The University of Dayton

1. Field House
2. Albert Emanuel Library
3. Business Annex
4. Old Gymnasium
5. St. Mary's Hall
6. Chaminade Hall
7. Chapel
8. St. Joseph's Hall
9. Stadium
10. Music Building
11. Alumni Hall
12. Founders Hall
13. ROTC Building
14. Mechanical Engineering Building
15. Student Union
16. Chemistry Annex
UNIVERSITY OF DAYTON

College of Arts and Sciences
DIVISION OF ARTS
DIVISION OF BUSINESS ADMINISTRATION
DIVISION OF EDUCATION
DIVISION OF SCIENCE

College of Engineering
CHEMICAL ENGINEERING
CIVIL ENGINEERING
ELECTRICAL ENGINEERING
INDUSTRIAL ENGINEERING
MECHANICAL ENGINEERING

Technical Institute
ELECTRICAL TECHNOLOGY
INDUSTRIAL TECHNOLOGY
MECHANICAL TECHNOLOGY

The provisions of this catalogue are to be considered directive in character, and not as an irrevocable contract between the student and the University. The University reserves the right to change any provision or requirement of this catalogue.

For catalogue and information, address:

The Director of Admissions
University of Dayton
Dayton 9, Ohio
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<th>Year 1</th>
<th>Year 2</th>
</tr>
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<td><strong>SEPTEMBER</strong></td>
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<td>S M T W T F S</td>
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<td>1 2 3 4 5 6 7 8</td>
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<td>2 3 4 5 6 7 8</td>
<td>9 10 11 12 13 14 15</td>
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<td>9 10 11 12 13 14 15</td>
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<tr>
<td></td>
<td>16 17 18 19 20 21 22</td>
<td>23 24 25 26 27 28 29 30</td>
</tr>
</tbody>
</table>

| **OCTOBER** |        |        |
| S M T W T F S | 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 |

| **NOVEMBER** |        |        |
| S M T W T F S | 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 |

| **DECEMBER** |        |        |
| S M T W T F S | 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  | 31 |

| **MAY** |        |        |
| S M T W T F S | 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  | 31  |

| **JUNE** |        |        |
| S M T W T F S | 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  | 30  |

| **JULY** |        |        |
| S M T W T F S | 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  | 31  |

| **AUGUST** |        |        |
| S M T W T F S | 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  | 31  |

| **APRIL** |        |        |
| S M T W T F S | 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  | 31  |

| **MARCH** |        |        |
| S M T W T F S | 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  | 31  |

| **FEBRUARY** |        |        |
| S M T W T F S | 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  | 30  |

| **JANUARY** |        |        |
| S M T W T F S | 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  | 31  |

| **IUNUARY** |        |        |
| S M T W T F S | 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  | 31  |

| **FEBRUARY** |        |        |
| S M T W T F S | 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  | 30  |

| **JANUARY** |        |        |
| S M T W T F S | 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  | 31  |

| **FEBRUARY** |        |        |
| S M T W T F S | 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  | 30  |

| **MAY** |        |        |
| S M T W T F S | 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  | 31  |

| **JUNE** |        |        |
| S M T W T F S | 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  | 30  |

| **JULY** |        |        |
| S M T W T F S | 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  | 31  |

| **AUGUST** |        |        |
| S M T W T F S | 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  | 31  |

| **APRIL** |        |        |
| S M T W T F S | 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  | 31  |

| **MARCH** |        |        |
| S M T W T F S | 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  | 31  |

| **FEBRUARY** |        |        |
| S M T W T F S | 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  | 30  |

| **JANUARY** |        |        |
| S M T W T F S | 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  | 31  |

| **DECEMBER** |        |        |
| S M T W T F S | 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  | 31  |
## CALENDAR

### Day Classes—1956-1957

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 8, Saturday, 8:20 a.m.</td>
<td>Placement tests for all new Science, Engineering and Business students, including transfer students, who have not already taken these tests at the University of Dayton Guidance Center.</td>
</tr>
<tr>
<td>Sept. 10, Monday</td>
<td>Placement tests for all new Arts, Education and Technical Institute students, including transfer students, who have not already taken these tests at the University of Dayton Guidance Center. Registration for upperclassmen of Dayton area: Juniors and Seniors—8:00 a.m. to 11:00 a.m. Sophomores—11:00 a.m. to 3:00 p.m.</td>
</tr>
<tr>
<td>Sept. 11, Tuesday</td>
<td>Registration for all transfer students, including U.D. students changing to a different division.</td>
</tr>
<tr>
<td>Sept. 12, Wednesday</td>
<td>Registration for freshmen: 8:00 a.m. to 10:00 a.m.—A and B 10:00 a.m. to 12:00 noon—C to G 1:00 p.m. to 3:00 p.m.—H to K</td>
</tr>
<tr>
<td>Sept. 13, Thursday</td>
<td>Registration for freshmen: 8:00 a.m. to 10:00 a.m.—L to O 10:00 a.m. to 12:00 noon—P to S 1:00 p.m. to 3:00 p.m.—T to Z</td>
</tr>
<tr>
<td>Sept. 14, Friday</td>
<td>Registration for boarding students and those whose permanent residence is not in Dayton (excluding new freshmen). (Consult EXPENSES regarding deviation from the registration schedule.)</td>
</tr>
<tr>
<td>Sept. 17, Monday</td>
<td>Classes begin at 8:00 a.m.</td>
</tr>
<tr>
<td>Sept. 19, Wednesday</td>
<td>Evening Classes begin.</td>
</tr>
<tr>
<td>Sept. 22, Saturday</td>
<td>Last day for late registration or change in schedules.</td>
</tr>
<tr>
<td>Oct. 8, Monday</td>
<td>As of this date, all withdrawals are recorded as WP or WF.</td>
</tr>
<tr>
<td>Nov. 1, Thursday</td>
<td>Feast of All Saints. No classes.</td>
</tr>
<tr>
<td>Nov. 12, Monday</td>
<td>Mid-term progress reports.</td>
</tr>
<tr>
<td>Nov. 22, Thursday</td>
<td>Thanksgiving Day. No classes.</td>
</tr>
<tr>
<td>Dec. 8, Saturday</td>
<td>Feast of the Immaculate Conception. No classes.</td>
</tr>
<tr>
<td>Dec. 15, Saturday</td>
<td>Christmas recess begins after the last class.</td>
</tr>
</tbody>
</table>
Jan. 2, Wednesday  Campus students return before 11:50 p.m. (First meal served on following day in campus dining room.)
Jan. 3, Thursday  Classes resume at 8:00 a.m.
Jan. 21-25        Semester Examinations
Monday-Friday

SECOND SEMESTER  1 / 5 7

Jan. 28, 29  Placement tests for all new students including transfer students, who have not already taken these tests at the University of Dayton Guidance Center.
Mon., Tues., 8:20 a.m.

Jan. 28, Monday  Registration for Juniors  8:00 a.m. to 10:00 a.m.—A to L
                10:00 a.m. to 12:00 noon—M to Z
                1:00 p.m. to  3:00 p.m.

Jan. 29, Tuesday  Registration for Sophomores  8:00 a.m. to 10:00 a.m.—A to G
                 10:00 a.m. to 12:00 noon—H to O
                 1:00 p.m. to  3:00 p.m.—P to Z

Jan. 30, Wednesday  Registration for Freshmen  8:00 a.m. to 10:00 a.m.—A and B
                   10:00 a.m. to 12:00 noon—C to G
                   1:00 p.m. to  3:00 p.m.—H to K

Jan. 31, Thursday  Registration for Freshmen  8:00 a.m. to 10:00 a.m.—L to O
                   10:00 a.m. to 12:00 noon—P to S
                   1:00 p.m. to  3:00 p.m.—T to Z

Feb. 1, Friday  Registration for all transfer students, whether from another school or within the University, and all new students.

Feb. 4, Monday  Classes begin at 8:00 a.m.
Feb. 9, Saturday  Last day for late registration or change in schedules.
Feb. 11, Monday  Evening Classes begin.
Feb. 25, Monday  As of this date, all withdrawals are recorded as WP or WF.

Mar. 6, Wednesday  Ash Wednesday.
Mar. 25, Monday  Mid-term progress reports.
Apr. 16, Tuesday  Easter recess begins after the last class on this day.
Apr. 22, Monday  Campus students return before 11:50 p.m.
April 23, Tuesday  Classes resume at 8:00 a.m.
May 30, Thursday    Feast of the Ascension. No classes.
May 30, Thursday    Memorial Day. No classes.
May 31, Friday      Honors Convocation.
June 2, Sunday      Baccalaureate service.
June 3-7            Semester Examinations.
June 8, Saturday    Commencement, 2:30 p.m.

CALENDAR

Evening Classes—1956-1957

FIRST SEMESTER

Sept. 15, 17, 18    Registration: Saturday, 8:00 to noon. Monday and Tuesday, 5:30 to 8:30 p.m.
Sept. 19, Wednesday Classes begin on Campus and at W-PAFB.
Sept. 22, Saturday  Last day for late registration or change of classes.
Nov. 1, Thursday    Feast of All Saints. No classes.
Nov. 12, Monday     Mid-term progress reports.
Nov. 22, Thursday   Thanksgiving Day. No classes.
Dec. 8, Saturday    Feast of the Immaculate Conception. No classes.
Dec. 17, Monday     Christmas recess begins.
Jan. 3, Thursday    Classes resume.
Jan. 21-25          Final Examinations.

CALENDAR

Evening Classes—1956-1957

SECOND SEMESTER

Feb. 6, 7, 8, 9      Registration: Wednesday, Thursday, Friday 5:30 to 8:00 p.m. Saturday, 8:00 to noon.
Feb. 11, Monday     Classes begin.
Feb. 16, Saturday   Last day for change of courses.
Mar. 25, Monday     Mid-term progress reports.
Apr. 16, Tuesday    Easter recess begins. No classes.
Apr. 23, Tuesday    Classes resume.
May 30, Thursday    Feast of the Ascension—Memorial Day. No classes.
June 3-7            Final Examinations.
SUMMER SCHOOL
June 24-Aug. 3, 1957

DAY CLASSES, 1957-1958

Sept. 7, Saturday and Sept. 9, Monday
Placement tests for all new students, including transfer students, who have not already taken these tests at the University of Dayton Guidance Center.

Sept. 9-13
Registration Week.

Sept. 16, Monday
Classes begin at 8:00 a.m.

ENROLLMENT

DAY CLASSES
September, 1955

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Seniors</td>
<td>297</td>
<td>77</td>
<td>374</td>
</tr>
<tr>
<td>Juniors</td>
<td>402</td>
<td>96</td>
<td>498</td>
</tr>
<tr>
<td>Sophomores</td>
<td>579</td>
<td>131</td>
<td>710</td>
</tr>
<tr>
<td>Freshmen</td>
<td>896</td>
<td>219</td>
<td>1115</td>
</tr>
<tr>
<td>Unclassified</td>
<td>106</td>
<td>52</td>
<td>158</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,280</td>
<td>575</td>
<td>2,855</td>
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EVENING CLASSES
September, 1955

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Courses</td>
<td>1,331</td>
<td>466</td>
<td>1,797</td>
</tr>
<tr>
<td>Non-Credit Courses</td>
<td></td>
<td></td>
<td>413</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,210</td>
<td></td>
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</tr>
</tbody>
</table>

GOVERNING BOARDS

BOARD OF TRUSTEES

Very Rev. John A. Elbert, s.m., Chairman
Rev. George J. Renneker, s.m., Secretary
Rev. Andrew L. Seebold, s.m. Francis X. Neubeck, s.m.
Paul A. Sibbing, s.m.

ASSOCIATE BOARD OF LAY TRUSTEES

Samuel L. Finn, President
Walter H. J. Behm, Treasurer
Stanley C. Allyn
Edwin G. Becker
James M. Cox, Jr.
Harry F. Finke
Clarence H. Gosiger
Carroll A. Hochwalt
Kenneth C. Long
George H. Mead
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David L. Rike, Vice President
Merle P. Smith, Secretary
Louis F. Polk
Walter A. Reiling
Mason M. Roberts
Milton A. Spayd
George E. Walther, Sr.
L. L. Warriner
Dwight Young
Very Rev. John A. Elbert, s.m.
Rev. Andrew L. Seebold, s.m.
Jerome A. McAvoY, s.m.

ADMINISTRATIVE COUNCIL

Fathers Seebold, Kobe, Collins, Leimkuhler; Brothers Faerber, Holian, Lackner, McAvoY, Mervar.

ACADEMIC COUNCIL

Fathers Seebold, Kobe, Collins, Rhodes; Brothers Bellmer, Faerber, Mervar, Nagel, Panzer, Parr, Mr. Metz.
ADMINISTRATION

ADMINISTRATIVE OFFICERS

REV. ANDREW L. SEEBOLD, S.M., President

REV. HENRY J. KOBE, S.M., Vice-President, Dean of the University

REV. CHARLES L. COLLINS, S.M., Dean of Students, Director of Admissions

REV. EDWIN M. LEIMKUHLER, S.M., Chaplain

REV. EDMUND L. RHODES, S.M., Dean, College of Arts and Sciences

JEROME H. PARR, S.M., Dean, College of Engineering

WILLIAM J. BELLMER, S.M., Associate Dean, Science

LOUIS J. FAERBER, S.M., Associate Dean, Education

JOSEPH J. PANZER, s.m., Assistant Dean, Education

GEORGE W. NAGEL, S.M., Associate Dean, Business Administration

DONALD C. METZ, Director, Technical Institute

DANIEL L. LEARY, Director, Student Teaching

R. KATHLEEN WHETRO, Dean of Women

JOSEPH J. MERVAR, S.M., Registrar, Director of Evening Classes

ELMER C. LACKNER, S.M., Director of Public Relations

MASON C. BENNER, Director of Development

AUSTIN J. HOLIAN, S.M., Business Manager

JEROME A. MCAVOY, S.M., Comptroller

WILLIAM D. BUSCH, S.M., Treasurer

JAMES H. KLINE, S.M., Purchasing Agent

HARRY C. BAUJAN, Athletic Director
ADMINISTRATIVE ASSISTANTS

ROBERT E. DONOVAN, Assistant to Director of Evening Classes, Evening Classes Representative at Wright-Patterson Air Force Base, Director of Veterans' Affairs
MARY TUITE, Assistant Registrar
JAMES E. GALLICO, Assistant to Director of Admissions
ROBERT C. WIECHMAN, Assistant to Associate Dean, Science
PAUL C. MICHEL, Assistant to Business Manager
MARY CAREY, Director of Clerical Personnel
JAMES F. WILSON, Publicity
RICHARD BEACH, Publicity
MARY SHAY, Alumni Secretary

* * *

LOUIS H. ROSE, S.M., Supervisor, Founders Hall
JOHN JANSEN, S.M., Supervisor, St. Joseph Hall
E. J. MCLAUGHLIN, M.D., Consulting Physician
SR. M. BARTHOLOMEW, M.S.C., R.N., Infirmary
MAURICE F. CONNELL, S.M., R.N., Infirmary
GEORGE N. MUKITS, S.M., Manager, U. D. Book Store
THOMAS BRUNNER, S.M., Director of Maintenance
S. J. ALDRICH, Supervisor of Construction
MRS. JOSEPH UNGER, Student Union Counselor

SECRETARIAL STAFF

KATHARINE ANGST, BETTY CLARK, GLADYS CLEMENT, RUTH FENTON, KATHRYN FITCH, LOUISE GIBSON, VIOLET GOULDBOURN, MARY HECKER, LOIS KARAS, MARY ANN KRAFF, ALMEDA LAPP, DOLORES MCANESPIE, KATHERINE MCCALL, ELIZABETH McNALLY, MARTHA O'BRIEN, BARBARA OLEWSKI, JUDE PASSINITI, LOUISE RAFF, ANN RIEGER, ROBERTA SCHELL, PHYLLIS THIEM, AGNES THIEMAN, DORA WEBB, EILEEN WENING, ANNE WILKERSON.
GUIDANCE CENTER STAFF

LLOYD A. RENSEL, Director; JOHN C. BRAMLAGE, ROBERT L. NOLAND, CHARLES SCHEIDLER — Counselors; EILEEN MYERS, Administrative Supervisor and Psychometrist; MARY ELLEN TROUTMAN, Psychometrist; ROBERTA MCMAHON, Supervisor of Scoring Section; ROSE STEPHAN, MARION WILLIAMS, LUCY MCNABB, BETTY NASH — Scoring Technicians; HARRY C. MURPHY, Director, Student Part-time Employment; EDWARD E. RIECK, Veterans Administration Adviser; GEORGE COFFROAD, Veterans Administration Training Officer; MARY NASH, Secretary to Veterans Administration Adviser.

UNIVERSITY RESEARCH STAFF

ANDREWS, CHARLES R.
AVERDICK, JOSEPH E.
BOSCHART, JOSEPH E.
BUSCH, GERALD E.
COMER, ORVILLE L.
COY, RICHARD G.
DEMAREY, HENRY
ENGLE, NICHOLAS A.
FASO, PETER J.
FREEH, EDWARD J.
GALLICO, JAMES E.
HAZEN, RICHARD E.
HOVEY, WILLIAM J.
JANNING, EDWARD A.
JEHN, LAWRENCE A.
KAHLE, DONALD A.
KELLER, CHARLES L.
KESTER, JACK E.

KRUG, MAURICE
LUCIER, JOHN J., S.M.
LUTHMAN, ROBERT R.
MCENHEIMER, ROBERT H.
MCGOVERN, FRANCIS G.
MILLS, GORDON W.
MORGAN, ADRIAN J.
NOLAND, GEORGE B.
NOLAND, ROBERT L.
PECKHAM, CYRIL G., Project Head
ROTH, GEORGE J.
SCHLEI, EDWARD J.
SCHMIDT, BERNHARD M., Project Head
SCHRAUT, KENNETH C., Project Head
STITH, RAYMOND J.
TRUETT, JEANNE
WHITFORD, DALE H.
WESTERHEIDE, JOHN R., Project Director
STANDING COMMITTEES

ADMISSIONS AND DEGREES

Father Collins, Chairman (for Admissions); Father Kobe, Chairman (for Degrees); Father Rhodes; Brothers Bellmer, Faerber, Mervar, Nagel, Parr, Panzer, Mr. Metz.

CATALOGUE AND CURRICULUM

Father Kobe, Chairman

Fathers Collins, Rhodes; Brothers Bellmer, Faerber, Mervar, Nagel, Parr, Panzer, Mr. Metz.

STUDENT AID

Father Collins, Chairman

Father Kobe; Brothers Holian, Lackner, McAvoY

FACULTY AFFAIRS

Father Kobe, Secretary for the Faculty, Chairman

Brothers Holian, Lackner, McAvoY, Mr. Chamberlain, Mr. Huth, Mr. Leary, Mrs. Miller, Mr. Schraut, Mr. Snyder.

RELIGIOUS ACTIVITIES

Father Leimkuhler, Chairman

Fathers Hoelle, Hofstetter

PUBLIC RELATIONS

Brother Lackner, Chairman

Mr. Benner, Mr. Beach, Mr. Wilson, Miss Shay
RESOLUTIONS

Brother W. O. Wehrle, Chairman
Miss Whetro, Brother Price

HONORARY DEGREES

Father Kobe, Chairman; Brother Mervar, Secretary
Father Collins, Mr. O'Leary, Miss Whetro, Mr. Snyder

ATHLETICS

Faculty Representatives
Father Collins, Chairman; Mr. Baujan, Athletic Director
Brothers Bellmer, McAvoY, Wohlleben

Representatives at Large
James Finke, James Hanby, Louis R. Mahrt,
J. Ellis Mayl, Dr. G. J. Rau, Lee Schmidt
James Wall, Jack Zimmerman

BUDGET

Brother Holian, Chairman
Father Kobe; Brothers Lackner, McAvoY, Nagel

BUILDINGS AND GROUNDS

Brother Holian, Chairman
Father Collins; Brothers Bellmer, Brunner, Chudd, Lackner, McAvoY
Faculty

(Day and Evening Classes)

The year appearing in parenthesis indicates the date of the first appointment to the University.

Ruby M. Adams (1953)

Part-time Instructor in Education, 1953.
B.S., Columbia University, 1925; M.A., Columbia University, 1929.

H. Lamar Aldrich (1956)

Assistant Professor of Engineering Drawing, 1955.
A.B., Ohio University, 1937; M.S. in Educ., Purdue University, 1947.

Charles R. Andrews (1952)

Part-time Instructor in Mechanical Engineering, 1952.
B.M.E., University of Dayton, 1951.

Richard A. Anduze (1951)

Part-time Instructor in Spanish, 1951.
B.S., University of Dayton, 1945.

Joseph E. Averdick (1954)

Assistant Professor in Technical Institute, 1954.
B.S., University of Dayton, 1924.

Richard R. Baker (1947)

Associate Professor of Philosophy, 1948.
A.B., University of Notre Dame, 1931; M.A., University of Notre Dame, 1934; Ph.D., University of Notre Dame, 1941.

R. W. Baker (1955)

Part-time Instructor in Economics, 1955.

Edward J. Baldinger (1947)

Associate Professor, 1955, and Chairman of Department of Civil Engineering.
B.S., Civil Engineering, University of Notre Dame, 1940; M.C.E., University of Michigan, 1951; Prof. Eng.

Peter J. Balseells (1954)

Part-time Instructor in Technical Institute, 1954.
B.M.E., University of Colorado, 1952.
WALTER CHARLES BARNES (1945)
Part-time Instructor in Accounting, 1943.
A.B., Coe College, 1929.

REV. JAMES W. BARTHOLOMEW, S.M. (1949)
Assistant Professor of Classical Languages and Religion, 1951.
A.B., University of Dayton, 1929; M.A., The Catholic University of America, 1942.

CHARLES S. BAUGHMAN (1955)
Part-time Instructor in Chemistry, 1953
B.A., Wooster College, 1951; Western Reserve University, 1953; Ph.D., Western Reserve University, 1955.

HARRY CLIFFORD BAUMAN (1922)
Associate Professor of Physical and Health Education, 1939; Athletic Director, 1947.
Ph.B. of C., University of Notre Dame, 1917.

CLARENCE H. BAXTER, JR. (1953)
Part-time Instructor in English, 1953.
A.B., University of Michigan, 1950.

RICHARD F. BEACH (1955)
Director of Academic Publicity, 1955.
B.A., University of Dayton, 1952.

ERVING EDWARD BEAUREGARD (1947)
Associate Professor of History, 1954.
A.B., University of Chicago, 1942; M.A., University of Massachusetts, 1944.

R. J. BECHT (1955)
Part-time Instructor in General Engineering, 1955.
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B.S., University of Dayton, 1921; M.A., The Catholic University of America, 1932.

CHARLES JOHN BELZ, S.M. (1928)
Professor of Civil Engineering, 1937.
B.S., University of Dayton, 1912; B.C.E., University of Dayton, 1928; M.C.E., The Catholic University of America, 1934; Prof. Eng.

ALAN C. BENDEN (1954)
B.S., Michigan State Normal College, 1948; M.S., University of Michigan, 1950.
MASON C. BENNER (1955)
Director of Development, 1955.
B.A., University of Dayton, 1932; M.A., Ohio State University, 1946.

HAROLD TODD BEVAN (1953)
Instructor in Psychology, 1953.
Ph.B., University of Detroit, 1951; M.A., University of Detroit, 1955.

GEORGE C. BIERSAK (1952)
Assistant Professor of Speech, 1955.
B.S., University of Dayton, 1952

IVO G. BINDER (1955)
Part-time Instructor in Accounting, 1955.
B.B.A., University of Michigan, 1949; C.P.A.

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Head Basketball Coach, 1947; Assistant Professor of Physical and Health Education, 1955.
A.B., Wilmington College, 1931

PAUL BLAGG (1946)
Part-time Instructor in Music, 1946.
Musical Training: John Phillip Sousa Band, 1922-1923; Arthur Pryor Band, 1924-1928; Soloist with Armco Band; Soloist, Dayton Municipal Band; Trumpet, Dayton Philharmonic Orchestra, 1942.

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Assistant Professor of Philosophy, 1951.
A.B., University of Dayton, 1930; M.A., University of Fribourg (Fribourg, Switzerland), 1936; M.A., The Catholic University of America, 1949.

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A.B., Madison College (Harrisonburg, Virginia), 1944; M.A., University of Michigan, 1945; Ph.D., University of Michigan, 1951.

ALICE HILDA BORGH (1951)
Part-time Instructor in Art, 1951.
Francis Harrington Professional School of Interior Decorating, Chicago Art Institute; R.N.

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Assistant Professor of Psychology, 1949.
B.S., Ohio University, 1936; M.Ed., Ohio University, 1945.

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B.S. in IE, General Motors Institute, 1951.

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A.B., University of Dayton, 1922; S.T.B., University of Fribourg (Fribourg, Switzerland), 1932; S.T.L., University of Fribourg, 1933; S.T.D., University of Fribourg, 1947; M.A., The Catholic University of America, 1949.

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Assistant Professor of Art, 1941; Dean, School of the Dayton Art Institute, 1937.
Graduate, Maryland Institute of Fine and Applied Art, 1926.

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Treasurer, 1950.
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Professor of Civil Engineering, 1948.
C.E., Cornell University, 1911; M.C.E., Harvard University, 1912; Prof. Eng.

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SHUN CHENG (1955)
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B.S.M.E., National Northwestern Engineering College (China), 1942; M.S., University of Michigan, 1951.

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Part-time Instructor in Speech, 1953.
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Professor of Psychology, 1943; Director of Admissions and Dean of Students, 1946.
A.B., University of Dayton, 1925; Ph.D., Fordham University, 1941.

ORVILLE COMER (1950)
Associate Professor of Business Organization, 1955.
B.S. in Ret., Washington University (St. Louis, Missouri), 1948; M.S. in Ret., Washington University, 1949.

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Instructor in English, 1953.

ADELE IRENE CORTE (1955)
B.S. in P.E., Long Island University, 1951; M.A. in P.E., Teachers College, Columbia University, 1952.

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Lecturer in Geology, 1954.
A.B., Indiana University, 1914; M.A., Indiana University, 1915; Ph.D., University of Chicago, 1919.
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Dipl. Ing., Technical University of Warsaw, Warsaw Poland, 1927.

Irving I. Dalin (1951)
Part-time Instructor in Russian, 1951.
B.C.S., New York University, 1924.

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Part-time Instructor in Music, 1939.

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Instructor in Physical and Health Education and Assistant Basketball Coach, 1956.

Rocco M. Donatelli (1954)
Instructor in History, 1955.
B.S., St. John’s University (Brooklyn, New York), 1949; M.A., Rutgers University, 1952.

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A.B., University of Dayton, 1925.
ROBERT EMMETT DONOVAN (1946)
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B.S., University of Dayton, 1932.

JAMES B. DOUGLASS (1953)
Instructor in Physical and Health Education, 1953.
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RICHARD E. EATON (1955)
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PHYLLIS ECHKO (1955)
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MILES S. EDWARDS (1954)
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Assistant Professor of Physics, 1952.
B.S., University of Dayton, 1947; M.S., University of Cincinnati, 1949.

ROBERT A. ENOCH (1940)
Part-time Instructor in Music, 1940.
Instruction in clarinet under Joseph Elliott of the Cincinnati Symphony Orchestra, 1939-1940; piano and composition under Dr. L. W. Sprague, 1939-1941.

SYLVESTER Eveslage (1948)
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B.S., University of Notre Dame, 1944; M.S., University of Notre Dame, 1945; Ph.D., University of Notre Dame, 1953.

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CON J. FECHER (1922)

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B.S., University of Moscow, 1919; C.E., University of Lithuania (Kaunas), 1927; Dr. Eng., University of Latvia (Riga), 1937.

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B.S., Fordham University, 1935.
MARGARET WILSON GALLICO (1948)
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A.B., New Rochelle College, 1937; M.A., Fordham University, 1939; Certified Clinical Psychologist, 1947; Fellowship of American Association of Mental Deficiency.

PATRICK S. GILVARY (1955)
B.S., University of Dayton, 1950.

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B.S.M.E., Texas University, 1926.

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B.S., in Ch.E., Purdue University, 1947.

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Part-time Instructor in Business Organization, 1951.
B.S., Ohio University, 1938.

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B.S., Sam Houston State Teachers College, 1935; M.A., University of Texas, 1950.
DONALD E. HAMILTON (1955)
B.I.E., General Motors Institute, 1949.

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B.S., University of Minnesota, 1947; Ph.D., University of Illinois, 1951.

EDWARD WILLIAM HARKENRIDER (1952)
Assistant Professor of Philosophy, 1953.

DOROTHY ANNE HASKIN (1955)
Assistant Professor of Chemistry, 1955.

OSKAR HAUENSTEIN (1955)
Associate Professor of Engineering Drawing, 1955.
B.S., Austrian Military Engineering Academy, 1901; M.S., War College and Higher Military Technical Institute (Austria), 1908.

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ALBERT H. HAZELL (1955)

RICHARD R. HAZEN (1953)
Instructor in Technical Institute, 1953.
B.E.E., University of Dayton, 1953.

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Assistant Professor of Biology, 1951.
B.S., Mary Manse College (Toledo, Ohio), 1945; M.S., University of Detroit, 1948.

HELMUT G. HEINRICH (1951)
Part-time Instructor in General Engineering, 1951.
B.M.E., Stettin (Germany), 1931; B.A.E., Institute of Technology (Stuttgart, Germany), 1937; M.A.E., Institute of Technology, 1938; D.E.S. (Doctor of Engineering Science), Institute of Technology, 1943.

NORRIS D. HELNWIG (1952)
Part-time Instructor in Speech, 1952.
B.S., University of Dayton, 1949; M.A., Northwestern University, 1951.

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Instructor in Education, 1954.
B.S., State Teachers College (Bridgewater, Massachusetts), 1950; M.S., Boston College, 1954.

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Part-time Instructor in Geology, 1947.
A.B., The Ohio State University, 1938.
RAYMOND G. HIEBER (1924)
Assistant Professor of Physics, 1953.
B.S., University of Dayton, 1922; M.S., The Ohio State University, 1924.

RAYMOND HOEFLING (1954)
Part-time Instructor in Industrial Engineering, 1954.
B.S., University of Dayton, 1935.

REV. PHILIP C. HOELLE, S.M. (1953)
Instructor in Religion, 1953.
A.B., University of Dayton, 1933; S.T.B., University of Fribourg (Fribourg, Switzerland), 1941; S.T.L., The Catholic University of America, 1943; M.A., The Ohio State University, 1947; Ph.D., The Ohio State University, 1953.

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Part-time Instructor in General Engineering, 1946.
B.S., Miami University (Oxford, Ohio), 1927; M.A., Miami University, 1932.

REV. CHARLES J. HOFSTETTER, S.M. (1952)
Instructor in Religion, 1952.
B.S., University of Dayton, 1940.

CECIL HOGG, M/Sgt. (1954)
Assistant Instructor in Military Science and Tactics, 1954.

AUSTIN JOSEPH HOLIAN, S.M. (1944)
Associate Professor of Electrical Engineering, 1946; Business Manager, 1955.
B.S., University of Dayton, 1931; B.S.E.E., Case Institute of Technology, 1942; M.S.E.E., Case Institute of Technology, 1944.

NORMAN EARL HOLLY (1953)
Instructor in Technical Institute, 1953.
B.S., University of California, 1949; M.A., Columbia University, 1950.

JAMES B. HOLTZCLAW (1953)
Part-time Instructor in Political Science, 1953.
A.B., University of Kentucky, 1928; M.A., University of Kentucky, 1930; Ph.D., University of Kentucky, 1932.

JAMES PEICHUNG HSU (1955)
Assistant Professor of Chemical Engineering, 1953.
B.S., National Central University (Nanking, China), 1941; M.S., University of Minnesota, 1948; M.S. in Che.E., University of Wisconsin, 1949.

SHAO-TI HSU (1954)
Acting Chairman of Department, 1955, and Associate Professor of Mechanical Engineering, 1954.
B.S., Chiao Tung University (Shanghai), 1937; M.S., Massachusetts Institute of Technology, 1943; D.Sc., Swiss Federal Institute of Technology (Zurich), 1954.
GEORGE HUMM (1954)

B.S., University of Dayton, 1940.

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FRANK E. HUSTMYER, Jr. (1954)

Part-time Instructor in Psychology, 1954.

EDWARD ANDREW HUTH (1939)

Chairman of Department, 1946, and Professor of Sociology, 1950.
A.B., Heidelberg College (Tiffin, Ohio), 1921; M.A., University of Notre Dame, 1928; Ph.D., Western Reserve University, 1943.

ELEFTHERIOS NICOLAOS IPIOTIS (1956)

Part-time Instructor in Chemistry, 1956.
Dipl. Agr., University of Salonica, Greece, 1941; Dipl. Chem., University of Athens, Greece, 1950; M.S., University of Akron, 1955.

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Part-time Instructor in Mathematics, 1953.
B.S., University of Dayton, 1951.

JOHN J. JANSEN, S.M. (1955)

B.S., University of Dayton, 1936; M.A., The Catholic University of America, 1943; Ph.D., The Catholic University of America, 1954.

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Associate Professor of Mathematics, 1955.
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Assistant Instructor in Military Science and Tactics, 1954.

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Chairman of Department, 1949, and Associate Professor of Biology, 1951.
B.S., University of Dayton, 1930; M.S., Institutum Divi Thomae (Cincinnati, Ohio), 1940.

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B.I.E., Ohio State University, 1940.

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Part-time Instructor in Mathematics, 1954.
WARREN A. KAPPENER (1955)
Part-time Instructor in Accounting, 1955.
B.S., University of Dayton, 1941.

PAUL KATZ (1939)
Part-time Instructor in Music, 1939.
Juilliard Scholarship with Leopold Auer, 1922-1924; studied also with Hermann, Seveik, Ysaye; Theory with Reigger, Elwell, and Boulanger; B.Mus., Cleveland Institute of Music.

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Instructor in Mathematics, 1954.
B.S., University of Dayton, 1948; M.A., University of Illinois, 1951.

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Instructor in Physical and Health Education and Head Football Coach, 1956.
B.S. in P.E., University of Notre Dame, 1940.

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B.S., Boston College, 1947; M.Ed., Boston University, 1952.

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Instructor in History, 1953.
B.S., University of Dayton, 1949; M.A., Western Reserve University, 1950.

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Part-time Instructor in History, 1956.

THERESA L. KING (1954)
Instructor, Advanced Psychiatric Nursing, 1954.
B.S. in Nursing Education, University of Dayton, 1954; R.N.

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Purchasing Agent, 1947.

MARJORIE KLINE (1950)
Part-time Instructor in Music, 1950.
Studied under Edw. Waechter, Giovanni Bruno, William Smith, Paul Katz, and Scott Westerman; Director of Dayton Junior Philharmonic Orchestra.

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Instructor in Technical Institute, 1954.
Associate M.E., Drexel Institute, 1917; B.S., United States Naval Academy, 1920.

REV. HENRY JOHN KOBE, S.M. (1933)
Associate Professor of History, 1943; Dean of the University, 1949.
A.B., University of Dayton, 1925.
GEORGE FRANCIS KOHLES, S.M. (1935)
Associate Professor of English, 1941.
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REV. MATTHEW F. KOHMESCHER, S.M. (1951)
Instructor in Religion, 1951.
A.B., University of Dayton, 1942; S.T.B., University of Fribourg (Fribourg, Switzerland), 1948; S.T.L., University of Fribourg, 1949; S.T.D., University of Fribourg, 1950.

DOROTHY KOOGLE (1950)
Part-time Instructor in Education, 1950.
B.S., University of Dayton, 1946.

MORRIS JAMES KREIDER (1947)
Associate Professor of Mathematics, 1952.
B.S., Miami University (Oxford, Ohio), 1933; M.A., Miami University, 1941.

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Associate Professor of Secretarial Studies, 1951.
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B.S., University of Dayton, 1931; M.A., University of Notre Dame, 1955.

LINDY L. LAURO (1956)
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B.A., University of Pittsburgh, 1951.

DANIEL LEO LEARY (1937)
Professor of Education, 1937; Director of Student Teaching, 1951.
A.B., Creighton University, 1917; M.A., Peabody College, 1928; Ph.D., Colorado State University, 1934.
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Instructor in English, 1952.  
A.B., University of Dayton, 1943; M.A., University of Pittsburgh, 1952.

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Part-time Instructor in Business Organization, 1951.  
B.S., Gettysburg College, 1924; M.B.A., University of Pennsylvania, 1925;  
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Chairman of Department and Professor of Religion, 1934.  
A.B., The Catholic University of America, 1927; M.A., The Catholic University of America, 1940.

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A.B., Marietta College, 1948; M.A., University of Wisconsin, 1951.

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B.S., University of Dayton, 1939; M.A., Western Reserve University, 1947.

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Ticket Manager, 1955.

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B.S., Colorado State College of Agriculture, 1922; M.A., University of Michigan, 1940.

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Assistant Professor of Chemistry, 1952.  
B.S., University of Dayton, 1937; M.S., Western Reserve University, 1950;  
Ph.D., Western Reserve University, 1951.

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Instructor in Industrial Engineering, 1956.  
B.S. in M.E., Syracuse University, 1948.

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B.S., University of South Dakota, 1942.

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Comptroller, 1950.  
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Assistant Instructor in Military Science and Tactics, 1954.

FRANCIS GLENN MCGOVERN (1947)  
Associate Professor of Economics, 1952.  
B.S., Providence College, 1938; M.B.A., Boston University, 1941.
JOHN IRA McGRATH (1946)
Director of University Players, 1946; Associate Professor of Speech, 1951.

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B.S., University of Dayton, 1945; M.D., University of Cincinnati, 1947.

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SISTER M. FELICITAS RILEY, C.P.P.S. (1955)

SISTER MYRA JAMES BRADLEY, S.C. (1955)
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STANLEY G. MATHEWS, S.M. (1951)
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General Information

HISTORICAL NOTE

In 1849 there came from their native France a group of educators belonging to the religious organization founded by Reverend William Joseph Chaminade and known as the Society of Mary. At Dayton, Ohio, this pioneer band found the present suitable site for establishment of an institution of learning. At that time they purchased from Mr. John Stuart the section known as the Dewberry Farm, comprising one hundred and twenty acres, and at once opened a school in the farm house located on the property. From these humble beginnings the school grew rapidly under the guidance of Brother Maximin Zehler. Urgent needs made necessary the sale of part of this extensive property, leaving a campus of severity acres.

In 1878 this institution was incorporated, and in 1882, by an act of the general assembly of the State of Ohio, it was empowered to confer degrees under the title of St. Mary Institute. After 1912 it was called St. Mary College and continued to be so designated till 1920, when it was raised to the rank of University. Realizing the demands for higher education, the University established night classes in 1920 and summer sessions in 1923. These two projects were opened to men and women and from the beginning were well received. In 1935 the day school, formerly restricted to men, offered to women also the facilities of full-time students.

