sociology 42.

Courses Offered 1949-50 and Alternate Years

104. LEADERSHIP. *Second semester. 2 credits.*

An interpretation of leaders and leadership with emphasis upon problems, techniques, and processes of the same.

113. URBAN-RURAL SOCIOLOGY. *First semester. 2 credits.*

A comparison and analysis of urban and rural life with emphasis upon the person.

204. THE FAMILY, *Second semester. 3 credits.*

A presentation of the family as a group of interacting personalities.

210. POPULATION MOVEMENTS. *Second semester. 3 credits.*

Present movements of population as in-migration, refugee, prison, urban and rural, with their sociological implications.

213. THE JUVENILE DELINQUENT. *First semester. 3 credits.*

A study of the delinquent as a person. Emphasis upon causes, treatment and prevention.

217. RACE RELATIONS. *Second semester. 3 credits.*

A study of minority groups with emphasis upon the sociological interpretation.

221. SOCIAL CONTROL. *First semester. 3 credits.*

A consideration of the foundations, means and techniques for controlling social behavior.

SPEECH

Associate Professor Varian, Mrs. Franck, Mr. Turner, Mr. Wilson, Mrs. Wright, Mr. Jones, Mrs. Hardenstein

The courses in the Department of Speech are designed to provide education in the fundamentals of speech, including social adaptation and control, public address, and personal proficiency. Professional training is given, and students are prepared to become teachers in one or more of the following fields: public speaking, argumentation and debate, acting and dramatic production, interpretation, radio speaking, and speech correction. Since Upper College work in speech embraces these fields, the student should elect a program in General College that will apply directly to the specific interests in the field of speech which he proposes to follow in Upper College.

Major: A minimum of 24 hours in speech. The following courses are required: 41, 51, 271, 272, 291, 292, 293. Students are expected to take at least one course in each area of the speech field.

Suggested Electives: Interpretation 51 and any other General College speech courses, the basic courses in the social sciences and psychology, Shakespeare 41, Appreciation of Drama 50, Design 21, Art Appreciation 29-30, History of Music 102.

The University Theatre: The University Theatre provides excellent facilities for training students in acting and dramatic production. At least three full length plays are staged each year.

Forensic Activities: The Department of Speech sponsors a University Debate Team and supervises a program of intramural and intercollegiate debates.

The Speech and Hearing Clinic: The clinic, which is free to all citizens of Akron, provides guidance and assistance in the diagnosis and treatment of all kinds of voice and speech disorders. Remedial treatment is offered to a limited number. Advanced students assist with the work of the clinic.

Radio Broadcasting Studio: Training is provided in announcing, writing, and performing for the radio. Practical training is offered through the facilities of local radio stations.

Speakers' Bureau: The Speech Department supervises a Speakers' Bureau for the convenience of the residents of Akron and for training of its students. Speakers, debaters, readers, and discussion panels are available to local groups. Occasionally a one-act play can be provided.

Ashton Public Speaking Contests: Several prizes are available each year to the winners of the public speaking contests and the interpretation contest. The contests are open to all students in the University.

Pixley Scholarships in Speech: See section on scholarships and prizes.

GENERAL COLLEGE

41. PUBLIC SPEAKING. *Either semester. 3 credits.*

A beginning course designed to provide instruction in the essentials of effective public speaking.

42. ADVANCED PUBLIC SPEAKING. *Either semester. 3 credits.*

Prerequisite, 41. An advanced course for those who wish to develop skill in direct public address.

45-46. ORAL ARGUMENT. *2 credits each semester.*

A study of the theory of argument. Analysis of the logical processes in the speech situation. Practice in argument and discussion.

47. BUSINESS AND PROFESSIONAL SPEAKING. *Either semester. 2 credits.*

An adaptation of the speech skills to business and professional life. Practice in conference, discussion, and types of speeches.

48. ADVANCED BUSINESS AND PROFESSIONAL SPEAKING. *Either semester. 2 credits.*

Prerequisite, 47.

51. READING ALOUD. *First semester. 3 credits.*

A basic course designed to provide experience in the oral interpretation of the printed page.

52. ADVANCED INTERPRETATION. *Second semester. 3 credits.*

Prerequisite, 51. Further practice in reading aloud. Program building in reference to specific audiences and specific types of literature.

56. PUBLIC DISCUSSION AND GROUP PROCEDURE. *Second semester. 3 credits.*

Prerequisite, permission. The technique of discussion in terms of the skills of the effective discussion leader and the effective discussion-participant. Practice in the various types of discussion.

57-58. INTERCOLLEGIATE DEBATE. *1 or 2 credits each semester.*

A study of the nature of argument in its application to a particular question which is debated among the universities and colleges each year. A group is selected to comprise the University Debate Team which fulfills intercollegiate engagements.

*See Bulletin of the University of Akron for details
changed.*

59-60. INTERCOLLEGIATE DEBATE. *1 or 2 credits each semester.*

65-66. SPEECH IMPROVEMENT. *1 credit each semester.*

For those students who need special help to improve their articulation and enunciation, voice quality, pitch, intensity, or rate.

76. FUNDAMENTALS OF SPEECH. *Either semester. 3 credits.*

A course designed especially for majors in the College of Education. Effective speaking for the classroom teacher with emphasis upon organization, delivery, voice, and articulation.

UPPER COLLEGE

114. TEACHING OF SPEECH. *Either semester. 2 credits.*

A course in teaching methods to improve the speech of the elementary and secondary school child. Not credited in the Liberal Arts College.

143. FORMS OF PUBLIC ADDRESS. *Either semester. 3 credits.*

Prerequisite, 42. A consideration of the psychology of persuasion, the style, and the type of speech as applied to direct public address.

144. FORMS OF PUBLIC ADDRESS. *Second semester. 3 credits.*

Prerequisite, 143.

154. VOICE TRAINING. *Either semester. 1 credit.*

Specific training and practice for the advanced student, intended to improve vocal conditions for all speech purposes.

161. PLAY PRODUCTION. *First semester. 3 credits.*

An introductory course in play direction and stage design. The fundamentals of scenery construction, stage lighting, make-up, and theatre management. Fee, \$2.

162. ADVANCED PLAY PRODUCTION. *Second semester. 3 credits.*

Prerequisite, 161. Fee, \$2.

163-164. ACTING. *3 credits each semester.*

Prerequisite, 51. A detailed study of the actor's resources, stage practice, gesture, movement, timing and pointing of lines, sustaining emotional scenes, effective characterization, and styles in acting.

165-166. SPEECH IMPROVEMENT (Advanced). *1 credit each semester.*

Prerequisite, 65-66, or permission.

167. HISTORY OF THE THEATRE. *First semester. 3 credits.*

An historical survey of modes and manners in the theatre from ancient times to the present day. Styles in acting, scene design, stage construction, stage lighting, and drama.

181. RADIO SPEAKING. *Either semester. 3 credits.*

A study of the technique and the performance of radio broadcasting. Practice in microphone technique, announcing, reading and writing for the radio. Fee, \$1.

204. SPEECH PHONETICS. *Second semester. 2 credits.*

271-272. SPEECH CORRECTION. *2 credits each semester.*

The classification, diagnosis, and treatment of speech defects. In the second semester special attention is given to case studies and clinical practice.

287. SEMINAR IN RADIO WRITING AND PRODUCTION. *3 credits.*

Practical experience in writing and adapting for the radio. Opportunity is provided for performance from the University studio over one of the local stations. Fee, \$1.

291-292. HISTORY AND DEVELOPMENT OF SPEECH. *2 credits each semester.*

A comparative study of public speaking and oratory from primitive times to the present with emphasis upon particular speakers, outstanding speeches, and speaking techniques.

293. SPEECH SEMINAR. *Second semester. 2 credits.*

393. RESEARCH. *Either semester. 1 to 3 credits.*

COLLEGE OF ENGINEERING

R. D. Landon, C.E., M.S., Dean

GENERAL INFORMATION

Establishment of the College of Engineering was approved by the Board of Directors of the University in 1914. Because of the magnitude and diversity of industrial development in the Akron area, the advantages of the cooperative plan were apparent. Accordingly, a five year course, similar to that originated at the University of Cincinnati by the late Dean Herman Schneider, was developed by Dean Fred E. Ayer, another pioneer in cooperative engineering education.

All graduating classes since the first in 1919 followed the cooperative plan until in 1942 the accelerated curriculum was adopted as a temporary expedient to aid the war effort. Instruction on the cooperative plan was resumed with the class entering in September, 1947.

THE COOPERATIVE PLAN

Fundamentally, the cooperative plan provides for a coordinated sequence of alternate periods of class room instruction and industrial employment. During the cooperative phase of the five year course, the student body is divided into two equal groups, Sections A and B. While those in Section A attend classes for the first period, the students in Section B are employed in industry. During the second period those in Section A report for industrial employment and the students in Section B attend classes. This schedule of alternation continues throughout the calendar year. By pairing a student in Section A with an alternate in Section B and by deducting vacations from school periods, employers are assured that one of each pair will be on duty in industry every working day of the year.

The cooperative plan provides simultaneously for the development of fundamental principles in the class room and for their application in industrial practice. The cooperative student has the opportunity to find the type of work and industrial organization in which he can best apply his individual ability. He gains an appreciation of the problems of labor and management by first hand experience. He develops a maturity of judgment by coping with the everyday problems which are inherent in the modern industrial world. The employer of cooperative students has the opportunity to select and train students whose abilities and aptitudes can be adapted to the needs of his technical staff requirements.

At The University of Akron, engineering students attend classes full time for two semesters during the first year and for two and one-half semesters during the second year. At the beginning of the third year, students alternate class room instruction with industrial employment in periods of one-half semester. The cooperative phase extends through the third, fourth and first half of the fifth year. At that time, all students return to classes for a final semester before graduation.

While students are at work, they are required to obey all rules and regulations prescribed by the employer. In addition, they are subject to all current labor laws and conditions.

The University does not guarantee employment, but makes every effort to place students to the best financial advantage that is consistent with the acquisition of sound sub-professional experience.

THE COOPERATIVE SCHEDULE

FRESHMAN YEAR

(Full Time)

<u>First Semester</u>	<u>Second Semester</u>
(Fall)	(Spring)

SOPHOMORE YEAR

(Full Time)

<u>First Semester</u>	<u>Second Semester</u>	<u>Third Term*</u>
(Fall)	(Spring)	(Summer)

PRE-JUNIOR YEAR

(Cooperative)

<u>First Semester</u>	<u>Second Semester</u>	<u>Third Term</u>
(Fall)	(Spring)	(Summer)

Section A	<u>School (1)*</u>	<u>Work (1)</u>	<u>School (2)</u>	<u>Work (2)</u>	<u>School (3)</u>
Section B	<u>Work (1)*</u>	<u>School (1)</u>	<u>Work (2)</u>	<u>School (2)</u>	<u>Work (3)</u>

JUNIOR YEAR

(Cooperative)

<u>First Semester</u>	<u>Second Semester</u>	<u>Third Term</u>
(Fall)	(Spring)	(Summer)

Section A	<u>Work (3)</u>	<u>School (4)</u>	<u>Work (4)</u>	<u>School (5)</u>	<u>Work (5)</u>
Section B	<u>School (3)</u>	<u>Work (4)</u>	<u>School (4)</u>	<u>Work (5)</u>	<u>School (5)</u>

SENIOR YEAR

(Cooperative)

(Full Time)

<u>First Semester</u>	<u>Second Semester</u>
(Fall)	(Spring)

Section A	<u>School (6)</u>	<u>Work (6)</u>	<u>Second Semester</u>
Section B	<u>Work (6)</u>	<u>School (6)</u>	(Spring)

*All third terms and all cooperative school and work periods are of one-half semester duration.

CURRICULA AND DEGREES

The College of Engineering offers curricula on the cooperative plan in Civil, Electrical, and Mechanical Engineering with Aeronautical and Industrial Options in Mechanical Engineering. The degrees conferred for satisfactory completion of the prescribed courses and a satisfactory employment record are Bachelor of Civil Engineering, Bachelor of Electrical Engineering and Bachelor of Mechanical Engineering.

It is the aim of this College to provide basic training for effective living in a modern society as well as to provide the fundamentals necessary for a career in engineering. Since the fundamentals in all branches of engineering are identical, the program for the first two years is the same for all students. Upon satisfactory completion of this phase of the curricula, students select their field of specialization and are promoted to the Upper College department of their choice.

Since the cooperative phase of the curricula begins in the third year, it is necessary that all students complete the work of the first two years before they are eligible for placement on cooperative work assignments. Students who are unable to carry the courses as scheduled should allow extra time, probably one year, for completion of the requirements for graduation.

THE DANIEL GUGGENHEIM AIRSHIP INSTITUTE

In addition to the facilities on the campus, The Daniel Guggenheim Airship Institute, located near the Municipal Airport, is an integral unit of the College of Engineering. The Institute houses a vertical wind tunnel, whirling arm, gust tunnel and water channel, as well as other equipment used in both basic research and in industrial research and testing. Meteorological indicating and recording equipment mounted on a steel tower near Tallmadge provides facilities for research in this field.

Certain technical staff members at the Institute have academic standing and provide both lecture and laboratory instruction for students electing the Aeronautical Option in Mechanical Engineering. In addition, there is some opportunity for cooperative employment of Aeronautical Option students at the Institute.

ADMISSION REQUIREMENTS

The admission of any student to The University of Akron will depend upon the evidences of his preparation and ability to do college work in a satisfactory manner. The evidences are: (1) graduation from an accredited four-year secondary school or its equivalent; (2) quality of work done in the secondary school; (3) ranking in certain tests given by the University to determine preparation, ability and aptitudes; (4) attitude toward college work.

Any student applying for admission is expected to have an adequate background in both oral and written English. In addition, any student

applying for admission in Engineering is required to present the following secondary school credits:

Algebra $1\frac{1}{2}$ units Plane Geometry 1 unit
 Solid Geometry or Trigonometry $\frac{1}{2}$ unit
 Chemistry or Physics 1 unit

The last two requirements become effective in September, 1948. It is strongly recommended that any applicant in Engineering present additional credits in mathematics and physical science.

Since the Engineering curricula have been designed to operate on an annual rather than on a semester basis, beginning students are regularly admitted only in September. In special cases, admission may be granted in February.

All beginning students who are admitted to the University will register in the General College. Those admitted in Engineering will be eligible for transfer to the College of Engineering after satisfactory completion of the first semester Engineering schedule.

ADMISSION FROM OTHER COLLEGES

Applicants with college credits earned at other accredited colleges may be eligible for admission to the College of Engineering provided the quality of work completed meets the scholastic requirements of the University and such applicants are eligible to re-enter the institution of last attendance.

Because of the nature of the cooperative course, applicants from other colleges should plan to enter the College of Engineering not later than the beginning of the sophomore year.

REQUIREMENTS FOR GRADUATION

It is necessary that a candidate for the Bachelor's degree fulfill the following requirements: (1) earn credit in all of the required courses listed in the schedule, (2) accumulate at least 155 credits, (3) earn a quality point ratio of at least 2.00 in his departmental courses as well as in total credits and (4) complete satisfactorily six cooperative work periods.

FEES AND OTHER EXPENSES

Payment of fees is part of the registration procedure. All fees must be paid at the Treasurer's office at the time of enrolment.

Tuition is not charged to legal residents of Akron. Tuition charges for other students are included in the following listing of expenses for a normal, full time schedule during both complete semester periods and during half-semester school periods in the cooperative plan:

FEES WHILE ON FULL TIME BASIS

	First Semester	Second Semester
Tuition fee, for non-residents of Akron.....	\$ 90.00	\$ 90.00
Fees for all students		
Maintenance fee	35.00	35.00
Student activity fee.....	7.00	3.00
Student building fee.....	3.00	3.00
Library fee	1.50	1.50
Total for non-residents of Akron.....	\$136.50	\$132.50
Total for residents of Akron.....	\$ 46.50	\$ 42.50

FEES WHILE ON COOPERATIVE BASIS

	First Semester Period	Second Semester Period	Summer Period
Tuition fee, for non-residents of Akron.....	\$ 60.00	\$ 60.00	\$ 60.00
Fees for all students			
Maintenance fee	25.00	25.00	25.00
Student activity fee.....	7.00	3.00	2.00
Student building fee.....	3.00	3.00	1.50
Library fee	1.50	1.50	1.00
Total for non-residents of Akron....	\$ 96.50	\$ 92.50	\$ 89.50
Total for residents of Akron.....	\$ 36.50	\$ 32.50	\$ 29.50

Laboratory fees are included in course descriptions.

SCHEDULE OF REQUIRED COURSES

FRESHMAN YEAR
(Full Time)

FIRST SEMESTER
(Fall)

Subject	Rec.	Lab.	Cr.
College Algebra 21.....	3	0	3
Trigonometry 22	3	0	3
English, Oral and Written 1.....	3	0	3
Engineering Drawing 21.....	0	6	2
Survey of Engineering 23.....	1	0	1
Hygiene, Mental 15.....	2	0	2
Military S. and T. 11.....	2	1	1½
Physical Education 3.....	0	2	1
	14	9	16½

SECOND SEMESTER
(Spring)

Subject	Rec.	Lab.	Cr.
Analytic Geometry 43.....	3	0	3
Physics 24 (Mechanics).....	3	2	4
English, Oral and Written 2.....	3	0	3
Engineering Drawing 22.....	0	6	2
Intr. to Social Sciences 6.....	3	0	3
Military S. and T. 12.....	2	1	1½
Physical Education 4.....	0	2	1
	14	11	17½

*Special Sections for Engineering Students.

SOPHOMORE YEAR
(Full Time)

FIRST SEMESTER
(Fall)

Subject	Rec.	Lab.	Cr.
Differential Calculus 45.....	3	0	3
Physics 41 (Heat).....	3	2	4
Descriptive Geometry 43.....	1	5	3
(Economics 41 or Public Speaking 41.....)	3	0	3
Intr. to Humanities 7.....	3	0	3
Military S. and T. 43.....	2	1	1½
	15	8	17½

SECOND SEMESTER
(Spring)

Subject	Rec.	Lab.	Cr.
Integral Calculus 46.....	3	0	3
Physics 42 (Electricity).....	3	2	4
(Public Speaking 41 or Economics 41).....	3	0	3
Intr. to Humanities 8.....	3	0	3
Applied Mechanics 48 (Statics).....	3	0	3
Military S. and T. 44.....	2	1	1½
	17	3	17½

THIRD TERM (Half Semester)
(Summer)

Subject	Rec.	Lab.	Cr.
Heat Power Engineering ME 46.....	6	0	3
Applied Mechanics 49 (Dynamics).....	6	0	3
Elementary Surveying CE 47.....	2	6	2
D.C. and A.C. Theory EE 30.....	3	3	2
(for C.E. and M.E. students) or E.E. Fundamentals EE 31.....	4	0	2
(for E.E. students)	17	9	10
	18	6	10

BASIC ENGINEERING COURSES

GENERAL COLLEGE

21. ENGINEERING DRAWING. 2 credits (0-2)

Freehand sketching, lettering and proper use of drawing instruments. Geometric drawing. Orthographic projection. Emphasis on accuracy and technique with pencil and pen.

22. ENGINEERING DRAWING. 2 credits (0-2)

Prerequisite, Engineering Drawing 21. Auxiliary views, isometric and oblique drawing and cross sections. Detailed dimensions. Bolt and screw details. Working drawings. Tracings and prints.

23. SURVEY OF ENGINEERING. 1 credit. (1-0)

Engineering as a profession, including personal aptitudes, educational requirements, scope of the various branches, professional duties, responsibilities and ethics. Lectures by staff members and practicing engineers.

43. DESCRIPTIVE GEOMETRY. 3 credits (1-2)

Prerequisite, Engineering Drawing 22. Graphical methods of solving three dimensional problems involving points, lines, planes and solids. Intersection and development of surfaces. Application of graphical methods to solution of engineering problems.

48. APPLIED MECHANICS (STATICS). 3 credits (3-0)

Prerequisite, Physics 24. Prerequisite or corequisite, Math. 46. Forces. Resultants. Couples. Equilibrium of force systems. Friction. First moments and centroids. Second moments of areas. Moments of inertia of bodies.

49. APPLIED MECHANICS (DYNAMICS). 3 credits (3-0)

Prerequisite, Applied Mechanics 48. Motion of particles and of rigid bodies. Force, mass and acceleration. Translation, rotation and plane motion. Work. Potential and kinetic energy. Efficiency. Impulse and momentum.

UPPER COLLEGE

112. ENGINEERING MATHEMATICS. 3 credits (3-0)

Prerequisite, Math. 46. Complex numbers. Introduction to linear differential equations, power series, solution of cubic and higher degree equations, method of least squares and empirical graphing. Applications of mathematics to solution of engineering problems in student's major field.

118. HYDRAULICS. 3 credits (3-0)

Prerequisite, Applied Mechanics 49. Liquids at rest, including balance of liquid columns, forces on plane and curved surfaces and center of pressure. Liquids in motion, including flow through orifices, tubes, weirs, pipes and open channels. Characteristics of tangential wheels, reaction turbines and centrifugal pumps.

119. HYDRAULICS LABORATORY. 1 credit (0-1)

Prerequisite, Hydraulics 118. Verification of water flow through orifices, tubes, weirs, pipes and open channels. Calibration of meters. Applications of logarithmic plotting. Performance tests of displacement and centrifugal pumps. Lab. fee \$2.00.

125. ENGINEERING ACCOUNTING. 3 credits (3-0)

Prerequisite, Junior standing. Basic accounting principles as applied to corporate business. Fundamentals of cost accounting. Use of accounting data in determination of business policies.

131. ENGINEERING CHEMISTRY. 4 credits (3-1)

Prerequisite, Pre-Junior standing. Study of fundamental laws and important reactions with emphasis on applications in industry. Concurrent laboratory exercises for illustration and verification. Lab. fee \$5.00.

132. ENGINEERING CHEMISTRY. 4 credits (3-1)

Prerequisite, Chemistry 131. Continuation of 131. Lab. fee \$5.00.

#Rec. -- Lab. credit.

135. APPLIED METALLURGY. 3 credits (2-1)

Prerequisite, Engineering Chemistry 132. A beginning course with emphasis on Engineering applications. Theory of metals. Equilibrium diagrams. Iron, steel, aluminum, copper, lead, zinc, tin and their important alloying elements. Metallurgical control of physical properties. Engineering applications of industrial and structural alloys. Heat treatment techniques. Metallography. Lab. fee \$4.00.

151. TECHNICAL REPORT WRITING. 2 credits (2-0)

Prerequisites, English 2 and Pre-Junior standing. Detailed study of content, style, graphic aids and arrangement of informal and formal technical reports. Requirements include submission of four complete reports.

CIVIL ENGINEERING

Professor Boguslavsky, Dean Landon, Mr. Weinberg.

The field of civil engineering may be divided into four branches covering structures, transportation, hydraulics and sanitation.

The structural engineer designs and supervises the construction of such facilities as bridges, buildings, dams and tunnels. He must consider not only utility and safety but also economy and appearance. Often the unseen part of structures, the foundation, presents difficult problems.

In the field of transportation, the civil engineer applies his design and construction ability to railroads, highways, airports and water transportation, including harbor facilities and waterways.

The hydraulic engineer is concerned with the control and conservation of water for such projects as water supply, irrigation, drainage, flood control, navigation and water power. In this field, determination of economic feasibility is of utmost importance.

The sanitary engineer devotes his efforts to improving the cleanliness and healthfulness of both industrial and residential areas. Safe water supplies and adequate facilities for the removal of wastes are unquestioned necessities in modern communities.

Many civil engineers are employed by departments of federal, state and local governments. Others are employed by construction companies or by firms of consulting engineers.

SCHEDULE OF REQUIRED COURSES

PRE-JUNIOR YEAR

(Cooperative)

FIRST SEMESTER

(Fall)

(Sections A & B)*

Subject	Rec.	Lab.	Cr.
Strength of Materials CE 101.....	6	3	3½
Engineering Chemistry 131.....	6	6	4
A. C. Machines EE 131.....	4	6	3
	<u>16</u>	<u>15</u>	<u>10½</u>

SECOND SEMESTER

(Spring)

(Sections A & B)*

Subject	Rec.	Lab.	Cr.
Strength of Materials CE 102.....	6	0	3
Engineering Chemistry 132.....	6	6	4
Route Surveying CE 108.....	2	12	3
	<u>14</u>	<u>18</u>	<u>10</u>

THIRD TERM (Half Semester)

(Summer)

(Section A Only)

Subject	Rec.	Lab.	Cr.
Technical Report Writing 151.....	4	0	2
Stress Analysis CE 105.....	6	0	3
Advanced Surveying CE 109.....	4	12	4
	<u>14</u>	<u>12</u>	<u>9</u>

*Section A attends classes for first half of semester.
Section B attends classes for second half of semester.

JUNIOR YEAR

(Cooperative)

FIRST SEMESTER

(Fall)

(Section B — First Half)

Subject	Rec.	Lab.	Cr.
Technical Report Writing 151.....	4	0	2
Stress Analysis CE 105.....	6	0	3
Advanced Surveying CE 109.....	4	12	4
	14	12	9

(Section A — Second Half)

Statically Indeterminate			
Structures CE 106.....	6	0	3
Highway Design and Construction			
CE 110.....	4	6	3
Engineering Mathematics 112.....	6	0	3
	16	6	9

SECOND SEMESTER

(Spring)

(Section B — First Half)

Subject	Rec.	Lab.	Cr.
Statically Indeterminate			
Structures CE 106.....	6	0	3
Highway Design and Construction			
CE 110.....	4	6	3
Engineering Mathematics 112.....	6	0	3
	16	6	9

(Section A — Second Half)

Structural Design CE 114.....	6	0	3
Hydraulics 118.....	6	0	3
Engineering Accounting CE 125.....	6	0	3
Concrete Laboratory CE 112.....	0	6	1
	18	6	10

THIRD TERM (Half Semester)

(Summer)

(Section B Only)

Subject	Rec.	Lab.	Cr.
Structural Design CE 114.....	6	0	3
Hydraulics 118.....	6	0	3
Engineering Accounting 125.....	6	0	3
Concrete Laboratory CE 112.....	0	6	1
	18	6	10

SENIOR YEAR

FIRST SEMESTER (Cooperative)

(Fall)

(Sections A & B)*

Subject	Rec.	Lab.	Cr.
Structural Design CE 115.....	6	0	3
Reinforced Concrete Design CE 117.....	6	0	3
Water Supply CE 121.....	6	0	3
Hydraulics Laboratory 119.....	0	6	1
	18	6	10

SECOND SEMESTER (Full Time)

(Spring)

Subject	Rec.	Lab.	Cr.
Structural Design CE 118.....	1	6	3
Sewerage CE 122.....	2	0	2
Sanitary Design CE 124.....	0	3	1
Soil Mechanics CE 120.....	3	0	3
Non-technical Elective**.....	3	0	3
Community Planning CE 126.....	5	0	3
C. E. Problems CE 128.....	1	6	3
	13	15	18

*Section A attends classes for first half of semester.

Section B attends classes for second half of semester.

**In field of Social Sciences or Humanities.

DESCRIPTION OF CIVIL ENGINEERING COURSES

GENERAL COLLEGE

47. ELEMENTARY SURVEYING. 2 credits (1-1)#

Prerequisite, Math. 22. Principles of plane surveying. Use of tape, level and transit. Computation of areas. Field problems in measuring horizontal and vertical distances and angles. Principles of stadia and plane table. Map drafting. Lab. fee \$4.00.

UPPER COLLEGE

101. STRENGTH OF MATERIALS. 3½ credits (3-½)

Prerequisite, Applied Mechanics 48. Tensile, compressive and shearing stresses. Riveted joints. Torsion. Shear and bending moment diagrams. Design of beams. Deflection of beams. Laboratory tests of steel in tension and torsion, wood in compression and bending, concrete in compression. Hardness tests. Lab. fee \$2.00.

102. STRENGTH OF MATERIALS. 3 credits (3-0)

Prerequisite, 101. Restrained beams. Direct stresses combined with bending. Columns with axial and eccentric loadings. Elastic energy. Stresses produced by moving bodies. Continuous beams. Beams of two materials.

105. STRESS ANALYSIS. 3 credits (3-0)

Prerequisite, 101. Types of loads. Reactions, shears and moments due to fixed and moving loads. Stresses in trusses due to fixed and moving loads. Graphic statics. Influence lines.

106. STATICALLY INDETERMINATE STRUCTURES. 3 credits (3-0)

Prerequisite, 105. Angle changes. Beam deflections and slopes. Moment distribution. Joint translation. Truss deflections. Virtual work. Williot diagram. Maxwell's law of reciprocal relations. Secondary stresses.

108. ROUTE SURVEYING. 3 credits (1-2)

Prerequisite, 47. Simple, compound and reverse curves. Spirals. Vertical curves. Earthwork computations. Mass diagrams applied to highway and railway locations. Field work on curves and earthwork. Highway and railway location including determination of final grades. Lab. fee \$2.00.

109. ADVANCED SURVEYING. 4 credits (2-2)

Prerequisite, 47. Adjustment of instruments. Precise leveling and triangulation. Topographic survey by plane table-stadia, including map drafting. Subdivision and platting. Astronomical observations to determine azimuth, latitude, longitude and time. Lab. fee \$4.00.

110. HIGHWAY DESIGN AND CONSTRUCTION. 3 credits (2-1)

Prerequisites, 101, 108. Principles of highway and airport design and construction. Drainage, foundations and roadway materials. Design and cost estimate of a highway to meet given specifications.

112. CONCRETE LABORATORY. 1 credit (0-1)

Prerequisite, Chemistry 132. Tests of cement, aggregates and concrete in accordance with A.S.T.M. Standards. Design of concrete mixes. Lab. fee \$2.00.

114. STRUCTURAL DESIGN. 3 credits (3-0)

Prerequisite, 102. Riveted, welded and pin connections. Design of tension members.

115. STRUCTURAL DESIGN. 3 credits (3-0)

Prerequisite, 114. Direct stresses and flexure. Design of compression members. Plate girders. Timber design.

#Rec. — Lab. credit.

117. REINFORCED CONCRETE DESIGN. 3 credits (3-0)

Prerequisites, 102, 106, 112. Manufacture of concrete. Rectangular and tee beams. Flexure, shear, anchorage and bond stresses. Tied and spiral columns. Footings and bridges.

118. STRUCTURAL DESIGN. 3 credits (1-2)

Prerequisites, 115, 117. Design of steel roof truss. Design of steel bridge truss with concrete deck.

120. SOIL MECHANICS. 3 credits (3-0)

Prerequisites, 102, Hydraulics 118. Soil geology and properties. Soil moisture. Limits of consistency. Permeability. Cohesion and internal friction. Compressibility and consolidation. Stress distribution in soil. Frost action. Settlement of structures.

121. WATER SUPPLY. 3 credits (3-0)

Prerequisite, Hydraulics 118. Elements of hydrology. Quality and quantity requirements. Development of surface and ground water supplies. Treatment of domestic and industrial supplies. Distribution systems, including reservoirs and pumping stations. Principles of water works finance.

122. SEWERAGE. 2 credits (2-0)

Prerequisite, 121. Hydraulics of sewers. Quantity of domestic sewage and storm water. Collection by separate and combined systems. Treatment of domestic sewage.

124. SANITARY DESIGN. 1 credit (0-1)

Prerequisite or corequisite, 122. Analysis of water distribution system. Water works finance, including least capitalized cost. Design of sanitary and storm water drains. Dimensional design of water and sewage treatment units.

126. COMMUNITY PLANNING. 3 credits (3-0)

Prerequisite, Senior standing. History of community planning. Provisions for orderly and balanced development. Zoning. Benefits of planning as reflected in physical and mental health of residents. Requirements for streets, playgrounds, parks, transportation facilities. Development of residential, commercial, industrial and civic areas. Detailed study of a selected modern city plan.

128. CIVIL ENGINEERING PROBLEMS. 3 credits (1-2)

Prerequisite, Senior standing. Selected problems assigned to individuals or small groups under supervision of staff member. Requirements include complete engineering report.

ELECTRICAL ENGINEERING

Professor Fairburn, Associate Professors Smith and Sibila

The many branches of electrical engineering include production and distribution of electrical energy; development and manufacture of electrical equipment and products ranging in size from huge generators to miniature electric bulbs; design, installation and operation of communication systems including telephone, telegraph, radio and television; adaptation of electronic principles to industrial needs such as indicating and control mechanisms; design of modern lighting, both indoor and out; design of electrical systems for vehicles, ships and aircraft and cooperation in such fields as electro-chemistry, metallurgy and medicine.

The growth of the electrical industry has been steady and rapid. In the two decades from 1918 to 1938, the total use of electrical energy in the United States increased threefold. Electrical manufacturing is one of the leading American industries and includes organizations of all sizes from the privately owned shop employing a few workers to the huge corporation manufacturing hundreds of items and employing thousands of men and women.

The large majority of electrical engineers are employed by utility companies and manufacturers of electrical equipment. Other employment opportunities may be found with large industrial firms and with electrical contractors and consultants.

SCHEDULE OF REQUIRED COURSES

PRE-JUNIOR YEAR

(Cooperative)

FIRST SEMESTER

(Fall)

(Sections A & B)*

SECOND SEMESTER

(Spring)

(Sections A & B)*

Subject	Rec.	Lab.	Cr.	Subject	Rec.	Lab.	Cr.
Strength of Materials CE 101.....	6	3	3½	Shop Practice ME 170.....	0	6	1
Engineering Chemistry 131.....	6	6	4	Engineering Chemistry 132.....	6	6	4
A. C. Circuits EE 141.....	3	0	1½	Technical Report Writing 151.....	4	0	2
Shop Practice ME 169.....	0	6	1	D. C. Machines EE 160.....	3	3	2
				A. C. Circuits EE 142.....	3	0	1½
	15	15	10		16	15	10½

THIRD TERM (Half Semester)

(Summer)

(Section A Only)

Subject	Rec.	Lab.	Cr.
Thermodynamics ME 175.....	6	0	3
Industrial Electronics EE 151.....	4	0	2
A. C. Circuits EE 143.....	5	0	1½
A. C. Machines EE 161.....	3	3	2
Electrical Measurements EE 145.....	3	3	2
	19	6	10½

*Section A attends classes for first half of semester.
Section B attends classes for second half of semester.

JUNIOR YEAR

(Cooperative)

FIRST SEMESTER

(Fall)

(Section B — First Half)

Subject	Rec.	Lab.	Cr.
Thermodynamics ME 175.....	6	0	3
Industrial Electronics EE 151.....	4	0	2
A. C. Circuits EE 143.....	3	0	1½
A. C. Machines EE 161.....	3	3	2
Electrical Measurements EE 145.....	3	3	2
	19	6	10½

(Section A — Second Half)

Subject	Rec.	Lab.	Cr.
Engineering Mathematics 112.....	6	0	3
M. E. Laboratory ME 189.....	0	3	½
Electrical Measurements EE 147.....	3	3	2
Engineering Electronics EE 153.....	3	3	2
A. C. Machines EE 162.....	3	6	2½
	15	15	10

SECOND SEMESTER

(Spring)

(Section B — First Half)

Subject	Rec.	Lab.	Cr.
Engineering Mathematics 112.....	6	0	3
M. E. Laboratory ME 189.....	0	3	½
Electrical Measurements EE 147.....	3	3	2
Engineering Electronics EE 153.....	3	3	2
A. C. Machines EE 162.....	3	6	2½
	15	15	10

(Section A — Second Half)

Subject	Rec.	Lab.	Cr.
Hydraulics 118.....	6	0	3
Electrical Measurements EE 148.....	2	6	2
Engineering Electronics EE 154.....	3	3	2
A. C. Machines EE 163.....	3	6	2½
M. E. Laboratory ME 188.....	0	3	½
	14	18	10

THIRD TERM (Half Semester)

(Summer)

(Section B Only)

Subject	Rec.	Lab.	Cr.
Hydraulics 118.....	6	0	3
Electrical Measurements EE 148.....	2	6	2
Engineering Electronics EE 154.....	3	3	2
A. C. Machines EE 163.....	3	6	2½
M. E. Laboratory ME 188.....	0	3	½
	14	18	10

SENIOR YEAR

FIRST SEMESTER (Cooperative)

(Fall)

(Sections A & B)*

Subject	Rec.	Lab.	Cr.
A. C. Machines EE 164.....	3	0	1½
Hydraulics Laboratory 119.....	0	6	1
Industrial Instrumentation EE 149.....	3	3	2
Engineering Electronics EE 155.....	3	6	2½
Illumination Engineering EE 135.....	3	3	2
	12	18	9

SECOND SEMESTER (Full Time)

(Spring)

Subject	Rec.	Lab.	Cr.
Electrical Controls EE 165.....	2	3	3
E. E. Problems EE 167.....	1	6	3
Non-technical Elective**.....	3	0	3
Applied Metallurgy 135.....	2	3	3
Power Option			
Advanced A. C. Machine EE 166.....	2	3	3
Electrical Machine Design EE 168.....	1	6	3
	11	21	18
Electronics Option			
Ultra High Frequencies EE 156.....	2	3	3
Communication Networks EE 158.....	3	0	3
	13	15	18

*Section A attends classes for first half of semester.
 Section B attends classes for second half of semester.
 **In Field of Social Sciences or Humanities.

DESCRIPTION OF ELECTRICAL ENGINEERING COURSES

GENERAL COLLEGE

30. DIRECT CURRENT AND ALTERNATING CURRENT PRINCIPLES.

2 credits (1½-½) #

Prerequisite, Physics 42. (For C.E. and M.E. students) Principles of direct current circuits, generators and motors. Principles of alternating current circuits and instruments. Lab. fee \$3.00.

31. ELECTRICAL ENGINEERING FUNDAMENTALS. *2 credits (2-0)*

Prerequisite, Physics 42. Fundamental units of electricity. Ohm's Law. Kirchhoff's Laws. Power. Analysis of series and parallel circuits. Magnetic properties and circuits. Induced and generated electromotive forces. Inductance. Force on a conductor. Electrostatics. Direct current instruments.

UPPER COLLEGE

131. ALTERNATING CURRENT MACHINES. *3 credits (2-1)*

Prerequisite, 30. (For C.E. and M.E. students) Three-phase power measurements. Principles, characteristics and applications of alternators, motors and transformers. Introduction to electronics. Lab. fee \$3.00.

135. ILLUMINATION ENGINEERING. *2 credits (1½-½)*

Prerequisite, Physics 42. Fundamentals of illumination and principles underlying specifications and designs for adequate electrical lighting. Lab. fee \$1.50.

141. ALTERNATING CURRENT CIRCUITS. *1½ credits (1½-0)*

Prerequisite, 31. Vector analysis of alternating current, voltage and power. Series and parallel circuits. Balanced and unbalanced polyphase circuits.

142. ALTERNATING CURRENT CIRCUITS. *1½ credits (1½-0)*

Prerequisite, 141. Coupled circuits. Non-sinusoidal waves. Metering. Electric filters.

143. ALTERNATING CURRENT CIRCUITS. *1½ credits (1½-0)*

Prerequisites, 142, Math. 112. Transmission line calculations at low and high frequencies. Symmetrical components. Direct and alternating current transients.

145. ELECTRICAL MEASUREMENTS. *2 credits (1½-½)*

Prerequisite, 31. High and low resistance potentiometers. Precision direct current measurements. Direct current meter calibration. Dudell oscillograph. Ballistic galvanometer applications. Lab. fee \$1.50.

147. ELECTRICAL MEASUREMENTS. *2 credits (1½-½)*

Prerequisites, 142, 145. Alternating current bridges for capacitance, inductance and frequency measurements. Calibration of alternating current meters. Rectifier and thermocouple meters. Instrument transformers. Lab. fee \$1.50.

148. ELECTRICAL MEASUREMENTS. *2 credits (1-1)*

Prerequisite, 147. Study of graphic meters. Calibration of watt-hour, vacuum tube and special meters. Transmission line and audio frequency measurements. Lab. fee \$3.00.

149. INDUSTRIAL INSTRUMENTATION. *2 credits (1½-½)*

Prerequisite, 131 or 141. Principles of electric indicating, recording and control instruments as applied to temperature, pressure and fluid flow. Detailed analysis of measuring characteristics of such instruments. Lab. fee \$1.50.

151. INDUSTRIAL ELECTRONICS. *2 credits (2-0)*

Prerequisite, 131 or 141. Principles of vacuum and gas tubes and photocells. Analysis and application of industrial electronic circuits.

#Rec. — Lab. credit.

153. ENGINEERING ELECTRONICS. 2 credits (1½-½)

Prerequisites, 142, 151. Mathematical analysis of vacuum and gas tubes and photocells. Tube circuits. Emphasis on measuring techniques. Lab. fee \$1.50.

154. ENGINEERING ELECTRONICS. 2 credits (1½-½)

Prerequisite, 153. Circuit applications. Amplifiers, relays and oscillators. Power conversion, rectifiers and inverters. Lab. fee \$1.50.

155. ENGINEERING ELECTRONICS. 2½ credits (1½-1)

Prerequisite, 154. Continuation of 154. Radio transmitters and receivers. Modulation. Antennas and radiation. Radio frequency measuring techniques. Lab. fee \$3.00.

156. ULTRA HIGH FREQUENCIES. 3 credits (2-1)

Prerequisite, 155. General study of high frequency applications. Ultra high frequency oscillators using klystrons, magnetrons and cavity resonators. Coaxial cables. Wave guides. Lab. fee \$3.00.

158. COMMUNICATION NETWORKS. 3 credits (3-0)

Prerequisite, 155. Advanced treatment of transmission lines and filters. General communication problems. Ultra high frequency design.

160. DIRECT CURRENT MACHINES. 2 credits (1½-½)

Prerequisite, 31. Armature windings and reactions. Commutation. Analysis of generators and motors, their characteristics and design features. Control equipment. Machine applications. Lab. fee \$1.50.

161. ALTERNATING CURRENT MACHINES. 2 credits (1½-½)

Prerequisites, 141, 160. Principles and operation of alternators and transformers. Predetermination of characteristics. Transformer connections. Lab. fee \$1.50.

162. ALTERNATING CURRENT MACHINES. 2½ credits (1½-1)

Prerequisite, 161. Principles and operation of polyphase induction motors. Predetermination and analysis of characteristics. Lab. fee \$3.00.

163. ALTERNATING CURRENT MACHINES. 2½ credits (1½-1)

Prerequisite, 162. Principles and operation of polyphase synchronous motors. Predetermination and analysis of characteristics. Special types of synchronous and asynchronous machines. Power rectifiers. Lab. fee \$3.00.

164. ALTERNATING CURRENT MACHINES. 1½ credits (1½-0)

Prerequisite, 163. Principles and applications of power and fractional horsepower single-phase motors.

165. ELECTRICAL CONTROLS. 3 credits (2-1)

Prerequisites, 151, 163. Principles and applications of important types of electromagnetic and electronic controls. Specifications, designs, electrical drafting and estimates. Lab. fee \$1.50.

166. ADVANCED ALTERNATING CURRENT MACHINES. 3 credits (2-1)

Prerequisite, 164. Detailed study of alternating current machine characteristics and problems such as alternator wave shapes, inrush currents to transformers and motors, harmonics, unbalanced circuits, heating and insulation design. Lab. fee \$3.00.

167. ELECTRICAL ENGINEERING PROBLEMS. 3 credits (1-2)

Prerequisite, Senior standing. Selected comprehensive problems. Supervised discussion and computation periods.

168. ELECTRICAL MACHINE DESIGN. 3 credits (1-2)

Prerequisites, 160, 164. Individual student problems involving designs and estimates for one direct current and one alternating current machine to meet definite specifications. Designs must be based on fundamental considerations.

MECHANICAL ENGINEERING

Professor Griffin, Associate Professors Upp and Wilson, Assistant Professors Hamlen and Petry, Mr. Wiczorek

The more important branches of mechanical engineering include machine design, manufacturing and production methods and the heat-power field.

The importance of machine design in this age is self evident. The mechanical engineer designs and supervises the manufacture of not only the machines used in every day life but also the machine tools which make these machines. The design of special equipment required in industries as unrelated as textile and toy manufacturing challenges the ingenuity of the mechanical engineer.

In the field of heat-power, the mechanical engineer designs, builds and operates boilers, turbines and engines which convert the heat content of fuels into useful energy for immediate application or for conversion into electrical energy which can be distributed over wide areas. Motive power for automobiles, railroads, ships and aircraft is being constantly improved with respect to both thermal efficiency and dependability.

The design and installation of complete air conditioning equipment for the control of both temperature and humidity is a relatively recent but major development in the heat-power field.

All the way from the mine to the final delivery of finished products, the knowledge and skill of the mechanical engineer have aided the development of modern industry to the point at which more people can purchase more goods for less cost.

The great majority of mechanical engineers are employed in a wide variety of capacities in industry but a limited number act as independent consultants.

SCHEDULE OF REQUIRED COURSES

PRE-JUNIOR YEAR

(Cooperative)

FIRST SEMESTER

(Fall)

(Sections A & B)*

Subject	Rec.	Lab.	Cr.
Strength of Materials CE 101.....	6	3	3½
Engineering Chemistry 131.....	6	6	4
A. C. Machines EE 131.....	4	6	3
	16	15	10½

SECOND SEMESTER

(Spring)

(Sections A & B)*

Subject	Rec.	Lab.	Cr.
Strength of Materials CE 102.....	6	0	3
Engineering Chemistry 132.....	6	6	4
Industrial Electronics EE 151.....	4	0	2
	16	6	9

THIRD TERM (Half Semester)

(Summer)

(Section A Only)

Subject	Rec.	Lab.	Cr.
Thermodynamics ME 175.....	6	0	3
Mechanics ME 172.....	6	0	3
Technical Report Writing 151.....	4	0	2
Machine Drawing ME 171.....	0	12	2
	16	12	10

*Section A attends classes for first half of semester.
Section B attends classes for second half of semester.