The University offers courses in Arts, Science, Engineering, Business Administration, Education, Pre-Medicine, Pre-Law, and in Electrical, Industrial, and Mechanical Technology. Journalistic, forensic, musical, and athletic programs are also sponsored by the University under the supervision of the faculty.

EDUCATIONAL OBJECTIVES

The University of Dayton proposes as general objective the complete and harmonious development of all the capacities of man's nature—religious, moral, intellectual, aesthetic, social, and physical. Participation in the widely-varied college activities induces the student to exercise all these powers of soul and body. Moral instruction and adequate campus discipline emphasize the importance of personality development and character formation, while a comprehensive academic program furnishes ample fields of study. Thus college becomes not only a preparation for life, but an integral part of life itself.

The particular objectives are threefold: (1) to give the student a liberal education in philosophy, in the natural and social sciences, language, and literature; (2) to prepare for prospective careers in business, art, music, for the professions of teaching and engineering and for professional schools of law, medicine, and dentistry; (3) to develop, in all divisions, a strong sense of social responsibility, to foster leadership both by the theory and the practice of sound principles of religion, philosophy, sociology, economics, and political science.
ACCREDITION

THE UNIVERSITY OF DAYTON is officially recognized by the following accrediting agencies:

1. The North Central Association of Colleges.
3. The Ohio Association of Colleges.
4. The Teacher Education programs are accredited by the National Council for Accreditation of Teacher Education.
5. The Pre-Medical course is accredited by the American Medical Association.
6. The Departments of Civil, Electrical, and Mechanical Engineering are accredited by the Engineers' Council for Professional Development.
7. The Electrical, Industrial and Mechanical Technology programs are accredited by the Engineers' Council for Professional Development Institute programs.

CAMPUS AND BUILDINGS

THE UNIVERSITY OF DAYTON is situated within the corporate limits of the city of Dayton. It is located in the southern section of the city, approximately three miles from the center of town.

The quiet of the surroundings is conducive to serious study, while at the same time the location affords easy access to the social, business, and industrial interests of the city.

The University campus has for its center the beautiful Chapel of the Immaculate Conception.

The buildings devoted to academic work are: St. Mary Hall, including Administration, Business and Science; Chaminade Hall, including Arts, Education, and Science; St. Joseph Hall, including Civil, Electrical, and Mechanical Engineering; Chemistry Buildings, including Chemical Engineering; Business Administration Building; Field House; Mechanical Engineering Building; Music Building; ROTC Building.

The Albert Emanuel Library, the general library of the campus, was erected in 1928 through the generosity of Victor C. Emanuel, an alumnus of the University, who dedicated this building as a monument to the honor of his father. This library of 55,000 volumes of books and 21,000 volumes of periodicals is equipped with all modern facilities to supplement the regular class work of the student. Special collections are housed in seven departmental libraries to facilitate service to faculty and students.

Adequately equipped laboratories are available for experimental work in the different departments: Biology, Botany, Zoology, Physics, Mineralogy and Geology laboratories in St. Mary Hall; Electrical Engineering laboratories in St. Joseph Hall; Civil and Mechanical Engineering laboratories in the Mechanical Engineering laboratory building; the Chemical and Chemical Engineering laboratories in the Chemistry buildings; Psychological and Home Economics laboratories in Chaminade Hall.
EDUCATION OF VETERANS

All departments of the University have been approved by the Veterans Administration for training under the following G.I. Bills: Public Law 346, Public Law 16, Korean Public Law 550, and Korean Public Law 894. Credits earned during military service are accepted after an evaluation in terms of the University’s standards and the course of study for which the veteran applies. An adequate counseling service is available under the direction of the Veterans’ Adviser, whose office is located in Room 105, St. Mary Hall.

HONORS AND AWARDS

Awards and honors for scholarship are announced on Honors Day, or at the annual Commencement.

Degrees will be conferred “With Honors” if the student has been awarded the Alpha Sigma Tau Honor Key.

The Alpha Sigma Tau Honor Key is awarded to seniors who have a point average for seven semesters, at the University, of 3.5 based on 4.0. The Alpha Sigma Tau is the Honor Society of the University. These seniors are eligible for membership in the Lambda Chapter of the Delta Epsilon Sigma National Honor Society.

A cumulative point hour ratio of at least 3.0 is required for any award or honor.

The following Awards are given annually through the generosity of donors:

The Victor Emanuel, '15, in memory of Mrs. Albert Emanuel, Awards of Excellence in the Senior and Junior Chemical Engineering Classes.

The Harry F. Finke, '02, Award of Excellence in the Senior Civil Engineering Class.

The Mrs. J. Edward Sweetman, in memory of Mr. J. Edward Sweetman, Award of Excellence in the Junior Civil Engineering Class.

The Anthony Horvath and Elmer Steger Award of Excellence in the Senior Electrical Engineering Class.

The Mrs. Louise A. and Mrs. Lucille Hollenkamp, in memory of Bernard F. Hollenkamp, Award of Excellence in the Senior Mechanical Engineering Class.

The Martin C. Kuntz, '12, Award of Excellence in the Junior Mechanical Engineering Class.

The Charles Huston Brown, in memory of Brother William Haebe, Award of Excellence in the Senior Class of Business Organization.

The President's Award of Excellence in Debating.

The Mathematics Club Alumni Awards of Excellence in the Junior and in the Senior Classes.


The C.W.O. Award of General Excellence in both academic and extracurricular activities. Only Senior women are eligible.
The Phi Alpha Theta Scholarship Key, awarded on the basis of excellence in the study of History. Eligibility is restricted to Senior members of Delta Eta Chapter.

The Montgomery County Chapter of the University of Dayton Alumni Association Award, known as the Father Renneker Award, for outstanding achievement in teacher education, presented to a senior student for both academic standing and leadership standing.

SPECIALIZED EXAMINATIONS

The University of Dayton is a center for the administration of the national tests listed below. A large number of Graduate Schools in the United States and Canada recommend, and some require, that the results of these examinations be submitted as one of the credentials for admission. For information regarding these tests, the student should consult the indicated authority.

American Dental Examination: University of Dayton Guidance Center or American Dental Association, 222 East Superior Street, Chicago 11, Illinois.

American Medical Examination: University of Dayton Guidance Center or Educational Testing Service, P. O. Box 592, Princeton, New Jersey.


Graduate Record Examination: University of Dayton Guidance Center or Educational Testing Service, P. O. Box 592, Princeton, New Jersey.

National Teachers' Examination: University of Dayton Guidance Center or Educational Testing Service, P. O. Box 592, Princeton, New Jersey.

Selective Service Qualifying Examination: Any Selective Service Local Board.

EXTRACURRICULAR ACTIVITIES

Administrative: Student Council; Student Senate; Central Women's Organization.

Religious: National Federation of Catholic College Students; Sodality of the Immaculate Conception; Catholic Students Mission Crusade; Chapel Choir.

Academic: Alpha Sigma Tau Honor Society; Business Organization and Economics Club; Society for Advancement of Management; Alpha Psi Omega; University Players; Education Club; Mechanical Engineering Society; Electrical Engineering Society; Student Chapter of the American Society of Civil
Enginiers; Phi Alpha Theta; Exponent; Daytonian; University of Dayton News; The National Mathematics Honor Society of Secondary Schools; Mathematics Club; University Choir; Men's Glee Club; Junior Philharmonic Orchestra; Band; Philosophy Club; Psychology Club; Sigma Delta Pi; Geology Club; Chemistry Club; Home Economics Club; Nu Epsilon Delta Society; Sociology Club; Upsilon Delta Sigma Debaters; Techn I Club.

MILITARY: Pershing Rifle Club; Scabbard and Blade; Rifle Team.

ATHLETIC: The Monogram Club; Women’s Athletic Association.

SOCIAL: Flyers Hangar; Spirit Committee; Blue Grass Club; Clevelanders’ Club; Toledo Club; Hui o Hawaii; Knickerbocker Club.

GENERAL: Red Cross College Unit; Mother’s Club.

Each of the organizations listed has been approved and placed under the direction of a faculty moderator.

CHILDREN’S THEATRE

A YEAR-ROUND children’s theatre of training classes and productions is sponsored by the University Players. Children from age five through eighteen are enrolled. Classes and rehearsals are held in the Student Union Building.

ATHLETICS

ATHLETIC PARTICIPATION is an integral part of the educational development that the University of Dayton strives to achieve for all its students. This statement applies to intercollegiate athletics and the intramural athletic and recreational programs. All students are encouraged to engage in some form of athletic competition according to the level of their ability. This is to be particularly emphasized in the case of students majoring in Physical Education for whom the various athletic activities have special importance in view of the career for which they are preparing. It is felt that athletics, intercollegiate and others, cultivate a sense of unity which is one of the important factors in student morale.

Intercollegiate athletic policies are the responsibility of the President. He is assisted by an Advisory Committee, consisting of Faculty and Alumni. Budgetary control for all athletic and recreational programs is exercised by the Budget Committee of the University.
ADMISSION

ADMISSION OF STUDENTS

ANYONE DESIRING admission is required to file a written application. For admission to a freshman class the applicant must present a satisfactory high school record. This application for admission and high school record must be on forms supplied by the Director of Admissions. For advanced standing an applicant must see that the last institution attended sends an official transcript of credits together with a statement of honorable dismissal. A student is allowed to register only after all credentials have been received and evaluated and a registration permit has been issued.

All new students, both freshman and transfer students, are obliged to take a battery of psychological tests at the University of Dayton Guidance Center.

The University does not have dormitory accommodations for women. Women under twenty-one years of age are not ordinarily accepted as students in the day classes unless they are residing with parents or close relatives in Dayton. In cases where exceptions are made, women students are placed in accommodations approved by the Dean of Women. Upon notification of her acceptance by the University, the prospective woman student should contact the Office of the Dean of Women to arrange for suitable housing.

A thorough physical examination is part of the admission procedure of every student. Records are kept by the Registrar's office. When deemed advisable, students and parents or guardians are given copies. A follow-up is made at regular intervals. An infirmary is maintained with a registered nurse in attendance. The services of outstanding physicians as well as the facilities of three hospitals are available to students.

ADMISSION REQUIREMENTS

FOR ADMISSION TO a freshman class, an applicant must present sixteen units from a high school accredited by some regional accrediting association or by a State Department of Education, and have a total record indicating likelihood of success in college. Certain degrees require specific entrance units, as follows:

a) Business Administration Division requires at least one unit in mathematics.

b) Education Division requires competence in the communication skills. The student's total record will be reviewed at the close of his first year to determine whether he is a fit candidate for teacher education.

c) Science Division requires:
   1 unit in algebra (students who wish to major in chemistry, mathematics, or physics, should present 1½ units in algebra)
1 unit in chemistry or physics
1 unit in geometry (students who wish to major in chemistry, mathematics, or physics, should present 1 1/2 units in plane and solid geometry)

d) The College of Engineering requires:
1 1/2 units of algebra
1 1/2 units in plane and solid geometry (students lacking solid geometry may be admitted but will be required to earn credit in it during the first semester)
1 unit in physics or chemistry

e) Students who have not been graduated from an accredited high school or secondary school may be considered for admission to the Technical Institute, provided they can submit evidence of an equivalent background of experience or training.

All exceptions to the above admission rules must be approved by the Academic Council.

Students who are obliged or elect to follow courses in mathematics will be assigned to courses only after submitting to a qualifying test. Placement in mathematics is on the basis of this test. This applies to both freshman and transfer students.

GUIDANCE CENTER

The Guidance Center, located in the basement of the Albert Emanuel Library, is staffed by experienced counselors and psychometrists. The Center offers psychological testing services and vocational counseling to the following groups:

a) Veterans
b) Students of the University enrolled in either Day or Evening Classes
c) High school students seeking guidance, especially in view of preparing for some particular college course
d) Individuals directed to the Center by various industrial organizations
e) High schools and elementary schools that request the administration of a battery of psychological tests
f) Individuals seeking vocational advisement

The Center is open from 8:30 a.m. to 5:00 p.m. every day Monday through Friday, until noon on Saturday. Appointments may be made by telephone.
CURRICULUM

THE UNIVERSITY comprises the undergraduate College of Arts and Sciences, the College of Engineering, and the Technical Institute.

COLLEGE OF ARTS AND SCIENCES

THE COLLEGE OF ARTS AND SCIENCES is made up of the Divisions of Arts, Business Administration, Education, and Science.

In the Division of Arts are the Departments of Art, English, History, Languages, Music, Philosophy, Political Science, Psychology, Religion, Sociology, and Speech. This Division includes pre-professional courses in law, social service, foreign service, and journalism. Affiliation of the Dayton Art Institute with the University makes it possible for students to work for the Fine Arts degree. Affiliation of the Dayton Junior Philharmonic Orchestra with the University provides music students with the opportunity for valuable musical practice and experience.

The Division of Arts at Carthage, Ohio, was established in September, 1949. Enrollment in this Division is limited to members of the Congregation of the Most Precious Blood. The names and degrees of faculty members are included in this catalogue.

The Division of Business Administration includes the Departments of Accounting, Business Organization, Economics, Retailing, and Secretarial Studies.

The Division of Education prepares teachers for both elementary and secondary levels. There are two Departments in the Division: Education, and Physical and Health Education.

The Division of Science has pre-professional courses in medicine, dentistry, veterinary medicine, pharmacy and optometry. In cooperation with St. Elizabeth Hospital, Good Samaritan Hospital, Miami Valley Hospital, and The Veterans Administration Hospital, courses are given in Medical Technology; in cooperation with St. Elizabeth Hospital and Miami Valley Hospital, courses are given in Radiological Technique. The Division of Science includes the following Departments: Biology, Chemistry, Geology, Home Economics, Mathematics, Medical Technology, Nursing, Physics, and Radiological Technique.

COLLEGE OF ENGINEERING

THE COLLEGE OF ENGINEERING includes Departments in Chemical, Civil, Electrical, Industrial, and Mechanical Engineering.

TECHNICAL INSTITUTE

THE TECHNICAL INSTITUTE offers programs of study in Electrical, Industrial, and Mechanical Technology.
ACADEMIC REQUIREMENTS

REQUIREMENTS FOR DEGREES

All bachelor degrees granted by the University of Dayton require a minimum of one hundred and twenty-eight credit hours. These credits must be distributed over eight semesters in point of time.

A credit hour denotes a semester course taken one hour a week as a class period or two or three hours a week as a laboratory period.

Requirements for the different degrees are listed under the various Divisions.

One year of residence or thirty semester hours—ordinarily the senior year—is a requirement for any bachelor degree.

RELIGION AND PHILOSOPHY

A total of fourteen credit hours in Religion are required of Catholic students, eight of which are taken during the freshman and sophomore years and six during the junior or senior years.

Non-Catholic students are required to gain the equivalent number of hours in prescribed courses of philosophy to replace the courses in religion.

RESERVE OFFICERS TRAINING CORPS

The Department of Military Science and Tactics conducts instruction in those general military subjects which are applicable to all components of the Army. The general objective of the course is to produce junior officers who by their education, training, and inherent qualities are suitable for continued development as officers in the United States Army. Students enrolled are organized into a Cadet Regiment which is commanded and staffed by selected Cadet Officers and non-commissioned officers. Instruction is presented by the military staff under the supervision of the Professor of Military Science and Tactics.

The curriculum is divided into a Basic and an Advanced Course. All male non-veterans (except students in the Technical Institute) who are physically qualified and who have not already completed the Basic Course or its equivalent are required to enroll in the Basic Course during their freshman and sophomore years. Satisfactory completion of the Basic Course is a prerequisite for graduation from the University. Transfer students who enter the University with less than full junior status are also required to fulfill the Basic Course requirement. Prior service in the Armed Forces of the United States may be substituted for all or part of the Basic Course. Admission to the Advanced Course is on an optional-selective basis, requiring the approval of the President of the University and the Professor of Military Science and Tactics. The Advanced Course, once begun, automatically becomes a prerequisite for graduation from the University.
Satisfactory completion of the Advanced Course qualifies the student for consideration for commission as Second Lieutenant, United States Army Reserve. In addition, certain selected students may become eligible for a commission in the Regular Army under the Distinguished Military Student Program.

Subject to deferment quota limitations which are prescribed by the United States Government, selected ROTC students are deferred from induction into the Armed Forces as long as they remain in good standing in their academic and military courses.

All ROTC students are issued officer-type uniforms and appropriate insignia. Students accepted for enrollment in the Advanced Course receive commutation of subsistence in cash amounting to approximately $27.00 per month. Each Advanced Course student must attend one Summer Camp of approximately six weeks duration. During this Camp he receives pay at the rate of approximately $75.00 per month plus travel expenses to and from Camp.

**GRADES AND SCHOLARSHIP**

At mid-semester and at the end of a semester, a report of every student in each of his classes is given to the Registrar by the instructor. Copies of these reports are given to the students and deans and are sent to the parents or guardians; the final grades of freshman students are also sent to their high school principals. At mid-semester, these marks are merely tentative and represent the progress made by the student. The final academic standing is determined only at the end of the semester.

Grades are based on daily work, tests and quizzes, and semester examinations. Class periods are of fifty minutes’ duration; laboratory periods, from two to three hours.

The official marks with their meanings and quality point values are as follows:

- **A—Excellent**.......................... 4 quality points*
- **B—Good**.................................. 3 quality points*
- **C—Fair**.................................. 2 quality points*
- **D—Passing**............................. 1 quality point*
- **WP—Withdrawn, Passing**........... 0 quality point
- **WF—Withdrawn, Failing**............ 0 quality point
- **F—Failed**.............................. 0 quality point
- **I—Incomplete**.......................... 0 quality point

*For each credit hour allowed for the course.*

The credit hours of each course denote the number of class periods and laboratory periods devoted to the course each week during one semester. The grades of A, B, C, and D entitle the student to four, three, two, and one quality points respectively, for each credit hour. The quality point average is found by dividing the total number of quality points by the number of credit
hours carried by the student; a course for which a WP is received is not included, but a course for which a WF is received is included in the same manner as one for which an F is received.

D, although passing, indicates work in some respects below standard grade. In many cases, it will be necessary to repeat the course in question. The decision rests with the Dean and the department in which the course was taken.

An F indicates failure in a course due to poor scholastic work, or to absence without justification, or to failure to report withdrawal from a course. In such cases required courses must be repeated at the next opportunity.

During the first three weeks of a semester, a student may withdraw from a class Without Record; beginning with the fourth week, all withdrawals are recorded as WP or WF.

A grade of I may be given at the discretion of the instructor to any student who, for reasons beyond his control, has not completed some portion of the work of the term, provided that the rest of the work has been of satisfactory grade. An I is not to be marked if the student has been delinquent in his work, that is, when work has not been completed through his own fault. A grade of I is not to be marked at mid-term.

An I must be removed within the following semester (within four weeks from the close of the semester for students in Science and Engineering) or it will be changed to F.

ACADEMIC STANDING

The following rules will be observed regarding academic standing:

1. To be in good academic standing, a student must have a semester point average of 2.00. A cumulative point average of 2.00 is required for graduation.

2. Any student who has a semester point average of 1.00 or less will be required to withdraw from the University. The Registrar's Office will indicate on the permanent record that the withdrawal was due to poor academic work.

3. A semester point average between 1.00 and 2.00 will AUTOMATICALLY place the student on probation for the next semester. The Registrar's Office will indicate such probation on the student's permanent record. In Engineering, a quality point average of less than 1.5 requires permission from the Dean for continuance. If permission is granted, the student must repeat all courses for which the semester grade was below C.

4. A minimum point average of 2.20 will be required to remove the probationary status.

5. No student will be put on probation twice in the same division.

In general, if it appears from the record that a student is not meeting the
requirements, either scholastically or otherwise, he may be placed on probation or he may be requested to withdraw from the University.

CHANGES AND WITHDRAWALS

When a student finds it necessary to change from one class to another or to withdraw from a class for any reason whatsoever, it is important that he notify his Dean immediately. Financial adjustments, if allowed, will be made ONLY FROM THE DATE OF NOTIFICATION. Veterans especially should report any such changes or withdrawals promptly, since the amount of time to which they are entitled under Public Laws 346, 16, 550, and 894 is affected by their entrance and withdrawal dates.
EXPENSES

POLICY AND REGULATIONS

The Trustees of the University of Dayton reserve the right at any time to change the regulations of the University, including those concerning fees and the manner of payment and to make such changes in the curricula as they deem advisable.

Students from outside the Dayton area, particularly freshmen, reside on campus unless the residence halls are fully occupied, and take their meals in the cafeteria provided for their service, choosing either the 5-day or the 7-day week meal service.

The University cafeteria is open during the vacation periods. Meals may be purchased during these periods on a cash basis.

Students may live in the residence halls during the Christmas and summer periods at a reasonable charge.

Tuition and fees are payable in full at the time of registration. If required by circumstances, deferred payments with a moderate carrying charge may be arranged by full-time students through the Business Manager's Office. When deferred payments are allowed, the initial payment at the time of registration must be a minimum of 50% of the total charges and the balance paid within 60 days. A student may not register for a new term, a transcript of credits will not be issued, the honors of graduation will not be conferred, unless accounts with the University have been satisfactorily settled.

All checks should be made payable to the University of Dayton. The University is not responsible for any money or valuables which are not deposited with the Treasurer.

Officers and faculty advisers in charge of organizations and activities approved by the University are required to deposit all funds with the Treasurer of the University. The financial accounts of all organizations and activities are subject to audit by the Comptroller's Office.

The expenses indicated below are for each term of the scholastic year unless otherwise stated. During the refund period of the first four weeks of the semester, tuition charges will be made according to the following scale:

- During first week of classes ....................................20%
- During second week of classes ................................40%
- During third week of classes ..................................60%
- During fourth week of classes .................................80%
- During or after fifth week of classes .........................100%

FULL-TIME STUDENTS

A student with an academic schedule of 12 semester hours is considered a full-time student. With this status he is entitled to the benefits of the various activities.
Matriculation fee, payable once, at entrance .................................................. $10.00
Orientation and placement services, payable once, at entrance .......................... 10.00
Tuition, per credit hour ........................................................................................... 15.00
(Number of credit hours varies according to the program of studies.
Consult index for specific programs.)
Deposit on uniform, for students taking Military Science ................................... 20.00
Laboratory fee, for each laboratory (variations depend upon the course) .............. 5.00-15.00
Laboratory breakage deposit (variations depend upon the course) ....................... 5.00-10.00
Books and stationery, at University Book Store, depending upon courses,
minimum expenses approximately .............................................................................. 30.00
For campus students:
Room and laundry, and five-day meal ticket (3 meals per day, Monday through Friday), per semester ............................................................... 295.00
Room and laundry, and seven-day meal ticket (3 meals per day, Monday through Saturday; Sunday breakfast and noon dinner) per semester ........................................... 355.00
N.B. The cafeteria is closed on Sunday evenings.
Room deposit to cover possible damage (refundable) .............................................. 10.00
Students from outside the Dayton area who are unable to secure living accommodations in the campus residence halls may purchase meal tickets for the semester as follows:
Five-day meal ticket (3 meals per day, Monday through Friday) per semester................................. 170.00
Seven-day meal ticket (3 meals per day, Monday through Saturday; Sunday breakfast and noon dinner) per semester ........................................................... 230.00
Teacher training fee (Student Teachers) per credit hour ........................................ 6.00
(Maximum fee $36.00 in addition to the tuition fee)
Late registration:
 a) Any deviation from the registration schedule as outlined in the Calendar, not approved by the student's dean prior to registration week, will carry a $5.00 clerical fee.
 b) Any student who has not completed his registration during the scheduled registration days will be assessed a $15.00 late registration fee.
Proficiency and other special examinations, average fee ........................................ 5.00
Graduation fee ............................................................................................................. 20.00

PART-TIME STUDENTS

Matriculation fee, payable at first registration each year ......................................... 5.00
Tuition and other fees, as above for full-time students.

SPECIAL STUDENTS

SPECIAL STUDENTS, non-matriculated students, and auditors are subject to the expenses outlined above.
College of Arts and Sciences

FATHER RHODES, Dean

Division of Arts

The Division of Arts has as a function to provide the fundamentals of a liberal education. Among the broad objectives to be served by such a type of education are the following: to enrich the student’s cultural background; to stimulate intellectual activity; to educate for satisfactory social adjustment; to develop capacities for leadership. The University regards as a special feature of its educational program the training given to all of its students in the field of philosophy in order to achieve the objectives of life integration, character formation and responsible citizenship. In particular, students registered in the Division of Arts are required to take at least a minor in philosophy in view of the role philosophical principles play in effective thinking, speaking, writing, and living.

In its curriculum, the Division of Arts aims to furnish special preparation for various professions such as education, art, music, law, journalism, social service, personnel administration, foreign service, as well as the more comprehensive forms of business and industrial activity. It also seeks to prepare students for study on the graduate level.

DEGREE REQUIREMENTS

For the A.B. Degree, the University of Dayton sets down the following requirements: (Lower Division) religion or philosophy 8 credit hours, English 12 credit hours, speech 3 credit hours, history 12 credit hours, foreign language 12 credit hours, natural science or mathematics 6-8 credit hours, psychology 3 credit hours, sociology 3 credit hours, military 6 credit hours (for men), physical education ½ credit hour (for men), 2 credit hours (for women), health 1 credit hour (for men), 2 credit hours (for women); (Upper Division) a major 24 credit hours, two minors 12 credit hours each, electives 10 credit hours. When philosophy is not elected as the major, it must be taken as one of the minors. Because non-Catholic students have followed courses in logic and philosophical psychology during their freshman and sophomore years, they will take epistemology in the first semester and ethics in the second semester of their junior year.
The junior and senior years are generally devoted to study in the major and minor fields. Subjects which may count towards the major or minor are listed in the catalogue as 300 and 400 courses and designated as upper division courses. Sixty-four of the 128 credit hours required for graduation must be on the upper level. Possible majors are: art, economics, English, history, journalism, languages, mathematical statistics, music, philosophy, political science, psychology, religion, sociology, and speech.

PRE-PROFESSIONAL COURSES

The schedule should be drawn up with a view to preparation for a particular profession which the student may have in mind. Hence it is imperative that the student consult the dean to receive the proper educational guidance.

Students contemplating the legal profession can generally satisfy the requirements of Schools of Law by following the curriculum prescribed for the Division of Arts or the Division of Business Administration. Information as to specific requirements should be secured from the particular School of Law which the student desires to enter. Ordinarily ninety credit hours will admit to law school; in particular instances, a bachelor's degree is required.

For foreign service, a curriculum, similar to that of pre-legal students, should be followed with special emphasis on foreign languages and political science.

Two years of college study are required for admission to the first year of Philosophy in diocesan seminaries. During these years stress should be placed upon English, the classical and the modern foreign languages.

In the fields of social service and public administration, there is a great demand for trained personnel. The bachelor's degree is required for admission to a recognized School of Social Work. The undergraduate curriculum should include courses in biology, economics, philosophy, political science, psychology, religion, sociology, and statistics.
## GENERAL REQUIREMENTS FOR THE A. B. DEGREE

### Freshman Year

#### FIRST SEMESTER

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### Sophomore Year

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### Junior Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Field</td>
<td>6</td>
</tr>
<tr>
<td>(2) Phil</td>
<td>3</td>
</tr>
<tr>
<td>Second Minor</td>
<td>3</td>
</tr>
<tr>
<td>(3) Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Field</td>
<td>6</td>
</tr>
<tr>
<td>(2) Phil</td>
<td>3</td>
</tr>
<tr>
<td>Second Minor</td>
<td>3</td>
</tr>
<tr>
<td>(3) Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

### Senior Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Field</td>
<td>6</td>
</tr>
<tr>
<td>(2) Phil</td>
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<tr>
<td>Second Minor</td>
<td>3</td>
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<tr>
<td>(3) Electives</td>
<td>3-6</td>
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</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Field</td>
<td>6</td>
</tr>
<tr>
<td>(2) Phil</td>
<td>3</td>
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<tr>
<td>Second Minor</td>
<td>3</td>
</tr>
<tr>
<td>(3) Electives</td>
<td>3-6</td>
</tr>
</tbody>
</table>

(1) If Psychology is chosen as the major field, the freshman science must be Bio. 101-102, followed by Bio. 203-204 in the sophomore year.

(2) If Philosophy is chosen as the major field, it is replaced by another field as the first minor.

(3) Electives must be selected from 300-400 courses.
Special Programs in the Division of Arts

PROGRAM I

BACHELOR OF FINE ARTS

Freshman Year

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td></td>
<td>Subjects</td>
<td></td>
</tr>
<tr>
<td>Rel or Phil</td>
<td>2</td>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Eng 101</td>
<td>3</td>
<td>Spe 101</td>
<td>3</td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>Art</td>
<td></td>
</tr>
<tr>
<td>At Art Institute</td>
<td>10</td>
<td>At Art Institute</td>
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</table>

Summer Session

Art At Art Institute...6

Sophomore Year

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td></td>
<td>Subjects</td>
<td></td>
</tr>
<tr>
<td>Rel or Phil</td>
<td>2</td>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Eng 221</td>
<td>3</td>
<td>Hst 112</td>
<td>3</td>
</tr>
<tr>
<td>Eng 222</td>
<td></td>
<td>Hst 252</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>Art</td>
<td></td>
</tr>
<tr>
<td>At Art Institute</td>
<td>10</td>
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</table>

Summer Session

Art At Art Institute...6

Junior Year

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td></td>
<td>Subjects</td>
<td></td>
</tr>
<tr>
<td>Phil 300-400</td>
<td>3</td>
<td>Phil 300-400</td>
<td>3</td>
</tr>
<tr>
<td>Psy 201</td>
<td>3</td>
<td>Soc 201</td>
<td>3</td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>Art</td>
<td></td>
</tr>
<tr>
<td>At Art Institute</td>
<td>9</td>
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</table>

Summer Session

Art At Art Institute...5

Senior Year

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td></td>
<td>Subjects</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td>15</td>
<td>Art</td>
<td>15</td>
</tr>
</tbody>
</table>

At Art Institute

1. For the degree of Bachelor of Fine Arts, a minimum of 137 hours is required. Of these, 105 hours must be in Art and related courses. Thirty-two hours must be in academic subjects according to the curriculum suggested.

2. To complete the required course of studies, it will be necessary to distribute the program over four years and three summer sessions or five years with no summer sessions.
# PROGRAM II

## BACHELOR OF ARTS WITH A MAJOR IN ART

### Freshman Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Mil 101</td>
<td>1½</td>
</tr>
<tr>
<td>Phe 101</td>
<td>1½</td>
</tr>
<tr>
<td>Phe 103</td>
<td>1</td>
</tr>
<tr>
<td>Eng 101</td>
<td>3</td>
</tr>
<tr>
<td>Hst 101</td>
<td>3</td>
</tr>
<tr>
<td>Art Basic Courses</td>
<td>3</td>
</tr>
</tbody>
</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Mil 102</td>
<td>1½</td>
</tr>
<tr>
<td>Phe 102</td>
<td>1½</td>
</tr>
<tr>
<td>Phe 104</td>
<td>1</td>
</tr>
<tr>
<td>Eng 102</td>
<td>3</td>
</tr>
<tr>
<td>Hst 102</td>
<td>3</td>
</tr>
<tr>
<td>Art Language</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sophomore Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Mil 201</td>
<td>1½</td>
</tr>
<tr>
<td>Phe 201</td>
<td>1½</td>
</tr>
<tr>
<td>Eng 221</td>
<td>3</td>
</tr>
<tr>
<td>Hst 251</td>
<td>3</td>
</tr>
<tr>
<td>Psy 201</td>
<td>3</td>
</tr>
<tr>
<td>Art Basic Courses</td>
<td>3</td>
</tr>
</tbody>
</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Mil 202</td>
<td>1½</td>
</tr>
<tr>
<td>Phe 202</td>
<td>1½</td>
</tr>
<tr>
<td>Eng 222</td>
<td>3</td>
</tr>
<tr>
<td>Hst 252</td>
<td>3</td>
</tr>
<tr>
<td>Soc 201</td>
<td>3</td>
</tr>
<tr>
<td>Art Language</td>
<td>3</td>
</tr>
</tbody>
</table>

### Junior Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Advanced Art</td>
<td>6</td>
</tr>
<tr>
<td>Phil 300-400 Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Spe 101 Fund of Eff. Speak</td>
<td>3</td>
</tr>
<tr>
<td>Religion (Catholics)</td>
<td>3</td>
</tr>
</tbody>
</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Advanced Art</td>
<td>6</td>
</tr>
<tr>
<td>Phil 300-400 Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>(1) Second Minor</td>
<td>3</td>
</tr>
<tr>
<td>(2) Electives</td>
<td>3-6</td>
</tr>
</tbody>
</table>

### Senior Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Advanced Art</td>
<td>6</td>
</tr>
<tr>
<td>Phil 300-400 Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>(1) Second Minor</td>
<td>3</td>
</tr>
<tr>
<td>(2) Electives</td>
<td>3-6</td>
</tr>
</tbody>
</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Advanced Art</td>
<td>6</td>
</tr>
<tr>
<td>Phil 300-400 Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>(1) Second Minor</td>
<td>3</td>
</tr>
<tr>
<td>(2) Electives</td>
<td>3-6</td>
</tr>
</tbody>
</table>

(1) The second minor may be chosen from the following fields: psychology, sociology, economics, political science, history, English, or one of the languages.

(2) Electives must be selected from 300-400 courses.

Basic courses in art to be selected for lower division work are: design 6 credit hours, perspective 3 credit hours, cast drawing 3 credit hours.

Advanced courses for the field of concentration are: life drawing 4½ credit hours, commercial art 6 credit hours, crafts 4½ credit hours, sculpture 3 credit hours, painting 3 credit hours, electives 3 credit hours.
# PROGRAM III
## BACHELOR OF ARTS WITH A MAJOR IN
## MATHEMATICAL STATISTICS

### Freshman Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Mil 101 First Yr. Basic Course</td>
<td>1.5</td>
</tr>
<tr>
<td>Phe 101 Physical Education</td>
<td>1.5</td>
</tr>
<tr>
<td>Phe 103 Health</td>
<td>1</td>
</tr>
<tr>
<td>Eng 101 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Hist 101 Hist. of Civilization</td>
<td>3</td>
</tr>
<tr>
<td>Language</td>
<td>3</td>
</tr>
<tr>
<td>Mat 115 Math. Analysis I</td>
<td>5</td>
</tr>
<tr>
<td>Or 101 Orientation</td>
<td>0</td>
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</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Mil 102 First Yr. Basic Course</td>
<td>1.5</td>
</tr>
<tr>
<td>Phe 102 Physical Education</td>
<td>1.5</td>
</tr>
<tr>
<td>Phe 104 Health (Women)</td>
<td>1</td>
</tr>
<tr>
<td>Spe 101 Fund. of Eff. Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Hist 102 Hist. of Civilization</td>
<td>3</td>
</tr>
<tr>
<td>Language</td>
<td>3</td>
</tr>
<tr>
<td>Mat 116 Math. Analysis II</td>
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### Sophomore Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Mil 201 Second Yr. Basic Course</td>
<td>1.5</td>
</tr>
<tr>
<td>Phe 201 Phys. Educ. (Women)</td>
<td>1.5</td>
</tr>
<tr>
<td>Eng 316 Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td>Language</td>
<td>3</td>
</tr>
<tr>
<td>Mth 201 Differential and Integral Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Eco 201 Prin. of Economics</td>
<td>3</td>
</tr>
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</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Rel or Phil</td>
<td>2</td>
</tr>
<tr>
<td>Mil 202 Second Yr. Basic Course</td>
<td>1.5</td>
</tr>
<tr>
<td>Phe 202 Phys. Educ. (Women)</td>
<td>1.5</td>
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<tr>
<td>Eng 222 American Literature</td>
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<tr>
<td>Language</td>
<td>3</td>
</tr>
<tr>
<td>Mth 202 Differential and Integral Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Eco 202 Prin. of Economics</td>
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### Junior Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Phil 300-400 Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Mth 301 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>Mth 311 Math. Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Eco 404 Business Cycles</td>
<td>3</td>
</tr>
<tr>
<td>Psy 201 Introd. Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil 300-400 Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Mth 302 Theory of Equations</td>
<td>3</td>
</tr>
<tr>
<td>Mth 312 Math. Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Eco 413 Economic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Soc 201 General Sociology</td>
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</table>

### Senior Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil 300-400 Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Mth 421 Advanced Calculus</td>
<td>3</td>
</tr>
<tr>
<td>Mth 441 Intro. to Higher Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Mth 411 Theory of Probability</td>
<td>3</td>
</tr>
<tr>
<td>Eco 408 Contemporary Economics</td>
<td>3</td>
</tr>
<tr>
<td>Hist 251 Amer. Hist. to 1865</td>
<td>3</td>
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#### SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Phil 300-400 Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Mth 422 Advanced Calculus</td>
<td>3</td>
</tr>
<tr>
<td>Mth 451 Intro. to Higher Geometry, or Mth 416 Intro. to Calculus of Finite Differences</td>
<td>3</td>
</tr>
<tr>
<td>Eco 300-400 Economics</td>
<td>3</td>
</tr>
<tr>
<td>Hist 252 Amer. Hist. since 1865</td>
<td>3</td>
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</table>
PROGRAM IV

BACHELOR OF MUSIC

Requirements for the Degree of Bachelor of Music:

ACADEMIC

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>9</td>
</tr>
<tr>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>History, Social Science</td>
<td>6</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy (300 or 400 courses)</td>
<td>6</td>
</tr>
<tr>
<td>Electives (to include required basic Religion or Philosophy and Military Science courses)</td>
<td>14</td>
</tr>
</tbody>
</table>

41 Credit Hours

MUSICAL

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major (Piano, Organ, Violin, Voice, Theory, Composition)</td>
<td>20-24</td>
</tr>
<tr>
<td>Minor (Voice, Instrument, Theory)</td>
<td>12</td>
</tr>
<tr>
<td>Theory</td>
<td>20</td>
</tr>
<tr>
<td>History, Literature, Appreciation</td>
<td>10</td>
</tr>
<tr>
<td>Conducting, Instrumentation, Orchestration</td>
<td>5</td>
</tr>
<tr>
<td>Ensemble (Choir, Glee Club, Orchestra, Band)</td>
<td>2</td>
</tr>
</tbody>
</table>

69-73 Credit Hours

ELECTIVES (Academic or Musical) 14-18 Credit Hours

1. Voice majors will be required to take modern languages as a part of the academic electives.

2. Students majoring in voice, violin, theory, or composition will be required to use piano as a minor, or demonstrate ability to play the piano at a level satisfactory to the Department.

3. For ELECTIVES (Academic or Musical), additional courses in theory and applied music are strongly recommended.
# PROGRAM V

**BACHELOR OF ARTS WITH A MAJOR IN MUSIC**

**Freshman Year**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel or Phl</td>
<td>2</td>
</tr>
<tr>
<td>Mil 101 First Yr. Basic Course</td>
<td>1 1/2</td>
</tr>
<tr>
<td>Phe 101 Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>Phe 103 Health</td>
<td>1</td>
</tr>
<tr>
<td>Eng 101 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Language</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics or Science</td>
<td>3-4</td>
</tr>
<tr>
<td>Mus 151 First Year Theory</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel or Phl</td>
<td>2</td>
</tr>
<tr>
<td>Mil 102 First Yr. Basic Course</td>
<td>1 1/2</td>
</tr>
<tr>
<td>Phe 102 Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>Phe 104 Health (Women)</td>
<td>1</td>
</tr>
<tr>
<td>Spe 101 Fund. of Eff. Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Language</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics or Science</td>
<td>3-4</td>
</tr>
<tr>
<td>Mus 152 First Year Theory</td>
<td>5</td>
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</tbody>
</table>

**Sophomore Year**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rel or Phl</td>
<td>2</td>
</tr>
<tr>
<td>Mil 201 Second Yr. Basic Course</td>
<td>1 1/2</td>
</tr>
<tr>
<td>Phe 201 Phys. Educ. (Women)</td>
<td>1/2</td>
</tr>
<tr>
<td>Eng 221 English Literature</td>
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</tr>
<tr>
<td>Hst 101 Hist. of Civilization</td>
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<tr>
<td>Mus 251 Second Year Theory</td>
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<tr>
<td>Mus 102 Music Lit. and Apprec</td>
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<th>Subjects</th>
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<td>Language</td>
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**Junior Year**

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<td>Phl 300-400 Philosophy</td>
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<td>Hst 251 Amer. Hist. to 1865</td>
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<td>Psy 201 Introductory Psychology</td>
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<td>Mus Applied Music</td>
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<tr>
<td>Phl 300-400 Philosophy</td>
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<td>Hst 252 Amer. Hist. since 1865</td>
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**Senior Year**

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<td>Religion (Catholics)</td>
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<th>Subjects</th>
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<tr>
<td>Mus Advanced Music</td>
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<tr>
<td>Religion (Catholics)</td>
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(1) Electives must be selected from 300-400 courses.
PROGRAM VI

DIVISION OF ARTS AT CARTHAGENA

The freshman and sophomore curriculum corresponds to the Liberal Arts program followed at St. Joseph's College, Collegeville, Indiana.

**Junior Year**

<table>
<thead>
<tr>
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<td>Philosophy of Nature ... 5</td>
<td>Phil 304</td>
<td>Philosophy of Man .... 4</td>
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<td>Phil 416</td>
<td>Hist. of Ancient Phil.... 2</td>
<td>Phil 417</td>
<td>History of Medieval Philosophy ........ 4</td>
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<td>Hst 313</td>
<td>History of Christian Antiquity .................. 3</td>
<td>Hst 301</td>
<td>Medieval Europe ........ 3</td>
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<td>Edu 190</td>
<td>General and Educational Psychology I ............ 3</td>
<td>Spe 303</td>
<td>Advanced Interpretative Reading ........ 2</td>
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<td>Edu 203</td>
<td>Educational Psychology II .......................... 3</td>
<td>Edu 308</td>
<td>Techniques of Teaching .... 3</td>
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<td>Edu 312</td>
<td>Secondary Education: Purposes and Organ. ....... 2</td>
<td>Rel 441</td>
<td>Ascetical Theology ........ 2</td>
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**Senior Year**

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<td>Problems of Metaphysics 3</td>
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<td>Ethics ......................... 3</td>
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<td>History of Contemporary Philosophy ................ 2</td>
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<td>Phil 418</td>
<td>History of Modern Philosophy ..................... 4</td>
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<td>Modern Church History .. 3</td>
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<td>Social Institutions ........ 3</td>
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<td>Edu 318</td>
<td>Mental Hygiene for the Teacher .................. 3</td>
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Division of Business Administration

BROTHER NAGEL, Associate Dean

THE DIVISION OF BUSINESS ADMINISTRATION prepares students for activity in business, community leadership, and service. Because intelligent business and community leadership requires a well-rounded character and mind development, this Division feels that its students must not only be well-versed in commerce and its related fields, but also in those of philosophy and the social sciences. It is believed that broad training in the various fields within the Division will equip the student with a more diversified training than if too narrow specialization is followed. Also, by wise guidance in his choice of elective courses outside this Division, the student's general knowledge is widened and in this same manner his interests are fostered and developed.

DEGREE REQUIREMENTS

THE DIVISION OF BUSINESS ADMINISTRATION confers the degree of Bachelor of Science in Business Administration upon the satisfactory completion of the prescribed requirements. These requirements consist of one hundred and thirty semester hours as a minimum, and twice that number of quality points, which generally cover a program of eight semesters.

Each candidate for the degree must satisfy the prescribed requirements of the Freshman-Sophomore Business Administration program, which has been planned to give the student a broad and liberal training in preparation for business and economics. It is desirable in the freshman and sophomore years that the sequence of courses be followed as nearly as possible, but it may be varied to suit the needs of individual students. There is a more specialized curriculum for students in Secretarial Studies.

LOWER DIVISION
Freshman Year

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<tr>
<td>Phe 103 Health (Women)                   1</td>
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<tr>
<td>Eng 101 English Composition              3</td>
<td>Eng 104 Health (Women)</td>
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<td>Acc 101 Elementary Accounting            3</td>
<td>Spe 101 Fund. of Eff. Speaking</td>
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<td>Bus 101 Intro. to Business               3</td>
<td>Acc 102 Elementary Accounting</td>
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<tr>
<td>Bus 103 Math. of Finance I                3</td>
<td>Bus 102 Industrial Resources</td>
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<tr>
<td>Or 101 Orientation                       0</td>
<td>Eco 104 Economic Geography</td>
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Sophomore Year

FIRST SEMESTER

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<tr>
<td>Eco 201 Principles of Economics</td>
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</tr>
<tr>
<td>Bus 201 Business Machines</td>
<td>3</td>
</tr>
<tr>
<td>Bus 203 Math. of Finance II</td>
<td>3</td>
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<tr>
<td>Eng 222 American Literature</td>
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SECOND SEMESTER

<table>
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<td>Phe 202 Phys. Educ. (Women)</td>
<td>1 1/2</td>
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<td>(1) Acc 201 Intermediate Acctg</td>
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<tr>
<td>Eco 202 Principles of Economics</td>
<td>3</td>
</tr>
<tr>
<td>Eco 205 American Eco. History</td>
<td>3</td>
</tr>
<tr>
<td>Psy 201 Introductory Psychology</td>
<td>3</td>
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</tbody>
</table>

(1) Students majoring in business organization and economics and who do not wish to elect Acc. 201-2 should consult their adviser for substitution. Usually, Speaking Techniques, English literature, sociology, or political science are satisfactory substitutes (6 credit hours).

UPPER DIVISION

Specialization in one or more fields in this Division occurs in the Junior and Senior years. A particular curriculum in each field is recommended and it is advisable that students adhere as nearly as possible to this sequence of courses. It is possible to major in Accounting, Business Organization, Economics, Industrial Management, Personnel, Retailing, Business Education, or in Hospital Administration. A student may choose to major in two, or major in one and have minors in two other fields. However, there are no elective minors in Industrial Management, Personnel, or Hospital Administration. A minimum of forty-five hours must be completed in junior and senior courses in the Division of Business Administration. A specific requirement of the University is a minimum of six credits in philosophy.

REQUIRED COURSES

The following courses must be completed by all students who are candidates for a degree in Business Administration.

<table>
<thead>
<tr>
<th>Course</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Bus 301 Corporation Finance</td>
<td>3</td>
</tr>
<tr>
<td>Bus 303 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>Bus 305 Principles of Marketing</td>
<td>3</td>
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<tr>
<td>Bus 313 Business Statistics</td>
<td>3</td>
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<tr>
<td>Bus 316 Industrial Management</td>
<td>3</td>
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<tr>
<td>Bus 317 Labor Management</td>
<td>3</td>
</tr>
<tr>
<td>Eco 405 Money, Credit, and Banking</td>
<td>3</td>
</tr>
<tr>
<td>Eco 404 Business Cycles and/or</td>
<td>3</td>
</tr>
<tr>
<td>Eco 408 Contemporary Economics</td>
<td>3</td>
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<tr>
<td>Bus 425 Seminar</td>
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ACCOUNTING

The following courses are prescribed for a minor in accounting:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Cr. Hours</th>
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<tr>
<td>Acc 301-302</td>
<td>Advanced Accounting</td>
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<tr>
<td>Acc 303-304</td>
<td>Cost Accounting</td>
<td>6</td>
</tr>
<tr>
<td>Acc 401-402</td>
<td>Auditing</td>
<td>6</td>
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</table>

These constitute the core courses. For a major in accounting, a further sequence of four or five courses is required. A student who majors in accounting and who chooses to have a minor in both business organization and economics must earn credits for at least two courses in either business organization or economics in addition to those listed above as required courses.

BUSINESS ORGANIZATION AND ECONOMICS

The work in business organization provides training for students planning to engage in commercial, industrial, and financial activities. The program is developed to emphasize basic principles in the broad fields of finance, management, and marketing. Current economic developments as well as economic and social implications of past and present business developments are stressed. For students desiring some degree of specialization, special courses are provided in the fields of banking, finance, management, retailing, salesmanship, statistics, business law and applied economics. Provisions are made for a well-rounded business training to aid students to adjust themselves intelligently and successfully to the commercial and industrial world.

The work in economics has been planned for two groups of students. The first group includes those students who desire a general background and understanding of economics, its order, development, and operation. The second group consists of those students who desire technical training in preparation for advanced specialized study in business and for professional service with government or enterprise requiring trained economists. A balanced program of study is available to the student in this field. Candidates for the Bachelor of Arts degree who desire to major in economics will follow the program of the Division of Arts. Students in the Division of Business Administration will follow the curriculum provided.

The student who chooses to major in business organization and economics is required to follow a program which includes in addition to the required basic courses (a) a sequence of three or four courses as a minimum in a specialized field, namely marketing, management, banking and finance, and economics, (b) one or two advanced courses in each of the following: marketing, management, banking and finance, business law, and economics. The student, with the adviser, will decide which of the above plans best meets his needs and interests and will govern his courses accordingly.
### PROGRAM I

**BACHELOR OF SCIENCE WITH A MAJOR IN ACCOUNTING MINORS IN BUSINESS ORGANIZATION AND ECONOMICS**

#### Junior Year

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
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<tbody>
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<td>Acc 302 Advanced Accounting II</td>
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<td>Acc 303 Cost Accounting I</td>
<td>3</td>
<td>Acc 304 Cost Accounting II</td>
<td>3</td>
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<tr>
<td>Bus 301 Corporation Finance</td>
<td>3</td>
<td>Bus 303 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>Bus 315 Business Statistics</td>
<td>3</td>
<td>Bus 305 Marketing</td>
<td>3</td>
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<tr>
<td>Bus 315 Prin. of Management</td>
<td>3</td>
<td>Bus 317 Labor Management</td>
<td>3</td>
</tr>
<tr>
<td>Phil 311 Logic, or</td>
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<td>Phil 306 Epistemology, or</td>
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<tr>
<td>Phil 306 Epistemology</td>
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<td>Phil 324 Ethics</td>
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#### Senior Year

<table>
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<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Acc 401 Auditing I</td>
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<td>Acc 402 Auditing II</td>
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<tr>
<td>Acc 407 Federal Taxation I</td>
<td>3</td>
<td>Acc 408 Federal Taxation II</td>
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<tr>
<td>Bus 404 Business Cycles</td>
<td>3</td>
<td>Acc 412 C.P.A. Problems</td>
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<td>Bus 425 Seminar</td>
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<td>Bus 405 Money, Credit, Banking</td>
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<td>Bus 300-400 Elective</td>
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<td>Bus 300-400 Elective</td>
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### PROGRAM II

**BACHELOR OF SCIENCE WITH A MAJOR IN BUSINESS ORGANIZATION MINORS IN ACCOUNTING AND ECONOMICS**

#### Junior Year

<table>
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<th>Cr. Hours</th>
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<th>Cr. Hours</th>
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<td>Bus 313 Business Statistics</td>
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#### Senior Year

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<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
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<td>Acc 401 Auditing I</td>
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<td>Acc 402 Auditing II</td>
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<td>Bus 307 Advertising</td>
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<td>Bus 317 Labor Management</td>
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<td>Bus 309 Retail Merchandising</td>
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### PROGRAM III

**BACHELOR OF SCIENCE WITH MAJORS IN BUSINESS ORGANIZATION AND ECONOMICS**

#### Junior Year

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<td>Phl 311 Logic, or</td>
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<td>Bus 304 Business Law II</td>
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<td>Bus 315 Prin. of Management</td>
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<td>Phl 306 Epistemology, or</td>
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<td>Phl 324 Ethics</td>
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#### Senior Year

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### PROGRAM IV

**BACHELOR OF SCIENCE WITH A MAJOR IN BUSINESS ORGANIZATION MINORS IN ECONOMICS AND AN UNRELATED FIELD**

#### Junior Year

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#### Senior Year

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PROGRAM V
BACHELOR OF SCIENCE WITH A MAJOR IN ECONOMICS
MINORS IN BUSINESS ORGANIZATION AND
AN UNRELATED FIELD

FIRST SEMESTER

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Junior Year

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Senior Year

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PROGRAM VI
BACHELOR OF SCIENCE WITH A MAJOR IN
PERSONNEL ADMINISTRATION
MINORS IN BUSINESS ORGANIZATION AND ECONOMICS

FIRST SEMESTER

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Junior Year

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Senior Year
PROGRAM VII  
BACHELOR OF SCIENCE WITH A MAJOR IN INDUSTRIAL MANAGEMENT  
MINORS IN BUSINESS ORGANIZATION AND ECONOMICS  

Junior Year

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PROGRAM VIII  
BACHELOR OF SCIENCE WITH A MAJOR IN RETAILING  
MINORS IN BUSINESS ORGANIZATION AND ECONOMICS  

Junior Year

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PROGRAM IX
BACHELOR OF SCIENCE WITH A MAJOR IN BUSINESS ORGANIZATION
MINORS IN ECONOMICS AND RETAILING

Junior Year

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Senior Year

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PROGRAM X
CERTIFICATE PROGRAM IN SECRETARIAL STUDIES

The two-year Secretarial Studies Certificate Program has been designed especially for those who plan to attend college only two years. It is a complete certificate program in itself, and may also be used as the first two years for a four-year degree program in business administration or in education.

University-trained private secretaries are urgently needed in hospitals, clinics, and other medical service organizations. They are needed in research organizations, personnel, and foreign trade offices, in social service and governmental agencies, in commercial and industrial offices.

In order to qualify for the higher-bracket secretarial positions, expert skill should be achieved in stenography and office procedure. A knowledge of accountancy, finance, and business machines is important. But as important as these studies are, the future worker needs the reinforcement of broad educational training in economics, history, and other social studies. He needs to enrich his personality with higher training in English or other cultural studies.

**Freshman Year**

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**Sophomore Year**

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<td>2</td>
</tr>
<tr>
<td>Phe 201 Physical Education</td>
<td>½</td>
</tr>
<tr>
<td>Eco 204 Survey of Economics</td>
<td>3</td>
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<tr>
<td>Sec 201 Advanced Shorthand</td>
<td>3</td>
</tr>
<tr>
<td>Sec 203 Advanced Typing</td>
<td>3</td>
</tr>
<tr>
<td>Sec 105 Secretarial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Sec 205 Secretarial Theory</td>
<td>3</td>
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</tbody>
</table>
Division of Education

BROTHER FAERBER, Associate Dean
BROTHER PANZER, Assistant Dean

The Division of Education is primarily concerned with the professional preparation of future teachers. It is recognized that teaching is an art, that it requires painstaking professional preparation against the backdrop of desirable personality qualities. In this respect, the Division seeks quality rather than quantity in its students.

The four-year program of teacher-education is designed to provide the future teacher with opportunities for: (1) personal, social, and ethical development; (2) a broad general education; (3) comprehensive subject matter specialization; and (4) professional competence.

A large part of the curriculum is directed toward gaining the elements of a broad and sound education of a general nature. It is called "general" since it excludes definite vocational preparation; it endeavors to acquaint the student with the major areas of knowledge and includes the development of those attitudes, interests, and skills necessary to meet the problems of Christian living in American democratic society.

In addition, the teacher should have a feeling of power in his prospective teaching field, which requires that his specialization be as comprehensive as possible.

Finally, provisions for professional competence are made (1) through adequate study of the various phases in the growth and development of the human individual, (2) through thorough study of the professional foundations which are common to all teaching, and (3) through specialized study of the principles underlying a particular type and level of teaching.

DEGREE REQUIREMENTS

Specific four-year course requirements for kindergarten-primary, elementary, secondary, and special (music, art, physical education, home economics, speech) certification are outlined in the following pages.

The work of each teacher candidate is reviewed at the end of his first year by a faculty committee which will decide whether his personal traits, academic work, and participation in college activities point toward a successful teaching career.

The Division of Education will not recommend students for graduation unless these students can also qualify and be recommended for teacher certification.

To satisfy University requirements for graduation and State requirements for certification, the student shall fulfill the following requirements:

1. Show evidence of such general scholarship, personal and moral qualities, as give promise of professional success.
2. Show satisfactory evidence of having participated in a variety of planned...
field experiences essential to the development of the resourcefulness needed by teachers. At least from 25 to 50 clock hours need to be devoted to these field experiences prior to student teaching. Twenty of these hours shall be in directed observation of teaching. Students on the Cadet Program need to have a minimum of 20 clock hours in field experiences, 15 of which shall be in planned observation of teaching.

3. Earn 128 semester credit hours in approved courses.

4. Meet the following letter-grade requirements:
   A. Earn a grade-point average of 2.00 ("C" average) or better. This minimum point average is necessary in order to be in good standing each semester.
   B. Earn a grade-point average of 2.500 ("C+" average) or better in professional education courses and in one's specialized teaching field. (No grade of "D" is acceptable in the student's teaching field or in his professional education work.)

5. Complete requirements in psychology and professional education courses in accordance with the following pattern:

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Introduction to Education</td>
<td>3</td>
</tr>
<tr>
<td>B. General and Educational Psychology</td>
<td>6</td>
</tr>
<tr>
<td>C. Mental Hygiene for the Teacher</td>
<td>3</td>
</tr>
<tr>
<td>D. Child Psychology (for elementary teachers)</td>
<td></td>
</tr>
<tr>
<td>Adolescent Psychology (for secondary teachers)</td>
<td></td>
</tr>
<tr>
<td>Human Growth and Development (for combined elementary and high school teaching)</td>
<td>3</td>
</tr>
<tr>
<td>E. The Elementary School: Purposes and Practices</td>
<td>3</td>
</tr>
<tr>
<td>F. The Secondary School: Purposes and Practices</td>
<td>3</td>
</tr>
<tr>
<td>G. Student Teaching</td>
<td>6-12</td>
</tr>
<tr>
<td>H. Philosophy of Education</td>
<td>3</td>
</tr>
</tbody>
</table>

(1) This is an elective, intended for students who wish to go more deeply into human growth and development.

(2) Students in Elementary Education follow special courses in methods covering (a) Reading and Language Arts, (b) Arithmetic. Students in Kindergarten-Primary Education follow special courses in theory, methods, and materials on kindergarten-primary level.

The responsibility for meeting the University and State requirements rests with the student and not the University officials. The student is cautioned to study the course requirements, especially specific prerequisite courses as noted in the catalogue.

COUNSELING

Each Freshman Education student elects or is assigned to a counselor to whom he reports at least once a month for an interview. Upper-classmen report at least once every semester to the dean of the Education Division or to the chairman of the department in which he is majoring for proper guidance.
OFFICE OF COORDINATOR OF FIELD EXPERIENCES
This office functions to facilitate the gaining of planned field experiences by students prior to student teaching. Referrals to the office are made by the respective instructors. The office makes appointments with the schools and other agencies, keeps records of all student field experiences, counsels students regarding proper procedures, promotes desirable balance between observation and direct participation.

STUDENT TEACHING
This consists of actual classroom teaching under competent supervision. During the semester of student teaching, the student is not permitted to carry more than six semester hours of additional work.

In order to be admitted to student teaching, the staff of the education division passes on each candidate on the bases of quality-point average, skill in communication arts, desirable personal and moral traits, and freedom from disqualifying physical defects.

The campus supervisors have direct charge of the student teaching experience. They make the periodic observations in the classroom and confer with the supervising teachers regarding the students' progress. In addition to the regular campus supervisors, some of the special fields such as home economics, music, and art have a special supervisor who also makes periodic observations.

Once a week throughout the semester a student teaching seminar is held; students meet with their campus supervisor and other members of the education staff to discuss common problems.

Those students in elementary education who give evidence of at least three years successful teaching experience attested by designated school officials may, with the permission of the dean of Education, substitute six semester hours of prescribed professional work for student teaching. Further information may be gained by writing to the director of student teaching.

TEACHER PLACEMENT
Students who qualify for teacher certification in the Division of Education are helped to secure teaching positions through the Division's placement service. This requires cooperation from the candidate in filling out the necessary papers and in submitting names for references.

TEACHING CERTIFICATION
The Division of Education is on the approved list of the State Department of Education and of the National Council for Accreditation of Teacher Education. In addition to preparing regular kindergarten-primary, elementary, and high school teachers, the Division also enables students to qualify for special certification in Art, Physical Education, Home Economics, Music, and Speech.

A curriculum in Home Economics Education has been established by the vocational division of the State Department of Education. This permits teachers to be prepared for Smith-Hughes home economics courses in the public high schools of the state. Graduates of this curriculum are certified to teach in vocational high schools as well as non-vocational.
PROGRAM I  
FOR STUDENTS MAJORING IN ELEMENTARY EDUCATION  

Degree: Bachelor of Science in Education  

First Year  

**FIRST SEMESTER**  

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Religion or Moral and Spir. Values</td>
<td>2</td>
</tr>
<tr>
<td>Edu 100 Orientation</td>
<td>1</td>
</tr>
<tr>
<td>Edu 101 Intro. to Education</td>
<td>3</td>
</tr>
<tr>
<td>Eng. 100</td>
<td>3</td>
</tr>
<tr>
<td>(or) 101 Eng. Composition I</td>
<td>3</td>
</tr>
<tr>
<td>Hst 101 Hist. of Civilization I</td>
<td>3</td>
</tr>
<tr>
<td>Bio 113 Intro. to Biology</td>
<td>4</td>
</tr>
<tr>
<td>Phe 101 Phys. Education (W)</td>
<td>1/2</td>
</tr>
<tr>
<td>Phe 103 Health (M &amp; W)</td>
<td>1</td>
</tr>
<tr>
<td>Mil 101 First Year Basic (M)</td>
<td>1 1/2</td>
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<tr>
<td>One Elective from following:</td>
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<tr>
<td>Art 101 Elements of Drawing</td>
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<tr>
<td>Mus 141 Intro. to Music</td>
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<tr>
<td>Sec 107 Personal Typing</td>
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**SECOND SEMESTER**  

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<thead>
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<tr>
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<td>Edu 100 Orientation</td>
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<td>Eng. 102 Eng. Composition II</td>
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<tr>
<td>Hst 102 Hist. of Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>Edu 105 Survey of Phys. Science</td>
<td>4</td>
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<tr>
<td>Phe 101 Phys. Education (M)</td>
<td>1/2</td>
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<tr>
<td>Phe 102 Phys. Education (W)</td>
<td>1/2</td>
</tr>
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<td>Phe 104 Health (W)</td>
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<tr>
<td>One Elective from following:</td>
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<tr>
<td>Art 221-222 Practical Arts</td>
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<tr>
<td>Mus 102 Music Lit. and Appr.</td>
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</tr>
<tr>
<td>Mth 200 Teachers' Arithmetic</td>
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Sophomore Year  

**FIRST SEMESTER**  

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<th>Subjects</th>
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<tbody>
<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Spe 101 Fund. of Eff. Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Edu 203 Educational Psych. II</td>
<td>3</td>
</tr>
<tr>
<td>Hst 251 Am. Hist. to 1865</td>
<td>3</td>
</tr>
<tr>
<td>Soc 201 General Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Phe 201 Phys. Education (W)</td>
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<tr>
<td>Mil 201 Second Year Basic (M)</td>
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<td>Music of Art</td>
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**SECOND SEMESTER**  

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<tr>
<td>Eng. 221 English Literature</td>
<td>3</td>
</tr>
<tr>
<td>Edu 318 Mental Hygiene</td>
<td>3</td>
</tr>
<tr>
<td>Hst 252 Am. Hist. since 1865</td>
<td>3</td>
</tr>
<tr>
<td>Eco 204 Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>Phe 202 Phys. Education (W)</td>
<td>1/2</td>
</tr>
<tr>
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<td>Music of Art</td>
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Junior Year  

**FIRST SEMESTER**  

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<tbody>
<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Edu 322 Lit. in Elem. School</td>
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</tr>
<tr>
<td>Edu 350 The Elem. School</td>
<td>3</td>
</tr>
<tr>
<td>Geo 103 Prin. of Geography</td>
<td>3</td>
</tr>
<tr>
<td>Music or Art Methods</td>
<td>2</td>
</tr>
<tr>
<td>Elective</td>
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**SECOND SEMESTER**  

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Edu 320 Reading and Lang. Arts</td>
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</tr>
<tr>
<td>Edu 403 Arithmetic in Elementary School</td>
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</tr>
<tr>
<td>Phe 130 Fundamental Rhythms or</td>
<td>2</td>
</tr>
<tr>
<td>Phe 131 Games of Low Organization</td>
<td>2</td>
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<tr>
<td>Pol 201 American Government</td>
<td>3</td>
</tr>
<tr>
<td>Music or Art Methods</td>
<td>2</td>
</tr>
<tr>
<td>Elective</td>
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Senior Year  

**FIRST SEMESTER**  

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Edu 414 Student Teaching</td>
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<tr>
<td>Philosophy</td>
<td>3</td>
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<td>Elective</td>
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**SECOND SEMESTER**  

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<th>Subjects</th>
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<tbody>
<tr>
<td>Philosophy</td>
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<tr>
<td>Edu 419 Philosophy of Educ.</td>
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<tr>
<td>Phe 413 Health in Elem. School</td>
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<tr>
<td>Elective</td>
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EDUCATION 81
### PROGRAM II
FOR STUDENTS MAJORING IN SECONDARY EDUCATION

*Degree: Bachelor of Science in Education*

#### Freshman Year

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
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<td>Edu 101 Intro. to Education</td>
<td>3</td>
<td>Eng 102 Eng. Composition II</td>
<td>3</td>
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<tr>
<td>Eng 100 (or) 101 Eng. Composition I</td>
<td>3</td>
<td>Hst 102 Hist. of Civilization II</td>
<td>3</td>
</tr>
<tr>
<td>Hst 101 Hist. of Civilization I</td>
<td>3</td>
<td>Edu 105 Survey of Phys. Science or</td>
<td></td>
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<tr>
<td>Bio 113 Intro. to Biology</td>
<td>4</td>
<td>Bio 103 Gen. Zoology</td>
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<tr>
<td>or Mth. 111 Fund. of College Math</td>
<td>3</td>
<td>or Mth 112 Fund. of College Math</td>
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<td>Phe 101 Phys. Education (M)</td>
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<tr>
<td>Phe 103 Health (M &amp; W)</td>
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<td>1/2</td>
</tr>
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<td>1 1/2</td>
<td>Phe 104 Health (W)</td>
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<td>*Sec. *107 Personal Typing</td>
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<tr>
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#### Sophomore Year

<table>
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<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Religion or Philosophy</td>
<td>2</td>
<td>Religion or Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Spe 101 Fund. of Eff. Speaking</td>
<td>3</td>
<td>Eng 221 English Literature</td>
<td>3</td>
</tr>
<tr>
<td>Edu 203 Educ. Psych. II</td>
<td>3</td>
<td>Edu 318 Mental Hygiene</td>
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<td>Phe 202 Phys. Education (W)</td>
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#### Junior Year

<table>
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<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
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<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Religion or Philosophy</td>
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<td>Religion or Philosophy</td>
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<tr>
<td>Edu 351 Secondary School</td>
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<td>Edu — Special Methods in</td>
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<tr>
<td>Electives in teaching fields</td>
<td>9</td>
<td>Main Teaching Field</td>
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<td></td>
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#### Senior Year

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<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Edu 414 Student Teaching</td>
<td>6-12</td>
<td>Philosophy</td>
<td>3</td>
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<tr>
<td>Philosophy</td>
<td>3</td>
<td>Edu 419 Philosophy of Educ.</td>
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<td>Elective</td>
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<td>Electives in teaching fields</td>
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### PROGRAM III A (MEN)

**FOR STUDENTS MAJORING IN PHYSICAL EDUCATION**

*Degree: Bachelor of Science in Education*

**Freshman Year**

<table>
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<tr>
<th><strong>FIRST SEMESTER</strong></th>
<th><strong>Cr. Hours</strong></th>
<th><strong>SECOND SEMESTER</strong></th>
<th><strong>Cr. Hours</strong></th>
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<tbody>
<tr>
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<td>Religion or Moral and Spir. Values</td>
<td>2</td>
</tr>
<tr>
<td>Edu 100 Orientation</td>
<td>1</td>
<td>Edu 190 Gen. and Educ. Psych I</td>
<td>3</td>
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<tr>
<td>Edu 101 Intro. to Education</td>
<td>3</td>
<td>Bio 103 Gen. Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Bio 113 Intro. to Biology</td>
<td>4</td>
<td>Eng 102 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>Eng 100 (or) 101 English Composition I</td>
<td>3</td>
<td>Hst 102 Hist. of Civilization II</td>
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<td>Hst. 101 Hist. of Civilization I</td>
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<td>Phe 119 Officiating</td>
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<td>Phe 101 Phys. Education</td>
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<td>Phe 103 Health</td>
<td>1</td>
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<td>Mil 101 First Year Basic</td>
<td>1/2</td>
<td>*Sec 107 Personal Typing</td>
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**Sophomore Year**

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<tr>
<th><strong>FIRST SEMESTER</strong></th>
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<th><strong>SECOND SEMESTER</strong></th>
<th><strong>Cr. Hours</strong></th>
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<tr>
<td>Religion or Philosophy</td>
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<td>Religion or Philosophy</td>
<td>2</td>
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<td>Edu 203 Educ. Psych. II</td>
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<td>Edu 318 Mental Hygiene</td>
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<td>Spe 101 Fund. of Eff. Speaking</td>
<td>3</td>
<td>Eng 221 English Literature</td>
<td>3</td>
</tr>
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<td>Phe 216 Methods in Minor Sports</td>
<td>2</td>
<td>Phe 221 Play and Camping</td>
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</tr>
<tr>
<td>Phe 210 Coaching Football and Basketball</td>
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<td>Phe 212 Coaching Baseball and Track</td>
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**Junior Year**

<table>
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<tr>
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<th><strong>Cr. Hours</strong></th>
<th><strong>SECOND SEMESTER</strong></th>
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<tr>
<td>Religion or Philosophy</td>
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<td>Religion or Philosophy</td>
<td>3</td>
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<tr>
<td>Edu 304 Adolescent Psych</td>
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<td>Edu 351 The Secondary School</td>
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<tr>
<td>Phe 323 Program Building</td>
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<td>Phe 309 Methods in Phe.</td>
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**Senior Year**

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# PROGRAM III B (WOMEN)

**FOR STUDENTS MAJORING IN PHYSICAL EDUCATION**

*Degree: Bachelor of Science in Education*

## Freshman Year

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## Senior Year

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PROGRAM IV

FOR STUDENTS MAJORING IN MUSIC EDUCATION

Degree: Bachelor of Science in Education

**Freshman Year**

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<td>Mus — Music Appreciation ...2</td>
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**Sophomore Year**

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<td>Edu 105 Survey of Phys. Science ...4</td>
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**Junior Year**

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<td>Mus 331 Vocal Mus. in High Sch....2</td>
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### Senior Year

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*Eight hours to be selected from Music 311-312, 411-412, 413-414, 415-416, 417-418, or 441, 442, depending on the needs of the student.

**Eight hours to be selected from Music 325, 326, 327, 328, 421-422, or Applied Music, depending on the needs of the student.

### PROGRAM V

**FOR STUDENTS MAJORING IN ART EDUCATION**

*Degree: Bachelor of Science in Education*

#### Freshman Year

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### PROGRAM VI

**FOR STUDENTS MAJORING IN SPEECH EDUCATION**

*Degree: Bachelor of Science in Education*

#### Freshman Year

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*Contingent on previous training

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#### Sophomore Year

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### PROGRAM VII

**FOR STUDENTS MAJORING IN HOME ECONOMICS EDUCATION**

*Degree: Bachelor of Science in Home Economics Education*

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<td>Hec 102 Foods I</td>
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### Senior Year

**FIRST SEMESTER**

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### PROGRAM VIII

**FOR STUDENTS WHO DESIRE TO QUALIFY FOR A PROVISIONAL CADET ELEMENTARY CERTIFICATE**

**Freshman Year**

**FIRST SEMESTER**

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<td>Edu 101 Intro. to Education</td>
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<td>Eng 100</td>
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<tr>
<td>(or) 101 Eng. Composition I</td>
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<td>Hst 101 Hist. of Civilization I</td>
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<td>Phe 103 Health (M &amp; W)</td>
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<td>Mil 101 First Year Basic</td>
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<td>*Art 101 Elements of Drawing</td>
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*Contingent on Previous Training*

### SUMMER SESSION

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### Sophomore Year

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
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<tbody>
<tr>
<td>Religion or Sociology</td>
<td>2</td>
</tr>
<tr>
<td>Edu 203 Educ. Psychology II</td>
<td>3</td>
</tr>
<tr>
<td>Edu 320 Reading and Lang. Acts</td>
<td>4</td>
</tr>
<tr>
<td>Edu 403 Arithmetic in Elem. Sch.</td>
<td>2</td>
</tr>
<tr>
<td>Art 407 Art in Elem. School</td>
<td>2</td>
</tr>
<tr>
<td>Hst 251 Amer. History to 1865</td>
<td>3</td>
</tr>
<tr>
<td>Phe 201 Phys. Education (W)</td>
<td>1/2</td>
</tr>
<tr>
<td>Mil 201 Second Year Basic</td>
<td>1 1/2</td>
</tr>
</tbody>
</table>

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edu 414 Student Teaching</td>
<td>9</td>
</tr>
</tbody>
</table>

Elective:

- Edu 219 Theory and Methods of Kindergarten Instruction: 3

Students who cannot take summer courses will have their programs adjusted accordingly. In such cases student teaching will be postponed beyond the second semester of the sophomore year.

A Provisional Cadet Certificate (good for four years) may be renewed only upon evidence of the completion of 24 semester hours (equivalent to at least 6 semester hours per year) of additional training applicable to the degree in elementary education.

A second renewal may be granted under the same requirements.

### PROGRAM IX

**FOR STUDENTS WHO DESIRE DUAL CERTIFICATION (QUALIFYING FOR BOTH THE PROVISIONAL ELEMENTARY AND THE HIGH SCHOOL TEACHING CERTIFICATES)**

**Degree:** Bachelor of Science in Education

### A. PROFESSIONAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Cr. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction to Education</td>
</tr>
<tr>
<td>2. General and Educational Psychology I</td>
</tr>
<tr>
<td>3. Educational Psychology II</td>
</tr>
<tr>
<td>4. Mental Hygiene for the Teacher</td>
</tr>
<tr>
<td>5. The Elementary School</td>
</tr>
<tr>
<td>6. The Secondary School</td>
</tr>
<tr>
<td>7. Special Methods</td>
</tr>
<tr>
<td>(on both elementary and high school levels)</td>
</tr>
<tr>
<td>8. Student Teaching</td>
</tr>
<tr>
<td>(on both elementary and high school levels)</td>
</tr>
<tr>
<td>9. Philosophy of Education</td>
</tr>
</tbody>
</table>
B. GENERAL REQUIREMENTS

1. Religion—Philosophy ............................................. 20
2. Language Arts .................................................. 15
   English Composition, Speech, English Literature, Literature
   in the Elementary School
3. Social Studies .................................................. 18
   History of Civilization, American History, General Sociology,
   Principles of Geography, Political Science, Survey of
   Economics
4. Science .......................................................... 8
   Introduction to Biology, Survey of Physical Science
5. Health and Physical Education ................................. 3-6
6. Music, Art, Crafts .............................................. 8
7. Arithmetic ....................................................... 3
   Teachers' Arithmetic (May be waived on basis of tested
   competence in arithmetic.)

C. SPECIALIZED FIELDS FOR HIGH SCHOOL TEACHING ....... 30

   (Consult separate listing of minimum requirements
   in "High School Teaching Fields.")

PROGRAM X
RETRAINING PROGRAM

FOR STUDENTS WHO HAVE COMPLETED REQUIREMENTS
FOR THE PROVISIONAL HIGH SCHOOL CERTIFICATE OR
FOR THE PROVISIONAL SPECIAL CERTIFICATE AND
WHO DESIRE CERTIFICATION VALID
FOR ELEMENTARY TEACHING

A. The holder of a Provisional High School or Special Certificate may obtain
   a certificate valid for elementary teaching by completing the following 12
   semester hours of credit:

<table>
<thead>
<tr>
<th>Course</th>
<th>Cr. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purposes and Practices of the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>2. Reading in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>3. Arithmetic in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>4. Child Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

B. Such a certificate shall be designated as a "RETRAINING" certificate.
   It may be renewed upon evidence of the completion of 12 semester hours
   of additional credit in elementary education. Subsequent renewals may be
   gained without additional training.
PROGRAM XI

FOR COLLEGE GRADUATES WITH DEGREE OTHER THAN PROFESSIONAL EDUCATION

A qualified student who holds a Bachelor of Arts or Bachelor of Science degree from an accredited institution and who comes properly recommended may be accepted as a "special student" on a teacher certification program.

The minimum requirements for certification are as follows:

1. For the Temporary Elementary Certificate (one year certificate granted upon request of the hiring school superintendent on basis of scarcity of fully certified teachers), twelve semester credit hours in specified elementary education courses.

2. For the Four-Year Provisional Elementary Certificate (the standard certificate, good for four years), the candidate needs to have teacher training substantially equivalent to that required for the degree in elementary education. This training is usually not in excess of thirty semester credit hours.

3. For the Four-Year Provisional High School Certificate, the candidate needs to have twenty-four semester credit hours in professional education plus whatever additional hours may be needed for certification in at least two teaching fields or to meet minimum residence requirement (total of thirty semester credit hours). (Consult the University of Dayton's brochure "High School Teaching Fields," issued by the Education Division.)

PROGRAM XII

PHYSICAL EDUCATION CURRICULUM OTHER THAN TEACHER EDUCATION

Degree: Bachelor of Science in Physical Education

The four year curriculum leading to the degree of Bachelor of Science in Physical Education is intended for qualified men who are not interested in preparing for the teaching profession, but who desire to pursue other vocational objectives involving concentrated preparation in physical education. This program will be inaugurated in September, 1956.

Candidates for admission must arrange for a personal interview with the chairman of the Department of Physical Education. In addition to the general
University requirements for admission and matriculation listed on pages 51-57, the candidate must evidence the possession of the necessary personal qualifications and aptitudes.