JUNIOR YEAR
(Cooperative)

FIRST SEMESTER
(Fall)

(Section B — First Half)

Subject	Rec.	Lab.	Cr.
Thermodynamics ME 175.....	6	0	3
Mechanics ME 172.....	6	0	3
Technical Report Writing 151.....	4	0	2
Machine Drawing ME 171.....	0	12	2
	16	12	10

(Section A — Second Half)

Subject	Rec.	Lab.	Cr.
Thermodynamics ME 176.....	4	0	2
Engineering Mathematics 112.....	6	0	3
Mechanics Drawing ME 174.....	0	6	1
Machine Design ME 178.....	6	0	3
Shop Practice ME 169.....	0	6	1
	16	12	10

SECOND SEMESTER
(Spring)

(Section B — First Half)

Subject	Rec.	Lab.	Cr.
Thermodynamics ME 176.....	4	0	2
Engineering Mathematics 112.....	6	0	3
Mechanics Drawing ME 174.....	0	6	1
Machine Design ME 178.....	6	0	3
Shop Practice ME 169.....	0	6	1
	16	12	10

(Section A — Second Half)

Subject	Rec.	Lab.	Cr.
Steam Power Plants ME 185.....	6	0	3
Hydraulics 118.....	6	0	3
M. E. Laboratory ME 182.....	0	12	2
Shop Practice ME 170.....	0	6	1
	12	18	9

THIRD TERM (Half Semester)
(Summer)

(Section B Only)

Subject	Rec.	Lab.	Cr.
Steam Power Plants ME 185.....	6	0	3
Hydraulics 118.....	6	0	3
M. E. Laboratory ME 182.....	0	12	2
Shop Practice ME 170.....	0	6	1
	12	18	9

SENIOR YEAR

FIRST SEMESTER (Cooperative)
(Fall)

(Sections A & B)*

Subject	Rec.	Lab.	Cr.
Steam Power Plants ME 186.....	4	0	2
Internal Combustion Engines ME 190.....	6	0	3
Hydraulics Laboratory 119.....	0	6	1
M. E. Laboratory ME 183.....	0	18	3
	10	24	9

SECOND SEMESTER (Full Time)
(Spring)

Subject	Rec.	Lab.	Cr.
Heating and Air Conditioning ME 187.....	3	0	3
M. E. Problems ME 194.....	1	6	3
Machine Design ME 179.....	3	6	5
Inspection Trips ME 196.....	0	3	1
Non-technical Elective**.....	3	0	3
Production Management 62.....	3	0	3
	13	15	18

AERONAUTICAL OPTION

Mechanical Engineering students electing the Aeronautical Option will substitute Stress Analysis CE 105, Aero. 165, 166, 167 and 168 for ME 183, 185, 186, 187 and 194.

INDUSTRIAL OPTION

Mechanical Engineering students electing the Industrial Option will substitute five courses in Industrial Management for ME 183, 185, 186, 187 and 194. Courses selected must be approved by Department Head.

*Section A attends classes for first half of semester.
Section B attends classes for second half of semester.

**In Field of Social Sciences or Humanities.

DESCRIPTION OF MECHANICAL ENGINEERING COURSES
GENERAL COLLEGE

46. HEAT POWER ENGINEERING. 3 credits (3-0) #

Prerequisite, Physics 41. Principles of production of energy and power by means of heat engines. Study of fuels, properties of steam, steam boilers, steam engines and turbines, internal combustion engines, gas turbines and power plant auxiliaries.

UPPER COLLEGE

169. SHOP PRACTICE. 1 credit (0-1)

Study of various types of machine tools and operations that can be performed on them. Assigned projects include use of hand tools, drill press, grinder, lathe, shaper and milling machine. Emphasis on accuracy and shop safety. Lab. fee \$2.00.

170. SHOP PRACTICE. 1 credit (0-1)

Prerequisite, 169. Continuation of 169 and heat treatment. Lab. fee \$2.00.

171. MACHINE DRAWING. 2 credits (0-2)

Prerequisite, Engineering Drawing 22. Detailed drawings of machine parts and assemblies of complete machines. Technical sketching. Notes and specifications. Shop terms and methods. Drafting room practice. Piping diagrams. Tire and mold drawings. Welding practice and symbols applied to machine parts construction.

172. MECHANISM. 3 credits (3-0)

Prerequisite, Applied Mechanics 49. Motion, velocity and acceleration of machine parts and various devices for producing desired motions. Development and action of spur, bevel, helical and worm gears.

174. MECHANISM DRAWING. 1 credit (0-1)

Prerequisite or corequisite, 172. Problems of conventional mechanisms solved by accurate graphical methods.

175. THERMODYNAMICS. 3 credits (3-0)

Prerequisites, Math. 46, Physics 41. Reversible transformation of heat and work. Energy equations. Heat properties of liquids, gases and vapors. Heat cycles. Entropy. Available and unavailable energy. Air vapor mixtures. Flow through nozzles. Refrigeration cycles. Ideal and actual engines, including gas turbines and jet propulsion.

176. THERMODYNAMICS. 2 credits (2-0)

Prerequisite, 175. Application of thermodynamic principles. Problems covering thermodynamic equations, heat transfer, heat exchange, heat engines, refrigeration and steam power plant cycles.

178. MACHINE DESIGN. 3 credits (3-0)

Prerequisite, 172, CE 102. Functions of various machine elements. Selection of materials. Construction methods. Design of parts for strength and balance.

179. MACHINE DESIGN. 5 credits (3-2)

Prerequisite, 178. Continuation of 178. Assigned design problems involving all calculations, sketches and drawings of a machine.

182. MECHANICAL ENGINEERING LABORATORY. 2 credits (0-2)

Prerequisite, 46. Calibration and use of instruments including thermometers, gages, planimeters, engine indicators, orsat apparatus and oil testing equipment. Basic tests on internal combustion engines. Lab. fee \$2.00.

183. MECHANICAL ENGINEERING LABORATORY. 3 credits (0-3)

Prerequisite, 182. Economy and performance tests on steam engines and turbines, condensers, auxiliaries, centrifugal fans and air compressors. Measurement of air flow in ducts. Standard S.A.E. tests on gas, gasoline and diesel engines. Lab. fee \$3.00.

#Rec. — Lab. credit.

185. STEAM POWER PLANTS. 3 credits (3-0) #

Prerequisite, 176. Adaptation of fuels, boilers, engines, turbines and auxiliaries. Calculations involve principles of combustion, thermodynamics and heat transfer.

186. STEAM POWER PLANTS. 2 credits (2-0)

Prerequisite, 185. Continuation of 185 and the combined results of all units as they function in a steam generating station.

187. HEATING AND AIR CONDITIONING. 3 credits (3-0)

Prerequisite, 176. Heat transfer, heat losses in buildings. Types of heating equipment and methods used to calculate required capacities. Properties of air, cooling, the cooling load, humidifying, dehumidifying and air circulation. Methods used to design and select equipment to satisfy given requirements.

188. MECHANICAL ENGINEERING LABORATORY. 1 credit (0-1)

Prerequisite, 175. (For Electrical Engineering students) A shorter course, similar to 182, with emphasis on internal combustion engines. Lab. fee \$1.00.

189. MECHANICAL ENGINEERING LABORATORY. 1 credit (0-1)

Prerequisite, 175. (For Electrical Engineering students) A shorter course, similar to 183, with emphasis on steam prime movers. Lab. fee \$1.00.

190. INTERNAL COMBUSTION ENGINES. 3 credits (3-0)

Prerequisite, 176. Fuels, combustion, heat cycles, carburetors, injection and ignition systems. Comparison of ideal and actual performance of stationary, automotive and aircraft engines. Characteristics of gas turbines and jet engines.

194. MECHANICAL ENGINEERING PROBLEMS. 3 credits (1-2)

Prerequisite, Senior standing. Investigation of design projects selected by student and approved by supervising staff member. Requirements include complete engineering report covering descriptive material, data, calculations and drawings. Lab. fee \$3.00.

196. INSPECTION TRIPS. 1 credit (0-1)

Prerequisite, Senior standing. Trips through power stations and industrial plants in northern Ohio. Written reports required.

AERONAUTICAL OPTION**165. AERODYNAMICS. 3 credits (3-0) #**

Prerequisite, Applied Mechanics 49. Nature of air forces and airfoils. Theory of lift, induced drag, parasite drag and pitching moment. Use of pitot and venturi tubes. Types of flow, circulation and static and dynamic stability. Propellers. Auxiliary lift devices. Turning flight. Load factors.

166. AIRPLANE DESIGN. 3 credits (3-0)

Prerequisite, 165, CE 105. Application of aerodynamics and basic engineering principles to airplane design problems including weight distribution, center of gravity, static and dynamic stability and critical loads. Structural analysis of principal airplane units. Application of government regulations.

167. AERODYNAMICS LABORATORY. 3 credits (0-3)

Prerequisite or corequisite, 165. Correlation of aerodynamic principles with laboratory tests performed at The Daniel Guggenheim Airship Institute. Requirements include preparation of technical reports. Lab. fee \$3.00.

168. AERONAUTICAL PROBLEMS. 3 credits (1-2)

Prerequisite, 167. Investigation of project selected by student and approved by staff member. Analysis of problem, development of testing technique, laboratory setup, collection of data, computation of results and submission of final report. Lab. fee, \$3.00.

#Rec. — Lab. credit.

ACCELERATED PROGRAM

For information only, the Accelerated Program which was in effect for students enrolled in the College of Engineering during the recent emergency is printed below. Students beginning the Engineering course after February 1947 follow the Cooperative Program. Description of courses listed in the Accelerated Program can be found in the March, 1946 Catalog.

THE GENERAL COLLEGE

First Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Military Science & Tactics 11.....	1½	Military Science & Tactics 12.....	1½
Hygiene 15	2	Hygiene 16	2
Physics 21 (Mechanics).....	4	Physics 22 (Mechanics).....	4
Math. 21 (Algebra).....	3	Math. 22 (Trigonometry).....	3
English 1	3	English 2	3
Engineering Drawing 21.....	2	Engineering Drawing 22.....	2
Survey of Engineering 24.....	1	Physical Ed. 4.....	1
Physical Ed. 3.....	1	Elective	2
	<u>17½</u>		<u>18½</u>

Summer Quarter

	Cr. Hrs.
Military Science and Tactics 43.....	1½
Physics 43 (Heat and Sound).....	4
Math. 43 (Analytical Geometry)	3
Math. 45 (Differential Calculus)	3
Surveying 21-22	2
	<u>13½</u>

CIVIL ENGINEERING

SCHEDULE OF COURSES

Second Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Military Science & Tactics 44.....	1½	Strength of Materials CE 46.....	3
Physics 44 (Electricity, and Magnetism)	4	Economics 41	3
Math. 46 (Integral Calculus).....	3	Engineering Geology CE 44.....	2
Elements of Electrical Engineer- ing EE 58.....	3	Engineering Mathematics 213-214. 2	
Engineering Chemistry 131.....	3	Elements of Electrical Engineer- ing EE 123	3
Applied Mechanics CE 109-110.....	3	Engineering Chemistry 132.....	3
	<u>17½</u>	Descriptive Geometry ME 44.....	3
			<u>19</u>

Summer Quarter

	Cr. Hrs.
Heat Power Engineering ME 46.....	3
Hydraulics ME 184	3
Surveying CE 43-101	4
Strength of Materials CE 117-118.....	3
	<u>13</u>

Third Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Structural Design CE 114.....	3	Structural Design CE 200	3
Route Surveying CE 108.....	3	Highways CE 107.....	3
Concrete Laboratory CE 112.....	1	Statically Indeterminate Structures CE 205.....	3
Thermodynamics ME 189.....	3	Water Supply CE 210.....	2
English 61-62 (Report Writing).....	2	Business Organization and Management 61	3
Stress Analysis CE 122.....	3	Electives	5
Business & Professional Speaking 47	2		
	<hr/>		<hr/>
	17		19

Summer Quarter

	Cr. Hrs.
Roofs and Bridges CE 103.....	3
Structural Design CE 201.....	3
Soil Mechanics CE 215.....	3
Sewerage CE 211.....	2
Elective	3
	<hr/>
	14

ELECTRICAL ENGINEERING

SCHEDULE OF COURSES

Second Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Military Science & Tactics 44.....	1½	Descriptive Geometry ME 44.....	3
Physics 44 (Electricity and Magnetism)	4	Strength of Materials CE 46.....	3
Math. 46 (Integral Calculus).....	3	Engineering Math. 213-214.....	2
Elements of Electrical Engineering EE 58.....	3	Elements of Electrical Engineering EE 123.....	3
Applied Mechanics CE 109-110.....	3	Heat Power Engineering ME 46.....	3
Engineering Chemistry 131.....	3	Engineering Chemistry 132.....	3
	<hr/>		<hr/>
	17½		17

Summer Quarter

	Cr. Hrs.
Elements of Electrical Engineering EE 124.....	3
Strength of Materials CE 117-118.....	3
Machine Drawing ME 23.....	2
Hydraulics ME 184	3
Shop Practice ME 49	2
	<hr/>
	13

Third Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Basic Industrial Electronics EE 127	2	Engineering Electronics EE 150....	3
A. C. Machines EE 170.....	3	A. C. Machines EE 172.....	3
A. C. Machines Lab. EE 171.....	1½	A. C. Machines Lab. EE 173.....	2
A. C. Circuits EE 130-131.....	3	Electrical Drafting, Blue Print Reading EE 128	3
Thermodynamics ME 189.....	3	Economics 41	3
English 61-62 (Report Writing).....	2	Elective	6
Elective	5		
	<hr/>		<hr/>
	19½		20

Summer Quarter

	Cr. Hrs.
Electrical Measurements EE 149.....	3
Illumination Engineering EE 180.....	3
Electron Tube Applications EE 151.....	2
Thesis EE 198	1½
Option — Senior Electrical Engineering Problems EE 190 or Business Organization and Management 61 or Steady State Analysis EE 200.....	3
	12½

MECHANICAL ENGINEERING

SCHEDULE OF COURSES

Second Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Military Science & Tactics 44.....	1½	Engineering Math. 213-214.....	2
Physics 44 (Electricity and Magnetism)	4	Heat Power Engineering ME 46....	3
Math. 46 (Integral Calculus).....	3	Strength of Materials CE 46.....	3
Elements of Electrical Engineer- ing EE 58	3	*Descriptive Geometry ME 44....	3
Applied Mechanics CE 109-110.....	3	Elements of Electrical Engineer- ing EE 123.....	3
Engineering Chemistry 131	3	Engineering Chemistry 132.....	3
	17½		17

Summer Quarter

	Cr. Hrs.
Strength of Materials CE 117-118.....	3
Machine Drawing ME 23.....	2
Shop Practice ME 49	2
Hydraulics ME 184	3
Elements of Electrical Engineering EE 124.....	3
	13

Third Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Mechanical Engineering Labora- tory ME 182	2	Mechanical Engineering Labora- tory ME 183	3
Thermodynamics ME 189	3	Steam Power Plants ME 185.....	3
Mechanism ME 172.....	3	Machine Design ME 178.....	3
Mechanism Drawing 174	1	Business Organization and Man- agement 61	3
Heating and Air Conditioning ME 187	3	Elective	5
English 61-62 (Report Writing).....	2		17
Business and Professional Speak- ing 47	2		
Economics 41	3		
	19		25

Summer Quarter

	Cr. Hrs.
Gas and Oil Engines ME 190.....	3
Special Mechanical Engineering Problems ME 194.....	3
Steam Power Plants ME 186	3
Machine Design ME 179.....	5
	14

*Students electing the Industrial Option will take Business Organization and Management 61 in their second year and Descriptive Geometry in their third year.

(AERONAUTICAL OPTION)

Summer Quarter

	Cr. Hrs.
Strength of Materials CE 117-118.....	3
Machine Drawing ME 23.....	2
Economics 41	3
Hydraulics ME 184	3
Elements of Electrical Engineering EE 124.....	3
	14

Third Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Mechanical Engineering Laboratory ME 182	2	Machine Design ME 178.....	3
Thermodynamics ME 189	3	Business Organization and Management 61	3
Mechanism ME 172.....	3	Aerodynamics Laboratory 202.....	3
Mechanism Drawing ME 174.....	1	Business & Professional Speaking 47	2
Shop Practice ME 49	2	Electives	8
Aerodynamics 200	3		19
English 61-62 (Report Writing).....	2		
Stress Analysis CE 122.....	3		
	19		

Summer Quarter

	Cr. Hrs.
Gas and Oil Engines ME 190.....	3
Machine Design ME 179.....	5
Aeronautical Problems 203.....	3
Airplane Design 201.....	3
	14

(INDUSTRIAL OPTION)

Third Year

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Industrial Plants 101.....	3	Production Planning and Control 103	3
Time Study 157.....	2	Motion Study 158	2
Mechanical Engineering Laboratory ME 182	2	Machine Design ME 178.....	3
Thermodynamics ME 189.....	3	Engineering Accounting 25	3
Mechanism ME 172.....	3	Business & Professional Speaking 47	2
Mechanism Drawing ME 174.....	1	Descriptive Geometry ME 44.....	3
English 61-62 (Report Writing).....	2	Electives	3
Economics 41	3		19
	19		

Summer Quarter

	Cr. Hrs.
Gas and Oil Engines ME 190.....	3
Machine Design ME 179.....	5
Industrial Management Problems 256.....	3
Personnel Administration and Relations 163.....	2
	13

THE COLLEGE OF EDUCATION

HOWARD R. EVANS, PH.D., *Dean*

GENERAL INFORMATION

The College of Education, formerly known as the Teachers College, was established in 1921 in cooperation with the Akron Board of Education, replacing the former Perkins Normal School of Akron. Teachers College, until the close of the academic year 1930-31, was supported by both educational systems. For its faculty it draws upon the teaching staff of both the Public Schools and the University. Along with the reorganization plan which was placed into effect in September, 1935, the name was changed to the College of Education.

The University of Akron is so organized that students in any college may take courses in other colleges. This enables the College of Education to use the facilities of the whole University in the preparation of teachers. The Akron Public Schools cooperate with the University in a number of ways, chief of which is the provision of the Spicer Elementary School for observation and laboratory experiences. Students in the University are inducted into actual school experience, for the most part in classes in the public schools of the city of Akron. Occasionally, however, Barberton, Summit County, and other neighboring school systems are used. Particular emphasis is placed upon the preparation of teachers for the city of Akron. Graduation does not, however, insure appointment to a teaching position in the city. Selection is made on the basis of scholarship, professional training, personality, and character.

The College of Education has for its first major purpose the professional preparation of teachers. Attention is given, however, to the development of characteristics and qualities which are equally important, such as a broad and liberal education, strong and pleasing personality, and desirable character.

In the preparation of teachers there is a related function, that of the improvement of teachers in service. In order to satisfy this need, evening, Saturday, and summer session courses are offered. These courses are designed to strengthen academic preparation, to improve professional mastery, and to inspire and lead teachers to a clearer conception of their responsibilities and privileges.

A third purpose is to bring teacher training into closer contact with the instructional, supervisory, and administrative forces of the city. The real, vital problems of education may thus be studied by all who represent these forces. In this way the vigorous progressive phases of school

work in the city will be reflected in the training courses, and the study of these problems by the College of Education will bring suggestions for new forms of training and for various modifications of school work.

COURSES OF STUDY AND DEGREES

The College of Education offers curricula in the following fields: high school teaching in the regular academic subjects, the special fields such as physical education, music, art, secretarial science, commerce, speech, and home economics; nursery school, kindergarten-primary, and all grades of the elementary school.

Each student is required to pass a qualifying examination before entering upon Student Teaching, or before graduation if his Student Teaching requirement has already been met.

The Department of Psychology is open to the students in the Liberal Arts College or the College of Education who wish to make Psychology their field of concentration.

The State of Ohio will grant a Cadet provisional elementary school Certificate upon the completion of a 2-year program. Such a program is provided by the College of Education for those students who wish to complete it.

Any student in the University who is not enrolled in the College of Education and who wishes to enter the teaching profession should register with the Dean of the College of Education at least two years prior to the time at which he expects to be eligible to teach.

Students who complete a prescribed four-year curriculum of 128 semester hours and have the required quality of work are entitled to receive the B.A. in Education or the B.S. in Education degree.

Graduate courses are open to any student who holds a Bachelor's degree from an accredited institution and who has the necessary background and ability for advanced study. The Master's degree is granted upon the completion of 30 semester hours of study.

REQUIREMENTS FOR ADMISSION

1. Each student must have secured an average quality point ratio of 2 in all work carried.
2. Each student is required to pass an examination on the introductory courses in the General College.
3. Each student must pass an examination in written English.
4. Each student is required to meet a satisfactory standard with respect to personality. This rating is made by instructors conducting the courses in Education in the General College, by the office of the Dean of Students, or by means of a standardized rating, or by a combination of them.

5. Each student planning to major in a special field must take an examination by the special department.

6. Each prospective high school teacher must be prepared for certification in three subjects, one major and two minors. Students who are preparing to teach in the special fields are required to have only one minor. The teaching majors and minors are defined on the next page.

7. Each prospective high school teacher must be prepared to enter upper college courses in at least two teaching fields.

BASIC REQUIREMENTS FOR ALL DEGREES *

1. General Education and prerequisite pre-professional requirements:

English 1-2	6
Introduction to Social Science 5-6	6
Introduction to Humanities 7-8	6
Introduction to Natural Science 9-10	6
Hygiene, Mental and Physical 15-16	4
Physical Education 3-4	2
General Psychology 41	3
Educational Psychology 52	3
Introduction to Education 55.....	3
Fundamentals of Speech 76	3
Literature	6
Mathematics, Foreign Language, Accounting or *Elective.....	6-8
Military Science and Tactics (Men)	6
2. Professional courses:

Tests and Measurements 105.....	2
School Management 115	2
Student Teaching 124	6
Methods.....	Varies with the teaching field
Principles of Education 201.....	3
3. Major field plus one or two minors, depending upon field.

REQUIREMENTS FOR THE B.A. IN EDUCATION

The B.A. degree in Education is granted to those whose major field is in one of the regular academic fields such as English, History, Mathematics, Science, etc. (Majors in special fields, including elementary, receive the B.S. degree in Education.)

*For Elementary Curriculum.

STATEMENT OF NUMBER OF HOURS REQUIRED IN VARIOUS
FIELDS FOR THE COMPLETION OF MAJORS AND MINORS

Field	H. S. Units as Pre- requisites	Major Minor	Minor Special	Special Major
Art	—	—	24	60
Biological Science	1	24	15	—
Business Education	—	—	—	45
Bookkeeping—Social Business	—	40	20	—
Salesmanship—Merchandising	—	40	20	—
Stenography—Typing	—	40	20	—
Typing	—	—	5	—
Earth Science	1	—	15	—
English	3	*30	18	—
†French	2	24	15	—
General Science	—	40—com- prehensive major	15	—
†German	2	24	15	—
History	2	24	15	—
Home Economics	—	—	20	35
†Latin	2	18	15	—
Mathematics	2	20	15	—
Music—Instrumental	—	—	24	53
Vocal	—	—	24	53
Physical Education	—	—	16	40
Physical Science	1	24	15	—
Psychology	—	24	15	—
Social Science	1	*24	15	—
Social Studies (comprehensive major).....	—	40	—	—
†Spanish	2	24	15	—
Speech	—	24	15	40

For selection of required courses to constitute a teaching field, consult the Dean of the College of Education or appropriate adviser.