At the end of a common freshman year the student may be admitted to one of two options: Option A, Recreational Leadership; Option B, Remedial Physical Education.

OPTION A — RECREATIONAL LEADERSHIP (MEN)

This has as its essential purpose the preparation of broadly educated young men for roles of skilled leadership in the following areas: (1) Director or leader of playgrounds, recreation centers, and camps; (2) Community and industrial recreation, including executive posts; (3) Boy scout and club executives.

A quality point average of at least 2.50 in all professional courses is required for admission to supervised field work.

OPTION B — REMEDIAL PHYSICAL EDUCATION

Against the backdrop of a sound general education, this course trains the student in techniques of remedial and therapeutic practices in physical education. A quality point average of at least 2.50 in all professional courses is required for admission to clinical practice. A grade of "C" or better in clinical practice will be required for graduation.

Completion of Option B qualifies the student for admission to any one of several schools in which an advanced program in physiotherapy is offered.

**Freshman Year**

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion or Philosophy</td>
<td>...</td>
<td>2</td>
</tr>
<tr>
<td>Edu 100 Orientation</td>
<td>...</td>
<td>1</td>
</tr>
<tr>
<td>Eng 100</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>(or) 101 English Composition I</td>
<td>...</td>
<td>3</td>
</tr>
<tr>
<td>Hst 101 Hist. of Civilization I</td>
<td>...</td>
<td>3</td>
</tr>
<tr>
<td>Spe 101 Fund. of Eff. Speaking</td>
<td>...</td>
<td>3</td>
</tr>
<tr>
<td>Bio 113 Intro. to Biology</td>
<td>...</td>
<td>4</td>
</tr>
<tr>
<td>Phe 103 Health</td>
<td>...</td>
<td>1</td>
</tr>
<tr>
<td>Mil 101 First Year Basic</td>
<td>...</td>
<td>11/2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion or Philosophy</td>
<td>...</td>
<td>2</td>
</tr>
<tr>
<td>Eng 102 English Composition II</td>
<td>...</td>
<td>3</td>
</tr>
<tr>
<td>Hst 102 Hist. of Civilization II</td>
<td>...</td>
<td>3</td>
</tr>
<tr>
<td>Bio 103 General Zoology</td>
<td>...</td>
<td>4</td>
</tr>
<tr>
<td>Psy 201 Intro. Psych.</td>
<td>...</td>
<td>3</td>
</tr>
<tr>
<td>Phe 101 Physical Education</td>
<td>...</td>
<td>1/2</td>
</tr>
<tr>
<td>Mil 101 First Year Basic</td>
<td>...</td>
<td>11/2</td>
</tr>
<tr>
<td>*Sec 107 Personal Typing</td>
<td>...</td>
<td>2</td>
</tr>
</tbody>
</table>

*Contingent on previous training*
Division of Science

BROTHER BELLMER, Associate Dean
MR. WIECHMAN, Assistant to the Dean

CANDIDATES for the degree of Bachelor of Science may major in biology, chemistry, geology, mathematics, home economics, medical technology, medical radiological technique, nursing, and physics.

DEGREE REQUIREMENTS

IN ADDITION TO basic requirements outlined in the various programs, the Bachelor of Science degree requires that the student have one major of twenty-four credit hours and one minor of twelve credit hours, six hours of advanced courses in philosophy, six hours of particular advanced courses in English, and six-twelve hours of a modern language according to the major selected. Ordinarily, the prerequisites for any major or minor must be satisfied in the first two years. In some cases, however, sophomore courses may be counted toward a major or minor.

PRE-MEDICAL COURSE

THE PROGRAM offered the students of this course meets the requirements for admission to approved medical schools as determined by the Council of Medical Education of the American Medical Association.

For those pre-medical students for whom it is possible, the four-year course leading to the degree of Bachelor of Science with a major in biology is recommended.

A reading knowledge of one language, either German or French, is generally required by the medical schools. One year of college work, in addition to the high school units in the same language, may be sufficient.

Recommendation of a student by his pre-medical school is usually an important item for admission to medical or dental school. Recommendation is based on more than academic standing; character and personality qualities are also weighed. The board on pre-medical recommendations is made up of the following:

ROBERT C. WIECHMAN, Chairman

CLETUS C. CHUDD, S.M.
SYLVESTER Eveslage
PETER J. FASO
GERTRUDE D. HECKMAN

RAYMOND G. HIEBER
RUSSELL A. JOLY, S.M.
WILLIAM O. WEHRLE, S.M.
VINCENT J. WOTTLE, S.M.
# PROGRAM I

## BACHELOR OF SCIENCE WITH A MAJOR IN BIOLOGY

### Freshman Year

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion or Philosophy</td>
<td>2</td>
<td>Religion or Philosophy</td>
<td>2</td>
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<tr>
<td>Chm 121 General Chemistry</td>
<td>4</td>
<td>Chm 122 General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Bio 105 Zoology</td>
<td>4</td>
<td>Bio 106 Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Mth 101 College Algebra</td>
<td>3</td>
<td>Mth 102 Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>Eng 101 English Composition</td>
<td>3/2</td>
<td>Mil 102 First Basic Course</td>
<td>1 1/2</td>
</tr>
<tr>
<td>Phe 101 Physical Education</td>
<td>3</td>
<td>Eng 102 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Mil 101 First Basic Course</td>
<td>1 1/2</td>
<td>Or 101 Orientation</td>
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### Sophomore Year

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion or Philosophy</td>
<td>2</td>
<td>Religion or Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Bio 211 Comparative Anatomy</td>
<td>3</td>
<td>Chm 301 Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Phy 201 General Physics</td>
<td>4</td>
<td>Bio 212 Comparative Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>Ger 101 (or Fr. 101)</td>
<td>3</td>
<td>Phy 202 General Physics</td>
<td>4</td>
</tr>
<tr>
<td>Mil 201 Second Year Basic</td>
<td>1 1/2</td>
<td>Ger 102 (or Fr. 102)</td>
<td>3</td>
</tr>
<tr>
<td>Eng 221 English Literature</td>
<td>3</td>
<td>Mil 202 Second Year Basic</td>
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### Junior Year

<table>
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<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Eng 305 Medical Terminology</td>
<td>3</td>
<td>(2) Bio Electives</td>
<td>7-9</td>
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<tr>
<td>Chm 313 Organic Chemistry</td>
<td>4</td>
<td>Chm 314 Organic Chemistry</td>
<td>4</td>
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<tr>
<td>Rel or Elective</td>
<td>3</td>
<td>Rel or Elective</td>
<td>3</td>
</tr>
<tr>
<td>(2) Bio Elective</td>
<td>6-7</td>
<td>(1) Elective</td>
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### Senior Year

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Bio 407 Embryology</td>
<td>3</td>
<td>(2) Bio Elective</td>
<td>5-6</td>
</tr>
<tr>
<td>Phil 324 Ethics</td>
<td>3</td>
<td>Phil 482 Medical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>Spe 101 Fund. of Eff. Speaking</td>
<td>3</td>
<td>(1) Elective</td>
<td>6-8</td>
</tr>
<tr>
<td>(1) Elective</td>
<td>6-7</td>
<td>(2) BIO. ELECTIVES</td>
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### (1) ELECTIVES

<table>
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<th>Cr. Hrs.</th>
<th>Subjects</th>
<th>Cr. Hrs.</th>
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</thead>
<tbody>
<tr>
<td>Psy 204 General Psychology</td>
<td>3</td>
<td>Bio 314 Botany</td>
<td>4</td>
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<tr>
<td>Soc 201 General Sociology</td>
<td>3</td>
<td>Bio 307 Microtechnique</td>
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<td>Soc 202 Social Problems</td>
<td>3</td>
<td>Bio 308 Microtechnique</td>
<td>4</td>
</tr>
<tr>
<td>Pol 201 American Government</td>
<td>3</td>
<td>Bio 411 General Bacteriology</td>
<td>5</td>
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<tr>
<td>Hst 251 Amer. Hist. to 1865</td>
<td>3</td>
<td>Bio 312 Genetics</td>
<td>4</td>
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<tr>
<td>Hst 253 Amer. Hist. since 1865</td>
<td>3</td>
<td>Bio 408 Biophysics</td>
<td>3</td>
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<tr>
<td>Chm 302 Physical Chemistry</td>
<td>4</td>
<td>Bio 320 Evolution</td>
<td>3</td>
</tr>
<tr>
<td>Phil 311 Logic</td>
<td>3</td>
<td>Bio 322 Entomology</td>
<td>4</td>
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<tr>
<td>Eco 203 Survey of Economics</td>
<td>3</td>
<td>Bio 303 Physiology</td>
<td>3</td>
</tr>
<tr>
<td>Ger 305 Scientific German</td>
<td>3</td>
<td>Bio 304 Histology</td>
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<tr>
<td>Ger 306 Scientific German</td>
<td>3</td>
<td>Bio 420 Seminar</td>
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PROGRAM II

BACHELOR OF SCIENCE WITH A MAJOR IN CHEMISTRY

Freshman Year

FIRST SEMESTER

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<tr>
<td>Religion or Philosophy</td>
<td>2</td>
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<tr>
<td>Chm 123 General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Eng 101 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Mth 115 Math. Analysis</td>
<td>5</td>
</tr>
<tr>
<td>Mil 101 First Year Basic Course</td>
<td>11/2</td>
</tr>
<tr>
<td>Phe 101 Physical Education</td>
<td>1/2</td>
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<tr>
<td>Phe 103 Health</td>
<td>1</td>
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<tr>
<td>Or 101 Orientation</td>
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SECOND SEMESTER

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<td>Chm 124A General Chemistry</td>
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<tr>
<td>Eng 102 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Mth 116 Math. Analysis</td>
<td>5</td>
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<tr>
<td>Mil 102 First Year Basic Course</td>
<td>11/2</td>
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<tr>
<td>Phy 206 Mechanics and Sound</td>
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Sophomore Year

FIRST SEMESTER

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<tr>
<td>Chm 215 Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Ger 101 Elementary German, or</td>
<td>3</td>
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<tr>
<td>Ger 201 Intermediate German</td>
<td>3</td>
</tr>
<tr>
<td>Mth 201 Calculus</td>
<td>4</td>
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<td>Mil 201 Second Yr. Basic Course</td>
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<tr>
<td>Phy 207 Electricity and Magnetism</td>
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SECOND SEMESTER

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<thead>
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<th>Cr. Hours</th>
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<tbody>
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<td>2</td>
</tr>
<tr>
<td>Chm 216 Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Ger 102 Elementary German, or</td>
<td>3</td>
</tr>
<tr>
<td>Ger 202 Intermediate German</td>
<td>3</td>
</tr>
<tr>
<td>Mth 202 Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Mil 202 Second Yr. Basic Course</td>
<td>11/2</td>
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<tr>
<td>Phy 208 Heat and Light</td>
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Junior Year

FIRST SEMESTER

<table>
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<tbody>
<tr>
<td>Religion or Philosophy</td>
<td>3</td>
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<tr>
<td>Chm 303 Physical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Chm 315 Organic, or (*)</td>
<td>5</td>
</tr>
<tr>
<td>Chm 313 Organic</td>
<td>4</td>
</tr>
<tr>
<td>Ger 305 Scientific German</td>
<td>3</td>
</tr>
<tr>
<td>Spe 101 Fund. of Eff. Speaking</td>
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SECOND SEMESTER

<table>
<thead>
<tr>
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<th>Cr. Hours</th>
</tr>
</thead>
<tbody>
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<td>3</td>
</tr>
<tr>
<td>Chm 304 Physical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Chm 316 Organic, or (*)</td>
<td>5</td>
</tr>
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<td>Chm 314 Organic</td>
<td>4</td>
</tr>
<tr>
<td>Chm 307 Chemical Literature</td>
<td>1</td>
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<td>Eng Advanced Course</td>
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Senior Year

FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
</tr>
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<tbody>
<tr>
<td>Philosophy (3) or Elective</td>
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<tr>
<td>Chm 405 Qualitative Organic</td>
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<td>Eng Advanced Course</td>
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<td>2-4</td>
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<tr>
<td>(2) Elective</td>
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SECOND SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Philosophy (3) or Elective</td>
<td>3</td>
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<tr>
<td>Chm 499 Research</td>
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<tr>
<td>Spe 301 Speech Composition</td>
<td>3</td>
</tr>
<tr>
<td>(1) Chm Electives</td>
<td>3-4</td>
</tr>
<tr>
<td>(2) Elective</td>
<td>3</td>
</tr>
</tbody>
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(* This alternate is permitted only at the discretion of the Dean and the Head of the Department.)
### PROGRAM III

**BACHELOR OF SCIENCE WITH A MAJOR IN GEOLOGY**

#### Freshman Year

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>second semester</th>
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<tbody>
<tr>
<td><strong>Subjects</strong></td>
<td><strong>Cr. Hours</strong></td>
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<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Eng 101 English Composition</td>
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<tr>
<td>Chm 123 General Chemistry</td>
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<td>Geo 101 Physical Geology</td>
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<tr>
<td>Mth 101 College Algebra</td>
<td>3</td>
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<tr>
<td>or Mth 115 Math. Analysis</td>
<td>5</td>
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<tr>
<td>Mil 101 1st Year Basic</td>
<td>1½</td>
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<tr>
<td>Phe 101 Physical Education</td>
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<tr>
<td>or 101 Orientation</td>
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#### Sophomore Year

<table>
<thead>
<tr>
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<tr>
<td>Religion or Philosophy</td>
<td>2</td>
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<tr>
<td>Geo 201 Mineralogy</td>
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<tr>
<td>(3) Physics 201 or 206</td>
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<tr>
<td>General Physics</td>
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<td>Mil 201 2nd Year Basic</td>
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<tr>
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<td>(4) Elective</td>
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#### Junior Year

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<tr>
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<tr>
<td>Geo 301 Structural Geology</td>
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<tr>
<td>Geo Advanced Course</td>
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<td>(6) Elective</td>
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<td>(8) Elective</td>
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### Senior Year

<table>
<thead>
<tr>
<th>Subjects</th>
<th>FIRST SEMESTER</th>
<th>Cr. Hours</th>
<th>SECOND SEMESTER</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Geo</td>
<td>Advanced Course</td>
<td>4</td>
<td>Geo</td>
<td>Advanced Course</td>
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<td>Advanced Course</td>
<td>4</td>
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<td>Advanced Course</td>
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<td>(10)</td>
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<td>3-4</td>
<td>(10)</td>
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<td>(11)</td>
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<td>6</td>
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<td>Elective</td>
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1. May be replaced by Bio 103.
2. May be replaced by Bio 314.
3. This requirement may be postponed to Junior Year if 2nd year chemistry or math courses are taken at this time.
4. Chm 301, 215, Mth 201, or CIE 201 recommended. Social Science or Humanities course permitted in some cases.
5. Chm 216, Mth 202, or CIE 202 recommended. Social Science or Humanities course permitted in some cases.
6. Chm 302, 303, 415, Physics 208, Bio 211, CIE 201, or advanced math course recommended. Social Science or humanities course permitted in some cases.
7. Chm 304, 416, Phy 401, Bio 212, CIE 202, or advanced math course recommended. Social Science or humanities course permitted in some cases.
8. Second Year foreign language recommended. First Year of additional foreign language could be taken at this time. For students planning a career in geophysics an advanced Mathematics course must be taken along with Physics courses listed in (6). Otherwise suggested: Art 107, Mus 301, English literature, or History.
10. Advanced course in Chemistry, Geology, Mathematics, Physics suggested. Surveying desirable if not already taken.
11. Continuation of foreign language or languages suggested. General upper level studies in Social Sciences or Humanities also permissible.

### PROGRAM IV

**BACHELOR OF SCIENCE WITH A MAJOR IN MATHEMATICS OR MATHEMATICAL STATISTICS**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Religion or Philosophy</td>
<td>2</td>
<td>Religion or Philosophy</td>
<td>2</td>
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<tr>
<td>Chm 117</td>
<td>General Chemistry</td>
<td>4</td>
<td>Chm 118</td>
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<tr>
<td>Mil 101</td>
<td>First Year Basic Course</td>
<td>1 1/2</td>
<td>Mil 102</td>
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<tr>
<td>Phe 101</td>
<td>Physical Education</td>
<td>1/2</td>
<td>Phe 102</td>
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<tr>
<td>Eng 101</td>
<td>English Composition</td>
<td>3</td>
<td>Phe 103</td>
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<tr>
<td>Or 101</td>
<td>Orientation</td>
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# Sophomore Year

**FIRST SEMESTER**

<table>
<thead>
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<th>Subjects</th>
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<tbody>
<tr>
<td>Religion or Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Mth 201 Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Mil 201 Second Yr. Basic Course</td>
<td>1½</td>
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<tr>
<td>Phy 207 Elect. and Magnetism</td>
<td>4</td>
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<tr>
<td>Ger 101 Elementary German</td>
<td>3</td>
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<td>Elective</td>
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**SECOND SEMESTER**

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<thead>
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<th>Subjects</th>
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<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Mth 202 Calculus</td>
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<td>Mil 202 Second Yr. Basic Course</td>
<td>1½</td>
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<tr>
<td>Phy 208 Heat and Light</td>
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<tr>
<td>Ger 102 Elementary German</td>
<td>3</td>
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<td>Eng 221 English Literature</td>
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# Junior Year

**FIRST SEMESTER**

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<thead>
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<tbody>
<tr>
<td>Mth 301 Differential Equations</td>
<td>3</td>
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<tr>
<td>(1) Mth 451 Intro. to Higher Geom.</td>
<td>3</td>
</tr>
<tr>
<td>Phl 311 Logic, or</td>
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<td>Phl Advanced Course</td>
<td>3</td>
</tr>
<tr>
<td>Phy Advanced Course, or</td>
<td></td>
</tr>
<tr>
<td>Chm Advanced Course</td>
<td>3-5</td>
</tr>
<tr>
<td>Ger 305 Scientific German</td>
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**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Mth 441 Intro. to Higher Algebra</td>
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<td>(1) Mth 432 Fourier Series</td>
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<tr>
<td>Phl 324 Ethics</td>
<td>3</td>
</tr>
<tr>
<td>Phy Advanced Course, or</td>
<td></td>
</tr>
<tr>
<td>Chm Advanced Course</td>
<td>3-5</td>
</tr>
<tr>
<td>Ger 306 Scientific German</td>
<td>3</td>
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<td>Elective</td>
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# Senior Year

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Eng 316 Advanced Composition</td>
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</tr>
<tr>
<td>Mth 421 Advanced Calculus</td>
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</tr>
<tr>
<td>(2) Mth 431 Vector Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Phy Advanced Course, or</td>
<td></td>
</tr>
<tr>
<td>Chm Advanced Course</td>
<td>3-5</td>
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<tr>
<td>Elective</td>
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**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Eng Advanced Course</td>
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<tr>
<td>Mth 422 Advanced Calculus</td>
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<tr>
<td>(2) Mth 461 Complex Variable</td>
<td>3</td>
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<tr>
<td>Phy Advanced Course, or</td>
<td></td>
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<tr>
<td>Chm Advanced Course</td>
<td>3-5</td>
</tr>
<tr>
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</table>

(1) Alternative courses are: Mth 311-312.

(2) Alternative courses are: Mth 411, Mth 416.

# PROGRAM V

**BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS**

**Freshman Year**

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
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<td>Religion or Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Chm 117 General Chemistry</td>
<td>4</td>
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<tr>
<td>Mth 115 Math. Analysis</td>
<td>5</td>
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<tr>
<td>Mil 101 First Yr. Basic Course</td>
<td>1½</td>
</tr>
<tr>
<td>Phe 101 Physical Education</td>
<td>½</td>
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<tr>
<td>Eng 111 English Composition</td>
<td>3</td>
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<tr>
<td>Or 101 Orientation</td>
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**SECOND SEMESTER**

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<tr>
<th>Subjects</th>
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<tr>
<td>Chm 118 General Chemistry</td>
<td>4</td>
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<tr>
<td>Mth 116 Math. Analysis</td>
<td>5</td>
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<tr>
<td>Mil 102 First Yr. Basic Course</td>
<td>1½</td>
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<td>Phe 102 Physical Education</td>
<td>½</td>
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<tr>
<td>Phy 206 Mechanics and Sound</td>
<td>4</td>
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<tr>
<td>Phe 103 Health</td>
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Sophomore Year

FIRST SEMESTER

<table>
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<tbody>
<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Mth 201 Calculus</td>
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<td>Mil 201 Second Yr. Basic Course</td>
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<td>Phy 207 Elect. and Magnetism</td>
<td>4</td>
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<tr>
<td>(1) Ger 101 Elementary German</td>
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SECOND SEMESTER

<table>
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<tr>
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<td>Mth 202 Calculus</td>
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<td>Mil 202 Second Yr. Basic Course</td>
<td>1/2</td>
</tr>
<tr>
<td>Phy 208 Heat and Light</td>
<td>4</td>
</tr>
<tr>
<td>(1) Ger 102 Elementary German</td>
<td>3</td>
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<tr>
<td>Eng 221 English Literature</td>
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Junior Year

FIRST SEMESTER

<table>
<thead>
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<th>Subjects</th>
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<tbody>
<tr>
<td>Eng 316 Advanced Composition</td>
<td>3</td>
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<tr>
<td>(1) Ger 305 Scientific German</td>
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<tr>
<td>(2) Mth 341 Engineering Math. 1</td>
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<tr>
<td>Phy 301 Thermodynamics</td>
<td>3</td>
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<td>(3) Phy Advanced Course</td>
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SECOND SEMESTER

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<tbody>
<tr>
<td>Eng Advanced Course</td>
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<tr>
<td>(1) Ger 306 Scientific German</td>
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<td>(2) Mth 342 Eng. Math. II</td>
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<td>Phy 303 Mechanics</td>
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<td>(3) Phy Advanced Course</td>
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Senior Year

FIRST SEMESTER

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<tr>
<td>Phl 311 Logic, or</td>
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</tr>
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<td>Phl Advanced Course</td>
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<tr>
<td>Mth 421 Advanced Calculus</td>
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<td>Phy 404 Optics</td>
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SECOND SEMESTER

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<td>Phl 324 Ethics</td>
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<td>Mth 422 Advanced Calculus</td>
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<tr>
<td>Phy 311 Atomic Physics</td>
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<td>(3) Phy Advanced Course</td>
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<tr>
<td>Elective</td>
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(1) German could be replaced by another Modern Language.
(2) Mth 341-342 may be replaced by Mth 431 and Mth 301.
(3) Physics Electives suggested:

<table>
<thead>
<tr>
<th>Subjects</th>
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<tbody>
<tr>
<td>Phy 411 Theoretical Physics</td>
</tr>
<tr>
<td>Phy 401 Vibration and Sound</td>
</tr>
<tr>
<td>Phy 521 Nuclear Physics</td>
</tr>
<tr>
<td>Phy 307 Elements of Electrical Engineering (E.E. 201)</td>
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<tr>
<td>Phy 308 Alternating Current Circuits (E.E. 305)</td>
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<tr>
<td>Phy 305-306 Electrical Engineering (E.E. 301-302)</td>
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<tr>
<td>Phy 309 Engineering Electronics (E.E. 312)</td>
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<tr>
<td>Phy 405 Industrial Electronics (E.E. 409)</td>
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</tbody>
</table>

PROGRAM VI

BACHELOR OF SCIENCE IN HOME ECONOMICS

The Department provides four special curricula:
1. Clothing and Textiles.
2. Dietetics and Institutional Management.
4. Interior Decoration.

Students following these curricula may be employed in homemaking, interior decorating, the designing of clothes and costumes, the management of cafeterias, dormitories, and tearooms, demonstrating for commercial manu-
facturing concerns, dietetics in hospitals and other institutions, graduate work, and research projects.

The curriculum for dietetics and institutional management meets the requirements of the American Dietetics Association.

1. MAJOR: CLOTHING AND TEXTILES

   (1) Minor In Retailing

   **Freshman Year**

   **FIRST SEMESTER**
   - **Subjects**
     - Religion or Philosophy: 2
     - Chm: 110 General Chemistry: 5
     - Eng: 101 English Composition: 3
     - Hec: 102 Foods I: 3
     - Hec: 105 Introduction to Related Arts: 3
     - Or: 101 Orientation: 0
     - Phe: 101 Physical Education: ½
   - **Cr. Hours**

   **SECOND SEMESTER**
   - **Subjects**
     - Religion or Philosophy: 2
     - Chm: 200 Organic: 5
     - Eng: 102 English Composition: 3
     - Hec: 101 Beginning Clothing or Hec: 324 Bishop Clothing Construction Methods: 3
     - Phe: 102 Physical Education: ½
     - Spec: 101 Fundamentals of Effective Speaking: 3
   - **Cr. Hours**

   **Sophomore Year**

   **FIRST SEMESTER**
   - **Subjects**
     - Religion or Philosophy: 2
     - Hec: 221 Home Management I: 3
     - Hec: 318 Family Relations: 3
     - Phe: 201 Physical Education: ½
     - Psy: 201 Introductory Psychology: 3
     - Ret: 305 Introduction to Retailing: 3
     - Soc: 202 Social Problems: 3
   - **Cr. Hours**

   **SECOND SEMESTER**
   - **Subjects**
     - Religion or Philosophy: 2
     - Eco: 204 Survey of Economics: 3
     - Hec: 203 Health and Home Nursing: 3
     - Hec: 214 Textiles I: 3
     - Hec: 222 Historic Textiles: 3
     - Phe: 202 Physical Education: ½
     - Elective: 3
   - **Cr. Hours**

   **Junior Year**

   **FIRST SEMESTER**
   - **Subjects**
     - Religion or Philosophy: 5
     - Eng: Advanced Course: 3
     - Hec: 303 Nutrition and Health: 3
     - Hec: 311 Advanced Clothing: 3
     - Hec: 312 Children's Clothing: 3
     - Ret: 310 Retail Salesmanship: 3
   - **Cr. Hours**

   **SECOND SEMESTER**
   - **Subjects**
     - Religion or Philosophy: 3
     - Eng: Advanced Course: 3
     - Hec: 314 Costume, Art, and Design: 3
     - Hec: 316 Textiles II: 3
     - Hec: 323 Demonstration Methods: 1
     - Hec: 423 Home Furnishings I: 3
   - **Cr. Hours**

   **Senior Year**

   **FIRST SEMESTER**
   - **Subjects**
     - Hec: 412 Historic Costume: 3
     - Hec: 425 Child Development I: 3
     - Hec: 428 Principles of Fashion: 3
     - Ret: 307 Retail Advertising, or:
     - Ret: 405 Retail Mathematics: 3
     - Ret: 414 Retail Buying: 3
   - **Cr. Hours**

   **SECOND SEMESTER**
   - **Subjects**
     - Hec: 406 Home Management II: 3
     - Ret: 409 Retail Organization and Operation: 3
     - Elective: 3-6
   - **Cr. Hours**

(1) Alternative minors may be selected in English, psychology, history or sociology.
2. MAJOR: DIETETICS AND INSTITUTIONAL MANAGEMENT

**Freshman Year**

<table>
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<th>Subjects</th>
<th>Cr. Hours</th>
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<tr>
<td>Religion or Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Chm 110 General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Eng 101 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Hec 102 Foods I</td>
<td>3</td>
</tr>
<tr>
<td>Hec 105 Introduction to Related Art</td>
<td>3</td>
</tr>
<tr>
<td>Or 101 Orientation</td>
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</tr>
<tr>
<td>Phe 101 Physical Education</td>
<td>1/2</td>
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**FIRST SEMESTER**

**SECOND SEMESTER**

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<th>Subjects</th>
<th>Cr. Hours</th>
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<td>Chm 200 Organic</td>
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<tr>
<td>Eng 102 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Hec 101 Beginning Clothing or Construction Methods</td>
<td>3</td>
</tr>
<tr>
<td>Hec 324 Bishop Clothing</td>
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<tr>
<td>Phe 102 Physical Education</td>
<td>1/2</td>
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<td>Spe 101 Fund. of Eff. Speak</td>
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**Sophomore Year**

<table>
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<th>Subjects</th>
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<tr>
<td>Religion or Philosophy</td>
<td>2</td>
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<tr>
<td>Acc 101 Elementary Accounting</td>
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<tr>
<td>Bio 103 General Zoology</td>
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<tr>
<td>Hec 221 Home Management I</td>
<td>3</td>
</tr>
<tr>
<td>Phe 201 Physical Education</td>
<td>1/2</td>
</tr>
<tr>
<td>Psy 201 Introductory Psychology</td>
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**FIRST SEMESTER**

**SECOND SEMESTER**

<table>
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<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Eco 204 Survey of Economics</td>
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<tr>
<td>Edu 202 Educational Psychology</td>
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</tr>
<tr>
<td>Hec 201 Foods II</td>
<td>3</td>
</tr>
<tr>
<td>Hec 305 Institutional Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Phe 202 Physical Education</td>
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<td>Soc 202 Social Problems</td>
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**Junior Year**

<table>
<thead>
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<tbody>
<tr>
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<tr>
<td>Eng 303 Advanced Course</td>
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<td>Hec 304 Nutrition and Health</td>
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<tr>
<td>Hec 318 Family Relations</td>
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**FIRST SEMESTER**

**SECOND SEMESTER**

<table>
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<tr>
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<td>Bio 303 Physiology</td>
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<td>Hec 304 Quantity Cookery</td>
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<td>Hec 308 Institutional Buying</td>
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<td>Hec 323 Demonstration Methods</td>
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<td>Hec 401 Advanced Nutrition</td>
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**Senior Year**

<table>
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<tr>
<td>Eng 400 Biochemistry</td>
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<td>Hec 404 Methods of Teaching</td>
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<td>Hec 409 Foods IV</td>
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<td>Hec 425 Child Development I</td>
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**FIRST SEMESTER**

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Subjects</th>
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<tbody>
<tr>
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<tr>
<td>Hec 402 Diet in Disease</td>
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</tr>
<tr>
<td>Hec 406 Home Management II</td>
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<td>Hec 407 Institutional Organization and Management</td>
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3. MAJOR: BUSINESS: FOODS

(1) Minor In Retailing

### Freshman Year

#### FIRST SEMESTER

<table>
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<td>Chm 100 General Chemistry</td>
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<td>Eng 101 English Composition</td>
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<tr>
<td>Hec 102 Foods I</td>
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<tr>
<td>Hec 105 Intro. to Related Art</td>
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<tr>
<td>Pile 101 Physical Education</td>
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#### SECOND SEMESTER

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<thead>
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<td>Chm 200 Organic</td>
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<tr>
<td>Eng 102 English Composition</td>
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<tr>
<td>Hec 101 Beginning Clothing</td>
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<tr>
<td>Phe 102 Physical Education</td>
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### Sophomore Year

#### FIRST SEMESTER

<table>
<thead>
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<th>Subjects</th>
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<tbody>
<tr>
<td>Religion or Philosophy</td>
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<td>Edu 202 Educational Psychology</td>
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<td>Hec 318 Family Relations</td>
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<td>Hec 221 Home Management I</td>
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<tr>
<td>Phe 201 Physical Education</td>
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<td>Psy 201 Introductory Psychology</td>
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#### SECOND SEMESTER

<table>
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<tbody>
<tr>
<td>Religion or Philosophy</td>
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<td>Eco 204 Survey of Economics</td>
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<td>Hec 201 Foods II</td>
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<tr>
<td>Hec 203 Health and Home Nursing</td>
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<tr>
<td>Phe 202 Physical Education</td>
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<td>Soc 202 Social Problems</td>
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### Junior Year

#### FIRST SEMESTER

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<thead>
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<th>Subjects</th>
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<td>Hec 302 Foods III</td>
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<tr>
<td>Hec 303 Nutrition and Health</td>
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<tr>
<td>Hec 309 Household Equipment</td>
<td>3</td>
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<tr>
<td>Ret 305 Introduction to Retailing</td>
<td>3</td>
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<td>Ret 310 Retail Salesmanship</td>
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#### SECOND SEMESTER

<table>
<thead>
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<tr>
<td>Bio 303 Physiology</td>
<td>3</td>
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<tr>
<td>Eng 323 Advanced Course</td>
<td>3</td>
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<tr>
<td>Hec 401 Advanced Nutrition or Diet in Disease</td>
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### Senior Year

#### FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Bio 411 Bacteriology</td>
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<tr>
<td>Hec 409 Advanced Foods</td>
<td>3</td>
</tr>
<tr>
<td>Hec 425 Child Development I</td>
<td>3</td>
</tr>
<tr>
<td>Ret 307 Retail Advertising or</td>
<td>3</td>
</tr>
<tr>
<td>Ret 405 Retail Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Ret 414 Retail Buying</td>
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</table>

#### SECOND SEMESTER

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Eng Advanced Course</td>
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<td>Hec 406 Home Management</td>
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</tr>
<tr>
<td>Hec 423 Home Furnishings I</td>
<td>3</td>
</tr>
<tr>
<td>Ret 409 Retailing Organization</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
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(1) Alternative minors may be selected in English, psychology, history or sociology.
### 4. MAJOR: INTERIOR DECORATION

**(1) Minor In Retailing**

#### Freshman Year

<table>
<thead>
<tr>
<th>Subjects</th>
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<tr>
<td>Eng</td>
<td>101</td>
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<td>* Hec</td>
<td>102</td>
</tr>
<tr>
<td>Hec 201 Foods II</td>
<td>3</td>
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<tr>
<td>Mil 101 First Yr. Basic</td>
<td>1.5</td>
</tr>
<tr>
<td>Phe 101 Physical Ed.</td>
<td>1/2</td>
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<td>Or 101 Orientation</td>
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#### Second Semester

<table>
<thead>
<tr>
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<td>Religion or Philosophy</td>
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<tr>
<td>Chm 200 Organic Chem.</td>
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<td>Eng 102 English Comp.</td>
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<tr>
<td>Hec 106 Art &amp; Design</td>
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<td>Mil 102 First Yr. Basic</td>
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<td>Phe 102 Physical Ed.</td>
<td>1/2</td>
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<td>Spe 101 Fund. of Eff. Speak</td>
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#### Sophomore Year

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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</thead>
<tbody>
<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Eco 204 Survey of Econ.</td>
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<tr>
<td>* Hec 101 Clothing</td>
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</tr>
<tr>
<td>Hec 311 Advanced Clothing</td>
<td>3</td>
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<tr>
<td>Mil 201 First Yr. Basic</td>
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<tr>
<td>Phe 201 Physical Ed.</td>
<td>1.5</td>
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<td>Psy 201 Intro. Psych.</td>
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<tr>
<td>Ret 305 Intro. to Retailing</td>
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#### Junior Year

<table>
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<tr>
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<tr>
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<tr>
<td>Eng Advanced Course</td>
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</tr>
<tr>
<td>Hec 318 Family Relations</td>
<td>3</td>
</tr>
<tr>
<td>Hec 326 Home Crafts</td>
<td>3</td>
</tr>
<tr>
<td>Ret 310 Retail Salesmanship</td>
<td>2-3</td>
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#### Senior Year

<table>
<thead>
<tr>
<th>Subjects</th>
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</thead>
<tbody>
<tr>
<td>Eng Advanced Course</td>
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<td>Hec 436 Special Problems</td>
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<td>Ret 307 Retail Advertising</td>
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<td>Ret 405 Retail Math.</td>
<td>3</td>
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<tr>
<td>Ret 414 Retail Buying</td>
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</tr>
<tr>
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</tbody>
</table>

* *Women Students*

(1) Alternative minors may be selected in English, psychology, history or sociology.
PROGRAM VII
BACHELOR OF SCIENCE WITH A MAJOR IN
MEDICAL TECHNOLOGY

A twelve or thirteen month course in Medical Technology is offered by the Diagnostic Laboratories of St. Elizabeth Hospital, Good Samaritan Hospital, and Miami Valley Hospital. Affiliation with the University of Dayton permits a student to obtain the degree of Bachelor of Science in Medical Technology if the University's requirements are fulfilled. These schools are accredited by the Registry of Medical Technologists of the American Society of Clinical Pathologists through the Council on Medical Education and Hospitals of the American Medical Association, and qualify a student to take the examination given by the Registry of Medical Technologists.

The student receives practical and theoretical experience in the various branches of the clinical laboratory, after which he is qualified for positions in physicians' offices, clinics, and hospitals.

METHODS OF INSTRUCTION

After a preliminary concentrated introduction to medical technology, the student participates in the activities of the Diagnostic Laboratories, spending a specific time in each department. Instruction is largely by supervised practice and demonstration, given by members of the laboratory staff. Regular assignments in recognized textbooks and laboratory periodicals are given. Conferences and examinations are held throughout the year. Following a review period at the end of the prescribed course, a final examination is given patterned after that of the Registry of Medical Technologists.

ADMISSION REQUIREMENTS

APPLICATION may be made in person or by letter. A personal interview is highly desirable. For students who are not interested in receiving a degree but desire to earn a certificate only, a two-year program will be arranged by the Head of the Division which will satisfy the minimum requirements for admission to the hospital training period.

Applicants must present the following qualifications:

A. FOR CERTIFICATE ONLY.

1. Two years (60 credit hours) of college work in a college or university accredited by a recognized standardizing association.

2. The minimum credits as required by the Registry of Medical Technologists, Muncie, Indiana, with minor additions listed below. The student must submit an official transcript of college credits approved by the Registry. The following credits are required:

   Biology: 12 semester hours which may include general biology, bacter-
iology, parasitology, physiology, anatomy, histology, embryology, zoology. Biology and physiology are preferred.

Chemistry: One year of General Inorganic Chemistry to include both lectures and laboratory.
3 semester hours of Quantitative Chemistry, Organic Chemistry, or Biochemistry including lectures and laboratory. Quantitative Chemistry is preferred.

Electives: It is recommended that subjects such as Zoology, Anatomy, English, Mathematics, Physics, Organic Chemistry, advanced Bacteriology, while not required, may be taken to fulfill the requirements for the total credit hours.

B. FOR B. S. IN MEDICAL TECHNOLOGY.

1. Three years of college work of which a minimum of 30 semester hours must be taken at the University of Dayton. The subjects listed above should be included.
2. 52-56 weeks' work at the Hospital Laboratory for which the student receives 33 semester hours of credit. Some students may be required to follow subjects given on the University campus, concurrently with training at the Hospital Laboratory.
3. A total of 128 semester hours, including the Major in Medical Technology, a minor either in Chemistry or Biology (12 semester hours above basic courses). Students are accepted for classes beginning in July. Completion of hospital training in August should not, in most cases, interfere with graduation in June.

HOSPITAL EXPENSES

1. Tuition—No tuition is paid to the University by the students while completing the practical year. However, students working for the B.S. degree from the University of Dayton are required to register with the University.
2. Maintenance—Complete maintenance will be provided if desired. It is somewhat difficult for us to supply rooms for male students at the present time.
3. Uniforms—The student shall provide herself with at least six approved white uniforms, which will be laundered by the hospital, and a pair of comfortable white shoes.
4. One good textbook on clinical laboratory procedures approved by the Director of the School.

LENGTH OF CLINICAL COURSE

The course of instruction covers a period of 52-56 consecutive weeks. Vacation periods or leaves of absence are not provided because not desirable, but can be arranged upon necessity. The hours of duty are from 8:00 a.m. to 5:00 p.m., five and one-half days a week. Special assignments for Sunday and holiday work are given with time off during the week. There is no night call for students.

Textbook assignments and extracurricular reading and study shall be done outside the regular hours. Written and oral examinations are held at regular intervals throughout the course.
GRADUATION AND REGISTRATION

After demonstrating a theoretical and practical proficiency in clinical laboratory procedures, the student is given a certificate by the Hospital, and becomes eligible for the national examination for certification by the Registry of Medical Technology.

Students who are registered at the University of Dayton are eligible for the degree of Bachelor of Science in Medical Technology.

Examinations for Registration and the Certificate of M.T. (Medical Technologist) are given in April and October by the Registry of Medical Technologists in various cities. These are comprehensive written examinations.

### Freshman Year

<table>
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<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
<tr>
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<tr>
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<tr>
<td>Bio 105 Zoology, or (Bio, 101 or 103)</td>
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<tr>
<td>Eng 101 English Composition</td>
<td>3</td>
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<tr>
<td>Phe 101 Physical Education</td>
<td>1/2</td>
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<tr>
<td>Mil 101 First Year Basic</td>
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<td>Mth 101 College Algebra</td>
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<td>Or 101 Orientation</td>
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### Sophomore Year

<table>
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<td>Bio 311 General Genetics</td>
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<tr>
<td>Bio 203 Human Anatomy</td>
<td>2</td>
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<tr>
<td>Eng 305 Medical Terminology</td>
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<td>Phe 201 Physical Education (W)</td>
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<td>Mil 201 Second Year Basic</td>
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### Junior Year

<table>
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<td>Bio 305 Microtechnique</td>
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<tr>
<td>Phil 324 Ethics</td>
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<td>Bio 411 Bacteriology</td>
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<td>Religion or Elective</td>
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### Senior Year

<table>
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<td>Met 461 Urinalysis and Renal Functions</td>
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<tr>
<td>Met 462 Hematology and Blood Bank</td>
<td>6</td>
</tr>
<tr>
<td>Met 463 Bacteriology and Parasitology</td>
<td>5</td>
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<table>
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<tr>
<td>Met 465 Histology and Cytology</td>
<td>4</td>
</tr>
<tr>
<td>Met 466 Serology, Spinal Fluids</td>
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<tr>
<td>Met 457 Electrocardiography, B.M.R.</td>
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PROGRAM VIII
BACHELOR OF SCIENCE WITH A MAJOR IN
RADIOLOGICAL TECHNIQUE

A TWELVE-MONTHS' course in Radiological Technique is offered by the Radiology Departments of Miami Valley and St. Elizabeth Hospitals. Affiliation with the University of Dayton permits a student to obtain a degree of Bachelor of Science in Radiological Technique, if the University's requirements are met. The school is approved by the Council on Medical Education and Hospitals of the American Medical Association and qualifies a student to take the examination given by the American Registry of X-ray Technicians.

The student receives practical and theoretical experience in diagnostic and therapeutic technique which qualifies the graduate for positions in hospitals, clinics, physicians' offices, and industrial medical departments. There are excellent opportunities for both men and women in this field.

METHODS OF INSTRUCTION

INSTRUCTION consists of a series of lectures in the theoretical principles of X-ray technique and in their practical applications. Assignments are given in appropriate textbooks and periodicals. Extensive supervised, practical applications of the principles are made. Regular monthly examinations are given, with a final examination upon completion of the course.

ADMISSION REQUIREMENTS

APPLICATIONS may be made in person or by letter. A personal interview is advisable. Applicants should present the following qualifications for admission to the courses given at the Hospitals:

A. FOR A CERTIFICATE:

Two years of college work are required, followed by one year at Miami Valley or St. Elizabeth Hospital. The college work, preferably, includes the following courses:

<table>
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<tbody>
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<td>Plane Trigonometry</td>
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<tr>
<td>Chemistry:</td>
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<td>General Inorganic</td>
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<td>Human Physiology</td>
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B. FOR A BACHELOR OF SCIENCE DEGREE IN RADIOLOGICAL TECHNIQUE:

Three years of college work are required, followed by one year at Miami Valley or St. Elizabeth Hospital.

Preference will be given to those students who are interested in the degree program. Classes begin in January and July. The year of practical training at
the Hospital covers a period of twelve consecutive months. Vacations and leaves of absence are not scheduled but may be arranged. The hours of duty are from 8 a.m. to 5 p.m., five and one-half days per week. There is no Sunday duty. One meal is provided by the Hospitals daily. Complete maintenance is available in a hospital residence at the cost of $50.00 per month.

CURRICULUM

Freshman Year

FIRST SEMESTER

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tr>
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SECOND SEMESTER

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<td>Mth 116 Math. Analysis</td>
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Sophomore Year

FIRST SEMESTER

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<td>Phy 207 Electricity &amp; Magnetism</td>
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<td>ELE 201 Elem. of Elect. Engr.</td>
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SECOND SEMESTER

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<td>Phy 208 Heat and Light</td>
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<td>Eng Advanced Course</td>
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Junior Year

FIRST SEMESTER

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<td>Phil 324 Ethics</td>
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SECOND SEMESTER

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<td>Phil 482 Medical Ethics</td>
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Senior Year

At Miami Valley or St. Elizabeth Hospital

<table>
<thead>
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<th>Subjects</th>
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<tr>
<td>Rad 451 Radiological Physics</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Rad 452 The X-ray Machine</td>
<td>6</td>
<td>3</td>
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<td>Rad 453 Processing Technique</td>
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<tr>
<td>Rad 454 Routine Standard Positioning</td>
<td>12</td>
<td>8</td>
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<tr>
<td>Rad 455 Special Examinations (Opaque Material)</td>
<td>10</td>
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<td>Rad 456 Fluoroscopic Procedure</td>
<td>4</td>
<td>2</td>
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<tr>
<td>Rad 457 Radiation Therapy</td>
<td>12</td>
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PROGRAM IX

NURSING

THE UNIVERSITY OF DAYTON offers the Bachelor of Science in Nursing (B.S.N.) and the Bachelor of Science (B.S.) degrees to registered professional nurses. (1) This prespecialization curriculum is planned to enhance the background of graduates of basic diploma schools of nursing, offering a deeper appreciation of professional responsibilities and further development of attitudes deemed necessary to provide total nursing care of the highest quality.

Nursing school credentials, employment history, participation in professional organizations and leadership potentialities will be evaluated upon an individual basis.

All enrolling students are required to take the National League for Nursing Graduate Nurse Qualifying Examination before being officially accepted as a candidate for the baccalaureate program. The examination is to be taken within the first full-time semester, or before completion of 12 credit hours (for part-time students), whichever occurs first. Deficiencies demonstrated by the examination may be removed by pursuing additional clinical and/or theoretical courses, upon the recommendation of the Department of Nursing.

Application forms for the Graduate Nurse Qualifying Examination must be obtained and signed by the Assistant to the Dean, Division of Science, before the applicant can be scheduled for the announced date of the examination. This authorizing individual is the only one to whom examination results will be released. The completed application card and required check or money order must be received by the National League for Nursing Evaluation and Guidance Service, 2 Park Avenue, New York 16, New York, at least one full week before the date of examination, in order to allow sufficient time for returning the admission receipt to the applicant.

A minimum of 128 credit hours is required for the B.S.N. or the B.S. degree. This must include:

1. A minimum of 42 academic or non-professional credits in the following subjects:
   - English .................................................. 12 credit hours
   - Philosophy ............................................... 6 credit hours
   - Psychology ............................................... 6 credit hours
   - History and Social Sciences .............................. 12 credit hours
   - Natural Science .......................................... 6 credit hours

(1) Notice is given of the closing of the program leading to the Bachelor of Science in Nursing Education. No degree in Nursing Education will be conferred after August, 1956. Students presently enrolled in this degree program should complete all requirements by that date; new students may not enroll in this degree program. Students not completing the degree requirements by the closing date will be considered as having transferred to the program leading to the Bachelor of Science degree in Nursing, and will complete the degree in fulfillment of those requirements.
2. In addition to the above, a minimum of 26 credit hours are required as follows:

A. For the Bachelor of Science in Nursing (B.S.N.)
   Nsg 317 Current Trends in American Nursing ........3 credit hours
   Nsg 432 Principles of Teaching in Schools of Nursing ........................................3 credit hours
   Nsg 471 Ward Administration ........................................3 credit hours
   Nsg Elective ..................................................3 credit hours
   Nsg Adv. Clinical Nursing Course ......................7 credit hours
   Nsg Adv. Clinical Nursing Course ......................7 credit hours

B. For the Bachelor of Science (B.S.) degree, 12 additional hours in Biology or Chemistry, and 14 hours in Nursing electives are required.

3. The remaining 60 hours will be satisfied by the credit granted for:
   A. Basic nursing preparation.
   B. Professional accomplishments, interest and advancement.
   C. Leadership potentialities.
   D. Results of G.N.Q.E.
   E. Removal of deficiencies determined by an evaluation of "A" and "D" above.

Students entering the program may register for courses at the beginning of any semester or summer school, and receive full credit toward the degree for all courses taken, while awaiting evaluation of credentials, and receiving formal acceptance as a matriculant for the degree.

Interested applicants should write to the Office of Admissions for an application blank, and return it together with:

1. Unmounted 2" x 2" photograph.
2. High school transcript.
3. School of Nursing transcript.
4. Photostatic proof of R.N. registration.
5. Any additional college transcripts of studies completed to date.
GENERAL STATEMENT

The engineering curricula in each of the fields of Chemical, Civil, Electrical, Industrial, and Mechanical Engineering are drawn up for a four year period. No effort is spared to acquaint the student thoroughly with fundamental principles and to give him a clear insight into the analysis of engineering problems. While emphasis is laid on fundamental theory, continued attention is paid to the solution of practical problems for the purpose of illustrating scientific principles and pointing out their industrial applications.

The broader responsibilities of the Engineering profession demand that the professional training of an Engineer include at least an acquaintance with the humanities, in order that scientific discoveries and developments by Engineers may result in the real advancement of man. To help the young Engineer achieve his purpose in life, the University offers in addition to the prescribed Engineering subjects a wide selection of courses in the Arts and Sciences and Business Administration.

DEGREE REQUIREMENTS

The degrees—Bachelor of Chemical, Civil, Electrical, Industrial, and Mechanical Engineering—are conferred at commencement if the following requirements have been fulfilled:

1) All prescribed courses outlined in the respective curricula must have been passed with a grade D or better;
2) The cumulative quality point average must be at least 2.0;
3) The student must have attended the College of Engineering at the University of Dayton during his senior year, and have carried at least thirty credit hours;
4) The student must not be obligated to the University financially.

Degrees “With Honors” are awarded to students who have earned a cumulative point average of 3.5 for the first seven semesters.

FRESHMAN CURRICULUM FOR ENGINEERING

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>1st Semester</th>
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<td>Mil</td>
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<td>Mth</td>
<td>115-116</td>
<td>Mathematical Analysis</td>
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<td>Chm</td>
<td>123-124</td>
<td>General Chemistry</td>
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<td>206</td>
<td>Physics</td>
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</table>
CHEMICAL ENGINEERING

The course in chemical engineering is directed toward the training of students for technical and executive positions in the chemical and allied industries.

The various phases of general and analytical chemistry are studied coordinately with mathematics, physics, and mechanics; these studies constitute a basis for the later topics which are devoted more specifically to problems of chemical engineering equipment, control, and design. The flow of fluids, heat transfer, thermodynamics, unit operations, plant design and control are also studied. Cooperatively with the Departments of Civil, Mechanical, and Electrical Engineering, the subjects of heatpower, metallurgy, materials testing, and the principles of electrical engineering are pursued.

Freshman Year
(See Page 112)

Sophomore Year

<table>
<thead>
<tr>
<th></th>
<th>1st Semester</th>
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<tbody>
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<td>Rel or Phil</td>
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### Senior Year

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### CIVIL ENGINEERING

The curriculum is designed to give a thorough education in the principles fundamental to the civil engineering profession, so that the student is prepared to pursue to advantage any field of civil engineering practice.

During the first two years, emphasis is placed on those subjects underlying all engineering—English, mathematics, chemistry, physics, drawing, surveying. The third and fourth years are devoted principally to technical subjects relative to hydraulic, sanitary, structural and highway engineering.

Engineering projects, completed or under construction, are visited under the guidance of the instructors. Close association is maintained with the Dayton Section of the American Society of Civil Engineers and the Dayton Chapter of the National Society of Professional Engineers.

### Freshman Year

(See Page 112)

### Sophomore Year

<table>
<thead>
<tr>
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<th>Lab.</th>
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### Junior Year

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<td>Heat Power</td>
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### Senior Year

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<td>Water Supply</td>
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<td>CIE 406</td>
<td>Indeterminate Structures</td>
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<td>CIE 412</td>
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<td>CIE 414</td>
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The choice of electives is subject to the approval of the Dean and Chairman of the Department.

### CIVIL ENGINEERING ELECTIVES

<table>
<thead>
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<th>Title</th>
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<td>CIE 502</td>
<td>Prestressed Concrete</td>
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<td>Limit Design in Steel</td>
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<td>CIE 506</td>
<td>Ultimate Design in Reinforced Concrete</td>
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ELECTRICAL ENGINEERING

The curriculum of Electrical Engineering is planned with the primary objective of providing a thorough knowledge of the fundamental laws of electricity and the application of these laws in Electrical Engineering.

Courses are arranged to give students of Electrical Engineering an understanding of the basic principles and practices in the fields of Electrical Power and Electrical Communications. Some degree of specialization in these fields is provided according to the abilities and interests of the individual students.

Proper attention is directed to an appreciation of the practical economic factors in the electrical world, and to the cultural and social qualities necessary for a successful career in the Engineering Profession.

Freshman Year
(See Page 112)

Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Lect.</th>
<th>Lab.</th>
<th>Lect.</th>
<th>Lab.</th>
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<td>Rel or Phil</td>
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Junior Year

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<td>ELE 318</td>
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### Senior Year

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<td>Thermodynamics</td>
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<td>MEE 304a</td>
<td>Heat Power</td>
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<td>ELE 403</td>
<td>Machinery II</td>
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<td>ELE 404</td>
<td>Electrical Design or</td>
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<td>ELE 313</td>
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<td>ELE 413</td>
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### E.E. ELECTIVES

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<td>ELE 412</td>
<td>Power Transmissions, Distribution</td>
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<td>ELE 415</td>
<td>Ultra-High Frequencies I</td>
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<td>Control of Power Machinery</td>
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<td>ELE 419</td>
<td>Servomechanisms</td>
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<td>ELE 420</td>
<td>Symmetrical Components</td>
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<td>ELE 421</td>
<td>Magnetic Amplifiers</td>
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<td>ELE 422</td>
<td>Transistor Circuits</td>
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<td>ELE 423</td>
<td>Electronic Computing Devices</td>
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*The choice of electives is subject to the approval of the Chairman of the Department and the Dean.*

### INDUSTRIAL ENGINEERING

The demand from industry is ever increasing for individuals thoroughly trained in the fundamentals of engineering and also trained in the fields of accounting, human relations, organization and the related management functions.

The objective of the Industrial Engineering curriculum is to provide a sound foundation in mechanical engineering, supplemented with a basic foundation in accounting, statistics, economics, personnel administration, production practices and the other related management activities.

The first two years follow the basic Mechanical Engineering curriculum. The course arrangement in the last two years is such that the combination of Mechanical and Industrial Engineering subjects will equip the student to enter
industries that are of a technical nature, and perform the complex functions of management.

The graduate will be prepared to serve effectively in many areas in both technical and supervisory capacities.

Industrial organizations depend on strong technical efficiency. However, that is not enough. The organization also must have able and qualified men to direct the control of the enterprise. The curriculum in Industrial Engineering is designed to meet these needs.

Freshman Year
(See Page 112)

Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>1st Semester</th>
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<td>Mil</td>
<td>201-202</td>
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<td>Mth</td>
<td>201-202</td>
<td>Differential and Integral Calculus</td>
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<td>Phy</td>
<td>207-208</td>
<td>General Physics</td>
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<tr>
<td>MEE</td>
<td>205a</td>
<td>Machine Shop Practice</td>
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<tr>
<td>Eco</td>
<td>203</td>
<td>Survey of Economics</td>
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<tr>
<td>Spe</td>
<td>101</td>
<td>Fundamentals of Eff. Speaking</td>
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<tr>
<td>GNE</td>
<td>202</td>
<td>Statics</td>
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Junior Year

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<td>Survey of Accounting</td>
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<td>GNE</td>
<td>301</td>
<td>Dynamics</td>
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<td>Personnel Administration</td>
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<td>Mth</td>
<td>331</td>
<td>Statistics for Engineers</td>
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<tr>
<td>MEE</td>
<td>303</td>
<td>Metallurgy</td>
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<td>MEE</td>
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<td>Mechanics of Machinery</td>
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<td>Acc</td>
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<td>Cost Analysis</td>
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<td>Strength of Materials</td>
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<td>GNE</td>
<td>305</td>
<td>Materials Testing Lab</td>
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<tr>
<td>INE</td>
<td>302</td>
<td>Technical and Managerial Reports</td>
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<tr>
<td>Mth</td>
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<td>Industrial and Engineering Application of Statistics</td>
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MEE 301a Thermodynamics .................. — — 3 0
MEE 305 Mechanical Engineering Lab. — — 0 2
Elective ................................ — — 3 0

Senior Year

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<td>INE 401</td>
<td>Engineering Economy</td>
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<tr>
<td>INE 403</td>
<td>Time and Motion Study I</td>
<td>— — 2 1</td>
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<td>INE 405</td>
<td>Production Planning</td>
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<tr>
<td>MEE 304a</td>
<td>Heat Power</td>
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<td>MEE 407a</td>
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<td>INE 406</td>
<td>Plant Layout and Materials Handling</td>
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<td>INE 408</td>
<td>Administration and Organization</td>
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<td>INE 410</td>
<td>Industrial Engineering Seminar</td>
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<tr>
<td>MEE 308</td>
<td>Fluid Mechanics</td>
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MECHANICAL ENGINEERING

The curriculum of mechanical engineering is designed to give the student knowledge of the fundamental principles of science and the application of these principles to pertinent problems.

Basic studies in mathematics and the sciences are pursued in the first two years and departmental subjects are taken up in the last two years. The course of studies comprises lectures, recitations and discussions, laboratory practice, and inspection visits.

Every attempt is made to impress the student with the responsibilities that rest upon the Mechanical Engineer in the active field, whether engaged as designer, builder, operator, organizer, manager or executive.

Freshman Year
(See Page 112)

Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>1st Semester</th>
<th>2nd Semester</th>
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<td>Spe 101 Fundamentals of Effec. Speak.</td>
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**Junior Year**

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Technical Institute

Mr. Metz, Director

The Technical Institute is a two-year college program of technical training for individuals preparing for positions in production, operations, and supervision. Also included is training for such supporting engineering positions as laboratory assistant, experimental technician, and draftsman. All curricula as developed by the University of Dayton are practical in nature and are designed to meet the needs of individuals and industry. Each course is carefully organized, using suggestions of persons actually working in the industrial situation. In addition, the following definition of Technical Institute curricula as used by the Engineers' Council for Professional Development (ECPD) in accrediting such curricula, has been the basic guide for the University of Dayton Technical Institute.

"Curricula to be considered are technological in nature and lie in the post-high school area. They differ in content and purpose from those of the vocational school on one hand and from those of the engineering college on the other. Curricula in this field are offered by a variety of institutions and cover a considerable range as to duration and content of subject matter, but have in common the following purposes and characteristics:

1. The purpose is to prepare individuals for various technical positions or lines of activity encompassed within the field of engineering, but the scope of the programs is more limited than that required to prepare a person for a career as a professional engineer.

2. Programs of instruction are essentially technological in nature, based upon principles of science and include sufficient post-secondary school mathematics to provide the tools to accomplish the technical objectives of the curricula.

3. Emphasis is placed upon the use of rational processes in the principal fundamental portions of the curricula that fulfill the stated objectives and purposes.

4. Programs of instruction are briefer, and usually more completely technical in content than professional curricula, though they are concerned with the same general fields of industry and engineering. Such designations as Engineering Aide, Technical Aide, Associate in Engineering, and Engineering Associate are appropriate designations to be conferred upon the graduates of programs of Technical Institute type.

5. Training for artisanship is not included within the scope of education of Technical Institute type."

PROGRAMS OF STUDY

Programs of study are offered in Electrical, Industrial and Mechanical Technology on both a day and evening basis. Courses required and descriptions
are included in the following pages. Each program is composed of certain basic courses covering fundamental and non-technical subjects and courses in the major field. The fundamental subjects are mathematics, physics, chemistry, English, drawing and industrial management. Non-technical subjects include psychology, economics, speech and government. Upon satisfactory completion of the prescribed courses in a program of study, a diploma granting an Associate in Engineering Degree is awarded.

GUIDANCE AND COUNSELING

The facilities of the Guidance Center are available for Technical Institute students. Staff members experienced in this type of program will be on hand before and during registration. Prospective students are encouraged to visit the campus or telephone for information regarding any of the programs offered. Part-time evening students are particularly advised to consult with the Director of the Technical Institute before attempting to register for any semester.

VETERANS

Veterans must secure approval in advance from the Veterans Administration for attendance at Technical Institute classes. This approval is apart and separate from admission to the University. All programs of study are approved by the Veterans Administration.

CREDITS

All courses in the Technical Institute are evaluated on a semester hour basis. Recitation and similar classroom work generally require outside preparation, while laboratory or practice periods are usually self-contained.

ELECTRICAL TECHNOLOGY

The program in Electrical Technology, with options in Industrial Electricity and Radio and Television, follows a common plan of study during the first year and provides specialization in the second year.

Industrial Electricity, Option A, is designed to prepare students primarily for technological services with electrical utilities, with manufacturers of electrical equipment, in electrical maintenance and instrument departments of industrial plants, and in related positions. This major field of specialization stresses the application of direct- and alternating-current theory to electrical machinery and instruments. Emphasis is placed upon courses in circuits theory, machinery, electrical measurements, electronic control, and related courses in mathematics, physics, and chemistry.

Radio and Television, Option B, is designed to prepare students primarily for technological services with equipment manufacturers and for the installation and maintenance of receivers. Emphasis is placed upon courses in circuit theory,
receiver circuits and fundamentals, electrical measurements, and related courses in mathematics, physics, and chemistry.

**First Year**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Cr. Hours</th>
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<tbody>
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<tr>
<td>ITI 101 Industrial Org. &amp; Prod.</td>
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<tr>
<td>STI 101 Industrial Math. I</td>
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<tr>
<td>STI 111 Physics: Mechanics</td>
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<tr>
<td>STI 121 Industrial Chemistry</td>
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**SECOND SEMESTER**

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<thead>
<tr>
<th>Subjects</th>
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<tbody>
<tr>
<td>Religion or Philosophy</td>
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<tr>
<td>Eti 101 Electrical Circuits</td>
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<tr>
<td>Eti 105 Electrical Shop Practices</td>
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<tr>
<td>Eti 106 Electrical Code</td>
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<tr>
<td>GTI 102 Effective Speaking</td>
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<tr>
<td>STI 111 Applied Psychology</td>
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<td>STI 102 Industrial Math. II</td>
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**Second Year**

**FIRST SEMESTER**

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<tr>
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<td>ETI 203 Electrical Measurements</td>
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<td>GTI 203 Report Writing</td>
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<td>GTI 222 Economics of Industry</td>
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<tr>
<td>STI 212 Physics: Heat, Light, Sound</td>
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**SECOND SEMESTER**

**Option A: Industrial Electricity**

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<tr>
<td>ETI 210 Electrical Machinery</td>
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<tr>
<td>ETI 211 Motor Control</td>
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<tr>
<td>ETI 212 Electrical Blue Prints and Diagrams</td>
<td>1</td>
</tr>
<tr>
<td>GTI 221 American Political Ideas and Practices</td>
<td>3</td>
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<tr>
<td>ITI 202 Elements of Supervision</td>
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**Option B: Radio and Television**

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<tr>
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<td>ETI 220 Radio Fundamentals</td>
<td>4</td>
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<tr>
<td>ETI 221 Television Fundamentals</td>
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<tr>
<td>ETI 222 Electronic Circuit Diagrams</td>
<td>1</td>
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<tr>
<td>GTI 221 American Political Ideas and Practices</td>
<td>3</td>
</tr>
<tr>
<td>ITI 202 Elements of Supervision</td>
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**INDUSTRIAL TECHNOLOGY**

This major field of specialization is designed to prepare students primarily for technological services in the industrial engineering areas of production planning and control, plant layout, quality control, job evaluation, and cost control. It also covers the essentials of management with which foremen, supervisors, and administrative personnel in general are concerned.

Typical jobs are time-study man, methods planner, production control clerk, stock supervisor, cost analyst, job analyst, and personnel interviewers.

Emphasis is placed upon courses in motion and time study, job evaluation, wage incentive, production and operation planning, plant layout, industrial safety, and courses in mathematics, physics, and chemistry.
### First Year

#### First Semester

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<th>Subjects</th>
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<tbody>
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<td>MTI 101 Technical Drawing</td>
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#### Second Semester

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<td>GTI 102 Effective Speaking</td>
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<td>ITI 103 Industrial Materials and Methods of Manufacture</td>
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<td>ITI 108 Production Methods and Control</td>
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<td>STI 102 Industrial Mathematics II</td>
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<td>STI 113 Physics: Electricity</td>
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### Second Year

#### First Semester

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<td>ITI 204 Motion and Time Study</td>
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<td>ITI 210 Plant Layout</td>
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<td>ITI 202 Elements of Supervision</td>
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<td>ITI 206 Job Evaluation</td>
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<td>ITI 207 Elements of Cost Control</td>
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<td>ITI 209 Industrial Safety</td>
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<td>ITI 213 Quality Control</td>
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### Mechanical Technology

Mechanical technology has been developed with two options, Product Design, Option A, and Tool Design, Option B. The first year is common to both options and the student need not select his option until the start of his second year.

Emphasis is placed upon courses in drafting and design, industrial materials and methods of manufacture and related courses in mathematics, physics, and chemistry.

Product Design, Option A, is designed to prepare students primarily for technological services in drafting and design departments, mechanical maintenance divisions, testing and inspection laboratories, and related industrial production units. This field of specialization stresses the fundamentals of mechanics and mechanisms as applied to industrial problems.

Tool Design, Option B, is designed to prepare students primarily for technological services in tool engineering involving the selection of methods, tools, and machines for economical production.
### Second Year
#### Option A: Product Design

<table>
<thead>
<tr>
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<th>Second Semester</th>
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<td><strong>Subjects</strong></td>
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<td>GTI 222 Economics of Industry</td>
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<tr>
<td>MTI 203 Machine and Tool Drawing</td>
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<td>MTI 220 Mechanics: Statics and Dynamics</td>
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#### Option B: Tool Design

<table>
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<td>Religion or Philosophy</td>
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<td>GTI 203 Report Writing</td>
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<td>GTI 222 Economics of Industry</td>
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<td>ITI 211 Operation Planning</td>
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<td>MTI 203 Machine &amp; Tool Drawing</td>
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<td>MTI 205 Die Design</td>
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<td>STI 212 Physics: Heat, Light, Sound</td>
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<tr>
<td>STI 213 Physics: Heat, Light, Sound</td>
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Courses of Instruction

ACCOUNTING (Acc.)
MR. UPDYKE, ACTING CHAIRMAN
MR. GUSTAFSON, MR. SERRAINO, MRS. WILSON

ACC 101-102. ELEMENARY ACCOUNTING
SIX CREDIT HOURS
The purpose of the course is to acquaint the student with the primary function of accounting and to introduce him to the entire cycle of bookkeeping procedure. Under supervision the student is required to demonstrate his ability to work out several practice sets. This is a prerequisite to all other courses in Accounting. Two class periods and two laboratory periods a week. Both 101 and 102 Each Semester, Each Year

ACC 201-202. INTERMEDIATE ACCOUNTING
SIX CREDIT HOURS
The accounting work of the sophomore year is a logical continuation and development of the theory and practice introduced in the freshman year. The course includes in part: accounting for corporations; voucher systems; general principles of valuation; depreciation; surplus reserves; and liquidation of corporations. Two class periods and two laboratory periods a week. Fall Year Course, Each Year

ACC 203. SURVEY OF ACCOUNTING
THREE CREDIT HOURS
A consideration of the basic principles of accounting, including debits and credits, the balance sheet, the statement of profit and loss, the statement of surplus and elements of cost accounting from an interpretative viewpoint. Three class periods a week. Each Semester, Each Year

ACC 301-302. ADVANCED ACCOUNTING
SIX CREDIT HOURS
Additional training in the preparation, analysis, and interpretation of statements; accounting procedure in connection with special types of business and with corporate reorganizations and dissolutions including the accounts and reports of receivers and trustees. Three class periods a week. Full Year Course, Each Year

ACC 303-304. COST ACCOUNTING
SIX CREDIT HOURS
Theory and practice of industrial cost accounting as a means of control of business enterprises applicable to job order, process, and standard cost systems. Three class periods a week. Full Year Course, Each Year

ACC 310. COST ACCOUNTING ANALYSIS
THREE CREDIT HOURS
The elements of manufacturing costs; cost and financial statement analysis; cost systems and budgets. Three class periods a week. First Semester, Each Year

ACC 312. GOVERNMENTAL ACCOUNTING
THREE CREDIT HOURS
Accounting for institutions, municipalities, and for state and federal governments; organization; procedure, budget, accounts and records, reports. Three class periods a week. Second Semester, Each Year
ACC 401-402. AUDITING       SIX CREDIT HOURS
A review of accounting with particular attention given to the theory and practice of auditing as applied to cash, receivables, inventories, etc. Practice in the auditing of special business types, and the preparation of auditor's reports. Three class periods a week.

ACC 407. FEDERAL INCOME TAX ACCOUNTING   THREE CREDIT HOURS
An interpretation of the income tax portions of the current Revenue Act. The preparation of the individual, partnership and corporation income tax returns. Three class periods a week.

ACC 408. FEDERAL, STATE AND LOCAL TAXES   THREE CREDIT HOURS
An interpretation of the social security, estate, gift and excise tax portions of the current Revenue Act. A study of income, franchise, property, sales and payroll taxes currently typical in states (particularly Ohio) and municipalities. Three class periods a week.

ACC 412. C. P. A. PROBLEMS      THREE CREDIT HOURS
The application of the principles of accounting to specific problems as set forth in the examination of the Ohio State Board of Accountancy. Three class periods a week.

ART (Art)

MR. BURROUGHS, FR. PREISINGER

ART 101. DRAWING      TWO CREDIT HOURS
A study of the elements of drawing, including perspective, drawing from still life, light and shade and sketching. Two class periods a week.

ART 103. INTRODUCTORY PAINTING I   TWO CREDIT HOURS
Painting in oil and water color from still life, landscape and floral subjects. Emphasis is placed on composition and application of art theories.

ART 104. INTRODUCTORY PAINTING II   TWO CREDIT HOURS
A further study of painting problems with reference to technique and methods of procedure in building a painting. Prerequisite: Art 103 or its equivalent.

ART 107. CULTURAL HISTORY TILL 1830   THREE CREDIT HOURS
A brief review of pre-historic and Oriental art to prepare the ground for a study of modern art. Then a more intensive survey of the basic arts of architecture, painting, sculpture and music through the various movements in Europe and America: the Greek and Roman; the Byzantine and Saracen; the Romanesque and Gothic; the Renaissance; the Baroque, the Rococo and the
After a brief survey of the basic principles underlying all the arts, and their application to daily life, an intensive study of the Romantic, Realistic and Impressionistic movements, together with a study of the various Modern movements since 1900. Accredited in History.

ART 201. PRINCIPLES OF DESIGN I
A study of the underlying elements and principles of design as they are applied to surface pattern. Color theories and their use in creative design are a part of this course.

ART 202. PRINCIPLES OF DESIGN II
Advanced studies in creative design and their application to modern materials and to industry. Prerequisite: Art 201 or its equivalent.

ART 203. GENERAL CRAFTS
The application of original designs to such materials as paper, textiles, ceramics and plastics through weaving, silk screen printing and modeling. A study of handwork as an integral part of an activity in the schools. To be announced

ART 221. PRACTICAL ARTS IN THE KINDERGARTEN AND PRIMARY GRADES
Creative expression in the use of such materials as papers, textiles, ceramics, and plastics. A study of handwork as an integral part of activities in the schools. Accredited in Education.

ART 222. PRACTICAL ARTS IN THE INTERMEDIATE GRADES
Same as Art 221, adjusted to the maturity of children in the intermediate grades. Accredited in Education.

ART 407. ART IN THE ELEMENTARY SCHOOL
Present methods of teaching art in the elementary school; experience in art expression and the use of art elements and principles as the basis for creative approach; organization of units of work, including drawing, painting, design, color, modeling, block printing, lettering, and the mural, as they relate to the integrated school program. Accredited in Education.

ART 408. THE GREAT MASTERS
A study of the masters of art and the influences upon their works, beginning with the late Gothic period and continuing through the Baroque movement. To be announced

ART 409. THE GREAT MASTERS
A continuation of Art 408, beginning with the styles in the art of the masters of the Rococo period through Impressionism to contemporary movements in art. To be announced
BIOLOGY (Bio.)

BRO. JOLY, CHAIRMAN
MR. FASO, MISS HECKMAN, BRO. KUNTZ, MR. NOLAND,
MR. STOECKLEIN, MR. WIECHMAN, DR. WILLIAMS

Bio 101-102. General Biology
A study of the more important plant and animal forms, designed to fit the facts and theories of biology into the broader picture of human life and human affairs. Three class periods and one laboratory period a week.
Full Year Course, Each Year

Bio 103. General Zoology
Lectures on structure, physiology, and life histories of invertebrates and vertebrates. Three class periods and one laboratory period a week.
Second Semester, Each Year

Bio 105-106. General Zoology
A course insisting on general principles. Lectures are given on the classification, structure, physiology, development, and life histories of the invertebrates and vertebrates. Two class periods and two laboratory periods a week.
Full Year Course, Each Year

Bio 113. Introduction to Biology
A general survey of biological phenomenon dealing with protoplasm, cells, and its development, physiology of living organisms, enabling the student to become acquainted with principles of living things.
To be announced

Bio 203-204. Human Anatomy
A foundation study in the basic anatomy of the human body, consisting of lecture-demonstrations on the various organs and systems composing the body. Two class periods a week.
Full Year Course, Each Year

Bio 205-206. Human Anatomy and Physiology
A foundation study in the basic anatomy of the human body, consisting of lecture-demonstrations on the various organs and systems composing the body. The functions of the human body as a living organism are integrated with the study of structure. This course will meet the needs of students in physical education. Two class periods a week.
Full Year Course, Each Year

Bio 211-212. Comparative Anatomy
A study of the similarities and the differences in the anatomy of the different organ systems of the various vertebrate groups. Embryology, histology, and morphology play an important role in this comparative study. Physiology is introduced where it is deemed advisable. Two class periods and one laboratory period a week.
Full Year Course, Each Year
BIO 213. **Comparative Anatomy**  
FOUR CREDIT HOURS  

BIO 303. **Physiology**  
THREE CREDIT HOURS  
A lecture course showing the functions of the human body as a living organism. Sufficient anatomy is introduced to give at least an elementary knowledge of the organs and organ systems. Three class periods a week.  
*Each Semester, Each Year*

BIO 304. **Histology**  
TWO CREDIT HOURS  
Fundamentals of cell structure, tissue organization and the microscopic anatomy of organs of the vertebrate animal, with special stress on the mammals. Kodachromes will take the place of microscopic laboratory work.  
*To be announced*

BIO 307-308. **Microtechnique**  
SIX CREDIT HOURS  
This course is essentially for medical technology and biology majors. It includes fixing, washing, dehydrating, clearing, infiltrating, imbedding, sectioning, affixing of normal tissues. It also aims at recognition of the fundamental tissues and gives the histological picture of all the organs and organ systems of the vertebrate body. Two class periods and one laboratory period a week.  
*Full Year Course, Each Year*

BIO 312. **General Genetics**  
FOUR CREDIT HOURS  
A study of the principles of variation and heredity in plants and animals, with stress on the inheritance of human characteristics. Three lecture periods and one laboratory period a week.  
*Each Semester, 1956-1957*

BIO 314. **General Botany**  
FOUR CREDIT HOURS  
An introductory course stressing classification, morphology, physiology, reproduction, ecology, and distribution of plants. Typical specimens are studied microscopically and macroscopically. Three class periods and one laboratory period a week.  
*Second Semester, Each Year*

BIO 320. **Evolution**  
THREE CREDIT HOURS  
The course presents the evidence of evolution and discusses the factors which initiate change in species and the agencies which guide it. Three class periods a week.  
*To be announced*

BIO 322. **Entomology**  
FOUR CREDIT HOURS  
Lectures and laboratory periods on the biology, morphology and identification of insects with emphasis on the local forms. The influence of insects and related animals on man and his possessions will be considered. Students will be required to prepare a properly identified collection. Two lectures and two laboratory periods per week. Prerequisite: Biology or Zoology one year.  
*Second Semester, 1956-1957*
Bio 350. Preventive Medicine  
**Two Credit Hours**
The development of the science of public health, and the prevention of disease from the standpoint of the individual and the community.  
*First Semester, Each Year—Evening*

Bio 351. Epidemiology  
**Two Credit Hours**
The occurrence of the more common communicable diseases, their methods of transmission, and the control of reservoirs between periods of activity.  
*Second Semester, Each Year—Evening*

Bio 407. Embryology  
**Five Credit Hours**
The course gives the student a clear understanding of the early stages of development of the invertebrates and the vertebrates. It pays special attention to the study of the development of the chick and of the pig. Three class periods and two laboratory periods a week.  
*Each Semester, Each Year*

Bio 408. Biophysics  
**Three Credit Hours**
The course applies physical and chemical principles to the following biological problems: stress and strain in biologic systems, surface tension, osmosis, membranes, colloids, cells, dynamics of cell division and growth, bio-hydraulics, heat production, calorimetry, sound production and reception, electric phenomena in cells and tissues, diatherms, artificial fevers, effects of radiant energy on biological materials, spectrographic methods of investigation, treatment of tumors with X-rays, and the production of vitamins. Three class periods a week.  
*To be announced*

Bio 411. General Bacteriology  
**Five Credit Hours**
A brief course covering the physiology, classification, and cultivation of bacteria. Their relation to medicine, agriculture, water, sewage, and milk are stressed. Isolation and microscopic observations of certain pathogenic germs; theories of immunity and immunization; three class periods and two laboratory periods a week.  
*Each Semester, Each Year*

Bio 415. Pathogenic Bacteriology  
**Four Credit Hours**
A brief survey of pathogenic organisms, including their classification, cultural characteristics, biochemical and physiological reactions. Isolation and identification of unknowns; demonstration of and limited training in clinical serological methods as related to pathogens included in course. Two class periods and one laboratory period a week.  
*To be announced*

Bio 420. Seminar  
**One Credit Hour**
Practice in development, presentation, and discussion of papers dealing with biological problems.  
*To be announced*
BUSINESS ORGANIZATION (Bus)

MR. O'LEARY, CHAIRMAN
MR. COMER, MR. MURPHY
MR. SNYDER, MR. WHALEN

Concentration Recommendations

MAJOR: Minimum of thirty hours of upper division courses are required of students majoring in business organization. These courses should include 301, 303, 305, 313, 316, 317, 404, 405, 425. A minimum of two additional closely related courses is also required. These courses are to be selected in consultation with the Department Chairman or the Dean.