Each student expecting to receive the Bachelor of Arts in Education degree is required to have one major and two minors according to the definitions above, in addition to the requirements for promotion to the upper college as listed on page 38 and the following courses in education:

‡Methods	3 hours
Tests and Measurements 105.....	2
Principles of Education 201.....	3
Student Teaching 124.....	6
School Management 115.....	2

Each student is required to pass a qualifying examination before entering upon student teaching, or before graduation if student teaching requirement has already been met.

Each student is required to complete 128 semester hours of work with a minimum of a 2 point average. At the time of entering upon student teaching, this must be 2.5 in the major field and 2 in the minors.

*General courses are not included in the total hours listed above.

†The two units of high school which are required as prerequisites to college study in a language may be satisfied by taking the eight-hour beginning course. This means that, in order to place a language on a certificate as a teaching field, 23 hours would be required if the study of the language is begun in college.

‡Varies with the major and minors. In some cases the methods requirement is included as a part of the major.

SEQUENCE OF PRE-PROFESSIONAL AND PROFESSIONAL COURSES

Second Year General College

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
General Psychology	3	Educational Psychology	3
Introduction to Education (first or second semester).....		3	

First Year Upper College

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Methods	3	Tests and Measurements 105.....	2

Second Year Upper College

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
Principles of Education 201.....	3	Student Teaching	6
		School Management	2

Student Teaching	6	or	Principles of Education 201.....	3
School Management	2			

TWO YEAR ELEMENTARY PROGRAM

The acute shortage of teachers in the elementary school has resulted in the establishment of a two year program. Completion of this program will enable the student to secure a cadet provisional certificate which is valid for four years. Before the expiration of this period, students will be expected to continue work toward a degree, in order to keep their certificates in force.

REQUIREMENTS FOR PROVISIONAL ELEMENTARY CERTIFICATE (CADET) (TWO YEAR)

	Cr. Hrs.		Cr. Hrs.
Physical Education	2	Fund. of Speech.....	3
Educ. Psychology	3	Children's Literature	3
School Management	2	Hyg. & Health Act. 131.....	2
Principles of Education.....	3	Games for Elem. Grades 132.....	1
Teaching of Reading.....	3	Introduction to Music 61.....	2
Teaching of Arithmetic.....	2	Prim.-Elem. Music Educ. 121.....	2
Teaching of Lang. Arts.....	2	Intro. to Natural Science 9-10.....	6
Teaching of Social Studies.....	2	European History	3
Student Teaching	5	American History	3
Design 21	2	Intro. to Sociology.....	3
Art for Grades.....	2	Prin. of Geography.....	3
English 1 and 2.....	6		
			65

ELEMENTARY EDUCATION

The following curriculum for the preparation of elementary school teachers leads to the B.S. degree in Education.

Elective work should be chosen in consultation with the advisers so that there will be some concentration comparable to at least one minor.

The lower elementary course is designed for students preparing to teach in grades one to three inclusive. The upper elementary course is for those preparing to teach in grades four to eight inclusive.

In addition to the basic requirements listed on page 129, the following courses should be taken:

LOWER ELEMENTARY		UPPER ELEMENTARY	
	Cr. Hrs.		Cr. Hrs.
Design 21-22	4	Design 21-22	4
Introduction to Music 61.....	2	Introduction to Music 61.....	2
Elementary School Music Literature and Appreciation 62.....	2	Elementary School Music Literature and Appreciation 62.....	2
Story Telling 83.....	3	Story Telling 83.....	3
Children's Literature 86.....	2	Children's Literature 86.....	3
Handicrafts 41	3	Handicrafts 41	3
Geography	6	Geography	6
Prim. Elementary Music Education 121	2	Prim. Elementary Music Education 121	2
Primary Education 131-132.....	6	Hygiene and Health Activities 131	2
Hygiene and Health Activities 131	2	Games for Elementary Grades 132	2
Games for Elementary Grades 132	1	Teaching of Reading 135.....	3
Teaching of Reading 135.....	3	Art for the Grades 121.....	2
Art for the Grades 121.....	2	Child or Adolescent Psychology.....	3-2
Child Psychology 105.....	3	Science for Elementary Grades 133	3
Science for Elementary Grades 133	3	Economics, History, Political Science or Sociology.....	6
Economics, History, Political Science, or Sociology.....	6	Teaching of Language Arts 137....	2
Electives	10	Teaching of Social Studies 138....	2
		Teaching of Arithmetic 136.....	2
		Electives	10 or 11

KINDERGARTEN COURSE

To qualify for the special Kindergarten-Primary Certificate the applicant must complete the Lower-Elementary Course with the following exceptions:

1. Kindergarten Education 129 instead of Primary Education 132.
2. Student Teaching must be in the kindergarten and/or the first grade.

ART COURSE

To obtain the B.S. in Education degree with a major in art, one must fulfill the basic requirements listed on page 129 plus the following courses in art.

	Cr. Hrs.		Cr. Hrs.
Drawing:		Design, Painting, Sculpture:	
Drawing and Rendering 45-46..	4	Design 21-22.....	4
Illustration 179	2	Industrial Design 43	2
Graphic Arts 104-105.....	4	Still Life Painting 115-116.....	4
Figure Drawing 175-176.....	4	Modeling 59-60	4
Methods, etc.:		Weaving 106	2
Methods in Teaching Art 191..	3	Occupational Therapy 70	2
Art for the Grades 121.....	2	General Crafts 102.....	2
		Costume 151-152 or Interior Decoration 171-172.....	6
		Appreciation and History:	
		Appreciation 29-30.....	4
		History of Art 200-201.....	6

Suggested courses for minor in Art. Minimum requirements in the teaching field of art for the Provisional High School Certificate.

	Cr. Hrs.
Design 21-22	4
Drawing and Rendering 45-46.....	4
Clay Modeling 59	2
Painting 115-116	4
Figure Drawing 175	2
History of Art 200-201.....	6
Methods of Teaching Art 121.....	3

COMMERCIAL TEACHER TRAINING

The general field of Business Education is divided into three specific fields: Stenography-Typing, Bookkeeping-Social Business, and Salesmanship-Merchandising. Students preparing to teach commercial subjects may follow a comprehensive major of 45 hours distributed over all three fields, or else a specific major of 40 hours in any one. The requirements for each follow:

Business Education—Valid for teaching all subjects in the secretarial and commercial field. 45 semester hours distributed over all three fields and including second-semester Dictation, third-semester Accounting, Special Methods, High School Methods, one minor, general and professional requirements.

Stenography-Typing—Valid for teaching Shorthand, Typewriting, Business English, Clerical Practice, and Secretarial Practice. The course must include fourth-semester Dictation, preparation for other valid teaching subjects, Special Methods, and pertinent electives to total 40 hours; also two minors, High School Methods, general requirements, and professional requirements.

A minor in this field includes Shorthand, Typewriting, and Dictation, 14 hrs.; Special Methods, 3 hrs.; and Secretarial Training, 2 hrs.

Bookkeeping-Social Business—Valid for teaching Bookkeeping, Business Law, Economic Geography, Business Economics, Business Organization and Management. The course must include fourth-semester Accounting, preparation for the other valid teaching subjects, Special Methods, and pertinent electives to total 40 hours; also two minors, High School Methods, general requirements, and professional requirements. A minor in this field includes Accounting, 9 hrs.; Business Law, 3 hrs.; Economic Geography, 3 hrs.; Business Administration, 3 hrs.; and Special Methods, 2 hrs.

Salesmanship-Merchandising—Valid for teaching Merchandising, Retail Store Selling, Salesmanship, Advertising, and Economic Geography. The course must include Marketing, 3 hrs.; Salesmanship, 3 hrs.; preparation for the other valid teaching subjects; Special Methods; and pertinent electives to total 40 hours; also two minors, High School Methods, general requirements, and professional requirements.

A minor in this field includes Marketing Principles, 3 hrs.; Salesmanship, 3 hrs.; Advertising; Retailing; Merchandising; Economic Geography and pertinent electives to total 20 hours.

CURRICULUM IN COMMERCIAL TEACHER TRAINING

First Year, General College

First Semester	Cr. Hrs.	Second Semester	Cr. Hrs.
English 1	3	English 2	3
Introduction to Soc. Sc. 5.....	3	Introduction to Soc. Sc. 6.....	3
Hygiene, Mental 15.....	2	Hygiene, Physical 16.....	2
Physical Educ. 3.....	1	Physical Educ. 4.....	1
Military Training (Men).....	1½	Military Training (Men).....	1½
Mathematics, Accounting, or Foreign Language	3 or 4	Mathematics, Accounting, or Foreign Language	3 or 4
Introduction to Humanities 7 or Elective	3	Introduction to Humanities 8 or Elective	3

Second Year, General College

Introduction to Natural Science 9	3	Introduction to Natural Science 10	3
General Psychology 41.....	3	Educational Psychology 52	3
Military Training (Men).....	1½	Military Training (Men).....	1½
Fundamentals of Speech 76 or Major	3	Literature	3
Literature	3	Typewriting (Major) 52.....	2
Typewriting (Major) 51.....	2	Major	3
Introduction to Education 55.....	3		

Major subjects to be selected from Accounting, Business Administration, Business Law, Consumer Economics, Economic Geography, Filing and Machine Calculation, Secretarial Procedure, Selling and Advertising, and Shorthand

Third Year, College of Education

Special Methods	3	High School Methods 113.....	3
Economics 41	3	Special Methods or Major.....	2 or 3
Tests and Measurements 105.....	2	Economics	3
Major or Minor	6 to 9	Major or Minor	6 to 9

Additional major subjects: Advertising, Business Correspondence, Dictation, Marketing, Purchasing.

Fourth Year, College of Education

Student Teaching 124.....	6	Principles of Education 201.....	3
School Management 115.....	2	Major, Minor, or Elective.....	13
Major, Minor, or Elective.....	8		

Additional major subjects: advanced work in any field for which prerequisites have been taken.

HEALTH AND PHYSICAL EDUCATION

To obtain the B.S. in Education degree with a major in Physical Education, one must fulfill the basic requirements listed on page 129 plus the following courses:

MEN

	Cr. Hrs.		Cr. Hrs.
Physical Education 45-46.....	6	Physiology 128	3
Theory & Practice 103-104.....	4	Org. & Adm. of Phys. Ed. 121-122	4
Theory & Practice 105-106.....	4	Kinesiology 124	2
Normal Diagnosis & C. E. 115.....	2	School Health 118.....	2
First Aid 111.....	1	Hyg. & Health for El. Gr. 131.....	2
Physical Education 114.....	2	Games for El. Gr. 134.....	2
Methods of Phys. Educ. 125.....	2	Minor & Electives	15
Massage 112	1	*H. S. Methods 113.....	3
Anatomy 127	3		

WOMEN

	Cr. Hrs.		Cr. Hrs.
Physical Education 45-46.....	6	Physiology 128	3
Theory & Practice 103-105.....	6	Org. & Adm. of Phys. Ed. 121-122	4
Theory & Practice 106-108.....	6	Kinesiology 124	2
Normal Diagnosis & C. E. 115.....	2	School Health 118.....	2
First Aid 111.....	1	Hyg. & Health for El. Gr. 131.....	2
Physical Education 114.....	2	Games for El. Gr. 134.....	2
Methods of Phys. Educ. 125.....	2	Minor & Electives	18
Anatomy 127	3	*H. S. Methods 113.....	3

*Required if student wishes to teach in the academic minor as well as in the major field.

HOME ECONOMICS COURSE

To obtain the B.S. in Education degree with a major in home economics one must fulfill the basic requirements listed on page 129 plus the home economics major plus one minor.

MAJOR IN HOME ECONOMICS		MINOR IN HOME ECONOMICS	
	Cr. Hrs.		Cr. Hrs.
Foods		Foods	
General Foods 45-46.....	6	General Foods 45-46.....	6
Nutrition 119 or 42.....	3	Clothing	
Clothing		Textiles 21	3
Textiles 21	3	Clothing 22	3
Clothing 22	3	General	
Advanced Clothing 105 and 106	6	Child Development 65.....	3
General		Home Management 62.....	3
Child Development 65.....	3	Methods	
Home Management 62.....	3	Home Economics	
Home Eco. Survey 53.....	2	Education 151	3
Selection of Home Furnish- ings 58	3		
Household Equipment 215	3		
Home Econ. Educ.	3		
Electives and Minor.....	23		
*H. S. Methods	3		

MUSIC

To obtain the B.S. in Education degree with a major in Music one must complete the basic requirements listed on page 129 and the requirements given below.

MUSIC — VOCAL

MUSIC ED.	
Primary El. Music Ed. 121.....	2
Secondary Music Ed. 123.....	2
Psych. of Music Ed. 124.....	2
THEORETICAL MUSIC	
Music 61	2
Music 62	2
Theory I 41.....	5
Theory II 42.....	5
Theory III 103.....	3
History of Music 101-102.....	4
Orchestration 114	2
Conducting 112	2
APPLIED MUSIC (Individual)	
Piano (Req. of all).....	4
Voice (Req. of all).....	4
A Major Instr. or Voice.....	8
APPLIED MUSIC (class)	
Voice class	2
Ensemble	4
Electives (Women).....	8-6
Electives (Men).....	2-0

MUSIC — INSTRUMENTAL

MUSIC ED.	
Primary El. Music Ed. 121.....	2
Secondary Music Ed. 123.....	2
Psych. of Music Ed. 124.....	2
THEORETICAL MUSIC	
Music 61	2
Music 62	2
Theory I 41.....	5
Theory II 42.....	5
Theory III 103.....	3
APPLIED MUSIC (Individual)	
Piano (Req. of all).....	4
Voice (Req. of all).....	4
A Major Instr. or Voice.....	8
APPLIED MUSIC (class)	
Piano Class	1
String Class	1
Brass Class	1
Woodwind Class	1
Ensemble	4
Elective (Women).....	6-4

*Required if student wishes to teach in the academic minor as well as in the major field.

STATE REQUIREMENTS FOR A MINOR IN MUSIC

Subject	Cr. Hrs.
Music Orientation 21.....	2
Art of Music 22.....	2
Theory I, 41.....	5
Theory II, 42.....	5
History of Music 101 or 102.....	2
Music Education 123	2
Conducting 112	2
Applied Music	4
	<hr/>
	24

DEPARTMENT OF MUSIC REQUIREMENTS

MUSIC ORGANIZATIONS

University Women's Chorus	University Symphony Orchestra
University Men's Glee Club	University Theatre Orchestra
University Singers	

ADDITIONAL REQUIREMENTS FOR MAJORS IN MUSIC

- (1) If a student wishes to major in School Music, he must have reached a satisfactory degree of achievement in Voice, or in some instrument, before entering college. A musical aptitude test will be given each student near the beginning of the first year of study.
- (2) Sixteen credits are necessary in individual instruction and must include 4 credits in Piano and 4 credits in Voice.
- (3) Class instruction may not be substituted for individual instruction.
- (4) Presentation of both Junior and Senior recitals is recommended.
- (5) Continuous enrolment in any one of the music organizations is required.

Public school music majors may not count more than six hours of this credit toward the degree.

SPEECH

To obtain the B.S. in Education degree with a major in Speech one must fulfill the basic requirements listed on page 129, the following courses, and one minor.

	Cr. Hrs.
Public Speaking 41	3
Reading Aloud 51	3
Fundamentals of Speech 76	3
Play Production 161	3
Speech Correction 271, 272.....	4
History of Speech 291, 292.....	4
Seminar 293	2
Teaching of Speech 114	2
Elective	16

The B.A. in Education with a major in Speech may be obtained by completing 24 hours of Speech including the courses listed above with the exception of Teaching of Speech 114. The minor requirement is 15 hours and includes the courses listed above with the exception of History of Speech 291-292, Seminar 293 and Teaching of Speech 114.

VOCATIONAL EDUCATION COURSE

This course leads to the B.S. in Ed. degree and a Smith-Hughes certificate.

All students must include the following subjects. Students wishing both the degree and the certificate must take in addition all the requirements for a degree (69 or 73 credits); those wishing only the certificate need include but 2 credits in Observation and Student Teaching instead of the 6 credits required for the degree.

	Cr. Hrs.
Major Field	24
Engineering Drawing	6
Occupational Analysis	2
Organization of Instructional Material	2
Methods of Teaching Occupational Subjects	2
Shop Management	2
Conference Method of Teaching	2
Educational and Vocational Guidance.....	2
Organization and Administration of Vocational Education.....	2
History and Philosophy of Vocational Education.....	2
Vocational Tests and Measurements.....	2

STUDENT ADVISERS

All students should confer with the following persons regarding their work according to the fields in which they expect to teach.

Students should also feel free to consult the Dean of the College of Education regarding any of their problems.

Art	MISS DAVIS
Commercial Subjects	MR. DOUTT, MR. LEIGH
Four-Year Elementary	MR. DISTAD
High School	MISS RIEDINGER
Home Economics	MISS WILSON
Kindergarten-Primary	MISS BABCOCK
Music	MR. JORGENSEN
Physical Education	MISS LAMKIN, MR. SEFTON
Primary-Elementary	MISS BABCOCK
Speech	MR. VARIAN
Vocational Education	MR. DOWNING

THE QUALIFYING EXAMINATION

All students are required to pass satisfactorily a qualifying examination before engaging in student teaching. This examination covers (1) subject matter to be taught in the subjects or grades of the public school for which the student is certificated; (2) mastery of professional concepts, facts, and abilities which are taught in courses such as Psychology, History, and Principles of Education, and Methods.

This examination is to be taken at the close of the junior year and is given in the spring and fall, each year. This examination serves in the College of Education as the comprehensive examination which is required of all students for graduation. If a student has taken his student teaching prior to his attendance at the University of Akron, the passage of the examination is, nevertheless, required for the degree.

RECOMMENDATIONS FOR CERTIFICATION

Some students who receive degrees from the College of Liberal Arts wish to qualify for teaching. Some instruction regarding this is given on page 55. These persons will be recommended for certification on the basis of the major and minor requirements on page 130 and the completion of the courses listed above under Sequence of Pre-Professional and Professional courses.

Admission to student teaching will be based upon the same point average requirement as in the case of students in the College of Education. Satisfactory work must be done in teaching fields and in education, particularly student teaching, to warrant recommendation for teaching certificates.

Every teacher in the public schools of Ohio is required to have a certificate covering the fields in which he is teaching. This certificate is issued by the State Department of Education upon recommendation of the Dean of the College of Education. The student must make out an application form, which may be obtained in the office of the Dean or in the office of the Registrar. This form should be filled out about one month before the student plans to complete all of his requirements for teaching.

CONVERSION FROM SECONDARY TO ELEMENTARY CERTIFICATE

The holder of a high school certificate may be certificated for elementary teaching upon completion of 18 semester hours. A temporary certificate may be obtained by taking 9 semester hours of additional training.

Consult the Dean of the College of Education for courses to be taken.

STUDENT TEACHING

The student teaching in all courses is done in the public schools under the supervision of critic teachers and a representative of the faculty of the College of Education. Each student must teach for a semester under regular assignment. Under such supervision the student teacher really assumes full teaching responsibility.

In addition to the qualifying examination a student, in order to be eligible to engage in student teaching, must have at least an average quality point ratio of 2.5 in his major field, an average quality point ratio of 2 in his minor fields, and at least an average quality point ratio of 2 in all subjects taken.

GRADUATE STUDY

The College of Education offers graduate courses leading to the following degrees: Master of Arts in Education (to candidates holding the B.A. degree), and Master of Science in Education (to candidates holding the B.S. degree, the B.S. in Education or the B.E. degree).

Provision has been made so that the student may have an option between the writing of a thesis which would carry 4 semester hours credit and the completion of an educational problem for 2 semester hours of credit. The difference between the thesis and the educational problem lies largely in the scope, originality and the formality of the written account of the study.

ELEMENTARY EDUCATION

Constants

	Cr. Hrs.
Educational Statistics 311	2
Scientific Study of Education 425	2
Contemporary Philosophies of Education 324.....	2
<i>Other Required Courses</i>	
Elementary School Curriculum and Teaching 330.....	2
Advanced Child and Adolescent Psychology 308.....	2
Diagnostic Testing and Remedial Teaching 313.....	2
Techniques of Evaluation 312.....	2
Supervision of Instruction 322.....	2
Seminar in Elementary Education 436.....	2

A minor of twelve hours in an academic field or psychology or twelve hours elected from courses in education.

This is intended primarily for the student who expects to progress as a teacher in elementary schools. Students who wish to look forward to an elementary school principalship will qualify by electing courses in Administration.

SECONDARY EDUCATION

Constants

	Cr. Hrs.
Educational Statistics 311	2
Scientific Study of Education 425	2
Contemporary Philosophies of Education 324.....	2
<i>Other Required Courses</i>	
Secondary School Curriculum and Teaching 319.....	2
Advanced Child and Adolescent Psychology 308.....	2
Guidance in the Secondary School 302	2
Techniques of Evaluation 312.....	2
Supervision of Instruction 322.....	2
Seminar in Secondary Education 437.....	2

A minor of twelve hours in an academic field is recommended for teachers of academic subjects.

ELEMENTARY SCHOOL PRINCIPAL

Constants

	Cr. Hrs.
Educational Statistics 311	2
Scientific Study of Education 425	2
Contemporary Philosophies of Education 324.....	2
<i>Other Required Courses</i>	
Public School Administration 345-346.....	4
Elementary School Administration 331.....	2
Supervision of Instruction 322.....	2
Elementary School Curriculum and Teaching 330.....	2
Seminar in Elementary Education 436.....	2

Electives

Techniques of Evaluation 312.....	2
Diagnostic Testing and Remedial Teaching 313.....	2
Advanced Educational Psychology 303.....	2
Advanced Child and Adolescent Psychology 308.....	2
Psychotherapy for Professional Workers 310.....	2
History of Educational Thought 323.....	2
Comparative Education 433-434.....	4
Principles and Techniques in Personnel Counseling 208.....	2
Psychological Testing in Personnel 209.....	2

SECONDARY SCHOOL PRINCIPAL

Constants

Educational Statistics 311.....	Cr. Hrs.	2
Scientific Study of Education 425.....		2
Contemporary Philosophies of Education 324.....		2

Other Required Courses

Public School Administration 345-346.....	4
Secondary School Administration 320.....	2
Supervision of Instruction 322.....	2
Secondary School Curriculum and Teaching 319.....	2
Seminar in Secondary Education 437.....	2

Electives

Educational Psychology, Advanced 303.....	2
Guidance in the Secondary School 302.....	2
Techniques of Evaluation 312.....	2
Principles and Techniques in Personnel Counseling 208.....	2
Advanced Child and Adolescent Psychology 308.....	2
Psychotherapy for Professional Workers 310.....	2
Diagnostic Testing and Remedial Teaching 313.....	2
History of Educational Thought 323.....	2
Comparative Education 433-434.....	4
Adult Education 211.....	2

SCHOOL SUPERINTENDENT

Constants

Educational Statistics 311.....	Cr. Hrs.	2
Scientific Study of Education 425.....		2
Contemporary Philosophies of Education 324.....		2

Other Required Courses

Public School Administration 345-346.....	4
Elementary School Administration 331.....	2
Secondary School Administration 320.....	2
Supervision of Instruction 322.....	2
Seminar: Individual Problems 438.....	2

Electives

Elementary School Curriculum and Teaching 330.....	2
Secondary School Curriculum and Teaching 319.....	2
Guidance in the Secondary School 302.....	2
Advanced Educational Psychology 303.....	2
Advanced Child and Adolescent Psychology 308.....	2
Techniques of Evaluation 312.....	2
Principles and Techniques in Personnel Counseling 208.....	2
Psychotherapy for Professional Workers 310.....	2
History of Educational Thought 323.....	2
Comparative Education 433-434.....	4
Adult Education 211.....	2

SUBJECTS OF INSTRUCTION

An asterisk (*) preceding the course number indicates the course is credited in the Liberal Arts College.