Accounting 101-102 and Economics 201-202 are prerequisite to all advanced courses.

Students preparing for teaching positions in secondary schools should consult their adviser in the selection of required courses.

BUS 101. INTRODUCTION TO BUSINESS
THREE CREDIT HOURS
A survey of the fields of business and their inter-relationships. The uses and functions of production and distributive systems, capital, labor, finance, accounting, statistics, marketing, etc., are studied. The objectives are to emphasize business concepts and to prepare the students for specialized courses. Three class periods a week. Each Semester, Each Year

BUS 102. INDUSTRIAL RESOURCES AND PRODUCTS
THREE CREDIT HOURS
A survey of major industries, their raw materials, processing, distribution, and marketing factors. Three class periods a week. Each Semester, Each Year

BUS 103. MATHEMATICS OF FINANCE I
THREE CREDIT HOURS
This course covers the fundamentals of second year of high school algebra and continues into topics of college algebra. Logarithms, ratio and proportion, with application to problems in business and finance, are stressed. Three class periods a week. Each Semester, Each Year

BUS 104. MATHEMATICS OF FINANCE I
THREE CREDIT HOURS
This course is similar to Bus 103, but is given five times a week to permit the necessary drill work for the less prepared student. For Business students. Five class periods a week. Each Semester, Each Year

BUS 201. BUSINESS MACHINES
THREE CREDIT HOURS
Purposes to give students the opportunity to become acquainted with and to use correctly the machines commonly found in offices today. Such machines include two principal types of adding machines, three principal types of calculators and accounting mechanisms. Recommended prerequisite: Acc 101. Three class periods a week. Each Semester, Each Year

BUS 203. MATHEMATICS OF FINANCE II
THREE CREDIT HOURS
A study of the essential mathematical problems helpful to business men; inter-
est, logarithms, ordinary annuities, time payment plans, amortization and sinking funds, valuation of bonds, and mathematics of life insurance. Three class periods a week.

BUS 301. CORPORATION FINANCE
Three credit hours
Principles of financial organization and management. A study of business organizations, corporate securities, financial structures; financing of new and established corporations; management of corporate funds; corporate expansion; mergers, failures and reorganizations; security exchanges, financial markets and government regulation of financial institutions and practices. Three class periods a week.

BUS 303. BUSINESS LAW I: CONTRACTS
Three credit hours
The basic course in business law treating the nature and the classification of law, the courts and court procedure, and considering in some detail the law of contracts, sales, agency, and personal property. Three class periods a week.

BUS 304. BUSINESS LAW II: REAL PROPERTY AND NEGOTIABLE INSTRUMENTS
Three credit hours
A consideration of the law of real property, real estate mortgages, landlord and tenant, mechanics' lien, deed and conveyances and the law of negotiable instruments. Three class periods a week.

BUS 305. PRINCIPLES OF MARKETING
Three credit hours
The general principles and practices underlying the processes of marketing. An analysis of the problems of the manufacturer, wholesaler, retailer and other marketing agencies. Principles, trends, methods and policies with relation to marketing efficiency. Three class periods a week.

BUS 306. ADVANCED MARKETING
Two-three credit hours
The marketing policies of manufacturers and wholesalers; the technique of marketing research; and analysis of current problems and literature relating to marketing efficiency. Three class periods a week.

BUS 307. ADVERTISING
Three credit hours
Nature and functions of advertising; the preparation of layouts, the writing of copy; selection and evaluation of media. The coordination of advertising with other marketing efforts. Social implications of advertising are discussed. Three class periods a week.

BUS 308. ADVERTISING PROBLEMS
Three credit hours
An intensive study of special problems in advertising. Emphasis is placed on such topics as preparation of copy, methods of printing and engraving, layout of advertisements, effectiveness of position, use of media, current trends of advertising. Three class periods a week.

BUS 309. RETAIL MERCHANDISING
Three credit hours
Surveys basic merchandising principles and problems of large and small retail
stores. Includes organizations, location, buying and selling, cost reductions, current practices and trends.  

Each Semester, Each Year

BUS 310. SALESMAINSHIP  
A study of the basic principles underlying all selling and their practical application to specific cases. Topics include: types of selling jobs; fundamentals of selling, sales personality, buying motives, methods and sources of acquiring product knowledge; planning the sale; selling techniques, securing prospects, the approach, arousing interest, overcoming objections, closing the sale.  

Each Semester, Each Year

BUS 311. SALES MANAGEMENT  
The structure of the sales organization, determination of sales policies, the selection, training, and motivation of salesmen, the establishing of sales territories and quotas. Specific problems are used to illustrate and apply principles.  

Second Semester, Each Year

BUS 312. PRINCIPLES OF INTERNATIONAL TRADE  
Principles and procedures in exporting and importing. Export and import organization, market analysis, handling shipments, packing, customs, and current practices. Three class periods a week.  

First Semester, Each Year

BUS 313. BUSINESS STATISTICS  
A survey of statistical methods including sampling, tabulations, graphics, averages, dispersions, index numbers, time series, trends, and simple correlations. Three class periods a week.  

Each Semester, Each Year

BUS 315. PRINCIPLES OF MANAGEMENT  
A basic course that recognizes the importance of "management" as a distinct function and the university of management principles in the administration of any type of enterprise. The managerial functions of planning, organizing, and controlling are presented as a basis for subsequent courses that emphasize their application in specific areas. As a terminal course it is valuable in providing the student with a survey of the basic principles of administration. Prerequisite: Bus 101.  

Each Semester, Each Year

BUS 316. INDUSTRIAL MANAGEMENT  
Nature and place of management, and factors underlying management decisions; product designs, physical facilities, location and layout; job evaluation and classification; plant operation and output; control of purchases and inventories. Problems of production control and coordinating factory operations. Three class periods a week.  

Each Semester, Each Year

BUS 317. LABOR MANAGEMENT  
Nature and development of the labor problem; selection, training and supervision of labor; wage practices; methods of wage payment; promotion and transfer policies; layoffs; employee morale; current practices in labor management relations. Three class periods a week.  

Each Semester, Each Year
BUS 319. Job Evaluation and Wages Determination  
Three credit hours  
Job evaluation methods; determining requirements of jobs; establishing grade levels; development of basic rates, salary classifications and performance ratings. Three class periods a week.  
First Semester, Each Year

BUS 320-321. Motion and Time Study  
Six credit hours  
A study of the methods and apparatus used in achieving and perpetuating operation standardization. A study of motion and time of workers with the objective of increasing efficiency and enlarging production. Three class periods a week.  
Full Year Course, Each Year

BUS 324. Labor Legislation  
Three credit hours  
The development, constitutional aspects, and practical effects of Federal and State legislation with respect to child labor, wages, hours, conditions of employment, industrial accidents, social security, civil and criminal liability and labor relations. Prerequisites: Bus 316, 317, or permission of instructor. Three class periods a week.  
Each Semester, Each Year

BUS 327. Elements of Supervision  
Three credit hours  
A consideration of the responsibilities of the shop or department head within the field of operative management; emphasis on training, motivation, grievances and maintenance of morale in the light of sound management principles. An exposition of accepted solutions to present day problems. Three class periods a week.  
First Semester, Each Year

BUS 331-332. Office Management and Office Methods and Improvement  
Six credit hours  
The organization and management of an office and the functions of those in supervisory work. Planning, organizing and control of office work and personnel; problems of office standards, business forms and designs; analysis of office methods and procedures in relation to purchase, production and distribution. Three class periods a week.  
Full Year Course, Each Year

BUS 401. Investments  
Three credit hours  
A study of the basic features and principles underlying sound investments. The discussions include an analysis and evaluation of government, municipal, railroad, public utility, industrial, financial, and real estate securities. Problems and trends are emphasized. This course is a continuation of Bus. 301 but may be elected by qualified students with consent of the instructor. Three class periods a week.  
Second Semester, Each Year

BUS 402. Credits and Collections  
Two-three credit hours  
Nature and functions of credit. Principles and practices in retail and mercantile credit administration. Sources and analysis of credit information. Two or three class periods a week.  
Second Semester, Each Year
BUS 403. BUSINESS LAW III: LAW OF BUSINESS ORGANIZATION AND SECURITY RELATIONS  
THREE CREDIT HOURS  
A treatment of the characteristics of partnerships and corporations and of the law of chattel mortgages, conditional sales, suretyship and insurance. Three class periods a week.  
Second Semester, Each Year

BUS 404. BUSINESS CYCLES  
THREE CREDIT HOURS  
Characteristics and economic consequences of business cycles. Analysis of causes and theories of business cycles. Examination of the proposals for eliminating or for controlling the business cycle. Some attention is given to the barometers and measurements of business cycles. Three class periods a week.  
First Semester, Each Year

BUS 405. MONEY, CREDIT AND BANKING  
THREE CREDIT HOURS  
A survey of concepts, principles and practices in the field of money, credit and banking. Considerations of monetary systems, foreign exchange, credit instruments and the principal types of modern financial institutions. Special attention to the commercial bank and its relation to the federal reserve system. Emphasis upon the social and management viewpoint. Three class periods a week.  
Each Semester, Each Year

BUS 406. MONEY, CREDIT AND BANKING  
THREE CREDIT HOURS  
A study of the problems and policies of commercial banks. The policies and operation of central banks particularly the federal reserve banks, in relation to commercial banks, business, the Treasury and financial markets. Problems of credit control, monetary stabilization, and banking regulations and reform. Current banking practices and trends are emphasized and discussed. This course follows Bus 405. Three class periods a week. Second Semester, Each Year

BUS 414. INDUSTRIAL PURCHASING  
THREE CREDIT HOURS  
Principles, policies, and practices of industrial procurement. Organization and functions; purchasing procedure; quality and quantity control; supply sources; price policies; forward buying; legal aspects of purchasing procedure. Three class periods a week.  
Second Semester, Each Year

BUS 415. PRODUCTION METHODS AND CONTROL  
THREE CREDIT HOURS  
Principles and techniques used in production; current practices in production planning, routing, scheduling and dispatching; study of production standards, labor efficiency and costs; quantity and quality control. Three class periods a week.  
First Semester, Each Year

BUS 419. COLLECTIVE BARGAINING, MEDIATION AND ARBITRATION  
THREE CREDIT HOURS  
Meaning, practices, principles and organization of collective bargaining; techniques of mediation and agencies for effecting mediation; major economic problems involved in the adjustment of labor disputes. Three class periods a week.  
Second Semester, Each Year
BUS 421. THEORY OF ORGANIZATION
Three Credit Hours
A review of the development of improved administrative methods in industry and commerce and their contribution to the field of higher wages and lower costs. Works of Taylor, Fayol, Emerson, Davis, Urwick, Mooney and others are examined; stress is placed upon the development of effective organization and operation through the application of the principles of scientific management. Three class periods a week.
Second Semester, Each Year

BUS 422. COUNSELING TECHNIQUES
Two to Three Credit Hours
Functions of counselors in employee adjustment in personnel and in industrial relations; establishing counseling services, organizing and administering a program; evaluation and remedial action. Two-three class periods a week.
Second Semester, Each Year

BUS 425. BUSINESS ORGANIZATION SEMINAR
Two Credit Hours
A study of special problems of current importance and of interest to the group. The class meetings consist of individual reports and discussions. Two class hours a week.
Each Semester, Each Year

CHEMICAL ENGINEERING (CME)
MR. WILSON, CHAIRMAN
MR. J. HSU, MR. SOFIANOPoulos, BRO. WOHLLEBEN

CME 202. CHEMICAL ENGINEERING FUNDAMENTALS I
Three Credit Hours
An introduction to chemical engineering with lectures and problems on material and heat balances as applied to industrial processes. Prerequisite: Chm 215.
Second Semester, Each Year

CME 303. CHEMICAL ENGINEERING FUNDAMENTALS II
Three Credit Hours
Development of the fundamental principles of thermodynamics, particularly with respect to chemical engineering processes. Prerequisites: CME 202, Mth 201.
First Semester, Each Year

CME 304. CHEMICAL ENGINEERING FUNDAMENTALS III
Three Credit Hours
Kinetics and catalysis of the chemical reactions utilized in industrial processes. Prerequisite: CME 305.
Second Semester, Each Year

CME 311. UNIT OPERATIONS I
Three Credit Hours
Scientific principles forming the basis of the Unit Operations with particular reference to fluid flow and heat transfer. Prerequisite: CME 202.
First Semester, Each Year

CME 312. UNIT OPERATIONS II
Three Credit Hours
A critical study of the Unit Operations of chemical engineering. Lectures and problems. Prerequisite: CME 311.
Second Semester, Each Year
CME 400. **Elementary Chemical Engineering Research**

Independent study of elementary laboratory problems in chemical engineering.

*Each Semester, Each Year*

**CME 411. Unit Operations III**

Continuation of CME 312. Lectures and problems. Prerequisite: CME 312.

*First Semester, Each Year*

**CME 413-414. Unit Operations Lab**

This course is designed to acquaint the students with Unit Operations equipment and its utilization. Prerequisites: CME 311-312.

*Full Year Course, Each Year*

**CME 421. Chemical Engineering Technology**

A critical discussion of industrial chemical processes and principles. Prerequisite: CME 301.

*First Semester, Each Year*

**CME 422. Plant Design**

Problems in the design of complete chemical plants, including estimation of operation and construction costs. Prerequisite: CME 411.

*Second Semester, Each Year*

**CME 423-424. Seminar**

Required of all junior and senior students in Chemical Engineering.

*Each Semester, Each Year*

**CME 426. Chemical Engineering Projects**

Laboratory development of individual projects. Senior standing in Chemical Engineering.

*Second Semester, Each Year*

**CME 451. Industrial Instrumentation**

A study of industrial instruments and systems for indicating, recording and controlling process variables. Prerequisite: Junior standing in chemical engineering.

*First Semester, Each Year*

**CME 452. Industrial Instrumentation Lab**

Laboratory course to accompany CME 451. Prerequisite: CME 451.

*Second Semester, Each Year*

**CME 461. Elements of Nuclear Engineering**

Introduction to the application of engineering principles to the field of nuclear science.

*First Semester, Each Year*

**CME 471. Elements of Bio-Engineering**

Introduction to the application of engineering principles to those industries which are based on biological or natural products.

*Second Semester, Each Year*
ADVANCED COURSES IN CHEMICAL ENGINEERING

CME 501. ADVANCED THERMODYNAMICS  
Two Credit Hours  
Advanced topics of thermodynamics with applications.  
Offered in 1957-1958 and alternate years

CME 502. FLUID FLOW  
Two Credit Hours  
A study of compressible and incompressible flow with applications.  
Offered in 1957-1958 and alternate years

CME 503. ADVANCED UNIT OPERATIONS  
Two Credit Hours  
This course covers diffusional topics, including extraction and multi-component absorption.  
Offered in 1957-1958 and alternate years

CME 504. HEAT TRANSMISSION  
Two Credit Hours  
A study of the basic concepts of the flow of heat by conduction, convection and radiation.  
Offered in 1957-1958 and alternate years

CME 505. KINETICS  
Two Credit Hours  
A study of Kinetic theory and reaction kinetics as applied to chemical engineering.  
Offered in 1956-1957 and alternate years

CME 506. DISTILLATION  
Two Credit Hours  
A critical study of fractionation including multi-component distillation methods.  
Offered in 1956-1957 and alternate years

CME 590. SEMINAR  
One Half Credit Hour  
Required of advanced students.  
Each Semester, Each Year

SUGGESTED ELECTIVES

Bus 102 Industrial Resources and Products  
Bus 316 Industrial Management  
Eco 203 Survey of Economics  
Eco 303 Labor Problems  
Mus 102 Music Literature and Appreciation  
Psy 430 Industrial Psychology  
Bio 413 General Bacteriology  
INE 411 Process Engineering  
Mth 301 Differential Equations  
Mth 331 Statistics for Engineers  
Mth 341 Eng. Math. I  
Mth 342 Eng. Math. II  
Mth 421 Advanced Calculus  
Mth 451 Vector Analysis  
Phy 311 Atomic Physics  
Phy 321 Nuclear Physics
CHEMISTRY (Chm)

BRO. CHUDD, CHAIRMAN
MR. EVESLAGE, MISS HASKIN, BRO. LUCIER, MR. MICHAELIS,
MR. MORATH, MR. PAPPALARDO, BRO. WOHLLEBEN, BRO. WOTTLE

Chm 110. General Chemistry
Fundamental principles of general chemistry, including a brief study of metals,
on-metals, and their compounds. The course is designed to meet the needs of
students in Home Economics and Nursing. Four class periods and one two-hour
laboratory period a week.

Chm 123-124. General Chemistry
A comprehensive treatment of the fundamentals of general chemistry. Three
class periods and one three-hour laboratory period per week. The second semes-
ter laboratory work is devoted to semimicro qualitative analysis.

Chm 123-124A. General Chemistry
This course, designed for chemistry majors, is the same as Chm 123-124 except
that the laboratory work of the second semester consists of two three-hour pe-
riods of semimicro qualitative analysis per week.

Chm 123B. General Chemistry
A one-semester course similar to Chm 123 in scope but designed for those who
have not had high school chemistry and/or score below a determined norm
on a standardized test. Five class periods and one three-hour laboratory period
per week.

Chm 200. Organic Chemistry
A brief course covering the essential aliphatic and aromatic compounds. This
course is designed to meet the needs of the Home Economics and Nursing stu-
dents. Four class periods and one two-hour laboratory period a week.

Chm 215. Quantitative Analysis I
A course for chemistry majors and chemical engineers. The fundamental theory
and techniques of gravimetric and volumetric analyses is treated. Two class
periods and two three-hour laboratory periods per week.

Chm 216. Quantitative Analysis II
A continuation of analytical techniques with the accent on separations, elec-
troanalysis, colorimetric analysis and flame spectrophotometry. Two class periods and
two three-hour laboratory periods per week. Required for chemistry majors.
Prerequisite: Chm 215.

Chm 301. Quantitative Analysis
A short course intended for premedical, predental, and medical technology
students. Two class periods and one four-hour laboratory period per week.

CHEMISTRY 141
CHM 302. PHYSICAL CHEMISTRY
A short course for premedical and predental students. Discussion of the properties of laws of matter in its different states and in solution; chemical equilibrium; thermo-chemistry; electro-chemistry; reaction kinetics; phase rule. The laboratory work includes physicochemical methods and their applications. Three class periods and one three-hour laboratory period a week. Prerequisite: Chm 301.

CHM 303. PHYSICAL CHEMISTRY
A long course for students who wish to follow a scientific or engineering career. More comprehensive than Chm 302, with emphasis on industrial applications. Three class periods and one three-hour laboratory period a week. Prerequisite: Chm 215; Corequisite: Mth 202.

CHM 304. PHYSICAL CHEMISTRY
A continuation of Chm 303. Prerequisite: Chm 303. Each Semester, Each Year

CHM 307. CHEMICAL LITERATURE
The use of chemical literature, indexing methods, and patent procedure. Prerequisite: Ger 307.

CHM 313-314. ORGANIC CHEMISTRY
This is a less intensive course than Chm 315-316 designed for Medical Technicians, premedical and predental students. Three class periods and one three-hour laboratory period a week. Prerequisite: Chm 123-124.

CHM 315-316. ORGANIC CHEMISTRY
A study of the aliphatic, aromatic, and heterocyclic compounds, including laboratory preparations of typical compounds, and aimed to develop the basic techniques of organic methods. This course is required of chemistry majors and chemical engineers. Three class periods and two laboratory periods a week. Prerequisite: Chm 215.

CHM 400. BIOCHEMISTRY
A one-semester course intended to meet the needs of students in Home Economics. A study of the chemistry of the essential food constituents, their digestion, absorption, and intermediary metabolism. Four class periods and one three-hour laboratory period a week. Prerequisite: Chm 215. First Semester, 1956-1957

CHM 404. BIOCHEMISTRY
A course treating the chemistry and metabolism of carbohydrates, lipids, proteins, enzymes, acid-base balance, vitamins and hormones. Three class periods and one three-hour laboratory period per week. Prerequisite: One full year of basic organic chemistry. To be announced

CHM 405. QUANTITATIVE ORGANIC ANALYSIS
A systematic study of the reactions of functional groups and of the physical
properties which lead to the identification of organic compounds. One class period and two three-hour laboratory periods a week. Prerequisite: Chm 315-316. Required of Chemistry Majors.

**CHM 406. ADVANCED ORGANIC CHEMISTRY**

Two credit hours

This course provides an understanding of the modern theory of organic chemistry with emphasis on reaction mechanisms. Prerequisite: Chm 315-316. Required of Chemistry Majors.

**CHM 408. LABORATORY TECHNIQUES IN ORGANIC CHEMISTRY**

One credit hour

A one three-hour laboratory period covering the standard but more advanced techniques of organic chemistry, such as types of distillation, hydrogenation, etc. Prerequisite: Chm 315-316.

**CHM 415-416. ADVANCED INORGANIC CHEMISTRY**

Four credit hours

This course comprises topics such as electronic distribution in atoms and ions, the Bohr Atom, types of forces resulting in compound stability, nature of the chemical bond, electron affinity and the periodic arrangement, the nucleus and its reactions, coordination compounds, systematization of the inorganic family. Two class periods a week.

**CHM 499. RESEARCH**

Two-three credit hours

Required of Chemistry Majors and arranged by consultation with staff members. Periodic oral and written reports will be required. Prerequisite: Senior standing.

**CIVIL ENGINEERING (CIE)**

**MR. BALDINGER, ACTING CHAIRMAN**

**MR. CHAMBERLAIN, MR. GABRYS, MR. STITH**

**CIE 201. ELEMENTARY SURVEYING**

Two credit hours

Elements of plane surveying, including measuring distances and angles, differential leveling. Application to topographic and construction surveys for non-Civil Engineering students. Two class periods a week. Prerequisite: Mth 115.

**CIE 201-L. ELEMENTARY SURVEYING FIELD WORK**

One credit hour

Use and care of surveying instruments, practical use of instruments under actual field conditions. For non-civil engineering students. Two class periods per week. Prerequisite: Mth 115.

**CIE 203. SURVEYING**

Five credit hours

Elements of plane surveying, differential and trigonometric levelling, adjustment of level nets, measurement of angles, triangulation and adjustment of quadrilaterals. Traverse and area computation. U.S. Public Lands surveys.
Astronomical surveys. Application to construction and mapping. For Civil Engineering students only. Five class periods a week. Prerequisite: Mth 116.

First Semester, Each Year

CIE 204. Route Surveying

Theory of simple, compound, reverse and transition curves. Vertical curves. Calculation of earthwork, including cross sectioning, computation of volume and the mass diagram. Application to highway, railroad and other transportation systems. Three class periods a week. Prerequisite: CIE 203.

Second Semester, Each Year

CIE 205-L Surveying Field Practice

Use and care of surveying instruments under actual field conditions. Topographic surveys and mapping. Differential and trigonometric leveling. Triangulation. Layout of Horizontal and Vertical Curves. Three and one half weeks in the summer following the second semester. Prerequisite: CIE 203, CIE 204.

CIE 306. Theory of Structures

The analytical and graphical methods of stress determination in statically determinate structures, together with a study of influence lines. Five class periods a week. Prerequisite: GNE 303.

Second Semester, Each Year

CIE 307. Hydraulics

A basic course in the principles of hydrostatics and hydrodynamics; pressures exerted by water at rest or in motion; measurement of fluid flow; fundamentals of dimensional analysis and dynamic similarity; flow of water in pipes and open channels, with application of basic principles to the flow of other fluids; hydraulic turbines and centrifugal pumps. Four class periods a week. Prerequisite: GNE 202.

First Semester, Each Year

CIE 307-L. Hydraulic Laboratory


First Semester, Each Year

CIE 308-L. Civil Engineering Laboratory

A laboratory course to acquaint the student with ASTM and AASHO standards and procedures and the mechanical testing of metals, timber, plastics, cement, aggregates, mortar, concrete and bituminous materials. Two laboratory periods a week. Corequisite: GNE 303.

Second Semester, Each Year

CIE 401. Structural Design

The design of industrial buildings in steel, including miscellaneous building details. The design of railroad plate girders and highway bridges. Two class periods a week. Prerequisite: CIE 306.

First Semester, Each Year
CIE 401-L. **Structural Design Laboratory**  
TWO CREDIT HOURS  
Actual calculations and engineering drawing of the work covered by lectures and instruction in CIE 401. Two laboratory periods a week. Corequisite: CIE 401.  
*First Semester, Each Year*

CIE 402. **Structural Design**  
TWO CREDIT HOURS  
The design of typical reinforced concrete building including building details. The design of reinforced concrete arch and rigid frame bridges. Two class periods a week. Prerequisites: CIE 306, 407.  
*Second Semester, Each Year*

CIE 402-L. **Structural Design Laboratory**  
TWO CREDIT HOURS  
Actual calculations and engineering drawings of the work covered by lecture and instruction in CIE 402. Corequisite: CIE 402. *Second Semester, Each Year*

CIE 405. **Highway Engineering**  
THREE CREDIT HOURS  
The fundamentals of highway economics and design; construction and maintenance; alignments; plans and specifications; highway materials; traffic control. Three class periods a week. Prerequisites: CIE 202, GNE 303.  
*First Semester, Each Year*

CIE 406. **Indeterminate Structures**  
THREE CREDIT HOURS  
The determination of stresses and deflections of statically indeterminate frames and trusses by the classic and modern methods, including Castigliano's Theorem, least work, moment and shear distribution. Three class periods a week. Prerequisite: CIE 306.  
*Second Semester, Each Year*

CIE 407. **Reinforced Concrete**  
FOUR CREDIT HOURS  
The first course in the theory and design of reinforced concrete structures; the study of earth pressure; design of retaining walls and footings. Four class periods a week. Prerequisite: GNE 303.  
*First Semester, Each Year*

CIE 408. **Seminar**  
ONE CREDIT HOUR  
Practice in the presentation and discussion of papers dealing with civil engineering subjects; occasional lectures by prominent engineers. Periodically, meetings of the Student Chapter of the American Society of Civil Engineers are substituted for seminar sessions. The Chapter sponsors engineering inspection trips and attendance at the monthly meetings of the Dayton Section of the American Society of Civil Engineers. One class period a week for Junior and Senior years.  
*First Semester, Each Year*

CIE 411. **Water Supply**  
THREE CREDIT HOURS  
The theory, development and improvement of water supplies for domestic, manufacturing, and fire service; population prediction; quality and quantity of surface and underground waters; demand and consumption; hydraulics of reservoirs, pipe lines, distribution systems and pumping machinery. Three class periods a week. Prerequisite: GNE 307.  
*First Semester, Each Year*

CIE 412. **Sanitary Engineering**  
THREE CREDIT HOURS  
Sewage, sewerage and sewage disposal. Design of a small sewerage system for
sanitary and storm flow. Three class periods a week. Prerequisite: GNE 307.

Second Semester, Each Year

CIE 414. SOIL CLASSIFICATION AND TESTING
Classification of soils according to the methods of the Bureau of Soils. Bureau of Public Roads and Corps of Engineers. One class period a week. Prerequisite: GNE 303, Corequisite: CIE 414-L.

Second Semester, Each Year

CIE 414-L. SOIL TESTING LABORATORY
Tests include specific gravity, Atterberg limits, Mechanical analysis, Strength Optimum Moisture content, Permeability, Consolidation, and approximate methods for rapid field identification. One laboratory period a week. Corequisite: CIE 414.

Second Semester, Each Year

CIVIL ENGINEERING ELECTIVES

CIE 421. CONSTRUCTION ENGINEERING
Organization, planning and control of construction projects. Use of construction machinery, including equipment economics. Construction methods, including preparation of site, earthworks and excavating, and materials of construction. Three class periods a week.

CIE 422. MATERIALS OF CONSTRUCTION
A comprehensive study of the properties of timber, stone, clay products, wrought iron, steel, cast iron, non-ferrous alloy and plastics. Three class periods a week. Prerequisite: CIE 308-L.

CIE 502. Prestressed Concrete
Discussion of the properties of concrete and prestressing steel. Theory and design of prestressed concrete beams, slab, circular tanks and rigid frames. Three class periods a week. Prerequisite CIE 407.

CIE 504. LIMIT DESIGN IN STEEL
A review of the physical properties of metal, the theory and application of limit design to simple and redundant members, trusses and columns. A brief study of connection details. Three class periods a week. Corequisite: CIE 406.

CIE 506. ULTIMATE DESIGN OF REINFORCED CONCRETE
The theory and application of ultimate design in reinforced concrete as applied to the sections of beams, columns and members subject to both bending and direct stress. The latest report of the A.S.C.E.-A.C.I. Joint Committee is reviewed. Three class periods a week. Prerequisite: CIE 407.

CIE 521. ELEMENTARY SOIL MECHANICS
Introduction to theoretical soil mechanics including: earth pressure, bearing capacity, settlement, and stability of slopes. Three class periods a week. Prerequisite: GNE 303.
CIE 524. Foundation Design  
THREE CREDIT HOURS
The design of spread foundations, pile foundations, caissons, cofferdams, anchored bulkheads and tunnels. Three class periods a week. Prerequisite: CIE 521.

CIE 542. Highway Design I  
THREE CREDIT HOURS
Design and construction of pavements, including concrete, asphalt, aggregate and soil cement surfaces. Designs of base courses. Maintenance. Three class periods a week. Prerequisite: CIE 405.

CIE 544. Traffic Engineering  
THREE CREDIT HOURS
Characteristics of traffic, including the road user, the vehicle, origin, and destination surveys. Traffic regulation, control devices and aids, design, administration and planning. Three class periods a week. Prerequisite: CIE 405.

ECONOMICS (Eco)

MR. O'LEARY, CHAIRMAN
MR. FECHER, MR. MCGOVERN, BRO. NAGEL, MR. SNYDER,
MR. STEINBRUEGGE, MR. TORCHIA

Concentration Recommendation

MAJOR: Minimum of thirty hours of upper division courses are required of students majoring in Economics. These courses should include 301, 313, 402, 404, 405, 406, 408, 413, 425. A minimum of two additional closely related courses is also required. These courses to be selected in consultation with the adviser.

Economics 201-202 is prerequisite to all advanced courses.

The following courses in business organization are credited in an economics major or minor toward the B.S. or A.B. degree:

301 Corporation Finance  313 Statistics
305 Marketing  316 Industrial Management

ECO 105. Economic Geography  
THREE CREDIT HOURS
This course shows the influence exerted by topography, climate, geographical position, soil, and other natural resources upon the various types of activity by means of which man gains his living. It further shows the influence of geographical factors on the forms of agricultural industry, on the extractive and manufacturing industries and on the problems involved in transportation and commerce. Three class periods a week. Each Semester, Each Year

ECO 201-202. Principles of Economics  
SIX CREDIT HOURS
A general survey of the economic institutions, forces, and factors which affect the production, exchange, distribution, and consumption of wealth. Fundamental principles and concepts are emphasized. Designed for students who desire a general knowledge of economics as well as for those planning to concen-
trate on economics, business organization, and the social sciences. Required of all students selecting economics for a major or minor and for business administration students. 

**ECO 203. SURVEY OF ECONOMICS**

THREE CREDIT HOURS

A general treatment of the principles, objectives and applications of economics. Specifically a consideration of the relationship of a capitalistic economy to political democracy. Designed especially for Engineers.

*First Semester, Each Year*

**ECO 204. SURVEY OF ECONOMICS**

THREE CREDIT HOURS

A general treatment of economics, as indicated in ECO 203, but designed especially for students in Home Economics and in Secretarial Studies.

*Second Semester, Each Year*

**ECO 205. AMERICAN ECONOMIC HISTORY**

THREE CREDIT HOURS

An intensive study of the development of agriculture, industry, transportation, commerce, and finance against the general background of American political history and social history. Three class periods a week. Accredited in History.

*Each Semester, Each Year*

**ECO 305. COMPARATIVE ECONOMIC SYSTEMS**

THREE CREDIT HOURS

A study of economic systems from early times to the present. The emphasis is upon the theories of socialism, fascism, communism and capitalism. Three class periods a week.

*Second Semester, Each Year*

**ECO 308. PRINCIPLES OF INSURANCE**

THREE CREDIT HOURS

A general course in underlying principles of property, marine, casualty, and life insurance. The use and functions of insurance in the life of a business and in the life of individuals. The theory and practices of insurance carriers are discussed. Three class periods a week.

*Each Semester, Each Year*

**ECO 309. PRINCIPLES OF LIFE INSURANCE**

THREE CREDIT HOURS

An intensive study of the principles and practices of life insurance; types of policies; premiums; reserves; insurance programs and government regulations. Three class periods a week.

*Second Semester, Each Year*

**ECO 310. SOCIAL INSURANCE**

THREE CREDIT HOURS

Application of social insurance to old age, accident, disability and unemployment. Private and cooperative programs for worker security. Current pension and retirement programs are analyzed and discussed.

*Second Semester, Each Year*

**ECO 312. TRANSPORTATION**

THREE CREDIT HOURS

A survey of inland transportation agencies and facilities and a discussion of current transportation problems and regulations. Three class periods a week.

*Each Semester, Each Year*
Eco 313. Public Utilities  
Thirteen credit hours  
First Semester, Each Year

Eco 325. Labor Economics  
Thirteen credit hours  
The background and development of the American labor movement. Attention is given to the nature of the labor market, including problems of workers, insecurity, wages, collective bargaining, labor legislation, social insurance, and government intervention. Three class periods a week.  
Each Semester, Each Year

Eco 402. Public Finance and Taxation  
Thirteen credit hours  
A survey of government expenditures, borrowing, indebtedness, and revenue. The theory of taxation; constitutional distributive and administrative effects of taxation; American fiscal system. Three class periods a week.  
Second Semester, Each Year

Eco 403. History of Economic Thought  
Two-Three credit hours  
The development of economic concepts and theories from the mercantilists to recent economists. Emphasis upon the modern period. Two or three class periods a week.  
Second Semester, Each Year

Eco 404. Business Cycles  
Thirteen credit hours  
Characteristics and economic consequences of business cycles. Analysis of causes and theories of business cycles. Examination of the proposals for eliminating or controlling the business cycle. Some attention is given to the barometers and measurements of business cycles. Three class periods a week.  
First Semester, Each Year

Eco 405. Money, Credit and Banking  
Thirteen credit hours  
A survey of the concepts, principles and practices in the fields of money, credit, and banking. Consideration of monetary systems, foreign exchange, credit instruments, and the principal types of modern financial institutions. Special attention to the commercial bank and its relation to the Federal Reserve System. Three class periods a week.  
Each Semester, Each Year

Eco 406. Advanced Banking and Monetary Problems  
Thirteen credit hours  
Policies and operation of central banks, particularly the Federal Reserve System, and the financial markets. Problems of credit control, monetary stabilization and banking regulations and reform. Current banking problems and trends are emphasized. Three class periods a week.  
Second Semester, Each Year

Eco 408. Contemporary Economics  
Thirteen credit hours  
Analysis and discussion of current economic issues. Among the problems considered are labor, prices, government and economic maladjustments. Important
current economic problems will be emphasized and discussed as they arise. Three class periods a week.

Eco 413. Economic Analysis and Policy TWO-THREE CREDIT HOURS
Analysis of basic economic principles with special attention to the theories of value and distribution. Two or three class periods a week.
First Semester, Each Year

Eco 425. Economics Seminar TWO CREDIT HOURS
A study and discussion of special economic problems currently important and of interest to the group. Two class periods a week. Each Semester, Each Year

EDUCATION (Edu)

BRO. FAERBER, CHAIRMAN
MISS ADAMS, MR. BURROUGHS, MR. CHAVEZ, MR. DOUGLASS,
SR. FELICITAS, MR. FERRAZZA, MR. FLATTER, MISS GAUVEY,
MR. HENNESSY, BRO. JANSEN, MR. KEYES, FR. KOHMESCHER,
MISS KOOGLE, MR. LEARY, FR. LEES, MRS. MILLER, MR. OWEN,
BRO. PANZER, SR. M. PELAGIA, MR. PHILLIPS, MISS QUIRK,
MR. REICHARD, FR. ROESCH, MRS. ROE, MRS. RUHMSCHUSSEL,
BRO. SIBBING, MRS. SMOOT, BRO. WEBER, MR. WOGAMAN

EDU 100. Orientation to College ONE CREDIT HOUR
Deals with the total problem of adjustment to the college campus. Acquaints the beginning freshman student with the opportunities and responsibilities of college life and points out ways of utilizing them. Pays special attention to development of good study habits and effective techniques in note-taking.
First Semester, Each Year

EDU 101. Introduction to Education THREE CREDIT HOURS
Purposes to develop in the beginning student an adequate knowledge of and the right attitudes toward the teaching profession. It over-views the profession and examines the advantages, opportunities, and responsibilities of teaching as a professional career. It enables the student to select a field of education for major emphasis during his pre-service program. Observation of teaching for exploratory purposes is included. Required of all freshman students in Education.
First Semester, Each Year

EDU 105. Survey of Physical Sciences FOUR CREDIT HOURS
Gives the student a functional and broad understanding of those phases of man's physical environment that are of everyday interest and usefulness. Endeavors to give the prospective teacher a basic background in the physical sciences, including the more significant areas and recent developments in physics, chemistry, astronomy, and geology.
Second Semester, Each Year

EDU 107-108. Moral and Spiritual Values FOUR CREDIT HOURS
For freshman students in lieu of Religion. A study of the basic religious and
moral values inherent in the American tradition. Stresses the importance of such values in the personal life of the teacher and emphasizes their role as integrating factor in the educative process.  

**Full Year Course, Each Year**

**EDU 190. GENERAL AND EDUCATIONAL PSYCHOLOGY I**  
THREE CREDIT HOURS
This course is essentially an introduction to psychology designed to give an overview of the field and to clarify basic concepts that are helpful to the teacher. Special attention is given to personality and its determinants, to the nature of mental activity, and to the motivating factors in behavior. The course is required of all freshman education students. In the case of transfer students, an approved course in General or Introductory Psychology will be acceptable as a substitute.  

**Second Semester, Each Year**

**EDU 203. EDUCATIONAL PSYCHOLOGY II**  
THREE CREDIT HOURS
The psychology of learning. Considers the important factors and steps in the learning process. Includes such areas as motivation, readiness, transfer of training, rate and permanence of learning, measurement of progress. Planned observation of learning situations is required. Prerequisite: Edu 190.  

**First Semester, Each Year**

**EDU 219. THEORY AND METHODS OF KINDERGARTEN INSTRUCTION**  
THREE CREDIT HOURS
Deals both with the theory and the necessary practical skills to meet the needs of children in the Kindergarten. Observation in Kindergarten is included. Required for Kindergarten-Primary certification.  

**First Semester, Each Year**

**EDU 221. PRACTICAL ARTS IN THE KINDERGARTEN AND (PRIMARY) GRADES**  
TWO CREDIT HOURS
Creative expression in the use of such materials as papers, textiles, ceramics, and plastics. A study of handwork as an integral part of activities in the schools. Required of those preparing for Kindergarten-Primary certification. Accredited in Art.  

**Second Semester, Each Year**

**EDU 222. PRACTICAL ARTS IN THE INTERMEDIATE GRADES**  
TWO CREDIT HOURS
Same as Edu 221, adjusted to the maturity of children in the intermediate grades. Accredited in Art.  

**Second Semester, Each Year**

**EDU 300. HUMAN GROWTH AND DEVELOPMENT**  
THREE CREDIT HOURS
This course continues the study of human growth and development from where Edu 190 left off. It does so by going into this area more deeply in order to yield due insight into the physical, mental, emotional, and social development of children from infancy through adolescence. Factors influencing maturity levels of growth receive emphasis. It is taken concurrently with laboratory experiences. Although intended for students on a dual program (involving preparation for both elementary and high school teaching), it may be taken by others in substitution for either Child Psychology or Adolescent Psychology. Prerequisites: Edu 190, 203.  

**First Semester, Each Year**
EDU 303. **Reading in the Elementary School**

Covers the program of reading. Treats the following problems: reading-readiness, experience reading, methods of meeting individual differences, functional reading, diagnosis in reading, and remedial measures. Observation of teaching in the cooperating schools of the city by prearrangement. Intended for students on a retraining program. Prerequisite: Edu 306 or Edu 203.

*Each Semester, Each Year*

EDU 304. **Adolescent Psychology**

A study of the inter-related physical, physiological and mental changes associated with adolescence; interests and ideals; social tendencies and adjustments; causal factors in maladjustment and delinquency among adolescents. Required of students in Physical Education. Prerequisites: Edu 190, 203.

*First Semester, Each Year*

EDU 306. **Child Psychology**

A longitudinal study of childhood development with some concentration on prenatal growth trends. Explains in detail the genetic sequences appearing in the life of the child, e.g., motor development, sociability, language, intelligence, and imaginative life. Shows how discipline or training should be dependent upon the developmental growth patterns that emerge in the life of the child. Treats children up to the age of puberty. Prerequisites: Edu 190, 203.

*Each Semester, Each Year*

EDU 318. **Mental Hygiene for Teachers**

This course explains the contribution which the classroom teacher can make in guiding the development of the normal, integrated personalities of his pupils. Provides basis for evaluating questionable school practices, especially through a constructive view of discipline. Deals primarily with the normal child. Mental health practices for the teacher are also stressed. Required of all Education students. Includes observation of classroom conditions. *Each Semester, Each Year*

EDU 320. **Reading and Language Arts in Elementary School**

An integrated language arts course with reading as its core subject. A study of the following problems: modern concept of the nature of reading; methods and materials of instruction at the various reading levels; consideration of individual differences; diagnosis and remedial instruction; the development of oral and written communication, spelling, and handwriting skills. Acquisition of a certificate in handwriting is required. Includes field experiences in teaching, particularly observation of teaching. *Each Semester, Each Year*

EDU 322. **Literature in the Elementary School**

Acquaints students with the various fields of children’s literature and with adequate evaluative criteria. The contents include the following: history of children’s literature, poetry for different age levels, verse choirs, use of poetry, modern stories in folk-tale style, folk tales, story telling. Required of all students in Elementary Education. *First Semester, Each Year*
EDU 324. **Language in the Elementary School**

THREE CREDIT HOURS

Stresses the expressional phase of elementary school language, including oral and written expression, spelling and handwriting. Also treats instructional methods, measurement of accomplishments, and correction of pupil difficulties. Directed observation of teaching is included. Acquisition of certificate in handwriting is required. Intended for students on a retraining program.

*To be announced*

EDU 325. **Social Studies in the Elementary School**

THREE CREDIT HOURS

Function of the social studies in the elementary school; appraisal of teaching procedures in the field; formulation of definite principles to use in the selection of suitable contents and methods; testing the results of instruction.

*To be announced*

EDU 327. **Teaching of Home Economics in School**

THREE CREDIT HOURS

The philosophy of home economics education, curriculum, methods, devices, and materials used in teaching. Preparation and presentation of units and lessons. Observation of teaching in cooperating schools of city.

*Second Semester, 1957-58*

EDU 328. **Secondary School Methods and Commercial Subjects**

THREE CREDIT HOURS

Invokes the principles of teaching in connection with high school commercial subjects. Includes a survey of commercial textbooks, curricula construction, testing programs, professional periodicals, commercial teacher organizations. Observation of teaching in cooperating schools of city.

*First Semester, Each Year*

EDU 350. **The Elementary School: Purposes and Practices**

THREE CREDIT HOURS

Deals with objectives, organization, curricula, community relationships, and the practical aspects of teaching in the elementary schools. Studies ways of promoting desirable patterns of pupil behavior and orderly “housekeeping” in the classroom; provides experiences in planning instructional activities centered around social studies and science units; examines methods of motivating learning through the use of pupil participation, instructional aids, and community resources. Visitation of schools for observation.

*Each Semester, Each Year*


THREE CREDIT HOURS

Traces the historical background in relation to the present system. Treats the purposes, organization, curricula, community relationships, and the practical aspects of teaching in high school. It includes the study of discipline as an aspect of school morale and the development of skills in handling matters of routine connected with classroom management. Visitation of high schools for observation.

Prerequisites: Edu 190, 203, 318.

*Each Semester, Each Year*
EDU 403. ARITHMETIC IN THE ELEMENTARY SCHOOL
TWO-THREE CREDIT HOURS
History of number; distribution of content according to grade levels; methods of presentation; diagnosis of number difficulties; remedial instruction; testing. Directed observation of teaching. Prerequisite: Mth 200.
Each Semester, Each Year

EDU 405. SECONDARY SCHOOL METHODS IN ENGLISH AND LITERATURE
THREE CREDIT HOURS
Considers ways and means whereby the teacher of English can make his teaching more functional in the lives of students, more modern, more vigorous, and more inspiring. Observation of teaching by prearrangement with cooperating schools.
Second Semester, Each Year

EDU 406. SECONDARY SCHOOL METHODS IN SOCIAL STUDIES
THREE CREDIT HOURS
Aims and values of social studies in high school. General method and special techniques in the field of social studies in relation to basic principles of learning. Attention is given to practical teaching materials and devices. Observation of teaching in local cooperating schools.
Second Semester, Each Year

EDU 407. ART IN THE ELEMENTARY SCHOOL
TWO CREDIT HOURS
Deals with newer methods of teaching art in the elementary school; creative art expression and the use of art elements and principles as the basis for creative approach; organization of units of work, including drawing, painting, design, color, modeling, block printing, lettering, and the mural, as they relate to the integrated school program. Accredited in Art.
Each Semester, Each Year

EDU 408. SECONDARY SCHOOL METHODS IN MODERN LANGUAGES
THREE CREDIT HOURS
Considers the functions and values of language study; courses of study; organization of materials; conventional and progressive methods; illustrative materials; selection of texts; tests. Observation of teaching on high school level.
To be announced

EDU 409. SECONDARY SCHOOL METHODS IN MATHEMATICS
THREE CREDIT HOURS
The objectives of high school mathematics; sequence and correlation of subject matter; methods of teaching; analysis of courses of study and text books; materials and equipment; current trends. Directed observation of teaching on high school level.
First Semester, 1956-1957

EDU 410. SECONDARY SCHOOL METHODS IN RELIGION
TWO CREDIT HOURS
Presents the teacher of religion with modern methods of instruction; evaluates the relative merits of religion texts; teaches the employment of the principles of correlation and adaptation with view to the practical needs of adolescents;
treats the function of Catholic literature and the problem of pupil participation. Directed observation of teaching.

EDU 411. Secondary School Methods in Science  THREE CREDIT HOURS
Discusses the social basis for instruction in science; development of a philosophy for the teaching of science; selection of objectives on the basis of reliable criteria; determination of technique for developing an integrated science curriculum and a review of pertinent research on science teaching. Observation of teaching on high school level.

EDU 412. Measurement in Education  TWO-THREE CREDIT HOURS
The measurement of student achievement is approached as one important aspect of the broad field of evaluation confronting the future teacher. Attention is directed toward the place of measuring student achievement in the overall evaluative school program. Major emphasis is placed upon the construction of teacher-made achievement tests and the analysis of test results. The fundamentals or basic statistics as they relate to classroom use will be studied. Prerequisite: Completion of required 300 courses in Education.

EDU 414. Student Teaching  SIX-TWELVE CREDIT HOURS
Consists of teaching in actual classroom situations for extended periods under close supervision; evaluating pupil progress; conferences with supervising teachers on teaching procedures employed; participation in general school activities. A seminar under the direction of the campus supervisor and with staff members participating is held once a week throughout the semester.

The minimum amount of student teaching required for every candidate for graduation is six semester credit hours of supervised teaching consisting of a total of 180 clock hours of which no less than 90 clock hours are devoted to responsible classroom teaching. One semester of credit for student teaching is defined as equal to 30 hours of supervised teaching. Each Semester, Each Year

EDU 415. Principles of Guidance  THREE CREDIT HOURS
An exploration of the guidance role of the classroom teacher in the fields of educational, vocational, and social-civic-ethical guidance and the use of standard tests in guidance. The application of basic principles of guidance in the daily contact of teacher and student is emphasized. Directed laboratory experience in the cooperating schools of city. Prerequisite: Completion of required 300 courses in Education.

EDU 416. History of Educational Thought  THREE CREDIT HOURS
A series of concise interpretations of leading thinkers from Plato to John Dewey; overviews the world’s leading educational ideas. The course endeavors to give reliable direction to the future in education through knowledge of the past.

EDU 417. Library Guidance for Teachers  TWO-THREE CREDIT HOURS
Trains the teacher to make use of the available services and resources of the
standard school library in behalf of a well-rounded education for pupils. Acquaints the class with library organization, reference material, indexes, and bibliography. Not designed for teacher-librarians.

**EDU 419. PHILOSOPHY OF EDUCATION**

The application of the fundamental principles of a philosophy of life to the work of education. The course draws up criteria for the intelligent evaluation of educational theory and practice. By interrelating the principal concepts pertaining to man, society, and the school, the student should develop the ability to evolve a constructive philosophy of education based on a sound philosophy of life. It is planned as the integrating experience in the professional education sequence.

**EDU 420. MODERN THEORIES OF EDUCATION**

An evaluation of the modern philosophies of education. Attention is directed to the main tenets of each philosophy and the effects on educational theory and practice.

**EDU 422. THE ROLE OF THE SCHOOL IN THE SOCIAL ORDER**

Studies the sociological facts and principles essential to the background of every teacher; an analysis of the sociological objectives of education; surveys and appraises the implications of outside-of-school agencies, such as associational influence, customs, social control, parental education, youth problems, libraries, motion pictures, the press, radio, and the like.

**EDU 423. PHILOSOPHY OF CATHOLIC EDUCATION**

Investigation of the Catholic approach to the basic problems in education. The educand, the aims and agencies of education, and the educative process are viewed in the light of Catholic theology and scholastic philosophy. The course is built around the papal encyclical, "The Christian Education of Youth."

**EDU 431. VISUAL AND OTHER SENSORY AIDS IN EDUCATION**

Studies the aims and psychological bases of the use of visual and other sensory aids in the classroom; the techniques of the various types, including slides, motion pictures, television, maps, charts, radio, field trips, etc.; demonstration lessons applying sensory methods to the subjects of the curriculum. Includes laboratory experience.

**EDU 439. SCHOOL PROVISIONS FOR INDIVIDUAL DIFFERENCES**

Studies the different traits and abilities of pupils and ways whereby teaching might be adjusted to these differences. Special attention focused on the slow learner, the gifted student, and the educationally retarded child. Demonstrations and directed observation of teaching. Prerequisite: The required 300 courses in Education.
EDU 441. **Diagnosis and Remedial Instruction**  
TWO-THREE CREDIT HOURS  
A study of the major factors associated with learning difficulties, techniques that might be used to diagnose the nature and causes of pupil difficulty, and the methods by which remedial adjustments can be made. Demonstrations and directed observation of teaching. Prerequisite: The required 300 courses in Education.  
*To be announced*

EDU 442. **Speech Correction and Hearing Therapy**  
TWO-THREE CREDIT HOURS  
Treats the speech and hearing handicaps which frequently confront the teacher in the persons of elementary and secondary school pupils. The course endeavors to point out cases of these defects and ways of correcting them or surmounting them in furthering educational outcomes. Includes demonstrations with children. Prerequisite: The required courses in psychology for Education students.

**ELECTRICAL ENGINEERING (ELE)**

BRO. L. ROSE, CHAIRMAN  
MR. MORGAN, MR. SCHMIDT, MR. SIMOPOULOS

ELE 201. **Elements of Electrical Engineering**  
THREE CREDIT HOURS  
A general survey course presenting the basic theories of magnetic and electric circuits and their application to engineering. Three class periods a week. Co-requisite: Phy 207.  
*Each Semester, Each Year*

ELE 201L. **Elements of Electrical Engineering Laboratory**  
ONE CREDIT HOUR  
Circuit tracing, basic D.C. measurements, D.C. network experiments, D.C. meters and meter calibration, non-linear resistances, magnetic circuit experiments, simple RL and RC transients. One laboratory period a week.  
*Each Semester, Each Year*

ELE 301-302. **Electrical Engineering**  
FOUR CREDIT HOURS  
For Chemical, Civil, and Mechanical Engineering students. A series of lectures and laboratory exercises designed to familiarize the student with the elements of circuit theory, machinery, electronics, and measurements. Two class periods a week. Prerequisites: Phy 207, Mth 202.  
*Full Year Course, Each Year*

ELE 301L-302L. **Electrical Engineering Laboratory**  
TWO CREDIT HOURS  
Measurements involving direct and alternating current circuits; tests on direct current and alternating current machinery; elementary electronic experiments. One laboratory period a week. Corequisite: ELE 301-302.  
*Full Year Course, Each Year*
ELE 303-304. Electrical Measurements I and II  FOUR CREDIT HOURS
A lecture and laboratory course in the measurement of electrical quantities: resistance, inductance, capacitance, electromotive force, current and power. Study of galvanometers, bridges, and potentiometers. Calibration of instruments. Two class periods a week. Prerequisite: ELE 201; Corequisite: ELE 305.
Each Semester, Each Year

ELE 303L. Electrical Measurements Laboratory I  ONE CREDIT HOUR
Experiments covering current and ballistic galvanometers, potentiometers, Epstein test, recording instruments, Kelvin Bridge, oscilloscopes, elementary A.C. bridges. One laboratory period a week. Corequisite: ELE 303.
Each Semester, Each Year

ELE 304L. Electrical Measurements Laboratory II  ONE CREDIT HOUR
Continuation of ELE 303L in which experiments cover power measurements, Q-Meter, radio frequency bridge, instrument transformers, watthour meters, wave analyzer and frequency measurements. One laboratory period a week. Corequisite: ELE 304.
Each Semester, Each Year

ELE 305. Alternating Current Circuits  FOUR CREDIT HOURS
Vector and complex quantities applied to alternating currents. Single phase circuit analysis; non-sinusoidal waves; balanced and unbalanced polyphase systems. Three class periods and one problem period a week. Prerequisite: ELE 201; Corequisite: Mth 202.
Each Semester, Each Year

ELE 308. Communication Engineering I  THREE CREDIT HOURS
Network theorems; bridge circuits; resonance; impedance transformation; response of simple cutworks to impulse and step function driving forces. Three class periods a week. Prerequisite: ELE 312.
Each Semester, Each Year

ELE 308L. Communication Engineering Laboratory I  ONE CREDIT HOUR
Application of network theorems to linear systems; bridge circuit fundamentals; time measurements; use of the Q meter; use of the RF bridge; response of simple cutworks to various types of driving forces. Corequisite: ELE 308.
Each Semester, Each Year

ELE 312. Engineering Electronics  THREE CREDIT HOURS
A basic course with emphasis on the circuit application of electronic devices. Rectifiers, receiving tube characteristics, equivalent circuits, small signal and large signal applications, feedback circuits, gas tube characteristics and circuits, phototube circuits, transistor characteristics and circuits. Prerequisite: ELE 305.
Each Semester, Each Year

ELE 312L. Engineering Electronics Laboratory  ONE CREDIT HOUR
Receiving tube characteristics, thermionic emission, small signal amplifiers, power amplifiers, electronic instruments, power supplies, gas tube character-
istics and circuits, wave shaping circuits. One laboratory period a week. Co-
requisite: ELE 312.

ELE 313. ADVANCED ELECTRONICS
Three credit hours
Electronic ballistics, thermionic emission, photoelectric emission, secondary emis-
sion, high field emission, space charge flow, gaseous conduction. Theory of
operation of high vacuum tubes, cathode ray tubes, gas tubes, photoelectric
tubes, microwave tubes, and special electron tubes. Prerequisite: Mth 301 or
Mth 341.

ELE 318. MACHINERY I
Three credit hours
The theory, construction and characteristics of series, shunt and compound
generators and motors; the theory of commutation and armature reaction;
parallel operation of generators, methods of speed control, testing. The theory,
construction and characteristics of transformers. Three class periods a week.
Prerequisite: ELE 305.

ELE 318L. MACHINERY LABORATORY I
One credit hour
Experiments covering operation of series, shunt and compound D.C. machines.
Manual and automatic controls, parallel operation of generators. Transformer
voltage regulation and efficiency. One laboratory period a week. Corequisite:
ELE 318.

ELE 403. MACHINERY II
Three credit hours
Parallel and polyphase transformer connections; theory, construction and
characteristics of polyphase induction motors, synchronous generators and
motors, single phase motors and rotary converters. Three class periods a week.
Prerequisite: ELE 318.

ELE 403L. MACHINERY LABORATORY II
One credit hour
Continuation of ELE 318L in which experiments cover parallel and polyphase
operation of transformers. Autotransformers, induction motors, synchronous
generators and motors, single phase motors. One laboratory period a week.
Corequisite: ELE 403.

ELE 404. ELECTRICAL DESIGN
Three credit hours
In this course, the student is required to complete an original design of a
direct current generator and a transformer. Two class periods and one design
period a week. Prerequisite: ELE 318.

ELE 410. SEMINAR
One credit hour
Weekly meetings of students and members of the staff for presentation of
papers by the students and lectures by engineers in active practice. One class
period a week for Junior and Senior years.

ELE 411. INSPECTION VISITS
Visits are made to various power and industrial plants in and about Dayton,
Ohio. Occasionally, a more extended trip is made to other large industrial cen-
ters. Formal reports of such trips are required.
ELE 413. **COMMUNICATION ENGINEERING II**

THREE CREDIT HOURS

Conventional filter networks; the general transmission line; the high frequency transmission line; modulation and demodulation; oscillators; receiver and transmitter design; television systems. Three class periods a week. Prerequisites: ELE 308 and ELE 308L.

ELE 413L. **COMMUNICATION ENGINEERING LABORATORY II**

ONE CREDIT HOUR

Harmonic analysis; conventional filter design; receiver measurements and alignment; measurement of impedance by standing wave line. Transmitter design and analysis. One laboratory period a week. Corequisite: ELE 413.

The following electives will be offered as demanded:

ELE 407. **ELECTRICAL ILLUMINATION**

THREE CREDIT HOURS

The nature of light and the mechanics of vision; illumination, brightness and distribution of light; proper utilization of lamps and luminaries for comfortable and efficient seeing; industrial and commercial lighting designs. Three class periods a week.

ELE 408. **ELECTRICAL TRANSIENTS**

THREE CREDIT HOURS

Transient response of simple circuits and networks to D. C. and A. C. voltages; oscillations and damping; transients in coupled and resonant circuits; transients in circuits with variable parameters. Three class periods a week. Pre-requisite: ELE 305.

ELE 409. **INDUSTRIAL ELECTRONICS**

THREE CREDIT HOURS

Purpose and function of electronic controls; arc welding; resistance welding; service instruments; rectifiers; recorders. Three class periods a week. Prerequisite: ELE 312.

ELE 412. **POWER TRANSMISSION**

THREE CREDIT HOURS

Mechanical features of conductors and supports. Electrical characteristics of lines; system stability; distribution system. Three class periods a week. Pre-requisite: ELE 305.

ELE 415-416. **ULTRA-HIGH FREQUENCY THEORY AND PRACTICE**

FIVE CREDIT HOURS

Electromagnetic waves; Maxwell's equations; transmission lines, wave guides, cavity resonators; radiation and reflection. Practical microwave generators and systems. ELE 415 three class periods a week; ELE 416 two class periods a week. Prerequisite: ELE 308.

ELE 416L. **ULTRA-HIGH FREQUENCY THEORY AND PRACTICE LABORATORY**

ONE CREDIT HOUR

UHF and microwave generators, microwave components, wave guides, microwave measurements, radiating systems. One laboratory period a week.
ELE 417. Thesis
Independent project in a field selected by the student and approved by the faculty. Open to seniors in the second semester.

ELE 418. Control of Power Machinery
A study in the application of power machinery to industry and methods of control in each case. Emphasis is placed on automatic starters, speed control, and electronic applications. Three class periods a week. Prerequisite: ELE 318.

ELE 419. Servomechanisms
A study of the analysis of closed-loop control systems. This includes an investigation into the operating principles of the various types of controllers and follow-up links, transient and steady state stability and the Nyquist stability criterion. Operational calculus is developed and used throughout. Three class periods a week. Prerequisites: Mth 341 and ELE 305, or equivalent.

ELE 420. Symmetrical Components
A course dealing with the theory and applications of Symmetrical Components to unbalanced polyphase circuits. Two class periods and one problem period a week. Prerequisite: ELE 318; Corequisite: ELE 412.

ELE 421. Magnetic Amplifiers
A study of the basic principles and applications of magnetic amplifiers. This includes a review of basic magnetic theory, simple saturable reactor circuits, circuits involving self-saturation and feedback, transient response, single core magnetic amplifiers, design methods and applications. Three class periods a week. Prerequisite: ELE 318 and/or permission of instructor; Corequisite: ELE 403 and/or permission of instructor.

ELE 422. Transistor Circuits
Elementary semiconductor principles, forms and types of transistors, basic transistor amplifier circuits, bias stabilization, power amplifiers, transistors at high frequencies. Prerequisite: ELE 308. To be arranged

ELE 423. Electronic Computing Devices
The history, design and analysis of electronic computing devices. Number systems, circuit elements, and components of a computing system. Synchronous and nonsynchronous digital computers, computer logic, and computer programming. The examination of a typical digital computer. A survey of analog devices and their uses in computing devices and simulators. Prerequisite: ELE 312. To be arranged

ENGLISH (Eng)
BRO. WILLIAM WEHRLE, CHAIRMAN
BRO. BOLL, MISS BOLLINGER, MR. CONNER,
FR. DONNELLY, MR. FISHER, BRO. KOHLES, MR. LAKE, FR. LEES,
MR. O'DONNELL, BRO. PRICE, MR. ROUCH, MR. WELDON, MISS WHETRO

ENG 100. English Composition
This course, consisting largely of the principles of grammar and the mechanics
of composition, is obligatory for those who score below a determined norm on a standardized test. Upperclassmen, at the discretion of the respective deans, may also be required to take or to repeat this course. Five class periods a week.

**ENG 101. ENGLISH COMPOSITION**
Three credit hours
The regular freshman college composition course in which the principles of grammar, punctuation, usage, and rhetoric are presented. Application of these principles is made to exercises and regularly assigned themes.

First Semester, Each Year

**ENG 102. ENGLISH COMPOSITION**
Three credit hours
This course is a continuation of Eng 101 and is obligatory for all freshmen.

Second Semester, Each Year

**ENG 221. ENGLISH LITERATURE**
Three credit hours
A survey of English literature from its beginning to the present day; it includes a study of the background as well as the works of the authors of each period.

Each Semester, Each Year

**ENG 222. AMERICAN LITERATURE**
Three credit hours
A survey of American literature from the Colonial Period to the present day; it presents a study of the background as well as representative works of the different periods.

Each Semester, Each Year

**ENG 304. THEME WRITING**
Three credit hours
An intensive study of the construction and preparation of a documented paper. A documented paper is required to show that the principles taught have been assimilated.

Second Semester, Each Year

**ENG 305. MEDICAL TERMINOLOGY**
Three credit hours
A study of the Greek and Latin roots which form the foundation of medical terms. To this is added a study of prefixes, suffixes, and compounds.

First Semester, Each Year

**ENG 316. ADVANCED COMPOSITION**
Three credit hours
A study and application of the principles of composition to the various types of writing. Prerequisite: Eng 101.

First Semester, Each Year

**ENG 322. WORLD LITERATURE**
Three credit hours
A study of international literature, stressing the classics, beginning with the epic of Homer, and tracing some of the main lines in the development of the literature of the Western cultures. Lectures, discussions, and oral reports are included.

First Semester, Each Year

**ENG 324. HISTORY OF THE AMERICAN NOVEL**
Three credit hours
A study of the American novel from its beginnings to the present day. Outside readings and reports constitute an integral part of the course.

First Semester, 1956-1957
Eng 325. Technique of Verse
A study of the principles and mechanics of poetic forms, with the purpose of applying what has been learned to exercises in writing verse.
First Semester, Each Year

Eng 327. History of the Novel
A study of the English novel from its beginnings to the present day. Outside readings and reports constitute an integral part of the course.
Second Semester, 1957-1958

Eng 328. Survey of the Essay
The history, nature, structure, and style of the essay. The lives and works of the leading essayists are studied.
First Semester, 1957-1958

Eng 329. Short Story
A study of the techniques employed in the writing of the short story. Various models of the short story will be analyzed. The reading and reporting on specified stories form a part of the course.
First Semester, 1957-1958

Eng 330. Victorian Poets
A study of the characteristics of the writers of the Victorian Age through direct contact with their works. The influence of these writers will also be pointed out.
Second Semester, 1956-1957

Eng 331. Romantic Poets
A study of the characteristics of the writers of the Romantic Age through direct contact with their works. The influence of these writers will also be pointed out.
First Semester, 1956-1957

Eng 337. American Documentary Literature
A study of influential political documents from the Mayflower Compact to the present day, stressing literary aspects, composition, and rhetoric, as well as the principles of democracy.
First Semester, Each Year

Eng 408. Business English
The principles of letter writing are studied and applied in conformity with the best current practices in business.
Each Semester, Each Year

Eng 414. Francis Thompson
A study of the life and times of Francis Thompson, together with a reading and analysis of his outstanding works.
First Semester, Each Year

Eng 415. Milton
A study of Paradise Lost and Paradise Regained and a selected number of the minor poems of Milton.
Second Semester, 1956-1957

Eng 416. Browning
An intensive study of the life and times of Robert Browning, together with a reading and analysis of his outstanding works.
Second Semester, 1957-1958
ENG 417. **EDGAR ALLAN POE**
A study of the life and times of Edgar Allan Poe, together with a reading and analysis of his poetry, stories, and essays.  
First Semester, 1956-1957

ENG 419. **NEWMAN**
An analytical study of Newman's prose in *The Idea of a University*. The writing of essays modeled on the *Discourse*.  
Second Semester, Each Year

ENG 421. **MODERN POETRY**
A study of the British and American poets of the modern era. The poetic movements characteristic of this period will be studied and applied to the writings of the poets considered.  
Second Semester, Each Year

ENG 422. **INTRODUCTION TO DRAMA**
A survey of the development of the drama of all ages, and of the chief nations from the time of the Greeks to the present day. The reading of typical plays forms an integral part of the course.  
First Semester, 1956-1957

ENG 423. **TRAGEDIES OF SHAKESPEARE**
A comprehensive study of all the Tragedies of Shakespeare. All of the plays will be read. An intensive study of a selected few of the Tragedies will be made.  
Second Semester, 1956-1957

ENG 424. **COMEDIES OF SHAKESPEARE**
A comprehensive study of all the Comedies will be made with special emphasis upon a selected few.  
First Semester, 1957-1958

ENG 425. **HISTORIES OF SHAKESPEARE**
A comprehensive study of all the Historical plays of Shakespeare. All of the plays will be read. An intensive study of a selected few will be made.  
Second Semester, 1957-1958

ENG 426. **MODERN DRAMA**
In this course, a selected number of dramas from the modern period will be read and studied.  
Second Semester, Each Year

ENG 427. **DANTE**
*The Divine Comedy* in English: a comprehensive study of the poem from a literary point of view.  
Second Semester, Each Year

ENG 428. **LITERARY CRITICISM**
A study of the beginnings and development of literary criticism. It includes a study of fundamental principles of literary structure and style, together with the various theories advanced.  
First Semester, 1957-1958

ENG 429. **CHAUCER**
A study of the life and times of Chaucer. Emphasis is placed on the study of the *Canterbury Tales*.  
Second Semester, Each Year
ENG 430. HISTORY OF THE ENGLISH LANGUAGE  THREE CREDIT HOURS
The stages of the development of the language together with the influences shaping its development, will be studied to show what has happened to the English language from the beginning to the present day. This course is recommended to those majoring in English, as well as those who intend to teach English.

JOURNALISM (Jrn)

MR. WELDON

All majors in journalism must take Jrn 200 and 201 in addition to 24 semester hours of 300 and 400 courses.

JRN 200. INTRODUCTION TO JOURNALISM  THREE CREDIT HOURS
This course covers the nature and purpose of the newspaper and other mass-communications media, occupational opportunities within the field, organization of a newspaper, and basic printing processes.  First Semester, Each Year

JRN 201. HISTORY OF JOURNALISM  THREE CREDIT HOURS
A critical survey of the development of the English language press. Emphasis will be placed on the American press. The work of notable editors and their papers will be stressed. Underlying purpose will be to fill in the student's background and point out the direction of future development of the press.  Second Semester, Each Year

JRN 300. NEWS STORY WRITING  FOUR CREDIT HOURS

JRN 301. FEATURE STORY WRITING  FOUR CREDIT HOURS
Advanced reporting. Analysis of feature story structure and techniques. Studies of notable feature stories in various fields. Conducting a column or special feature of a newspaper. News stories with feature slant. Technical reporting. Actual practice in writing feature stories for university publications. Three class periods, one laboratory period a week. Prerequisites: Jrn 200, 300.  Second Semester, Each Year

JRN 302. LAW AND ETHICS OF THE PRESS  THREE CREDIT HOURS
Limitations of freedom of the press. What you have a right to print. What people have a right to know. The right to privacy. Crime and sensational news. Censorship. Off-the-record material. Slander and libel laws. Copyright laws. Postal regulations. Three class periods a week.  First Semester, Every Second Year
JRN 303. FREE-LANCE WRITING
Types of free-lance articles. Analysis of literary markets. Manuscript form and submission methods. Peculiarities of magazine and book publishing. Completion and submission of one saleable article required for credit. Students admitted to course only with approval of instructor.

Second Semester, Every Second Year

JRN 400-401. EDITING AND COPYREADING
The copydesk on large and small newspapers. Editing, headline writing, page makeup, use of pictures, typography, composing room problems. Two semesters, 3 class periods and one laboratory period a week. Prerequisites: Jrn 300 and 301.

JRN 402. PUBLICITY AND PUBLIC RELATIONS
A non-professional course for students in other fields such as business, education, personnel management, etc., who will be expected to direct publicity campaigns or write news releases in their future work. Explains nature, organization, and problems of newspaper publishing. How to pick out news value in a story and write it up in basic newspaper style. How to set up and administer a house organ or school paper. Practice in writing publicity releases. Not open to journalism majors. Three class periods a week.

First Semester, Every Second Year

JRN 403. PROPAGANDA ANALYSIS
Use and abuse of propaganda. Editorial persuasion. Propaganda devices and techniques. An application of the principles of Aristotelian logic to the field of mass communications. Prerequisite: Phl 101 or 311.

Second Semester, Every Second Year

JRN 404. NEWSPAPER MANAGEMENT PROBLEMS
A study of the operation and problems of circulation, advertising, and printing departments as they affect the work of the reporter and editor. Since most journalism majors begin their careers on small weeklies or trade papers, this course will emphasize the problems peculiar to this type of publication. Visits to newspaper plants and guest lectures.

First Semester, Every Second Year

JRN 405-406. ADVERTISING COPY WRITING
See current catalogue, under Bus 307, Bus 308.

GENERAL ENGINEERING (GNE)

MR. BALDINGER, MR. CHAMBERLAIN, MR. GABRY, MR. HAUENSTEIN,
BRO. MORGANA, MR. STITH, MR. ALDRICH

GNE 101. ENGINEERING DRAWING
Practice in lettering and the use of instruments; orthographic projection, working drawings, auxiliary views, sections and conventions, dimensioning, draw-
GENERAL ENGINEERING

ings; pictorial drawings, isometric and oblique; technical sketching. Two lecture periods and four laboratory hours a week. 

Each Semester, Each Year

GNE 102. DESCRIPTIVE GEOMETRY

Three credit hours

Auxiliary and oblique views; line and plane problems; surfaces, intersections and developments, warped surfaces, applications to drawing and engineering problems. Two lecture periods and four laboratory hours a week. Prerequisite: GNE 101.

Each Semester, Each Year

GNE 105. ENGINEERING SURVEY

No credit

An orientation course designed to give the freshman students a general view of the engineering profession. It discusses engineering education, methods of study, and engineering curricula; historical background, achievements, and social and economic effects of engineering. One class period a week.

Each Semester, Each Year

GNE 202. STATICS

Three credit hours

A study of the fundamental principles of mechanics; force systems, resultants and equilibrium statics, friction, center of gravity, moments of inertia of areas. Three class periods a week. Prerequisites: Mth 201, Phy 206.

Each Semester, Each Year

GNE 301. DYNAMICS

Three credit hours

Kinematics of particles and rigid bodies, moments of inertia of masses, kinetics of rigid bodies, work, energy and power, impulse and momentum. Three class periods a week. Prerequisites: GNE 202, Mth 202.

Each Semester, Each Year

GNE 303. STRENGTH OF MATERIALS

Three credit hours

The study of stresses and strains in tension, compression, shear and torsion; riveted and welded joints; shear and moment diagrams; stresses and deflections of beams and columns; stresses at a point, including Mohr's circle. Three class periods a week. Prerequisites: GNE 202, Mth 202.

Each Semester, Each Year

GNE 304. ADVANCED STRENGTH OF MATERIALS

Three credit hours

The determination of deflection and the solution of statically indeterminate problems by the moment area method; the stress determination in beams of sharp curvature; the study of thick-walled cylinders, unsymmetrical bending, combined stresses; a review of stresses on different planes at a point; a study and comparison of the theories of failure. Three class periods a week. Prerequisite: GNE 303.

Second Semester, Each Year

GNE 305. MATERIALS TESTING

One credit hour

A laboratory course to acquaint the student with A. S. T. M. standards and procedures in the physical tests of steel, timber and concrete. Mechanical tests include those of tension, compression, flexure, torsion, hardness and impact. One laboratory period a week. Corequisite: GNE 303. Each Semester, Each Year
GNE 402. **CONTRACTS AND SPECIFICATIONS**

Lectures and assigned readings covering the essential elements of contracts, specifications and professional ethics; legal relations, rights and responsibility of the engineer. Two class periods a week.  
*Second Semester, Each Year*

**GEOLOGY (Geo.)**

**MR. SPRINGER, ACTING CHAIRMAN**  
**MR. CORVELL, MRS. GRAY**

**GEO 101. PHYSICAL GEOLOGY**  
Four Credit Hours  
An introductory course in the composition and structure of the earth; its land forms and the agencies active in their production. Three class periods and one laboratory period a week.  
*First Semester, Each Year*

**GEO 102. HISTORICAL GEOLOGY**  
Four Credit Hours  
The geological history of the earth as interpreted from the rocks of its crust; its dynamic, geographic, and climatic changes; animals and plants of the past. Three class periods and one laboratory period a week. Also field work. Pre-requisite: Geo 101 or Geo 103.  
*Second Semester, Each Year*

**GEO 103. PRINCIPLES OF GEOGRAPHY**  
Three Credit Hours  
An analysis and classification of the physical and cultural features of the earth; their pattern of distribution, and their associations. Three class periods a week.  
*First Semester, Each Year*

**GEO 104. ECONOMIC GEOGRAPHY**  
Three Credit Hours  
This course shows the influence of physiography factors on the agricultural, extractive and manufacturing industries, and the problems involved in transportation and commerce. Three class periods a week. *Each Semester, Each Year.*

**GEO 110. SURVEY OF GEOLOGY**  
Three Credit Hours  
A general study of the formation of minerals and rocks; the development of land form through structural movements, weathering and erosion; a survey of life of the geologic past as revealed by fossils.  
*To be announced—Evening*

**GEO 111. STRATEGIC MINERALS**  
Three Credit Hours  
An analysis of some minerals of peculiar importance in world affairs; geographic location of deposits, an evaluation of their importance, and a general consideration of their geologic associations.  
*To be announced—Evening*

**GEO 201. MINERALOGY**  
Four Credit Hours  
A microscopic study of minerals, their chemical and physical properties and economic uses. The course includes a discussion of crystallography and the determination of the more common minerals by their physical properties and blow-pipe analysis. Two class periods and four hours of laboratory a week.  
*First Semester, Each Year*
GEO 204. **Optical Mineralogy**
Mineral determination through the use of the petrographic microscope employing crushed grains and thin sections. Two hours of lecture and four hours of Lab per week. Prerequisite: Geo 201.

**Second Semester, Each Year**

GEO 205. **Geology for Engineers**
The application of geological principles to engineering problems. A study of weathering, erosion, permafrost, faulting, landslides and similar phenomena. Laboratory work in dimension stones and geologic map interpretation. Three class periods and two hours of laboratory a week. **First Semester, Each Year**

GEO 301. **Structural Geology**
The origin and development of structural features of the earth’s crust; folding, faulting, volcanism, mountain building, and metamorphism. Three class periods and two hours of laboratory a week. Prerequisites: 101, 205.

**First Semester, 1957-1958**

GEO 302. **Glacial Geology**
The origin of mountain and continental glaciers; their depositional features and corrosive activity; history of glaciation in geologic past with special emphasis upon North American Pleistocene ice advances. Three class periods a week. Prerequisites: Geo 101, 103, 205.