ART

Professor Davis, Assistant Professor Cable

121. ART FOR THE GRADES. *Either semester. 2 credits.*

Prerequisite, 21. A survey of art requirements in the elementary grades with laboratory work, to give teachers a knowledge of materials and mediums, and skill in handling them.

191. METHODS IN TEACHING ART. *First semester. 3 credits.*

Prerequisite, completion of the required course for art teachers and quality point ratio of 2 in the field. Study of trends and procedure in teaching and in supervision; relation of art to the home, school and community; observation in selected schools is required.

BUSINESS EDUCATION

Professor Douth, Associate Professor Flint

173. METHODS IN TYPEWRITING. *1 credit.*

Prerequisite, Secretarial Training and a quality point ratio of two in the field. Methods of presentation in typewriting will be studied. Demonstrations and observations will be required. A theory test in the field must be passed before credit will be given for the course.

174. METHODS IN SHORTHAND AND TRANSCRIPTION. *1 credit.*

Prerequisite, Secretarial Science 63 or 142 and a quality point ratio of two in the field. Methods of presentation in shorthand and transcription will be studied. Demonstrations and observations will be required. A theory test in the field must be passed before credit will be given for the course.

175. METHODS IN BOOKKEEPING. *1 credit.*

Prerequisite, Accounting 22 or 42 and a quality point ratio of two in the field. Methods of presentation in bookkeeping will be studied including the business cycle, practice sets, and lesson plans. A theory test in the field must be passed before credit will be given for the course.

EDUCATION

Dean Evans, Professor Distad, Associate Professors Babcock and W. I. Painter, Assistant Professors Jones, Mrs. H. W. Painter, Riedinger, and Mickelson.

GENERAL COLLEGE

41. HANDICRAFTS IN ELEMENTARY SCHOOL. *1 to 3 credits.*

This course consists of a broad range of experiences through the manipulation of various craft mediums which will enrich the curriculum of the elementary school. Lab. fee, \$2.

45. HISTORY OF EDUCATION. *3 credits.*

A study of the development of civilization with particular reference to the role of education.

*55. INTRODUCTION TO EDUCATION. *Either semester. 3 credits.*

An orientation course giving an overview of the characteristic features of the American educational system and some explanation of the forces that have affected its development.

*65. EDUCATIONAL SOCIOLOGY. *Either semester. 3 credits.*

The purpose of this course is to study the political, social, and economic forces and problems in relation to educational problems such as delinquency, population shifts, vital statistics, unemployment and technological advance.

69. INTRODUCTION TO AVIATION. Evening session. 3 credits.

This is an introductory course covering general principles of aviation. Topics include: flight principles, construction and operation of airplanes and airplane engines, flying instruments, and safety devices.

83. STORY TELLING. 3 credits.

A study of story material, discriminative selection, preparation, and presentation of traditional and modern stories for children; emphasis on the telling of stories and creative dramatics.

***86. CHILDREN'S LITERATURE. 3 credits.**

A survey of materials for children in prose, poetry, and illustrations from early historical periods to modern types; criteria of selection and methods of presentation are critically examined.

88. SPEECH FOR THE CLASSROOM TEACHER. Either semester. 2 credits.

The course will deal with choral speaking as a means to speech improvement, and the correction of simple speech deviation.

UPPER COLLEGE

101. ACTIVITY SCHOOL. 3 credits.

A course offered in connection with the demonstration school in the summer. Designed to examine critically recent trends and newer practices in elementary education and to develop a forward-looking point of view.

***105. EDUCATIONAL TESTS AND MEASUREMENTS. Either semester. 2 credits.**

Prerequisite, 52. A study of the various methods and devices employed in comprehensive and continuous evaluation. Some attention given to the treatment and interpretation of scores. Fee, \$2.

113. HIGH SCHOOL METHODS. Either semester. 3 credits.

This course includes four units of study carried on concurrently: (1) the basic principles of teaching; (2) a working knowledge of methodology in a specific field; (3) daily observation and participation; (4) preparation of teaching materials.

115. SCHOOL MANAGEMENT AND ADMINISTRATION. 2 credits.

Accompanies Student Teaching. A study of the administrative relations and responsibilities of the teacher. Group discussion of problems arising in student teaching.

124. STUDENT TEACHING. Either semester. 6 credits.

Prerequisite, Education 113 or equivalent. Student teaching under the guidance of a directing teacher and a university supervisor.

129. KINDERGARTEN EDUCATION. 3 credits.

Prerequisite, Psychology 52. This course aims to develop a forward-looking viewpoint in the education of pre-school children; a study of materials, techniques, and practices which promote all-around growth and development of young children.

131. PRIMARY EDUCATION. First semester. 3 credits.

Prerequisite, Psychology 52. This course aims to develop a forward-looking viewpoint in the education of young children. Materials, techniques, and practices are examined which furnish opportunities for cooperative enterprise and serve as a background for democratic living.

132. PRIMARY EDUCATION. Second semester. 3 credits.

Prerequisite, Education 131. A continuation of course 131 with emphasis on the teaching of the language arts, science, and social studies at the primary level.

133. SCIENCE FOR THE ELEMENTARY GRADES. 3 credits.

Prerequisite, Psychology 52. A course for the prospective teacher of science in the elementary school; the development of a point of view toward science teaching and a study of methods of presenting science material; major emphasis is placed upon science content.

134. AUDIO-VISUAL EDUCATION.

The primary purpose of this course is to acquaint teachers of all levels with the wide variety of visual and auditory aids available and the techniques for their respective use. Other purposes are learning to operate all types of projectors and sound reproducers, to locate materials available, and to construct materials for one's own specific use.

135. THE TEACHING OF READING. *First semester. 3 credits.*

Prerequisite, Psychology 52. A survey of the reading program for the elementary school, together with modern methods of teaching reading at the various levels.

136. THE TEACHING OF ARITHMETIC. *2 credits.*

Prerequisite, Psychology 52. A study of trends in arithmetic instruction in the elementary school. Attention is given to procedures for the development of mathematical concepts and skills.

137. TEACHING THE LANGUAGE ARTS. *2 credits.*

Prerequisite, Psychology 52. This course deals with materials, grade allocations, and methods for teaching oral and written expression, spelling, and handwriting in elementary grades, according to the best modern practice.

138. THE TEACHING OF SOCIAL STUDIES. *2 credits.*

Prerequisite, Psychology 52. A study of social studies program in the elementary school and the varied means of implementing the program.

151-152. ELEMENTARY EDUCATION. *Evening and summer sessions. 3 credits each semester.*

An evaluation of recent trends and newer practices in elementary education. A refresher course.

201. PRINCIPLES OF EDUCATION. *Either semester. 3 credits.

The purpose of this course is to assist the senior student in integrating his thinking regarding the purpose of an educational system in a democratic community.

211. ADULT EDUCATION. *2 credits.*

A survey course for public school teachers and administrators as well as for those engaged full time in Adult Education. An historical background including European influences and their relation to the rapid developments in the field during the last decade will be emphasized. A greater share of the course will be devoted to current programs throughout the United States which include the social, economic and civic importance of a well-planned program of Adult Education in a Democracy.

235. WORKSHOP. (*Elementary School*). *3 credits.*

Opportunity for individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units.

GRADUATE COURSES IN EDUCATION

Dean Evans, Professor Distad, Associate Professors Babcock and W. I. Painter, Assistant Professor Michelson.

Prerequisite to graduate courses in Education: At least 12 hours of undergraduate work in Education or the equivalent, and the Bachelor's degree or equivalent, and the provisional certificate for teaching.

302. GUIDANCE IN THE SECONDARY SCHOOL. *2 credits.*

A study of the principles and techniques of student guidance; the setting up of an effective guidance program in the secondary school.

†311. EDUCATIONAL STATISTICS. 2 credits.

A course in statistical methods and techniques used in the field of measurement and by research workers in education and psychology.

312. TECHNIQUES OF EVALUATION. 2 credits.

A study of the techniques of measuring and evaluating pupil progress. Some attention will be given to the theory of test construction. Fee, \$2.

313. DIAGNOSTIC TESTING AND REMEDIAL TEACHING. 2 credits.

A study of the factors contributing to educational disability. Techniques of diagnostic and remedial work will also be treated. Fee, \$2.

319. SECONDARY SCHOOL CURRICULUM AND TEACHING. 2 credits.

The application of the dominant theory of education as applied to curriculum building and procedures in teaching.

320. SECONDARY SCHOOL ADMINISTRATION. 2 credits.

A treatment of the problems, procedures, and principles of organization and administration in secondary schools.

322. SUPERVISION OF INSTRUCTION. 2 credits.

A study of the principles, organization, and techniques of supervision with a view to the improvement of instruction.

†323. HISTORY OF EDUCATIONAL THOUGHT. 2 credits.

An historical study of educational theory and its originators, necessary to an understanding of current theory and practice.

†324. CONTEMPORARY PHILOSOPHIES OF EDUCATION. 2 credits.

An appraisal of conflicting philosophies which are most important in present school practice.

330. ELEMENTARY SCHOOL CURRICULUM AND TEACHING. 2 credits.

The application of the dominant theory of education as applied to curriculum building and procedures in teaching.

331. ELEMENTARY SCHOOL ADMINISTRATION. 2 credits.

A study of the problems, procedures, and principles of organization, administration, and supervision in elementary schools.

335. WORKSHOP (*Secondary School*). 2 credits.

This course consists of lectures on workshop technique supplemented by the working out of individual problems under staff guidance.

341. EVALUATION OF SECONDARY SCHOOLS. 2 credits.

This is a laboratory course in which the evaluation of a high school will be made by use of up-to-date techniques and criteria.

345-346. PUBLIC SCHOOL ADMINISTRATION. *Each semester*. 2 credits.

The theory and practices of educational administration in the state and county systems, cities, and rural districts. Also includes school law, organization, administration, finance, pupil accounting, planning and completion of school buildings.

†425. TECHNIQUE OF RESEARCH AND INVESTIGATION. 2 credits.

A study of research methods and techniques commonly used in education and psychology; some emphasis given to the preparation of research reports.

†Required graduate courses.

427. SEMINAR IN CURRICULUM. 2 credits.

A study of the principles underlying curriculum construction; review of important investigations; and practice in construction of curriculum units.

433. COMPARATIVE EDUCATION. 2 credits.

A comparison of the educational philosophy and organization of English and American education.

434. COMPARATIVE EDUCATION. 2 credits.

A comparison of the educational philosophy and organization of American and Latin American education.

GEOGRAPHY

Assistant Professor Jones

GENERAL COLLEGE***71. PRINCIPLES OF GEOGRAPHY. 3 credits.**

A study of those principles which are basic in gaining an understanding of the relationship of man's activities to his natural environment.

***72. GEOGRAPHY OF NORTH AMERICA. 3 credits.**

A study of the natural regions, climate, natural resources, work patterns and industries of the continent.

***73. GEOGRAPHY OF SOUTH AMERICA. 3 credits.**

This course will give each student a basic view of the entire South American continent, its climate, products, types of inhabitants, its various kinds of government and its relation to the North American neighbors.

***74. GEOGRAPHY OF EUROPE. 3 credits.**

A study of the natural regions, the uneven distribution of resources among the several political units and an evaluation of some of the problems faced by the countries of the continent.

***75. WORLD GEOGRAPHY. 3 credits.**

In this course a general study is made of the effects of geographical environment upon the human response of people living in Africa, Malaysian Lands, India, China, Japan, Russia, South America, Caribbean Lands, The United States, and Western Europe.

76. METEOROLOGY. Evening session. 2 credits.

A first course covering the composition and properties of the atmosphere, causes of clouds and cloud types, variations of temperature and their effects, circulation of air, air masses, fronts, and disturbances, weather reports, weather maps, and weather forecasts.

77. GEOGRAPHY OF ASIA. Either semester. 3 credits.

Prerequisite, 71. This course is designed to help develop an understanding of the various countries of Asia, their economic-geographic regions, their major commodities, and their industries and commerce. It will help to interpret adjustments to the environment through the study of space relationships, climate, relief, and natural resources as well as significant political, racial and social factors which have a bearing upon industrial and commercial activities.

HOME ECONOMICS

See under Home Economics in the College of Liberal Arts.

MUSIC EDUCATION

Professor Jorgensen, Associate Professor Ende, Assistant Professor Witters, Mr. Stein, Mr. Lightfritz, Miss Resler, Miss Whitaker, Mr. Ferguson, Mrs. Mitchell.

50. VOICE CLASS. 2 credits.

A study of the technique employed in choral conducting with emphasis on securing attacks, releases, dynamic and tempo changes; voice classification; and methods of securing correct intonation. Also an analysis of choral literature.

55-56. STRING CLASS. 1 credit each semester.

Actual playing of string instruments with special emphasis on the violin. Study of material and teaching techniques.

57. WOODWIND CLASS. 1 credit.

Actual playing of woodwind instruments with special emphasis on clarinet. Study of material and teaching techniques.

58. BRASS CLASS. 1 credit.

Actual playing of brass instruments with special emphasis on the cornet. Study of materials and teaching techniques. Rudimentary drumming is also introduced in this course.

59. INSTRUMENT REPAIR. 1 credit.

Woodwind instruments; proper method of cleaning, corking joints, repadding, replacing springs and other minor adjustments. Elective.

60. INSTRUMENT REPAIR. 1 credit.

Brass and String instruments; proper method of cleaning, aligning of valves; replacing corks and felts, soldering technique. Fitting of bridges, rehairing bows and setting of sound posts for string instruments. Attention is also given to tucking of drum heads. Elective.

61. INTRODUCTION TO MUSIC. 2 credits.

Introduces the Education student to problems of music study and fundamentals of music notation. It allows the student to gain daily experience in writing, playing, singing, those materials which are necessary for grade school music teaching. A prerequisite to any further study in music.

62. ELEMENTARY SCHOOL MUSIC LITERATURE AND APPRECIATION. 2 credits.

Materials and methods for teaching music appreciation in grade school classes, beginning with rote and reading song correlation with children's activities and progressing to the enjoyment of familiar serious music through recordings and concerts.

121. PRIMARY-ELEMENTARY MUSIC EDUCATION. 2 credits.

Theory and practice of presenting vocal and instrumental music in the grade school. Study of rote, observation, sight reading, and part-songs, and discussion of objectives and methods for grades I and VI. Survey of available materials in these fields and instruction in Rhythm Band, Melody Band, and other pre-instrumental methods.

123. SECONDARY MUSIC EDUCATION. 2 credits.

The procedures that should be employed to give the adolescent a well-balanced participation in applied and theoretical music.

124. PSYCHOLOGY OF MUSIC EDUCATION. 2 credits.

A study of the relationships between the mental processes and listening to, producing, or composing music, and the establishment of habits of creative thinking and perceptive awareness. Elective.

Other music courses are described in the Music Department Section under Liberal Arts.

NURSING EDUCATION

Professor Doherty

The nursing program originated as a part of the United States Cadet Nurse program sponsored by the federal government, and was operated in cooperation with the three general hospitals of Akron — City Hospital, Peoples Hospital, and St. Thomas Hospital. This cooperative plan continues since the closing of the United States Cadet Program on October 15, 1945.

There are now two basic nursing programs and an advanced nursing program offered.

BASIC NURSING PROGRAM

LEADING TO A DIPLOMA IN NURSING

This program is a continuation and development of the original program. In addition to the first semester's work, formerly offered to pre-Cadets, the University now also provides the second semester's work for students of the three hospital schools. The student nurses are regularly enrolled in the University, with college credit, for these two semesters.

All applications for admission to this program will be handled through the hospital schools of nursing.

The following courses constitute the two semesters' work:

First Semester		Second Semester	
	Credits		Credits
Anatomy and Physiology 47	4	Microbiology 33	3
Chemistry 25	4	Diet Therapy	3
Foods 43	3	History of Nursing	3
Psychology 51	3	Nursing Arts I	2
Sociology 21	3	Pharmacology I	2
	18	Intro. to Medical Science	3
		Professional Adjustments	1
			17

Renal

LEADING TO B.S. DEGREE IN NURSING

This five-year basic program provides for candidates to be admitted directly to the University. The first two academic years and the first semester of the third year are spent on the campus. The remaining time is spent in hospitals and allied health centers. It includes general cultural courses and courses directly relating to nursing.

CURRICULUM FOR FIVE-YEAR BASIC NURSING PROGRAM

First Year

First Semester		Second Semester	
	Cr. Hrs.		Cr. Hrs.
English 1	3	English 2	3
Intro. Soc. Sc. 5	3	Intro. Soc. Sc. 6	3
Anatomy and Physiology 47	4	Anatomy and Physiology 48	4
Chemistry 21	4	Chemistry 22	4
Physical Ed. 3	1	Physical Ed. 4	1
	15		15

Second Year

Cr. Hrs.		Cr. Hrs.	
Intro. Human. 7	3	Intro. Human. 8	3
Bacteriology 107	4	Bacteriology 108	4
Gen. Psychology 41	3	General Soc. 41	3
Hist. Nursing I & II	4	Foods and Nutrition 43	3
Math., Acct'g., or Foreign Language	3-4	Math., Acct'g., or Foreign Language	3-4
	17-18		16-17

Third Year

Electives	6	Clinical portion of the program begins the sixth semester and continues through the fifth year.
Diet Therapy 44	3	
Nursing Arts I	2	
Intro. Med. Sc. 58	3	
Pharmacology I	2	
Prof. Adj. I	1	
	17	

ADVANCED PROFESSIONAL PROGRAM FOR GRADUATE NURSES

Programs of advanced study are available for graduate nurses leading to the Degree of Bachelor of Science in Nursing Education. This program is designed for graduates of accredited nursing schools who wish to prepare for positions of ward management and teaching in hospitals.

Candidates must present evidence of graduation from an approved school of nursing. They are required to complete at least 128 semester hours which include approximately 30 semester hours in a major nursing program. The required general courses include:

<i>General Courses</i>	<i>Credits</i>	<i>Professional Courses</i>
English	6	Ward Management and Teaching
Intro. to Soc. Sc.....	6	Teaching and Supervision in
Intro. to Human.....	6	Schools of Nursing
Math., Acct'g., or Foreign Language.....	6-8	a. Teaching and Supervision of Clinical Nursing
Chemistry or Physics.....	8	b. Teaching the Nursing Arts
Bacteriology	8	c. Teaching the Physical and Biological
Sociology	6	Sciences
Psychology	6	d. Teaching the Social Sciences
		Administration in Schools of Nursing
		Public Health Nursing

Graduate nurses are allowed some credit for their professional education in nursing. The amount of this credit is dependent upon the quality of the program completed and the amount of work completed in the various subjects. The number of electives will depend on the credit allowed the individual student for her basic professional program.

PUBLIC HEALTH NURSING

A program is offered for graduate nurses interested in the field of public health nursing. For details of this program, consult Professor Doherty.

Other programs in advanced nursing education will be announced later.

43. FOODS AND NUTRITION. 3 credits.

For student nurses. This course combines the study of principles of food preparation with that of diet in normal nutrition. Two hours lecture, two hours laboratory. Lab. fee, \$6.

44. DIET THERAPY. 3 credits.

For student nurses. This course is the application of the study of nutrition as a means of therapy. Two hours lecture, two hours laboratory. Lab. fee, \$4.

52. NURSING ARTS I. 2 credits.

Designed to aid students in their orientation to nursing; in developing desirable ideals and attitudes, and in recognizing the principles of health conservation and promotion.

54. PHARMACOLOGY I. 2 credits.

An introductory course planned to give the student a thorough understanding of the systems and methods used in weighing and measuring drugs, making solutions, calculating dosage, and of the nurse's responsibility in the administration of medicine.

56. PROFESSIONAL ADJUSTMENTS I. 1 credit.

Consideration of the underlying principles of nursing ethics, and guidance to the student in making her personal and professional adjustments to nursing.

58. INTRODUCTION TO MEDICAL SCIENCE. 3 credits.

To acquaint the student with the causes of disease, bases for treatment, methods of prevention and control, and with the various professional groups with whom she associates in the care of the sick. Also to encourage the application of scientific principles and methods to the nursing care of patients.

63. FOOD ECONOMICS. 3 credits.

For student nurses. The relative, the nutritional, and material values of foods as used in the family dietaries and in planning and preparing meals. Two hours lecture, two hours laboratory. Fee, \$4.

70-71. HISTORY OF NURSING. 2 credits each semester.

A study of the development of nursing from the pre-Christian period to the present time; its relation to religion, science, and social institutions; the influence of leaders and origin of organizations.

100. NURSING TRENDS. 3 credits.

A survey of nursing trends with emphasis on current developments and problems in the various fields of nursing, and attention to developments in other fields affecting nursing.

101. TEACHING THE NURSING ARTS. 3 credits.

A study of the principles and methods of teaching the nursing arts in classroom and wards. Analysis of nursing procedures and opportunity for students to demonstrate the teaching of a procedure before the group and benefit by their criticism; opportunity to observe and participate in classroom and ward teaching in the local hospitals.

PHYSICAL EDUCATION

Professor Sefton, Associate Professor Smith, Assistant Professors Beichly, Lamkin, Baldacci and Millisor, Mr. Maluke

GENERAL COLLEGE***15-16. HYGIENE, PHYSICAL AND MENTAL. For description see page 45.**

One lecture, one discussion period a week.

3-4. PHYSICAL EDUCATION. 1 credit each semester.

Required course in physical education activity planned for freshman year.

Men

- I. Tumbling, apparatus and stunts (each semester).
 - II. Minor sports, soccer, volleyball, basketball.
 - III. Calisthenics (each semester).
 - IV. Athletics — football, basketball, track (varsity squad), freshman football, wrestling, and boxing.
 - V. Swimming—beginning.
 - VI. Swimming—intermediate.
 - VII. Swimming—advanced.
 - VIII. Leisure time sports.
- Tests will be given in physical efficiency, knowledge of games and technique of skills.

Women

- I. Leisure Time Sports — Archery, Badminton (either semester) 1 credit.
- II. Team Sports — Hockey, Basketball, Softball (either semester) 1 credit.
- III. Folk and Square Dancing (either semester) 1 credit.
- IV. Modern Dance (either semester) 1 credit.
- V. Beginning and Intermediate Swimming (either semester) 1 credit.
- VI. Advanced Swimming and Diving (first semester) 1 credit.
- VII. Advanced Swimming and Lifesaving (second semester) 1 credit.

45-46. BASIC COURSE IN PHYSICAL EDUCATION PRACTICE. Each semester. 3 credits.

Men students majoring in Physical Education are required to take all laboratory sections provided for Physical Education 3-4. Women majors are required to take sections I-VII given above.

69. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL RECREATION.

2 credits.

There is a lecture and discussion course of the following material: Health Education, Athletic Equipment, Noon-Hour Recreational Physical Activities, Programs of Activities, Programs of Games, Organization and Administration of Athletic Meets, and Industrial Athletic Organization.

70. ORGANIZATION AND ADMINISTRATION OF MUNICIPAL RECREATION.

2 credits.

This course will deal with subjects of Administration, Budgets, management of Individual Playgrounds, the neighborhood Recreation Center and Community Activities.

UPPER COLLEGE

103. THEORY AND PRACTICE OF PHYSICAL EDUCATION (*for women*).

First semester. 3 credits.

Historical development, methods and practice in the teaching of apparatus, gymnastics, stunts and tumbling.

103-104. THEORY AND PRACTICE OF PHYSICAL EDUCATION (*for men*).

Each semester. 2 credits.

The purpose of this course is to develop personal technique and skill in presenting calisthenics, marching, and gymnastic activities; general lesson plans and teaching techniques suitable for elementary and secondary school programs.

105-106. THEORY AND PRACTICE OF ATHLETICS. *2 credits for men and 3 credits for women each semester.*

Interpretation of rules, techniques and practice in officiating in team and individual sports.

108. THEORY AND PRACTICE OF DANCING. *Second semester. 3 credits.*

History, theory and philosophy of dance as a creative art experience. Practice in rhythmical analysis and composition.

111. FIRST AID. *1 credit.*

This is the standard American Red Cross course which gives instruction and practice in the immediate and temporary care of injuries and sudden illness.

112. MASSAGE. *Second semester. 1 credit.*

Theory and practice in the scientific manipulation of the muscles as related to therapeutic exercise.

114. THEORY AND PRACTICE OF SWIMMING. *Second semester. 2 credits.*

Analysis of strokes and dives; methods and practice in the teaching of swimming.

115. NORMAL DIAGNOSIS AND INDIVIDUAL CORRECTIVE GYMNASTICS AND CORRECTIVE EXERCISE. *2 credits.*

A study of current theories and practices relating to the needs of physically handicapped children; particular emphasis is given to underlying philosophy, purpose, and administration.

118. SCHOOL HEALTH. *2 credits.*

The purpose of this course is to acquaint students of education, teachers in service, and others interested, with the broad general nature of health problems in schools.

121-122. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION. *2 credits.*

A comprehensive study of the various aspects of the organization and administration of physical education programs.

124. KINESIOLOGY. 2 credits.

This is a study of body movements from the standpoint of energy, leverage, angle positions, sequence and efficiency as applied to sports and working conditions.

125. METHODS IN PHYSICAL EDUCATION. 2 credits.

An analysis of the objectives and principles of physical education as related to the techniques of teaching; and a study of present-day trends through observation of methods in teaching physical education.

127. APPLIED ANATOMY. 3 credits.

This is a study of the structure of the architecture of the human body, specializing on the origin, insertion, action, innervation and blood supply of the important muscles of the body in relation to physical education and health.

128. APPLIED PHYSIOLOGY. 3 credits.

The purpose of this course is to study the general laws of life and the functional activity of tissues, organs and systems, learning what they can do and how they work in everyday life.

131. HYGIENE AND HEALTH ACTIVITIES FOR ELEMENTARY GRADES.

2 credits.

A survey of the hygiene and health factors which influence child development physically, mentally, and socially; methods and materials in teaching hygiene and health at the various age-levels.

132. GAMES FOR ELEMENTARY GRADES. 1 credit.

Practical analysis of games and rhythms for the elementary school child in relation to child development at the various age-levels.

PSYCHOLOGY

*Professor Twining, Associate Professor Witzeman, Mrs. Boyd,
Mr. Graham, Mr. Alven, Mrs. Painter*

GENERAL COLLEGE

***41. GENERAL PSYCHOLOGY. 3 credits.**

A study of the basic facts and principles involved in normal human behavior. Lectures, demonstrations, and discussions.

42. INTRODUCTION TO GENERAL EXPERIMENTAL PSYCHOLOGY. 1 credit.

Taken along with or after 41, preferably at the same time. Introduction to laboratory procedures through readings, demonstrations and the performance of group experiments which are common to general psychology. The topics parallel those in 41. Two 1-hour laboratory periods a week. Fee, \$1.

***43. APPLIED PSYCHOLOGY. 3 credits.**

Prerequisite 41. Introductory survey of techniques used and results obtained by applied psychologists in their analyses of business, education, clinical problems, home, industry, law, and criminology, medicine, personnel relationships, social change, and vocation. Lectures, reports, and discussions.

51. PSYCHOLOGY FOR NURSES. 2 credits.

Designed to prepare prospective nurses to meet the psychological problems that will appear in their profession. Attention is given to applications of psychology to specific hospital situations and public health nursing as well as to basic facts and principles.

***52. EDUCATIONAL PSYCHOLOGY. 3 credits.**

Prerequisite 41. Designed to prepare the prospective teacher or supervisor to guide the all-around development of his students more efficiently. Concepts of growth, learning, adjustment, and individual differences are stressed. Observations of different classroom situations are included.

***62. HUMAN RELATIONS IN BUSINESS AND INDUSTRY. 3 credits.**

Prerequisite 41. Principles and techniques for improving labor management relationships; psychological factors in supervision which affect results in training, adjustment, and morale; psychological factors in marketing, advertising, and selling which have effects upon producers, distributors and consumers.

Only two of the three courses numbered 43, 52, and 62 may be presented for credit.

UPPER COLLEGE

***105. CHILD PSYCHOLOGY. 3 credits.**

Prerequisite 41. The child from birth to adolescence; the principles of development in behavior; preparation of clinical studies on individual children.

***106. PSYCHOLOGY OF ADOLESCENCE. 2 credits.**

Prerequisite 41. A continuation of the approach used in child psychology through the adolescent period; emphasis on special needs and problems of this age.

***110. EXPERIMENTAL PSYCHOLOGY. 3 credits.**

Prerequisite 42. A study of the scientific methods and tools of modern experimental psychology; group and individual laboratory experiments in such topics as sensory processes, attention and perception, and learning; some attention to field studies in the measurement of public opinion. One lecture and two 2-hour laboratory periods a week. Fee, \$2.

***115. SOCIAL PSYCHOLOGY. 3 credits.**

Prerequisite 41. A study of the psychological responses of the individual in relation to the group situations and the social influences of modern life.

***120. NORMAL AND ABNORMAL PERSONALITY. 3 credits.**

Prerequisite, two courses in psychology. Basic principles regarding the nature, development and organization of normal personality; a study of the range of adjustment mechanisms including the normal, the minor maladjustment area, the psychoneuroses, and the extreme psychoses. Lectures, recitations and visits to mental hospitals when possible.

207. PSYCHOLOGICAL TESTING IN PERSONNEL. 3 credits.

Prerequisite, 6 hours of psychology. A survey of psychological tests and their common uses in business, industry, government and education; some attention to theoretical bases of test construction; practice in administering and interpreting general ability, special aptitude, vocational interest and personality tests. Two lectures and two 1-hour laboratory periods a week. Materials fee, \$5.

208. PRINCIPLES AND TECHNIQUES IN PERSONNEL COUNSELING. 2 credits.

Prerequisite 207 or adult engaged in counseling. Instruction and practice in interviewing; survey of occupations and use of Dictionary of Occupational Titles; special problems of counselors in industrial, commercial and school situations. One lecture and two 1-hour laboratory periods per week. Fee, \$2.

211. PSYCHOLOGICAL FACTORS IN MARITAL AND HOME ADJUSTMENT.

2 credits.

Prerequisite, a senior or adult with at least one course in psychology. A study of the psychology of sex adjustments in adolescence, adulthood, and marriage; attention to a psychological evolution of the factors which are important to successful marriage and parenthood. Lectures, readings, and discussions.

***213. ADVANCED GENERAL PSYCHOLOGY. 2 credits.**

Prerequisite, 9 credits in psychology. A critical survey of major findings in the study of the normal human adult. Emphasis is on physiological background and contemporary experimental results. Lectures, readings, and reports.

***214. COMPARATIVE AND GENETIC PSYCHOLOGY. 2 credits.**

Prerequisite, 9 credits in psychology. A study of animal behavior in its relation to human behavior by means of a critical survey of laboratory experiments in such areas as sensory discrimination, intelligence, learning and problem solving; a tracing of phylogenetic and ontogenetic development. Lectures, readings, and reports.

216. SEMINAR AND RESEARCH PROBLEM. 2 credits.

Prerequisite, senior major or graduate. Reports by students on reading research and experimental research; individual experimental problem done by some students; reviews and critical discussion of current literature in the psychology journals.

GRADUATE COURSES

207, 208, 213, 214, and 216 are recommended for graduate students. They will be required to do additional work to that required for undergraduates. The prerequisite for graduate psychology courses is graduate standing with some background in psychology or seniors with 15 credit hours of psychology who may be admitted to courses at the 300 level.

302. ADVANCED SOCIAL PSYCHOLOGY. 2 credits.

Concepts and techniques involved in analyzing the behavior of individuals in such social phenomena as folkways, institutions, attitudes, propaganda, leadership, public opinion, and social morality.

†303. ADVANCED EDUCATIONAL PSYCHOLOGY. 2 credits.

An analysis of development of skills and knowledge; interests and ideals; problem solving and creative activity; social growth and character formation. Designed for teacher or supervisor.

308. ADVANCED CHILD AND ADOLESCENT PSYCHOLOGY. 2 credits.

Analysis and evaluation of methods and conclusions of current major researches in child and adolescent development.

310. PSYCHOTHERAPY FOR PROFESSIONAL WORKERS. 2 credits.

Designed to help understand the varieties of adjustment behavior and how to aid readjustment and re-education. Case studies pertain to problems arising in the work of teachers, personnel managers and counselors, social workers, and other professional groups.

†317. HISTORY AND SYSTEMS OF PSYCHOLOGY. 2 credits.

A critical survey of the evolution of methods and concepts of psychology and of contemporary points of view.

406. INDIVIDUAL PSYCHOLOGICAL TESTING. 2 credits.

Prerequisite 207. Offered only to outstanding graduate students who are planning to become School Psychologists or Clinical Psychologists. Course is given on an individual basis. Instruction and intensive practice in the administration and interpretation of the Stanford-Binet Test and one or two other individual psychological tests.

VOCATIONAL EDUCATION

Professor Downing, Assistant Professors Stiner and Mills

Courses 201 to 206 inclusive are required for both the degree and state certification.

100. INTRODUCTION TO VOCATIONAL EDUCATION. 1 credit.

A general pre-service course presented with the aim of furnishing immediate practical information for the beginning teacher.

†Required graduate courses.

201. TRADE AND JOB ANALYSIS. 2 credits.

The objective of this course is to identify the elements of the various trades to be taught.

202. ORGANIZATION OF INSTRUCTIONAL MATERIAL. 2 credits.

Analysis developed in course 201 will be used as a basis for the construction of the course of study outline. Selection of functioning content will be stressed.

203. METHODS OF TEACHING OCCUPATIONAL SUBJECTS. 2 credits.

Careful consideration will be given to the common methods of teaching and to adapting them for use in vocational schools. Particular attention will be given to the psychology of the learning process.

204. VOCATIONAL TESTS AND MEASUREMENTS. 2 credits.

Theory of testing, necessary terminology, analysis and interpretation of results and construction of tests to be used in the vocational school.

205. SHOP MANAGEMENT. 2 credits.

How best to organize and manage a school shop. Shop planning, care of tools, shop routine. Course is largely conducted by the conference method.

206. CONFERENCE METHOD OF TEACHING.* 2 credits.

Planning, organizing, and conducting conferences. Each student will lead one or more conferences. Subjects chosen will be those of most interest to the group.

FOREMAN CONFERENCE LEADERSHIP.* No college credit or 2 credits.

Follows techniques developed by the Federal Board.

207. EDUCATIONAL AND VOCATIONAL GUIDANCE. 2 credits.

Development of theory, philosophy, and applications of guidance.

208. HISTORY AND PHILOSOPHY OF VOCATIONAL EDUCATION. 2 credits.

A tracing of the growth of vocational schools from their original roots in home craftsmanship. Guilds, trade unions, Smith-Hughes and succeeding laws, functioning content, placement, follow-up. Local responsibility.

209. ORGANIZATION AND ADMINISTRATION OF VOCATIONAL EDUCATION.

2 credits.

Provisions of the national laws and their application to local schools.

210. PSYCHOLOGY APPLIED TO OCCUPATIONAL TEACHING. 2 credits.

Attention is directed toward a better understanding of the fundamental laws of learning and their application in mastering a trade together with its related science, mathematics, blue print reading, etc.

211. INDUSTRIAL RELATIONS. 2 credits.

This course is intended to point the way toward a better understanding of labor adjustments, personnel problems, and industrial psychology. Some of the basic underlying philosophy is given consideration.

212. DEVELOPING CONTENT FOR SHOP AND RELATED SUBJECTS. 2 credits.

This course is designed to assist the Vocational teacher in developing material for which he has most need with considerable emphasis on related material.

*These courses have the same basic content but emphasis is placed on factory situations in the second and on teaching method in the first.

GRADUATE STUDY
CHARLES BULGER, PH.D., *Dean*

In certain colleges and departments opportunity is offered properly qualified persons to study for the master's degree. In some of the departments graduate courses given in connection with the work in Adult Education have been arranged on a rotating plan to enable candidates to meet the requirements for a major or a minor.

Courses for graduate credit may be taken in the following departments:

English	Biology
Commerce	Chemistry
Economics	Mathematics
History	Physics
Political Science	Education
Sociology	Psychology

It is planned that each of these departments will offer sufficient courses to enable students to complete a major or minor for a master's degree. Graduate courses are offered in rotation over a period of three to five years.

For details as to the actual courses offered, refer to the various colleges and departments.

Graduate work is characterized by quality as well as quantity. The degree is granted on the basis of high level of attainment in a certain field rather than for the collection of a specified number of credit hours.

Attainment is to be judged by (1) the thoroughness of the candidate's acquaintance with his field, (2) his knowledge of the methodology of his field, and (3) his initiative and independence.

The applicant for admission to graduate study must satisfy the Admissions Committee that all required secondary school and college credits have been secured and that the candidate has received a bachelor's degree from a college of recognized standing. A transcript must be sent to the Registrar by the institution from which the applicant obtained his bachelor's degree. The Committee on Graduate Study reserves the right to require any applicant for graduate work to prove that he has a satisfactory background for such work by taking and passing such examination or examinations as the Committee may prescribe.

Total credit of 26 to 30 semester hours, including a thesis, is required of all candidates; 20 to 24 semester hours of this work must be done at the University of Akron. If both major and minor are laboratory

sciences, the total credit required is 26 hours; if either major or minor is a laboratory science, the total credit required is 28; if neither major nor minor is a laboratory science, the requirement is 30 hours. The writing of a thesis is a requirement for the degree. Four hours of credit may be granted for the thesis. No work done more than five years previous to the date of granting the degree will be accepted in fulfilling the semester hour requirement. Six hours of graduate work may be done at another college subsequent to matriculation at the University of Akron. Graduate work done elsewhere previous to matriculation at the University of Akron will not be accepted.

No graduate credit will be granted for courses numbered under 200. Courses numbered 200-299 are primarily of senior (undergraduate) rank, and graduate credit may be established for these courses only when a greater amount and a higher quality of work is done than is required of the undergraduate students. Courses numbered 300-399 are primarily graduate courses to which a very few undergraduates who have shown unusual ability may be admitted. Courses numbered 400-499 are graduate courses for which the prerequisite is a bachelor's degree.

For courses in the 300 and 400 series no credit toward the master's degree will be allowed for work which receives the grade of D and not more than six hours of credit for work which receives the grade of C.

Choice of the major and the minor must have the approval of the Committee on Graduate Study. The minor may be elected in a college or division or department other than that in which the major is taken.

The thesis must have the approval of each member of the Thesis Committee. The thesis topic must be selected by November 1 of the academic year in which the student expects to graduate. Two copies of the thesis must be presented to the Dean of Graduate Study one month before the Commencement at which the candidate receives his degree; both copies shall be placed in the library.

Not later than one semester previous to the period at which the work for the degree will presumably be finished, the student must file with the Registrar a notice of intention to apply for the degree.

The thesis and all requirements for the master's degree must be completed within one year after the major or minor examination has been passed.

The following fees must be paid at the time application for the degree is filed:

Master's degree	\$10.00
Thesis fee	\$10.00
Binding fee, approximately, a volume.....	\$ 1.50

Each candidate must pass final written and oral examinations covering the major and minor fields.

THE DIVISION OF ADULT EDUCATION

LESLIE P. HARDY, M.S.Ed., *Director*
ERNEST A. TABLER, M.A., *Assistant Director*

**THE EVENING SESSION
ADMISSION REQUIREMENTS**

The admission of any student to the University of Akron will depend upon the evidences of his preparation and ability to do college work in a satisfactory manner. The evidences are: (1) graduation from an accredited four-year secondary school or its equivalent; (2) quality of the work done in the secondary school; (3) ranking in certain tests given by the University to determine preparation, ability, and aptitudes; (4) attitude toward college work.

In determining the admission of any applicant, consideration is given to the above factors. A low ranking in any one will require a higher ranking in the others. For example, a student whose secondary school average is low may be admitted if his ranking in the tests is high. Also, an applicant with a fair secondary school record may make such a poor ranking in these tests as not to qualify for admission.

TRANSFER AND RE-ENTERING STUDENTS

Students transferring from other colleges to the University of Akron or re-entering after an absence of one or more semesters, will report to the Registrar's office, Room 26 Buchtel Hall, for a statement of admission.

ADULT STUDENTS

Applicants over twenty-one years of age may be permitted to enroll for not over seven credit hours in any one semester in evening classes and may be permitted to take up to a total of fourteen credits. Such students will be designated as Adult Students. If adult students desire to take any additional work for credit, they must qualify for regular student status by meeting entrance requirements to the satisfaction of the Committee on Admissions. The initiative for change of status rests with the adult student.

Adult students not previously registered at the University will secure a statement of admission from the Registrar at the time of registration.

SPECIAL STUDENTS

Special students are applicants who do not meet the requirements for admission, but may, by special act of the Committee on Admissions, be permitted to take a limited amount of work for which they are qualified by experience. Special students will not receive credit and will be designated as auditors. It is understood that they will not displace any regular students.

AUDITORS

Auditors are students who are required to do all the work prescribed for students enrolled for credit except the taking of credit examinations. The fee is the same as for regular credit enrolment. Designation as an auditor must be made at the time of registration.

ACADEMIC CREDIT

The unit of credit is the semester hour which requires class meetings totaling 15 clock hours or more for lecture-discussion types of classes with additional time for laboratory classes.

For graduation from the University, the student must present 128 semester hours with a quality point ratio of 2 for all work carried. No student is eligible for a degree unless he has the same ratio of quality points in his major subject as is required for graduation. Students taking the Engineering course of study are required to present 155 semester hours. Candidates for a degree are required to file an application with the Registrar by March 1 of the year in which they expect to graduate.

CONSULTATION

The director of Adult Education and staff maintain office hours to consult with students concerning the selection of courses, and other academic problems. Student programs should be carefully planned with the aid of the Office of Adult Education. It is also advisable that persons in the Upper Colleges should confer as frequently as is possible with their advisers in the field of concentration. It is wise to obtain this advice previous to the registration period, although members of the faculty will be present on registration days to confer with those who come to register.

LOAD

For those holding full-time positions 6 credit hours of work in any semester are regarded as the maximum load that should be attempted. There is no fixed rule that the student cannot carry more, but experience and records show that over 6 hours is a burden to the student working full time.

ATTENDANCE

Students are expected to be present at all meetings of classes for which they are registered. Upon request the instructor may permit a student to make up work missed through unavoidable absence. When a student has been absent from class twice as many hours as the subject offers credit in each semester, he may be dropped from the class upon recommendation of his instructor. Recommendation of the instructor and approval of the Director are necessary for reinstatement.

WITHDRAWALS

A student desiring to withdraw from the University is required to fill out a withdrawal form in the Evening College Office. Otherwise "F" grades may be received in work discontinued without official withdrawals.

The University reserves the right to cancel courses in which the registration is insufficient to warrant their continuance, in which case the fees are refunded. It is usually possible for the student to transfer to some other course.

GRADING SYSTEM

Information concerning the grading system will be found in the General Regulations section of this catalog.

STUDENT ACTIVITIES

The Student Council of the Evening Session is organized through the election of class representatives who, in turn, select the Student Senate composed of eight members.

Alpha Sigma Lambda, a national honorary scholastic evening fraternity, installed Gamma chapter at the University of Akron on May 28, 1947. Qualifications for membership are based on 3.25 scholarship record and good moral character.

The Evening Theatre, which is open to all students of the Evening Session interested in dramatics, presents one or more major productions each year, and also numerous one-act plays.

The A E Honorary Fraternity is made up of those students who have met the requirements for an A E Key, which is awarded on the basis of activities and scholarship in the Evening Session.

SUMMER SESSION

LESLIE P. HARDY, M.S.Ed., *Director*

The twenty-seventh annual Summer Session has been planned on an eight-week term for the College of Liberal Arts, and the College of Engineering, and on a six-week term for the College of Education. This plan of organization for the summer of 1948 permits flexibility in meeting the needs of:

(1) Veterans and other students wishing to accelerate their educational programs. (8 weeks).

(2) Teachers, transfer students and others wishing to complete only one or two subjects in a shorter term. (6 weeks).

All departments of the University are offering subjects of instruction on the undergraduate level. A number of the departments have scheduled classes in the Evening College. For graduate students there are a number of courses in Education, Psychology and Sociology. High School graduates who wish to begin their college work immediately after graduation, and the regular students who wish to complete their undergraduate work in less than four years will find a liberal selection of offerings.

The College of Education has anticipated the special needs of teachers who wish to secure emergency certificates, to renew certificates, or to complete work toward a degree.

To meet the educational needs of the discharged veteran the summer curriculum has been planned to give these men and women courses which will help them expedite their educational program.

Each student will find the faculty and administrative officers helpful in selecting a program of studies that will make this Summer Session a valuable, pleasant and invigorating educational experience.

The eight-week term begins Monday, June 21, and closes Saturday, August 14. The six-week term begins June 21 and closes July 31.

ADMISSION REQUIREMENTS

The admission of any student to the University of Akron will depend upon the evidences of his preparation and ability to do college work in a satisfactory manner. The evidences are: (1) graduation from an accredited four-year secondary school or its equivalent; (2) quality of the work done in the secondary school; (3) ranking in certain tests given by the University to determine preparation, ability, and aptitudes; (4) attitude toward college work.

Admission examinations for entering freshmen will be held several times during the year in Room 155, Simmons Hall. Information as to date will be mailed on request.

Students from other colleges should present a statement of good standing from the registrar of the institution last attended.

EVENING CLASSES

A program of classes is scheduled for those who work during the day. This program also permits the student working morning hours or late night hours to plan a schedule from the day and evening classes.

ADULT STUDENTS

Applicants over 21 years of age may be permitted to enroll for not over seven credit hours in any one semester in evening classes and may be permitted to take up to a total of fourteen credits. Such students will be designated Adult Students. If Adult Students wish to take any additional work for credit, they must qualify for regular student status by meeting entrance requirements to the satisfaction of the Committee on Admissions. The initiative for change of status rests with the Adult Student.

REGISTRATION

Final registration for the 1948 Summer Session will be held in Buchtel Hall, Friday and Saturday, June 18 and 19 until noon. Any person registering after June 19 will be charged a late registration fee of \$5. Late registrants should report to the office of the Registrar.

All fees, including tuition and laboratory fees, must be paid to the Treasurer of the University as a part of registration. Registration and payment of fees should be made in person on or before June 18 or 19, or by mail before these dates.

FEES

All fees are payable at the Treasurer's office before the student enters classes. The plan of deferred payments has been discontinued.

Consult the fee section for information concerning charges for work taken in either the six-week term or the eight-week term.

APPOINTMENT BUREAU

The Dean of the College of Education is chairman of the Appointment Bureau for Teachers. Summer Session students may enroll for appointment without extra fee.

STUDENT TEACHING

Student teaching will be done in the Akron and Barberton public schools. All requests for student teaching should be made to the Dean of the College of Education before May 15 with the understanding that those first enrolled will be assigned first. A deposit of \$10 is required with each formal application for student teaching.

CERTIFICATION

Teachers who are planning the completion of courses for state certificates may complete this work in summer sessions at the University of Akron and in addition receive college credit toward a degree. Many subjects taught in the summer session are also credited toward degrees in the other colleges of the University.

Students who expect to complete the requirements at the close of the 1948 Summer Session for diplomas should file application in the Registrar's office the first week of the Summer Session. A fee of \$2 will be charged.

HIGH SCHOOL CERTIFICATES

One who has trained in a special field to qualify for the high school four-year provisional certificate must, in addition to the professional courses required for the special certificate, possess the following credits:

Organization and management in the academic field.....	2 semester hours
Special methods in an academic major or minor.....	2 semester hours
Student teaching in the high school academic field.....	2 semester hours

ELEMENTARY SCHOOL CERTIFICATES

In view of the fact that many who train for secondary school work may wish later to go into elementary teaching, the following work in the elementary field is prescribed, as additional to that necessary for a high school provisional certificate, in order to obtain an elementary provisional certificate:

Teaching of Reading	3 semester hours
Teaching of Arithmetic	2 semester hours
Teaching of Social Studies.....	2 semester hours
Child Psychology	3 semester hours
Student Teaching	2 semester hours
Other courses in the elementary curriculum.....	6 semester hours

GRADUATE STUDY

The Summer Session program offers opportunity for study on the graduate level. Students interested in graduate courses for advanced study should confer with the instructors in their specialized fields and with the Dean of Graduate Study if they wish to be candidates for the Master's degree.

SCHEDULE

The summer schedule of classes for 1948 is published separately. It will be available for distribution in April and copies may be obtained on request.

The offerings are in all departments of the University and a regular sequence of courses is planned on the same basis as in the Fall and Spring semesters. Early registration and payment of fees is advised in order to lessen the pressure and crowding on the final registration days. Qualified students may complete the whole process of registration and payment of fees in this manner.

COMMUNITY COOPERATION

The University of Akron, as a municipal university, aims to bring all of its departments into close touch with the activities of the city of Akron.

The following covers the work of the several colleges and divisions.

THE COLLEGE OF ENGINEERING

Under the cooperative system, upper college students in the College of Engineering are employed in local industries during scheduled work periods. This system provides valuable sub-professional experience for students and allows industry to develop a selective training program for future technical personnel requirements.

The faculty of the College of Engineering are available as consultants on special problems involving research, design or testing whenever such services are not competitive with other established professional services in the community.

The Daniel Guggenheim Airship Institute, a unit of the College of Engineering, is engaged in an applied research and testing program which includes contractual relations with both governmental agencies and private corporations.

THE COLLEGE OF EDUCATION

In addition to the preparation of teachers for the Akron Public School system and other school systems of the state, the College of Education aims to increase the opportunities for the continued education of teachers already in service. Late afternoon, evening, and Saturday courses are offered. Students are required to do student teaching for one semester before graduation. This is made possible through the cooperation of the Board of Education. Members of the faculty consult with teachers and school administrators about their educational problems.

In May 1945 operation of a program began in cooperation with the United States Veterans Administration. Under this plan the University does the testing of those veterans who apply for vocational advisement under Public Laws 16 and 346. The Veterans Administration uses the test results for vocational counseling and placement.

Although a clinic has not been formally organized in the fields of education and psychology, a wide and varied service is rendered to individuals and institutions, including welfare organizations and the public schools. This service includes not only testing of intelligence but measuring aptitudes and vocational interests, and diagnosing educational and personality difficulties. The establishment of this program has enabled us to enlarge our services in this area to the students and the public.

Members of the faculty of the College of Education are glad to present talks to Parent Teacher association groups, teachers associations, school administration groups and others who are interested in the problems of the school. Services are rendered from time to time to the administration of school boards for survey of educational facilities. The resources of the University are available for the improvement of the schools in this area.

The Graduate Record Office, an agency for the consideration and administration of tests for students who wish to enter engineering colleges, medical schools or other graduate institutions, has designated the University of Akron to conduct the testing programs for this area at appointed times during the year.

THE LIBRARY

The resources of the library are open to citizens of Akron for reference during the regular library hours, and for circulation in so far as the demands of classwork upon the collection will permit.

COOPERATION WITH THE LOCAL HOSPITALS

By special arrangement with the local hospitals courses are offered to nurses in training who are graduates of accredited high schools. This work carries regular college credit and is acceptable toward a degree. The following courses are given: Anatomy and Physiology, Chemistry, Microbiology, Nutrition and Foods, Psychology, and Sociology.

THE TESTING LABORATORY OF THE CITY OF AKRON

In accordance with the proposal made by the Directors of the University and accepted by the Akron City Council, the Testing Laboratory does much of the chemical and physical testing work of the city. It serves especially the Board of Education, the Police Department, the Service Department, and the Coroner's Office. It answers many calls requesting chemical or other technical information. In addition it serves as a commercial laboratory for those concerns which do not have testing equipment or personnel of their own and in cases in which this service does not duplicate facilities already existing.

DEPARTMENT OF BIOLOGY

~~City~~ Affiliation is maintained with the City Health Department. Bacteriological testing and investigations are carried on in connection with the various clinics and hospitals. Lectures and informal talks have been given to organizations in Akron. Identification of zoological and botanical specimens is made from time to time by various members of the department.

DEPARTMENT OF CHEMISTRY

Two fellowships in the chemistry of rubber technology, open to graduates of standard American colleges, have been established at the University of Akron by the Goodyear Tire & Rubber Company and the Firestone Tire and Rubber Company, for the purpose of training men for service in their laboratories.

The University has entered into a contract with the Rubber Reserve Company for conducting a research problem in synthetic rubber under the direction of the office of the Rubber Director.

COMMERCE DEPARTMENT

The Commerce Department attempts to tie in closely with the business and economic life of Akron. Monthly, in cooperation with the Chamber of Commerce, a bulletin is issued analyzing Akron business trends. The department quite regularly makes traffic and occupancy surveys of the

business district, as well as consumer and trade studies of a community nature which are extensively used. The work in the field of automobile tire distribution and market statistics has become widely known and accepted.

DEPARTMENT OF HOME ECONOMICS

Laboratory work was carried on in the Summit County Children's Home and in the municipal housing projects. Speeches, plays, and style shows were provided for local organizations. The food preservation program was promoted by the sponsoring of the pressure cooker testing project, and the nutrition program, by providing judges for "Better Balanced Meals" contests. Dietetics majors carry on field work in local high schools and hospitals. Household equipment is tested for the gas and electric companies. An information bureau on all phases of home economics is provided for the public.

DEPARTMENT OF SOCIOLOGY

The Department of Sociology has active affiliations with the Akron Community Service Center, Boy Scouts, Catholic Service League, City Hospital, Community Chest, Department of Public Charities, Family Service Society, Girl Scouts, Jewish Center, Jewish Social Service Federation, Juvenile Court, Metropolitan Housing Authority, Summit County Children's Home, Y. M. C. A., Y. W. C. A., Detention Home, Council of Social Agencies, East Akron Community House, and the Summit County Home. These institutions and agencies provide the supervised training for the students who are actively interested in entering the profession of social welfare work or in character building and Community Chest Agencies.

The census tract maps for the City of Akron are under the direct supervision of the department of sociology. Surveys and specially supervised studies are conducted by the department. Students are also trained in statistical research.

THE DIVISION OF ADULT EDUCATION

The Division of Adult Education offers credit and non-credit courses.

The evening credit classes are planned to give employed as well as full-time students opportunity to work for a degree, to receive help with their everyday work, or to expand their knowledge in a special field of interest. A comprehensive program in all three of the colleges offers credit fully recognized toward the various degrees and certificates which are conferred by the University.

In the Community College, B. F. Goodrich-University of Akron Institute, and other special programs, non-credit classes are arranged to provide area education in the following fields; Business, cultural, domestic, industrial, recreational and refresher. These courses are planned to meet the specific needs of persons who want practical training for a particular vocation or avocation, for those who are not particularly concerned with obtaining college credit and who prefer shorter courses, for those who need further preparation before beginning credit work and, for many others who have completed their formal education but who believe that adult education can be a life long adventure to obtain new ideas and insights to guide actions.

The Community College classes are conducted on the campus each semester with most classes meeting for a twelve week period with a fee of \$6. Additional courses will be arranged at any time for fifteen or more persons interested in a subject not offered in the published program. Also organized on a twelve-week basis, Goodrich Institute classes are offered at the company classroom with an enrolment fee of \$4. The balance of the educational cost is paid by the B. F. Goodrich Company.

Community College classes held during the year of 1947-48 were: Appreciation of Pictures, Flower Arrangement, Parts I and II, Sources and Techniques of Economic Research, Beginning Conversational Spanish I and II, Industrial Electric Control I, Practical Fundamentals of Electrical Engineering, Steam Plant Operation I and II, Home Decoration Planning, English for Improvement of Speech and Writing, Applied Engineering Mathematics, Photography for Beginners, Conversational German I and II, Advanced Photography, Marriage and the Family, Red Cross Standard First Aid Course, Correct Study Procedures, Ballroom Dancing, Mathematics and Fundamentals of Electricity I and II, Beginning Algebra, Problems of American Democracy, Organization and Management of Small Businesses, Basic Blueprint Reading, Structural Building Codes, Parent-Teacher Training, Slide Rule Calculations, Advanced Blueprint Reading, Applications of Building Codes, National Electric Code, Refrigerator Service & Maintenance I and II, Radio Servicing I and II, Introduction to Russian, Controls for Motors, Effective Speech and Practical English, Motors and Generators, A.C. and D.C., History of Civilization, Millinery, Advanced Millinery, Slip Covers, Draperies and Curtains I and II, Furniture Reclamation and Repair, Link Training and Practical Electricity, Heat Treatment of Iron and Steel, Interior Decoration, F.C.C. License Preparation, Municipal and Industrial Fire Protection, History of Journalism in Ohio, Preparing for Marriage, Public Speaking, Industrial and Labor Relations, Remedial Mathematics, Report Writing, Public Relations, Story Telling for Fathers.

Classes offered at Goodrich during the year included: Human Relations, Slide Rule, Gauges & Measurements, Elementary Accounting, Fundamentals of Supervision, Rubber Manufacturing, Blueprint Reading, Public Speaking, Industrial Safety, Sales Correspondence, Industrial Mathematics, Shop Arithmetic, Report Writing Seminar, Accounting II, Fundamentals of Time Study, Public Speaking II, Rubber Manufacturing II, and Business Letters and Report Writing.

COMMUNITY COLLEGE FEES

The standard fee for Community College courses is \$6 for a twelve week course meeting 1½ hours a week. The charge for courses of different length is related to the length of the course. Courses which require individual instruction, expensive equipment, consumable supplies or other exceptional costs are charged for according to the cost. Actual charges for non-credit courses are published periodically in Community College bulletins.

PRIZES, FELLOWSHIPS, SCHOLARSHIPS, HONORS, AND SPECIAL FUNDS

THE ASHTON PRIZES

A fund of \$3000 was established in 1887 by Oliver C. Ashton of Bryan, Ohio, endowing the O. C. Ashton Prizes for excellence in reading and speaking. Three contests during the year are held, an Upper College Contest, a General College Contest, and an Interpretative Reading Contest. The amounts of the prizes awarded at each contest depend upon the income available from the fund.

THE SENIOR ALUMNI PRIZE

A fund has been established by the Alumni Association for the purpose of awarding an annual cash prize of \$50 to that senior student who has completed the regular undergraduate curriculum with the highest average grade for the work taken, having carried an average load of 12 credit hours per semester.

THE DR. E. B. FOLTZ PRE-MEDICAL PRIZE

Under the provisions of the will of the late Dr. E. B. Foltz a fund has been established to provide for a pre-medical prize of \$100. This prize is awarded each year to that member of the graduating class who makes the highest average grade in all work taken in the four-year pre-medical course and who plans to enter medical college the following year. The name of the winner is announced at Commencement, but the actual award is not made until the winner has enrolled in medical college.

FIRESTONE AND GOODYEAR FELLOWSHIPS

Fellowships in the Department of Chemistry are offered by the Firestone Tire and Rubber Company and the Goodyear Tire and Rubber Company for the study of the chemistry and technology of rubber. These fellowships are open to graduates of standard American colleges and universities and are of the value of \$1000 per year, with remission of all University fees.

THE OHIO STATE UNIVERSITY GRADUATE SCHOLARSHIP

In the spring of 1935 a number of graduate scholarships were established by the Ohio State University, one to be assigned to each of the Ohio colleges fully accredited by the North Central Association of Colleges and Secondary Schools. The scholarship entitles the student to the exemption of tuition and fees of all kinds except a matriculation fee. Selection is left to the individual colleges.

AKRON COLLEGE CLUB PRIZE

An award of \$100 sponsored by the College Club of Akron, is given annually to a woman selected from the Junior class in the College of Education. It is made on the basis of outstanding scholarship and evidence of campus leadership. It is to be used by the recipient as an aid in financing the expense of her Senior year at the University.

FRANK PIXLEY MEMORIAL FUND

The Frank Pixley Memorial Fund was established in 1931 by the will of Isabel McRoy Pixley, wife of Frank Pixley, class of 1887. The fund amounts to \$50,000, the income from which is used for the establishment of scholarships in speech, music, and literature.

THE PIXLEY SCHOLARSHIPS

In accordance with the terms of the Pixley bequest, awards are made each semester to students of outstanding ability and promise in the fields of literature, music, and speech. To be eligible for one of these awards the student must be enrolled in an upper college or qualified to enter an upper college and must be a major in the department in which the scholarship is awarded, or a divisional major in the humanities division. The awarding of these scholarships is made by a committee of which the Registrar is the chairman. To be eligible for a Pixley Scholarship, a student must have a quality point ratio of at least 2 in all work taken; in the field of the award, the quality of scholarship is expected to be much higher. Applications for scholarships should be addressed to the Registrar.

ROBERT KASSE MEMORIAL SCHOLARSHIP FUND

The Robert Kasse Memorial Scholarship Fund was established in 1945 by his family and friends to perpetuate the memory of Robert Aaron Kasse, who died in the service of his country on December 10th, 1944.

The sum of \$100 is to be awarded annually to that student in the Department of English (including Journalism), Speech, Radio and Dramatics, in Buchtel College of Liberal Arts, who at the completion of his Junior year shows the greatest promise of success based upon academic excellence, character, and leadership.

THE CLARENCE L. HYDE MEMORIAL SCHOLARSHIP

The Clarence L. Hyde Memorial Scholarship was created in 1946 by the Clarence L. Hyde League. The Scholarship shall be a living commemoration of Dr. Hyde and his service to humanity. It shall be awarded each year to a senior student residing in Akron, and shall be determined by scholarship and by need on the part of the student. Race, color, creed, or sex shall not be considered by the committee in making the award.

THE AKRON BEACON JOURNAL ESSAY SCHOLARSHIP

The Akron Beacon Journal has established a four-year scholarship at the University for the winner of a high school essay contest. The applicants for this scholarship are limited to Summit County high school students. Tuition, fees, and books are furnished to the recipient of this award over a four-year period. The first award was made in September 1947.

THE RAYMOND B. PEASE AWARD OF THE AKRON MANUSCRIPT CLUB

The Raymond B. Pease award was established in 1946 by the members of the Akron Manuscript Club. The sum of \$25 is to be awarded annually to that Junior at the University of Akron who has been consistently outstanding in the field of creative writing during his three years at the University. In the selection of the recipient there shall be no consideration of race, sex, nationality, or creed. The recipient shall apply the award toward tuition in his Senior year at the University of Akron.

**THE IOTA PHI LAMBDA
NATIONAL BUSINESS WOMEN'S SORORITY SCHOLARSHIP**

The Iota Phi Lambda National Business Women's Sorority has established an annual prize of \$50 through its local Alpha Mu Chapter. This prize is based on national competition, and the winner of the local contest is awarded a prize of \$50 in recognition of outstanding scholarship and achievement in the field of commercial subjects. The contestant must have maintained an average of 85 or over and be a graduate of a local high school during the current year, with a major in commercial subjects.

THE VICTOR I. MONTENYOHL SCHOLARSHIP

The Victor I. Montenyohl Scholarship Fund for advanced study was established in 1946 by Mrs. Elizabeth Montenyohl, his wife, and his son and daughter, Patricia and Victor, in memory of Victor I. Montenyohl, in recognition of Mr. Montenyohl's devotion to the rubber industry, and his belief that the University of Akron offered a unique opportunity for rubber research. It is considered appropriate that the income from this fund be made available whenever possible to a student of demonstrated ability in the field of rubber chemistry.

THE ALFRED-LOUIS HANDLER SCHOLARSHIP

The Ronoh Club, a local social and cultural organization, has sponsored an annual prize of \$300 in memory of Alfred and Louis Handler, who lost their lives in their country's service in the late World War. This prize of \$300 is to be divided equally between a young man and a young woman indicating a superiority in scholarship and leadership as well as evidence of need, selected from among outstanding graduates of local high schools and who are residents of Akron and have been accepted for enrolment in the University. This award was made for the first time during the first semester of 1947-48.

**THE BETA SIGMA PHI
INTERNATIONAL BUSINESS GIRLS SORORITY SCHOLARSHIP**

A scholarship for a young woman has been created by the Beta Sigma Phi International Business Girls Sorority. This has been designated as the "Children's Home Scholarship." It includes the fees and books for a four-year period. The person selected must be an orphan from the Children's Home. She must maintain proper scholastic rating, interest, and aptitude for college training and must be recommended by the Children's Home and be qualified for admission to the University.

THE RUTH DUGAN AERONAUTIC SCHOLARSHIP

One of the accomplishments credited to the Women's Chapter of the National Aeronautic Association is the Ruth Dugan Aeronautic Scholarship of \$100 a year to be awarded to that student who shall be accepted by the scholarship committee of the Akron Women's Chapter upon recommendation by the cooperating advisory committee of the University of Akron. Part of the work included in the course of study will be given at the University of Akron, and the necessary research will be carried on at the Daniel Guggenheim Airship Institute. The scholarship fund first became available for the year 1936-37. Not awarded during the war emergency.

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LOAN FUNDS

Applications for loans are received at the office of the Dean of Students prior to the opening of each semester, and upon emergencies, during the academic year.

HARRIET PHILLIPS FUND

The Harriet Phillips Fund was created in 1930 by a bequest of \$18,000. The income from this fund is used for the care and maintenance of gifts of paintings, etchings, and other art treasures, together with an Art Library, which was given by Miss Phillips to the University in memory of her family.

THE KATHERINE CLAYPOLE LOAN FUND

This fund was established by a number of women's organizations of the city and dedicated as a memorial to Mrs. Katherine Claypole, wife of Dr. E. W. Claypole, former Professor of Natural Science of Buchtel College. The principal of the fund is lent to students, "who in mid-semester, as often happens, find themselves without sufficient means to complete the year's work."

THE THOMAS-LITCHFIELD LOAN FUND

This fund was established by two directors of the University, Mr. John W. Thomas and Mr. P. W. Litchfield, in 1932. From it money to pay fees is lent for short periods to upperclassmen who are residents of Akron.

MABEL JANE ROGERS MEMORIAL FUND

The Mabel Jane Rogers Memorial Fund, amounting to \$100, was given by the alumnae of Flora Stone Mather College, Western Reserve University, in memory of Miss Mabel Jane Rogers, who was instructor in Spanish at the University of Akron for eight years. It is used for short emergency loans to women students.

HOMER C. CAMPBELL FUND

A fund established under the will of the late Homer C. Campbell provides for assistance by loan or gift from its income to needy students dependent on their own resources. Preference is given to young men who have been newsboys in Akron.

AKRON HOME AND SCHOOL LEAGUE LOAN FUND

This fund was established in 1925. Loans are made from this fund to Juniors and Seniors of the University to be repaid following graduation. The fund is administered by the League. Applicants are required to have the approval of the University.

THE HARRIET HALE FUND

The money in this fund was given to the University by the trustee of the Harriet Hale estate to be used in the furtherance of education in music. Loans for the payment of fees are made to students specializing in music.

RICHARD J. WITNER LOAN FUND

A fund has been established by the parents and wife of Captain Richard James Witner, who was killed in action in North Africa on March 28, 1943. The principal of this fund is to be used for loans, payable after graduation, to worthy students to finance their education.

EVENING SESSION LOAN FUND

By voluntary contributions each semester since February, 1933, the evening students have accumulated this fund to aid evening session students. Loans are made for short periods to students who have attended this division of the University for at least one year.

THE AKRON COLLEGE CLUB FUND

The Akron College Club maintains a loan fund known as the Elizabeth A. Thompson Scholarship Fund. Loans are made to deserving women students of the University. This fund is administered by a committee of the College Club. Applicants are required to be recommended by the University.

THE CUYAHOGA PORTAGE CHAPTER D. A. R. LOAN FUND

The money in this fund was donated by the Cuyahoga Portage Chapter of the Daughters of the American Revolution for the purpose of aiding deserving men and women students of the University.

INDIAN TRAIL CHAPTER OF DAUGHTERS OF THE AMERICAN COLONISTS LOAN FUND

The money in this fund was donated by the Indian Trail Chapter of Daughters of the American Colonists for the purpose of making loans to students of the University.

THE AKRON TORCH CLUB LOAN FUND

This fund was established in 1946 by the members of the Akron Torch Club. The sum of \$100 was made available to the office of the Dean of Students, and, at the discretion of the Dean, is to be used in cases of emergency student aid.

HERMINE Z. HANSEN LOAN FUND

A trust fund, established under the will of the late Hermine Z. Hansen, provides for a share of the distribution of its income to be used for the benefit of needy and deserving students while attending the University. At the discretion of the trustees of the fund, money is available through loans to needy students for purposes which will assist in completing their studies. Repayments are returned to the income of the trust fund.

GRANTS IN AID

In 1945 the Board of Directors of the University established a fund to be designated as a Student Aid Fund, to assist worthy and deserving students of recognized talent and ability to finance their education. The President of the University, and such other members of the faculty and staff as he may designate, are authorized to seek contributions to be received through the office of the Treasurer of the University. Grants are made from this fund upon recommendation of a committee to be appointed by the President.

HONORARY FRATERNITIES

PHI SIGMA ALPHA is an honorary fraternity founded in 1910 to encourage high scholarship among the students of the Liberal Arts College. The requirements are as follows:

1. Only such courses as are taken in the Liberal Arts College or such courses as are regularly accredited in that college may be counted for standing in the fraternity.

2. A minimum of 108 hours for three and one-half years for those completing the regular four-year course, or of 77 hours for two and one-half years for students who have spent one year at another institution are required.

3. All seniors who have maintained an average grade of not less than 90% (a quality point ratio of 3.25) during their three and one-half years are eligible for membership, provided that at least two and one-half years have been taken in Buchtel College of Liberal Arts.

4. Juniors who have completed two and one-half years of work in Buchtel College of Liberal Arts with the average grade not less than 92% (a quality point ratio of 3.5) shall be eligible for membership.

5. Those seniors who may have entered the institution at mid-year as freshmen and who have remained three years in the Liberal Arts College are also eligible, the required number of scholarship hours being 96.

6. Average scholarship is reckoned as a whole, not specialization.

SIGMA TAU is a national honorary engineering fraternity. Phi Chapter was established at the University of Akron in December, 1924, the charter being granted to the local honorary fraternity O.H.M. which was founded in 1919. Sigma Tau elects its men on the basis of scholarship, sociability, and practicality. Any engineering student in the upper college is eligible whose scholastic average for all his previous college work ranks him in the upper third of the combined pre-junior, junior, and senior students.

KAPPA DELTA PI, an Honor Society in Education, has for its purpose the encouragement of professional, intellectual, and personal standards. The Society is an international organization composed of a Laureate Chapter, honorary, and institutional and alumni chapters, active. Alpha Theta Chapter was chartered in 1925. Candidates for membership must be juniors, must have earned six semester hours in professional subjects, or eleven hours if of senior rank, and have a quality point average in all work of 3 when A equals 4.

SIGMA PI EPSILON is an honor fraternity established for the purpose of promoting scholarship, citizenship, and artisanship among the students of the College of Education. Students being graduated with distinction automatically become members of the fraternity.

PHI ETA SIGMA is a national fraternity for freshman men. Its purpose is to recognize superior scholarship, and to encourage academic achievement. Men are pledged twice each year, in March and in September. To be eligible for pledging, a man must have a quality point ratio of 3.5 or better (half A's, half B's) for his first semester or for his first year.

ALPHA LAMBDA DELTA. Alpha Lambda Delta is a national honorary fraternity for freshman women. Its purpose is to recognize scholastic attainment during the freshman year at college and to encourage academic achievement among freshman women. To be eligible for pledging a woman must make a quality point ratio of 3.5 (half A's, half B's) or better for her first semester or for her first year.

SUMMARY OF STUDENTS IN DAY CLASSES

1947-48

BUCHTEL COLLEGE OF LIBERAL ARTS

	Men	Women	Total	
Graduate Students	48	38	86	
Applied Arts Division				
Commerce	144	9	153	
Secretarial Science	4	20	24	
Others	29	32	61	
Humanities Division	35	44	79	
Natural Science Division	81	14	95	
Social Science Division	65	29	94	
Irregular Students	5	5	10	
Part-time Students	43	19	62	
	<u>454</u>	<u>210</u>	<u>664</u>	664

COLLEGE OF ENGINEERING

Graduate Students	5	—	5	
Full-time Students — Upper College	124	2	126	
Full-time Students — General College	350	—	350	
Part-time Students — Upper College	2	—	2	
Part-time Students — General College	4	—	4	
	<u>485</u>	<u>2</u>	<u>487</u>	487

COLLEGE OF EDUCATION

Graduate Students	12	22	34	
Full-time Students — Upper College	64	159	223	
Full-time Students — General College	—	179	179	
Part-time Students — Upper College	6	16	22	
Part-time Students — General College	—	—	—	
	<u>82</u>	<u>376</u>	<u>458</u>	458

THE GENERAL COLLEGE

New Freshmen				
Full-time Students	605	229	834	
Part-time Students	28	6	34	
Others				
Full-time Students	1093	234	1327	
Part-time Students	109	31	140	
	<u>1835</u>	<u>500</u>	<u>2335</u>	2335

Grand Total				3944
Summer Session (1947) Included in above	1319	362	1681	

A full-time student is one who is classified for 8 or more credits per semester; a part-time student is classified for less than 8 credits. For the summer session 6 hours was used as the basis for a full-time student.

SUMMARY OF ALL STUDENTS IN THE UNIVERSITY
1947-48

	Men	Women	Total
Graduate Students	65	60	125
Upper Colleges	551	314	865
General College	2048	642	2690
Part-time Students — Upper College	51	35	86
Part-time Students — General College	141	37	178
Total Day Session Enrolment	2856	1088	3944
Total Evening Enrolment	1517	1013	2530
Total	4373	2101	6474

ENROLMENT BASED ON STUDENT CREDIT HOURS

	Total Student Credit Hours	*Full-time Student Equivalent
Buchtel College of Liberal Arts	22,741.0	710.7
College of Engineering	6,407.5	200.2
College of Education	7,502.5	234.5
General College	66,204.5	2,068.9
Evening Session	15,227.0	475.8
	118,082.5	3,690.1

*A full-time student is the equivalent of one student pursuing a normal full-time load (32 hours) during the academic year.

DEGREES CONFERRED JUNE 10, 1947

BUCHTEL COLLEGE OF LIBERAL ARTS

Bachelor of Arts

Leta June Fox Allgood	Kathryn Elizabeth Lilley
Solon Anastos	Sarah Leon Lynch
Edith June Bausher	Mary Maerean
With Distinction	With Distinction
Jean Elizabeth Boughton	Edward John Mahoney
John W. Bray	Marjorie Jean Malick
Joseph Earl Brewer	With Distinction
With Distinction	Catherine Helen Mares
Louise Mary Cahill	With Distinction
Madge B. Cole	Jack Walter Marken
Lorna Ruth Corson	With Distinction
James Oliver Cross	Ronald LaVerne McAllister
Mary Keeler Curran	Danny Rex McBride
Edward Alphonsus Curry	Robert Leo McFarland
Warren Edward Deist	Ralph Elwood McIntyre
With Distinction	Harold Richard Mingle
Mary Jane Dellapa	Evelyn Rita Moludy
With Distinction	J. Gardner Moody
Warren Gene Duckworth	Janet Morgan
Alice Amy Durant	Kennett Morgan
Joseph William Eisenzimmer	Charles Robert Neal
William Thomas Farmer	Lydia Negru
Felix Ferri	Edward A. Paul
William Frank Flower	Edith Beverly Perry
Vera O. Foreman	Robert Gerald Pistner
Audrey L. Frazee	With Distinction
Thomas Franklyn Frisby	Mary Margaret Porteck
James Richard Fuchs	Marilyn Nadine Powell
With Distinction	Evelyn T. Primes
Paul Carmon Fultz	Robert Louis Quigley
Sarah Evelyn Geisinger	Ernest Ray, Jr.
With Distinction	Donald Francis Ress
George Mitchell Haddad	Paul Otis Rice
J. Jean Hayden	Mary Constance Romito
With Distinction	Earl William Rowe
Virginia Clare Heatherly	Richard William Rowland
Helen Louise Hensel	Pauline Sanders
Helen Marie Hildreth	Freda Mirman Schwartz
Rancel Duane Hill	Norma Lee Serote
Harry Edward Hinderliter, Jr.	Constance Hall Slade
William Marion Holsberry	Jean Smith
Richard Louis Hurley	With Distinction
Helen Mae Jacobs	Mary Hutchinson Swartz
Marian Louise Johns	William Donald Thompson
Paul Briscoe Johnson	Mary Sundelle Trecaso
George Russell Juillerat	Theodore Thomas Twynham
Priscilla Simmons Kinney	Joseph Mathias Ulrich
With Distinction	Paul Vail Wilkerson
Robert Konstand	Phaidra A. Zervos
Sylvia Leyrow	With Distinction
With Distinction	

Graduation with Distinction: Students who have an average grade of 90 per cent (or a quality point ratio of 3.25) or better, for all work taken during the four undergraduate years, shall be graduated with distinction. Students who transfer from another college must maintain a quality point ratio of 3.25 or better at the University of Akron.

Bachelor of Science

Stanley Lewis Abramson	James Oscar Koehler
James Elmer Akins	Doris Lorain Lancaster
James William Algea	Robert Karl Liese
With Distinction	Jimmie Mann Looney
Marjorie Elizabeth Brett	David Perry Lowrey
With Distinction	Ernest Emil Martin
Robert Raymond Brown	Francis John Maurer
Sarah Brown	Wanda Lois Nelcamp
Jean Bullock	Richard W. Savage
Jacques Irving Burrell	Mary Elizabeth Steinmetz
Charles Everett Casto	John Emerson Stenger
With Distinction	Martha Leone Stoler
Ray Allen Dove	With Distinction
Lydia Drazdenuk	Norma Umansky
Bruce Wright Duke	Georgene Belle Van Arnam
Elizabeth Virginia Enderlein	Albert Joseph Vielhaber, Jr.
Edward Nicholas Georgeoff	David John Walther
Margaret Josephine Grismer	Emil Henry White
Edward Carroll Gustely	With Distinction
George Hackim, Jr.	Frances Marjorie Whittemore
Donald Blake Houser	William Alexander Williams, Jr.
Alice Lucille Kinney	Richard Knisely Winkelmann
With Distinction	

Bachelor of Science in Art

Patricia Gay Billow	Virginia Geraldine King
Theodore John Kapenekas	Constance Eleanor Sydlow

Bachelor of Science in Business Administration

Robert Charles Beans	Robert Eugene Linder
Charles Warren Carter	Robert Garth Moorefield
With Distinction	Donald William Niess
Nicholas Chima	Anthony S. Olivo
Bob F. Danner	Edward Alexander Patrick
William Clifford Detwiler	Cletus Leonard Reymann
Frederick E. Dorais, Jr.	Margaret Guth Schlegel
Charles Everett Fulton	Ralph Wesley Snell
William Turley Hall	William Frederick Spaethe
Robert Miller Headley	Charles William Stern
Joyce Arthur Hensley	Clyde Edgar Stevens
Donald Sherman Hills	Charles Frederick Tate
Raymond Arthur Hochberg	Joseph Samuel Trecao
Charles Arthur Hollinger	Charles Joseph True, Jr.
John George Holzapfel	Elizabeth May Walter
Lester N. Jenkins	Richard Carl Walter
Harry Albert Joy	Nolan Joseph Wells
John Ivan Kreemer	
John Carl Kunert	
With Distinction	

Bachelor of Science in Secretarial Science

Wilma Eileene Dossett	Barbara Jean Shaffer
With Distinction	Dorothy Marie Staudt
Mary Elizabeth Dunbar	Marilyn Frances Terry
Mary Louise Gamble	Mary Helen Wohnhas
Calipso N. Goumas	Mary Margaret Zwisler
Alvin Edward Greenhorn	

Bachelor of Science in Industrial Management

Robert Hadley VanSickle

THE COLLEGE OF ENGINEERING

Bachelor of Civil Engineering

Robert Erwin Clause	Benedict Joseph Lentsch
Thomas Andrew Fox, Jr.	William Harry Tarhox
With Distinction	

Bachelor of Electrical Engineering

Harold William Anderson	Harry M. Moreland
Donald Gottwald, Jr.	Ardis Harold Oakes
Kenneth Jack Hoffman	Donald Richard Whitacre
Robert Lee Hostetler	Emery A. White
Leonard Lee Katz	

Bachelor of Mechanical Engineering

John Badonsky	Robert Joseph Kolp
Richard Nicholas Barbaris	Charles Edward McSweeney, Jr.
Joseph Bellassai	Adam John Mondl
With Distinction	Joseph Anthony Pappano
Steve Bralek	Harold Clair Parris
Ralph Andrew Bredhold	Edward C. Seib
Frederick R. Brown	William Frederick Slusher
Henry Franklin Fritsch, Jr.	Gerald Franklin Smith
Walter Don Garrigues	Joseph Marshall Smith
William Allen Green	With Distinction
Ralph Joseph Haren	Robert Franklin Wallace
Paul Edgar Hixenbaugh	Arthur Edgar Watson
Donald John Kolsiek	

THE COLLEGE OF EDUCATION

Bachelor of Arts in Education

James William Ayers	Bernice McCall McMullen
Ray Lewis Campbell	Joseph Harry Robinson
Barbara Anne Engler	Pearl Salcines
David Charles Gantz	Florence Louise Snyder
With Distinction	Charles Albert Stenger
Samuel Edgar Hamilton	Dorothy Ellen Stoll
Elmer Charles Hoffman	Nicholas Michael Trosky
Ruth Arlene Manuel	Albine Marie Weitzel
John Marrone	With Distinction

Bachelor of Science in Education

Mary Margaret Adams	Dorothy Folsom Harper
With Distinction	Janice Eckard Harries
Ruth Richert Bauer	With Distinction
Eugene Ross Bell	Helen Stephanie Herceg
Dorothea Bennett	Elizabeth Joyce Hittle
Cecile H. Botzum	Mildred Lilyan Kirchberg
Elsie R. Bowman	John Henry Lauer
James Thomas Brickels	Oscar Theodore Ludwigsen
Martin Odes Chapman	John Irwin Maluke
James Albert Colombo	Marilyn Rose Merkh
Chleyon Eileen Decatur	With Distinction
Anastasia Dimitruck Deli	Josephine Milani
Joseph William Devine	With Distinction
Pauline A. Droder	Blanche Genevieve Morgan
Sara Emily Easley	Patti-Lou Myers
Marjorie Della Ensor	Harriet Hale Nichols
Clinton Banner Fisk Ensworth, Jr.	Nancy M. Pelligra
George Paul Florin	Ann LaVerne Russell
Caroline H. French	Sister M. Francis Harding, O. P.
Elinor George	Ruth Ballard Schieb
Philip Gertz	Beatrice Elizabeth Singer
Sybil Mirman Gertz	With Distinction
With Distinction	Laura K. VanderLinden
John William Gill	Lucille Stetler Ward
Patricia Haines	Harold Saunders Weiler
Agnes Carson Harbaugh	Maria Ingberg Wineberg
	With Distinction
	Betty Jean Woodford

GRADUATE STUDY

Master of Science

- Karl Frederick Cullison; B. S., University of Akron, 1942.
 Vinayak Pranjivandas Desai; B. S., University of Bombay, India, 1939; B. S. (Tech) University of Bombay, 1941.
 Bruce Wright Duke; B. S., University of Akron, 1947.
 Mortimer David Gross; B. S., Brooklyn Polytechnic Institute, 1942.
 Indurti V. Krishnamurti; B. S., Madras University, India, 1940; M. S., Lucknow University, 1943.
 Harold Murray Leeper; B. S., University of Akron, 1942.
 Robert Leroy Lemmon; B. S., University of Akron, 1939.
 Robert F. Miller; B. Elec. Eng'g., University of Akron, 1938.
 Bernard Arthur Mong; B. S., University of Akron, 1945.
 Robert Hermas Poirier; B. S., St. Michael's College, 1943.
 Nyshadham Venkata Chalapathi Rao; B. S., Waltais University, 1943; M. S., Andhra University, India, 1944.
 Frank Doane Snyder; B. Elec. Eng'g., University of Akron, 1942.
 Clayton Leroy Straw; B. A., University of Akron, 1933.
 Vasant Shridhar Vaidya; B. S., University of Bombay, India, 1937; B. S., (Tech.) University of Bombay, 1939.
 Mulk Raj Verma; B. S., University of the Panjab, India, 1930; M. S., University of the Panjab, India, 1931.
 Glynn Pearce Wheeler; B. A., Vanderbilt University, 1941.
 William Ludwig Wittig; B. S., University of Akron, 1943.
 Chee-wen Yu; B. S., University of Shanghai, China, 1941.

Master of Arts in Education

- Helen Frances Boyd; B. A. in Ed., Fairmont State Teachers College, 1934.
 Robert Beaumont Brownfield; B. A. in Ed., University of Akron, 1941.
 Robert Edward Hartz; B. A. in Ed., University of Akron, 1940.
 Orpheus Nurches; B. A., University of Akron, 1941.

Master of Science in Education

- Gordon Clark Snyder; B. S., University of Akron, 1938.
 Clarence Harold Tabler; B. S. in Ed., Kent State University, 1939.
 Mary Elizabeth Wakefield; B. S. in Ed., State Teachers College, Indiana, Pa., 1934.

Master of Education

- Rose Louise Ahern; B. E., University of Akron, 1930.
 Esmond Thomas; B. E., University of Akron, 1932.

HONORARY DEGREE

Doctor of Engineering

Frederic E. Ayer

CERTIFICATES

Fifty-Year Certificate

H. Theresa Alexander Barbour	Thaddeus W. Rice
Irene B. McIntosh	Amy Youtz Vandersall
Cora M. Johnson	Margaret James Watson
Blanche Widdecombe Parsons	Beulah Borst Zimmerman

Two-Year Secretarial Science

Doris Elaine Durant	Irene Radabaugh
Lorraine Cena Polzin	Audra Louise Schillmiller

HONORS AND PRIZES

THE SENIOR ALUMNI PRIZE

Awarded to that senior student who has completed the regular undergraduate curriculum with the highest average grade for the work taken, having carried an average load of 12 credit hours per semester.

MARY MAEREAN

ROBERT AARON KASSE MEMORIAL SCHOLARSHIP

A \$100 prize awarded annually to that student in the Department of English (including Journalism), or Speech, Radio and Dramatics, in Buchtel College of Liberal Arts, who at the completion of his junior year shows the greatest promise of success based upon academic excellence, character, and leadership. The question of race, color, creed or sex shall not enter into the consideration of the committee making the award.

PATRICIA THOMPSON

DR. E. B. FOLTZ PRE-MEDICAL PRIZE

A \$100 prize awarded each year to that member of the graduating class who makes the highest average grade in all work taken in the four-year pre-medical course, and who plans to enter medical college the following year.

ROBERT BLOOM

THE RAYMOND B. PEASE AWARD OF THE
AKRON MANUSCRIPT CLUB

A yearly award of \$25 to that junior at the University of Akron who has been consistently outstanding in the field of creative writing during his three years at the University.

In the selection of the recipient there shall be no consideration of race, sex, nationality, or creed.

The recipient shall apply the award toward tuition in his senior year at the University of Akron.

THOMAS McCLANCY

THE VICTOR I. MONTENYOHL SCHOLARSHIP

The Victor I. Montenyohl Scholarship for advanced study was created May 2, 1946 by Patricia, Victor and Elizabeth Montenyohl, in memory of Victor I. Montenyohl.

Because of Mr. Montenyohl's devotion to the rubber industry and his belief that the University of Akron offered a unique opportunity for rubber research, it is deemed appropriate that whenever possible the recipient be a student of rubber chemistry with demonstrated ability.

VERNON C. BULGRIN

THE COLLEGE CLUB OF AKRON

A yearly award of \$100 to a woman who is a junior in the College of Education, and who shows evidence of outstanding scholarship and campus leadership. The award shall be used for financial aid in the student's senior year at the University of Akron.

HELEN ECKERT

PIXLEY SCHOLARS — 1946-47

From the Frank Pixley Memorial Fund, awards are made to students of outstanding ability and promise in the fields of literature, music and speech.

In English—Edith Bausher, Jack Marken, Patricia Thompson

In Music—Norma Means, Edwin Bonebrake, Norman Simpson

THE RUTH DUGAN AERONAUTIC SCHOLARSHIP

This Scholarship was established on an annual basis by the Women's Chapter of the National Aeronautic Association. The fund was first available in 1936, but no awards were made during the war emergency. The Scholarship is to be renewed for the academic year 1947-48, in the amount of \$200.

Cuyler D. Hartman
(FREDERIC J. STIMLER)

THE UNIVERSITY SINGERS AWARD

Two Scholarships in Voice have been announced by the University Singers, beginning with the academic year 1947-48. Each Scholarship is in the amount of \$60, and will provide voice instruction for two semesters.

The recipients shall have been members of the University Singers for at least two semesters. In making the awards, consideration is given to the student's attendance, attitude, usefulness, cooperation and need for financial aid.

IDABELLE RICHARDSON

THOMAS M. BELL

THE CLARENCE L. HYDE MEMORIAL SCHOLARSHIP

The Clarence L. Hyde Memorial Scholarship was created in 1946 by The Clarence L. Hyde League.

The scholarship shall be a living commemoration of Dr. Hyde and his service to humanity. It shall be awarded each year to a senior student, residing in Akron, and shall be determined by scholarship and by need on the part of the student. The question of race, color, creed or sex need not be considered by the committee making the award.

GRACE KING

HONORARY FRATERNITIES

PHI SIGMA ALPHA

In Buchtel College of Liberal Arts, for scholarship in the senior class, an average of not less than 90 per cent.; in the junior class, an average grade of not less than 92 per cent.:

From the Class of 1946:

Jean Roderick

From the Class of 1947:

As Seniors:

Edith Bausher

Joseph Brewer

Wilma E. Dossett

James R. Fuchs

Sarah E. Geisinger

Alice Kinney

Priscilla Simmons Kinney

Marjorie J. Malick

Jack W. Marken

Martha L. Stoler

Emil H. White

Phaidra Zervos

As Juniors:

Charles Casto

Mary Dellapa

Jean Hayden

Sylvia Leyrow

Mary Maerean

Catherine Mares

Alhine Weitzel

From the Class of 1948:

Ralph Baker

Leonard J. Konopa

Matthew Margolis

Norma I. Means

Ernest R. Stein

SIGMA PI EPSILON

Selected for scholarship, citizenship, and artisanship in the College of Education:

Mary Margaret Adams

David Charles Gantz

Sybil Mirman Gertz

Janice Eckard Harris

Marilyn Rose Merkh

Josephine Milani

Beatrice Elizabeth Singer

Albine Marie Weitzel

Maria Ingberg Wineberg

SIGMA TAU

In the College of Engineering, any engineering student in the Upper College is eligible whose scholastic average for all his previous college work ranks him in the upper third of the combined Pre-Junior, Junior, and Senior students. Sociability and practicality are also considered.

Elected to Membership from the Class of 1947

As Pre-Juniors in 1942-43:

Robert Lee Hostetler

As Juniors in 1942-43:

Joseph Bellassai

Jack Kenneth Hoffman

As Seniors:

Thomas Andrew Fox, Jr.

Charles Edward McSweeney, Jr.

As Juniors in the Class of 1948:

Charles Richard Collins

William Wade Frutchey

Harold William Kloos

Harold Clair Parris

Joseph Marshall Smith

Harry Monroe Moreland

Arthur Edgar Watson

William Thomas Morgan

James Naughton Seidelle

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