**Second Semester, 1957-1958**

GEO 303. **Field Geology**
Six or eight weeks summer study of structural and age relationship problems in areas containing abundant crystalline and sedimentary exposures.

**Summer, 1957**

GEO 307. **Geomorphology**
A detailed study of landforms and the erosional processes that develop them. Three class periods and two hours of laboratory a week. Prerequisites: Geo 101, 103, 205.

**Second Semester, 1956-1957**

GEO 309. **Petrography**
A study of the composition of igneous, sedimentary, and metamorphic rocks through the use of thin sections and hand specimens. Three hours of lecture and two hours of Lab per week. Prerequisite: Geo 204. **First Semester, 1956-1957**

GEO 401. **Paleontology**
A study of animal life of the geologic past as shown by the fossil record. Three class periods and two hours of laboratory a week. **First Semester, 1956-1957**

GEO 402. **Micropaleontology**
A study of microfossils with special attention given to index fossils characteristic of various geologic horizons. Three class periods and two hours of laboratory a week. **Second Semester, 1956-1957**

GEO 403. **Sedimentation**
Detailed study of sediments; their sources, environments of deposition, and
methods of consolidation. Sedimentary rock classifications and analyses. Three class periods a week and two labs a week. Prerequisites: Geo 201, 202, 301.

**GEO 404. PROBLEMS IN GEOLOGY**
THREE CREDIT HOURS
A consideration of special problems involving advanced work in the laboratory and library; arranged to meet the needs of individual students.

**GEO 405-406. ECONOMIC GEOLOGY**
SIX CREDIT HOURS
Geology of fuels, the major ores, the raw materials used for structural and building purposes; their geographic distribution, geologic occurrence, recognition and production. Three class periods and two lab hours a week. Prerequisite: Geo 201, 301.

**GEO 407. PHOTOGRAPHIC INTERPRETATION**
FOUR CREDIT HOURS
The use of aerial photographs in the interpretation of landforms, and as base maps in geological surveying. Two class periods and four hours of laboratory a week.

**GEO 408-409. PETROLEUM GEOLOGY**
EIGHT CREDIT HOURS
Consideration of formation of oil and natural gas deposits; geologic associations and geographic locations of major basins. Three hours of lecture and two hours of Lab per week.

**GEO 411. IGNEOUS PETROLOGY**
FOUR CREDIT HOURS
A study of the hypotheses of formation of igneous rocks. Three hours of lecture and two hours of Lab per week. Prerequisite: Geo 201, 202.

**HISTORY (Hst)**

MR. STEINER, CHAIRMAN
MR. BEAUREGARD, MR. DONATELLI, MR. KING, FR. PREISINGER

Hst 101, 102, 251, 252 are prerequisite courses and may not be applied toward a major or a minor.

**Hst 101. HISTORY OF CIVILIZATION**
THREE CREDIT HOURS
A survey of mankind from earliest times to 1660 A.D. The course stresses the social and cultural aspects of the prehistoric, ancient, medieval and early modern eras. History 101 and History 102 serve as prerequisites for advanced courses in History.

**Hst 102. HISTORY OF CIVILIZATION**
THREE CREDIT HOURS
A survey of mankind from 1660 A.D. to the present. The emphasis centers on the social and cultural history of the Old Regime, the French Revolution and
Napoleonic Age, the Era of Nationalism and Liberalism, and the Period of the New Industrialism and Imperialism.

HST 111. HISTORY OF MODERN EUROPE
A survey of European History from 1450 to 1789. Beginning with a rapid summary of the Renaissance, this course discusses the Protestant Revolution, Catholic Reformation, the development of absolute monarchies, and the background for the French Revolution. Together with History 112 this course serves as an introduction to European History. This course is given at Mount St. John. Enrollment is restricted to members of the Society of Mary. *First Semester, Each Year*

HST 112. HISTORY OF MODERN EUROPE
A survey of European History from 1789 to the present. Following a discussion of the French Revolution and the Napoleonic era, this course considers the growth of nationalism, liberalism, industrialism, and imperialism, as well as World War I, totalitarianism, World War II, and the United Nations Organization. This course is given at Mount St. John. Enrollment is restricted to members of the Society of Mary. *Second Semester, Each Year*

HST 205. AMERICAN ECONOMIC HISTORY
An intensive study of the development of agriculture, industry, transportation, commerce, and finance against the general background of American political and social history. Accredited in Economics. *Each Semester, Each Year*

HST 251. AMERICAN HISTORY TO 1865
A general survey of the development of the American nation from colonial times to 1865. Due consideration is given to political trends, but the economic and social foundations of American institutions are also emphasized. *Each Semester, Each Year*

HST 252. AMERICAN HISTORY SINCE 1865
This course carries forward the story of the nation and its development after the Civil War. Stress is laid upon those social, economic, and political problems, a knowledge of which is essential to an understanding of contemporary America. *Each Semester, Each Year*

HST 301. MEDIEVAL EUROPE
The development of Europe from the fourth century to the fourteenth century. A resume of theories concerning the medieval epoch is followed by a treatment of the birth of the Middle Ages, Christianity, and the Byzantine, Islamic, and Carolingian Empires. There is also study of feudalism, manorialism, the Crusades, and the growth of national states. Prerequisite: Hst 101-102. *Second Semester, 1957-1958*

HST 302. RENAISSANCE AND REFORMATION
The development of Europe from the fourteenth century to the middle of the seventeenth century. After summarizing theories about this era, the course
stresses causes of the period. There follows the emphasis on the economic, political, social, and religious aspects of the Renaissance, Protestant Revolution, and Catholic Reformation. Prerequisite: Hst 101, 102.

Hst 303. EXPANSION OF EUROPE
THREE CREDIT HOURS
A treatment of the spread of European power and institutions between 1450 and 1914. European influence in Canada and Africa will be emphasized, but it will be considered in Australasia and in countries regarded as gateways to India. Prerequisite: Hst 101, 102.

Hst 305. HISTORY OF RUSSIA
THREE CREDIT HOURS
The development of the Russian state from earliest times to the present. This course is concerned with the origins of the Russian state, political and economic growth, and a consideration of the development of the Modern Soviet state in the period following the Revolution of 1917. Prerequisite: Hst 101-102.

Hst 307. CULTURAL HISTORY TO 1830
THREE CREDIT HOURS
A brief review of pre-historic and Oriental art to prepare the ground for a study of modern art. Then a more intensive survey of the basic arts of architecture, painting, sculpture, and music through the various movements in Europe and America: the Greek and Roman; the Byzantine and Saracenic; the Romanesque and Gothic; the Renaissance; the Baroque, the Rococo and the Neo-Classic. Accredited in Art.

Hst 308. CULTURAL HISTORY SINCE 1830
THREE CREDIT HOURS
After a brief survey of the basic principles underlying all the arts, and their application to daily life, an intensive study of the Romantic, Realistic and Impressionistic movements, together with a study of the various Modern movements since 1900. Accredited in Art.

Hst 309. ANCIENT HISTORY
THREE CREDIT HOURS
A survey of ancient civilizations between 5000 B.C. and 313 A.D. The civilizations—Egyptian, Mesopotamian, Anatolian, Syro-Palestinian, Persian, Aegean, Hellenic, Hellenistic, and Roman—will be studied for political, economic, social, religious and cultural factors. Prerequisite: Hst 101, 102.

Hst 313. CHRISTIAN ANTIQUITY
THREE CREDIT HOURS
This course investigates the origin and cultural setting of early Christianity, the conflict with the pagan Roman Empire and the subsequent emergence of Christianity under Constantine. Special emphasis is placed upon the doctrinal controversies and patristic writers of the fourth and fifth centuries. Conducted only in the Division of Arts at Carthagena. First Semester, Each Year

Hst 318. FRENCH REVOLUTION AND NAPOLEONIC ERA
THREE CREDIT HOURS
An extensive treatment of the French revolution through the Napoleonic Era.
Concentration is on the ideological, economic, social and political background of the Revolution; an analysis of the Revolutionary governments; the resulting international wars; the rise and fall of Napoleon. Prerequisite: Hst 101-102.

**Hst 320. History of England**

THREE CREDIT HOURS

This course is designed to acquaint the student with the major political, social, economic and cultural developments in England from earliest times to the present. The following periods will be studied and interpreted: Roman, Anglo-Saxon, Norman, Plantagenet, Lancastrian, Yorkist, Tudor, Stuart, Hanoverian, Victorian, and modern. Prerequisite: Hst 101-102.

**Hst 351. American Colonial History**

THREE CREDIT HOURS

A study of the foundations of American nationality. Beginning with a consideration of the European background of American colonization, the course continues with the development of the colonial system, with direct reference to the ideas and institutions that were transplanted from the Old World. Attention is then given to the growth of democratic tendencies and the rise of conflicting points of view leading to the American Revolution. Prerequisite: Hst 251-252.

**Hst 359. Modern Latin America**

THREE CREDIT HOURS

After a rapid survey of the European background of colonization and Iberian colonial policies, modern Latin America is studied through the political, social, and economic history of five leading countries: Mexico, Argentina, Brazil, Chile, and Colombia. Reference to the history of smaller nations is made whenever profitable. Prerequisite: Hst 251-252.

**Hst 361. History of Religious Orders**

THREE CREDIT HOURS

A survey of the history of religious orders in the Catholic Church, treating the religious, social and political conditions of the time of their origin, their distinctive features and organization, their role in the church and in the world. Conducted only at Mount St. John. Enrollment is restricted to members of the Society of Mary.

**Hst 362. Biblical History**

THREE CREDIT HOURS

Specialized study of ancient history such as it is contained in the historical books of the Bible. Conducted only at Mount St. John. Enrollment is restricted to members of the Society of Mary.

**Hst 401. Pro-Seminar in History**

TWO CREDIT HOURS

An introduction to historiography and the study of research and writing in History. Special emphasis is given to the mechanics of research and the problems encountered in preparing a manuscript for publication. Practical application of the principles of research and composition will be required in the form of a term paper required of all History majors. Prerequisite: 6 credit hours of upper division History.
HST 409. EUROPE SINCE 1914
Three Credit Hours
An intensive treatment of Europe from 1914 to the present. Concentration is placed on these topics: causes and outcome of World War I; internal policies of nations between the two World Wars; diplomatic actions leading to World War II; and the impact of World War II. Prerequisite: HST 101, 102. *Second Semester, 1956-1957*

HST 411. HISTORY OF THE FAR EAST
Three Credit Hours
A brief review of the early historical development of the main areas of the Far East, followed by a more intensive study of the development of China and Japan in the nineteenth and twentieth centuries. Emphasis is given to the political, religious, cultural, and economic growth of China and Japan. The lesser lands of the Far East are treated in a general way. Prerequisite: HST 101, 102. *Second Semester, 1957-1958*

HST 427. THE WESTWARD MOVEMENT
Three Credit Hours
A history of the expansion of settlement in the United States since 1783. The movement of the frontier to the Pacific Coast will be followed in relation to the development of exploration, Indian relations, land policy, methods of transportation, and the influence of the West upon American ideals and institutions. Prerequisite: HST 251-252. *Second Semester, 1956-1957*

HST 431. MODERN CHURCH HISTORY
Three Credit Hours

HST 448. AMERICAN CONSTITUTIONAL DEVELOPMENT
Three Credit Hours
The development of American constitutional philosophy since 1787 under three general heads: the Agrarian Constitution; the Laissez-Faire Constitution; and the Welfare Constitution. Topics will include the Marshall and Taney eras; constitutional problems of slavery; the constitutional problems of federal and state regulation; the constitutional foundations of 19th century capitalism; civil liberties in the 20th century; the constitutional crises of 1935-1937 and current problems of constitutional interpretation. Prerequisite: HST 251-525. *Second Semester, 1957-1958*

HST 449. RECENT AMERICAN HISTORY
Three Credit Hours
Contemporary social, economic, and political aspects of the United States and its role as a world power from 1900 to the present, with a broad interpretation of the impact of mature capitalism on American behavior. Prerequisite: HST 251-252. *Second Semester, 1957-1958*

HST 451. CIVIL WAR AND RECONSTRUCTION
Three Credit Hours
Remote and immediate causes of the Civil War, especially from 1850 to 1861:
problems of the North and South during the war; the consequences of the war; the efforts to create a new Union, 1865 to 1877, and the new problems created by those efforts. Prerequisite: Hst 251-252. First Semester, 1956-1957

Hst 458. INTELLECTUAL AND CULTURAL HISTORY OF THE U.S.
THREE CREDIT HOURS
An attempt to trace the evolution of a distinctive American civilization through a study of American thought and its expression in the fine and utilitarian arts. There will be parallel treatment of the fine arts—literature, painting, sculpture and architecture—and technological developments—agricultural mechanization, the factory system, urban living, and mass production. Prerequisite: Hst 251-252.

HOME ECONOMICS (Hec.)

MRS. ROSE, CHAIRMAN
MRS. PAYNE, MISS RANEY, MISS SEMAN,
MRS. SMALLWOOD, MRS. VAN AKEN

Hec 101. BEGINNING CLOTHING
THREE CREDIT HOURS
Instructions on the use of the sewing machine and its attachments; the study of commercial patterns and the construction of simple garments. Six hours in laboratory per week. Hec 105 recommended as preceding or concurrent. Second Semester, Each Year

Hec 102. FOODS I
THREE CREDIT HOURS
A course in simple meal preparation and basic techniques. One class period and two two-hour laboratory periods a week. First Semester, Each Year

Hec 105. INTRODUCTION TO RELATED ART
THREE CREDIT HOURS
A basic course in color and design. One class period and two two-hour laboratory periods a week. First Semester, Each Year

Hec 106. ART AND DESIGN
THREE CREDIT HOURS
Design fundamentals and their application in selecting and arranging creative materials. For majors in Interior Decoration. One class period and two two-hour laboratory periods a week. Second Semester, Each Year

Hec 201. FOODS II
THREE CREDIT HOURS
Additional meal preparation with more skilled techniques. One class period and two two-hour laboratory periods a week. Second Semester, Each Year

Hec 203. HEALTH AND HOME NURSING
THREE CREDIT HOURS
A study of personal health and prevention of disease in the family; relation to community health and disease control; important diseases and their prevention; accidents and emergencies in the home. Three periods a week. Second Semester, 1957-1958
HEC 214. Textiles I
A study of textile fibers, yarns, and fabrics and their characteristics as they effect and use standards. Two class periods and one two-hour laboratory period a week.

Second Semester, Each Year

HEC 221. Home Management I
Study of management of various resources available to the family with a view to promoting family well-being and satisfaction. Three class periods a week.

First Semester, Each Year

HEC 222. Historic Textiles
A study of the development of the textile industry in all parts of the world, with emphasis on fibers used, design and color. Three class periods a week.

Prerequisite: Hec 214.

Second Semester, 1958-1959

HEC 302. Foods III
A Survey course in meal preparation with emphasis on gourmet cookery. One class period and two two-hour laboratory periods a week. Prerequisite: Hec 102 or 201.

First Semester, 1956-1957

HEC 303. Nutrition and Health
Fundamental principles of human nutrition, including requirements of the body for the nutritive essentials, the composition of foods and the planning of adequate diets for health. Three class periods. Prerequisites or Corequisites: Chm 100, 200, 400.

Both Semesters, 1956-1957

HEC 304. Quantity Cookery
The planning, preparing, and serving of foods in large quantities. Use and care of equipment for quantity cookery. One class period a week. Laboratory periods to be arranged.

Second Semester, 1956-1957

HEC 305. Institutional Accounting
A study of bookkeeping methods used in various types of institutions; perpetual inventory in the field of foods; food stores and inventories; payrolls and budgets. Three class periods a week. Prerequisite: Acc 101.

Second Semester, 1956-1957

HEC 308. Institutional Buying
Selection and methods of purchasing food in large quantities. Selection of institutional equipment.

Second Semester, 1957-1958

HEC 309. Household Equipment
A study of the principles involved in the selection, construction, operation, and care of household equipment and its relation to the well-being of the family. One class period and two two-hour laboratory periods a week.

Both Semesters, 1956-1957

HEC 311. Advanced Clothing
Selection and construction of rayon or silk and woolen garments. Includes flat
pattern design. Six hours in laboratory periods per week. Prerequisites: Hec 101, 105.  

**HEC 312. CHILDREN'S CLOTHING**  
A study of fabrics, design, and decoration of clothing suitable for infants and children. Construction is included. One class period and two two-hour laboratory periods a week. Prerequisites: Hec 101, 105, 311.  

**HEC 314. COSTUME, ART AND DESIGN**  
Creative work in selecting, designing, criticizing various types of garments and their suitability for different types of people. Stress is placed upon the drawing and designing of costumes. One class period and two two-hour laboratory periods a week. Prerequisite: Hec 105.  

**HEC 315. CONSUMER BUYING**  
Good buying principles and the labeling of household furnishings. Three class periods per week.  

**HEC 316. TEXTILES II**  
Microscopical, chemical and physical analysis of textile fibers and fabrics. Recent developments in the textile field. Two class periods and one two-hour laboratory period a week. Prerequisite: Hec 214.  

**HEC 318. FAMILY RELATIONS**  
A consideration of the factors necessary for the establishment and maintenance of happy family relations. Three class periods a week.  

**HEC 323. DEMONSTRATION METHODS**  
A study of demonstration methods and the presentation of a series of demonstrations. One class period a week. For juniors and seniors.  

**HEC 324. BISHOP CLOTHING CONSTRUCTION METHODS**  
Trade practices and perfection details used in speeding simple dress construction, fitting, and tailoring. A blouse, dress and simple suit or coat to be constructed. Six hours in laboratory periods per week.  

**HEC 326. HOME CRAFTS**  
A crafts class using tools and materials commonly found in the home. Two three-hour laboratory periods per week.  

**HEC 401. ADVANCED NUTRITION**  
Aims to extend the student's knowledge of the science of nutrition, stressing the metabolism of food constituents and the recent advances in the field of nutrition. Three class periods a week. Prerequisite: Hec 303.  

**HOME ECONOMICS 177**
HEC 402. DIET IN DISEASE
Adaptation of diet to disease. Three class periods a week. Prerequisite: Hec 303.
Second Semester, 1957-1958

THREE CREDIT HOURS

HEC 404. METHODS OF TEACHING (DIETITIANS)
Methods, devices, and materials that will be used in teaching student nurses, patients, and employees.
Second Semester, 1957-1958

THREE CREDIT HOURS

HEC 405. TEACHING OF HOME ECONOMICS IN SCHOOLS (TEACHERS)
Planning, preparation and presentation of units and lessons on different grade levels. Three class periods per week. Laboratory periods to be arranged.
First Semester, 1956-1957

FOUR CREDIT HOURS

HEC 406. HOME MANAGEMENT II
Practical experience in maintaining a home on a minimum budget. Laboratory and conference periods to be arranged.
Each Semester, Each Year

THREE CREDIT HOURS

HEC 407. INSTITUTIONAL ORGANIZATION AND MANAGEMENT
A study of the principles of institutional organization and administration applied to the problems of feeding institution groups; problems in personnel management; cost control. Three class periods a week.
Second Semester, 1956-1957

THREE CREDIT HOURS

HEC 409. FOODS IV
A study of the recent developments in foods with special emphasis on food preservation and their use. One class period and two two-hour laboratory periods a week.
First Semester, 1956-1957

THREE CREDIT HOURS

HEC 412. HISTORIC COSTUMES
A study of the development of costume from ancient times to the present day; the influences of social and economic conditions upon costume. Two class periods and one two-hour laboratory period a week. First Semester, 1956-1957

THREE CREDIT HOURS

HEC 415. TAILORING
Tailored construction applied in the making of coats or suits. Three two-hour laboratory periods a week. Prerequisites: Hec 101, 105, 311.
Second Semester, 1956-1957

THREE CREDIT HOURS

HEC 423. HOME FURNISHINGS I
A study of the problems involved in furnishing a home artistically, including furniture and its arrangement, and the decorative details of room planning. Two class periods and one two-hour laboratory period a week. Prerequisites: Hec 105 or 106.
Second Semester, 1956-1957

THREE CREDIT HOURS

HEC 424. HOME ARCHITECTURE
A study of the evolution of the house; the development of its function as a
place of shelter and the center of family life; types of architecture. Two class periods and one two-hour laboratory period a week. Prerequisite: Hec 105 or 106.

Second Semester, 1956-1957

HEC 425. CHILD DEVELOPMENT I
THREE CREDIT HOURS
A study of the various aspects of child development necessary for an understanding of behavior of children and the factors involved in their guidance. Two class periods a week; laboratory period to be arranged.

First Semester, Each Year

HEC 426. CHILD DEVELOPMENT II
THREE CREDIT HOURS
Continuation of Child Development I. Two class periods a week; laboratory periods to be determined.

Second Semester, Each Year

HEC 428. PRINCIPLES OF FASHION (to replace Hec 427) THREE CREDIT HOURS
A study of psychological, economic, and social aspects of fashion. Development of fashion industry; comparison between the French fashion and American fashion industries. Three class periods a week.

First Semester, 1956-1957

HEC 430. HOME FURNISHINGS II
THREE CREDIT HOURS
Problem of making slip covers, draperies and refinishing furniture, as it meets the needs of the individual. Prerequisite: Hec 105 or 106.

Second Semester 1956-1957

HEC 435. ADVANCED HOME PLANNING
THREE CREDIT HOURS
Detailed problems of room arrangement, remodeling, and redecorating at various cost levels. One class period and two two-hour laboratory periods a week. Prerequisites: Hec 105 or 106.

First Semester, 1957-1958

HEC 436. SPECIAL PROBLEMS
THREE CREDIT HOURS
Problems chosen for individual study in various phases. One or more conferences weekly as required.

As Needed

INDUSTRIAL ENGINEERING (INE)

MR. BRENBERGER, ACTING CHAIRMAN
MR. MACFARLANE

INE 301. PERSONNEL ADMINISTRATION
THREE CREDIT HOURS
A survey of methods of selection, testing, wage payment and policies, employee morale and relations. A study of promotions, layoffs and security and the influence exerted by labor unions on the above. Three class periods a week.

First Semester, Each Year

INE 302. TECHNICAL AND MANAGERIAL REPORTS
THREE CREDIT HOURS
The planning, organizing, and writing of technical reports. The emphasis on
collecting, evaluating and using factual information, and adapting the material to the writer's audience. Three class periods a week.

INE 303. Job Evaluation and Wage Determination

Three Credit Hours

Job evaluation methods and current evaluation plans and merit rating. An analysis of the various systems of wage payment, including an evaluation and wage system design problem. Three class periods a week.

First Semester, Each Year

INE 304. Gages and Measuring Devices

Two Credit Hours

Current gaging practices and problems; gage design and related inspection techniques. One class period and three hours of laboratory a week. Prerequisite: GNE 101.

Second Semester, Each Year

INE 306. Foundry Practices

Three Credit Hours

A study of molding techniques and equipment; sand; flux; gating and risering. A survey of die casting; investment mold casting and plastic molding practices. Three class periods a week.

Second Semester, Each Year

INE 401. Engineering Economy

Two Credit Hours

A brief introduction to methods of financing. A study of interest; depreciation, economics of tools and equipment; minimum cost point and economic lot sizes. Two class periods a week. Prerequisite: Mth 202.

First Semester, Each Year

INE 403. Motion and Time Study I

Two Credit Hours

An elementary course in motion and time study. A study of the job analysis techniques including process charts, right and left hand charts, the laws of motion economy, man-machine charts and a survey of micromotion techniques. A study of timing equipment, and methods of establishing labor standards including a brief analysis of predetermined time systems. Two class periods a week.

First Semester, Each Year

INE 403L. Motion and Time Study Laboratory I

One Credit Hour

A series of laboratory problems based on the above. One laboratory period a week. Corequisite: INE 403.

First Semester, Each Year

INE 404. Motion and Time Study II

Two Credit Hours

A study of advanced problems in establishing standard time data, progressive operations, application of statistics, micromotion study with practical problems. Prerequisite: INE 403.

Second Semester, Each Year

INE 404L. Motion and Time Study Laboratory II

One Credit Hour

A series of laboratory problems based on the above. One laboratory period a week. Corequisite: INE 404.

Second Semester, Each Year

INE 405. Production Planning

Three Credit Hours

A study of the practices in production scheduling, routing, dispatching and
inventory control; including an analysis of mechanized systems and current practices. Three class periods a week.

INE 406. PLANT LAYOUT AND MATERIAL HANDLING  TWO CREDIT HOURS
The design of a plant for a specified product. The study to include: structure; power requirements; heat; light; sound; and ventilation; transportation facilities; material handling requirements and equipment. Two class periods a week. Prerequisites: GNE 101, INE 405.

INE 406L. PLANT LAYOUT LABORATORY  ONE CREDIT HOUR
The complete design of a light manufacturing plant including choice of site, building, equipment and organizational structure. One laboratory period a week. Corequisite: INE 406.

INE 408. ADMINISTRATION AND ORGANIZATION  THREE CREDIT HOURS
A thorough analysis of organizations both small and large; a detailed study of their functions; policy determination and administration. The study to include the organization and functioning of an enterprise under specific conditions. Three class periods a week. Prerequisite: INE 301.

INE 410. I. E. SEMINAR  ONE CREDIT HOUR
Required of all senior industrial engineering students. The preparation and presentation of a paper on current industrial engineering practices and topics. One class period a week.

INE 411. PROCESS ENGINEERING  THREE CREDIT HOURS
A study of equipment and material selection; existing manufacturing processes and methods of manufacture. Three class periods a week.

INE 412. ELEMENTS OF TOOL ENGINEERING  THREE CREDIT HOURS
Jig; fixture; tool design; sketching including the design of tools for a specific product.

LANGUAGES

BRO. PERZ, CHAIRMAN
FR. BARTHOLOMEEW, MISS REYST,
MR. ROSENBERG, FR. RUS, MRS. SHATTOCK

Note: Excepting Latin 101-102, 201-202, all the courses in Latin and Greek are conducted at Mt. St. John, and are restricted to student members of the Society of Mary.
## FRENCH (Frn)

**FRN 101-102. ELEMENTARY FRENCH**
- Elements of French, including pronunciation, reading, translation, grammar, dictation and conversation.
- **Six credit hours**
- **Full Year Course, Each Year**

**FRN 201-202. INTERMEDIATE FRENCH**
- Grammar review, selected readings from modern authors, exercises in composition and conversation.
- **Six credit hours**
- **Full Year Course, Each Year**

**FRN 303-304. MODERN FRENCH LITERATURE**
- A survey covering the chief literary movements, outstanding authors and works of the eighteenth and nineteenth centuries.
- **Six credit hours**
- **Full Year Course, 1956-1957**

**FRN 307-308. ADVANCED FRENCH COMPOSITION AND CONVERSATION**
- This course is intended for students who possess a general knowledge of French, but have not as yet mastered certain peculiarities of grammar and other difficulties of the written and spoken language. The course includes translation of texts of increasing difficulty from English into French. The oral exercises are based chiefly on material connected with these translations.
- **Six credit hours**
- **Full Year Course, 1957-1958**

**FRN 401-402. FRENCH LITERATURE TO THE EIGHTEENTH CENTURY**
- A survey covering the chief literary movements, outstanding authors and works of this period. Lectures, discussions and reports on assigned readings.
- **Six credit hours**
- **Full Year Course, 1956-1957**

**FRN 405-406. FRENCH LITERATURE OF THE TWENTIETH CENTURY**
- A survey of the literary movements, outstanding authors and works of the present century. Lectures, discussions and reports on assigned readings.
- **Six credit hours**
- **Full Year Course, 1957-1958**

## GERMAN (Ger)

**GER 101-102. ELEMENTARY GERMAN**
- Elements of German, including pronunciation, reading, translation, grammar, dictation and conversation.
- **Six credit hours**
- **Full Year Course, Each Year**

**GER 201-202. INTERMEDIATE GERMAN**
- Grammar review, selected readings from modern authors, exercises in composition and conversation.
- **Six credit hours**
- **Full Year Course, Each Year**

**GER 305-306. SCIENTIFIC GERMAN**
- A reading course intended to familiarize students with the technical vocabulary used in scientific fields.
- **Six credit hours**
- **Full Year Course, Each Year**
GER 307. CHEMICAL GERMAN  
A course intended to train students to acquire a reading knowledge of German chemical literature. Required of students in Chemical Engineering and of those majoring in Chemistry.  
First Semester, Each Year

GER 308. ADVANCED GERMAN CONVERSATION AND COMPOSITION  
THREE CREDIT HOURS

Intensive drill in the oral and aural use of the language, based on area material. Practice in composition.  
First Semester, Each Year

GER 309. GERMAN CIVILIZATION  
THREE CREDIT HOURS

A survey of the German people, its geographical, historical and political background. German art and folklore.  
Second Semester, Each Year

GER 405-406. GERMAN LITERATURE  
SIX CREDIT HOURS

A survey of German Literature including a study of the more outstanding authors and works. Lectures, discussions and reports on assigned readings.  
Full Year Course, 1957-1958

GER 407. GERMAN LITERATURE OF THE TWENTIETH CENTURY.  
THREE CREDIT HOURS

A survey of the literary movements, outstanding authors and works of the present century. Lectures, discussions and reports on assigned readings.  
First Semester, 1956-1957

GER 408. THE CLASSICAL PERIOD  
THREE CREDIT HOURS

A study of the principal authors and works of this period. Lectures, discussions and reports on assigned readings.  
Second Semester, 1956-1957

GREEK (Grk)

GRK 101-102. ELEMENTARY GREEK  
SIX CREDIT HOURS

A study of the essentials of Greek grammar with exercises and readings.  
Full Year Course, Each Year

GRK 201. INTERMEDIATE GREEK  
THREE CREDIT HOURS

Continuation of the study of grammar. Readings from New Testament.  
First Semester, Each Year

GRK 303. PLATO  
THREE CREDIT HOURS

The Apologia is read and selections from the rest of Plato's works. Plato's contribution to the history of ideas as emphasized and illustrated through extensive supplementary reading in Jowett.  
To be announced

GRK 304. HOMER  
THREE CREDIT HOURS

Readings from the Iliad and the Odyssey.  
Second Semester, Each Year
GRK 305. THE SEPTUAGINT
Extensive readings. Comparison with the Vulgate. Excursions into the field of Biblical science. THREE CREDIT HOURS

GRK 306. THE NEW TESTAMENT
Similar to Gr. 305. Comparison of the Greek and Latin texts with modern renditions. THREE CREDIT HOURS

GRK 403. GREEK DRAMA
Reading of Sophocles' Oedipus Rex and Antigone with a study of the origin and development of Greek drama. THREE CREDIT HOURS

LATIN (Lat)

LAT 101-102. ELEMENTARY LATIN
A college course in Latin fundamentals. SIX CREDIT HOURS

LAT 201-202. INTERMEDIATE LATIN
Second year course in Latin. Readings from classical authors of the pre-Christian periods. SIX CREDIT HOURS

LAT 301. LATIN COMPOSITION AND CONVERSATION
This course aims to give an intensive review of inflections and syntax with emphasis on original style and fluency of expression. THREE CREDIT HOURS

LAT 304. VERGIL
A survey of the work of Vergil, with special attention to the literary art of the Aeneid and the nature and development of the Roman epic. THREE CREDIT HOURS

LAT 305. MEDIEVAL LATIN
An outline of the main course of Latin literature from 400 A.D. to 1500 A.D., with special attention being given to the classical heritage of the Middle Ages. THREE CREDIT HOURS

LAT 306. HORACE
Readings of selected Odes and Epodes, and the Ars Poetica of Horace; a study of his lyric quality, workmanship, and meters. THREE CREDIT HOURS

LAT 307. READINGS IN LATIN LITERATURE
This course embraces the reading of excerpts from a wide range of Latin authors. THREE CREDIT HOURS

LAT 309. CICERO
A study of De Amicitia and De Senectute or other works of Cicero. THREE CREDIT HOURS
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAT 310</td>
<td>Selected Letters of Pliny</td>
<td>A study of the Latin letter as a literary form. The men and the world of the times of Pliny are revealed by his letters.</td>
<td>3</td>
</tr>
<tr>
<td>LAT 313</td>
<td>Ovid</td>
<td>Intensive readings in the <em>Metamorphoses</em> with emphasis on the influence of the mythological epic on some of the modern literatures.</td>
<td>3</td>
</tr>
<tr>
<td>LAT 314</td>
<td>Livy</td>
<td>This course comprises readings from Books I, XXI, and XXII of Livy's <em>History</em> and an examination of his historical method and literary form.</td>
<td>3</td>
</tr>
<tr>
<td>LAT 401</td>
<td>Advanced Latin Composition</td>
<td>An intensive course in Latin composition, with special attention to the classical style of Cicero.</td>
<td>3</td>
</tr>
<tr>
<td>LAT 403</td>
<td>Seneca</td>
<td>A study of Seneca's philosophical style and the ethical teachings of Stoicism as revealed in his <em>Moral Epistles</em> and <em>Essays</em>.</td>
<td>3</td>
</tr>
<tr>
<td>LAT 412</td>
<td>Ecclesiastical Latin</td>
<td>The object of this course is to acquaint students for the priesthood with the Latin of theologians.</td>
<td>3</td>
</tr>
<tr>
<td>LAT 413</td>
<td>The Confessions of St. Augustine</td>
<td>Excerpts are taken from the first Nine Books. <em>Second Semester, 1957-1958</em></td>
<td>3</td>
</tr>
<tr>
<td>LAT 414</td>
<td>Patristic Latin</td>
<td>Selections from St. Augustine, Tertullian, St. Cyprian, Lactantius, St. Ambrose, St. Jerome, and other Fathers.</td>
<td>3</td>
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RUSSIAN (Rus)

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</tr>
</thead>
<tbody>
<tr>
<td>RUS 101-102</td>
<td>Elementary Russian</td>
<td>Designed to familiarize the beginner with the essentials of the spoken and written language. Vocabulary practice, simple sentence structure, conversational drills, and reading of modern text, with equal stress on each.</td>
<td>6</td>
</tr>
<tr>
<td>RUS 201-202</td>
<td>Intermediate Russian</td>
<td>Review of the essentials of grammar, intensive conversational and compre-</td>
<td>6</td>
</tr>
</tbody>
</table>
hension exercises, reading of graded modern and contemporary prose and poetry. Prerequisite: Rus 101-102, or equivalent.  

**RUS 203-204. SCIENTIFIC RUSSIAN**  
SIX CREDIT HOURS  
This course is given only at Wright-Patterson Air Force Base. Prerequisite: Rus 101-102, or equivalent.  

**RUS 301-302. RUSSIAN READING AND CONVERSATION**  
SIX CREDIT HOURS  
Intended for students who possess a general knowledge of Russian, but lack the practical experience of the spoken language. The conversation is based principally on more advanced reading material. Prerequisite: Rus 201-202, or equivalent.  

**RUS 401-402. TECHNICAL AND SCIENTIFIC RUSSIAN**  
SIX CREDIT HOURS  
A course intended to train students to acquire a reading knowledge of Russian scientific literature. Special grammatical constructions will be explained, as well as general techniques of translation. Prerequisite: Rus 301-302.  

**SPANISH (Spn)**  

**SPN 101-102. ELEMENTARY SPANISH**  
SIX CREDIT HOURS  
Elements of Spanish, including pronunciation, reading, translation, grammar, dictation and conversation.  

**SPN 201-202. INTERMEDIATE SPANISH**  
SIX CREDIT HOURS  
Grammar review, selected readings from modern authors, exercises in composition and conversation.  

**SPN 205-206. SPANISH READING AND CONVERSATION**  
SIX CREDIT HOURS  
Intended for students who possess a general knowledge of Spanish, but lack the practical experience of the spoken language.  

**SPN 301-302. SPANISH LITERATURE**  
SIX CREDIT HOURS  
A survey of Spanish Literature, with special emphasis on the Golden Age and the modern period. Lectures, discussions and reports on assigned readings.  

**SPN 303-304. SPANISH-AMERICAN LITERATURE**  
SIX CREDIT HOURS  
A study of the principal authors and works of the colonial, revolutionary and modern periods. Lectures, discussions and reports on assigned readings.  

**SPN 403. MODERN SPANISH DRAMATISTS**  
THREE CREDIT HOURS  
A survey of the literary activities of the important dramatists from 1830 to the present time. Lectures, discussions and reports on assigned readings.
SPN 404. DRAMA OF THE GOLDEN AGE
A study of the significance and principal works of the great dramatists of the sixteenth and seventeenth centuries. Lectures, discussions and reports on assigned readings.
Second Semester, 1957-1958

SPN 405. SPANISH LITERATURE OF THE TWENTIETH CENTURY
A study of the principal Spanish and Spanish-American authors and works of the present century. Lectures, discussions, and reports on assigned readings.
First Semester, 1956-1957

SPN 406. SPANISH NOVELISTS OF THE NINETEENTH CENTURY
A study of the more important works of the principal novelists of this period. Lectures, discussions and reports on assigned readings.
Second Semester, 1956-1957

MATHEMATICS (Mth)

MR. SCHRAUT, CHAIRMAN
MR. BOSSHART, MR. JEHN, MR. KELLER, MR. KREIDER,
MR. NEFF, MR. PECKHAM, MRS. PRATHER, MR. SCHELL, MRS. TRUETT

MTH 12. ELEMENTARY ALGEBRA I
This course is equivalent to the first year of high school algebra. Five periods a week.
Each Semester, Each Year

MTH 13. PLANE GEOMETRY
This course is equivalent to one year of high school plane geometry. Three class periods a week.
First Semester, Each Year

MTH 14. ELEMENTARY ALGEBRA II
This course is equivalent to the second year of high school algebra. Five class periods a week.
Each Semester, Each Year

MTH 15. SOLID GEOMETRY
This course is equivalent to one semester of high school solid geometry. Three class periods a week.
Each Semester, Each Year

MTH 101. COLLEGE ALGEBRA
THREE CREDIT HOURS
This course covers the fundamentals of second year of high school algebra and continues into topics of college algebra. Logarithms, ratio and proportion, with applications to chemistry, physics, and biology, are stressed. For Science students. Three class periods a week.
Each Semester, Each Year

MTH 102. PLANE TRIGONOMETRY
THREE CREDIT HOURS
Continuation of Mth 101. The usual subjects of plane trigonometry will be...
covered, together with applications to physics and the use of the slide rule. 
Prerequisite: Mth 101, Mth 105, or the equivalent of Mth 14 and consent 
of the instructor. Three class periods a week. 

**MTH 105. ALGEBRA**

This course is similar to Mth 101, but is given five times a week to permit 
more drill work for the less prepared student. For Arts and Science students. 
Five class periods a week.

**MTH 111. FUNDAMENTALS OF COLLEGE MATHEMATICS I**

Primarily for students in Education seeking to satisfy requirements in general 
education. Credit in this course is not applicable to the minimum requirements 
for a teaching field in mathematics. Reasoning and axioms in arithmetic; algebra 
and geometry; algebra as a generalization of arithmetic; logarithms; methods 
of elementary geometry and applications; coordinate geometry. Three class 
periods a week. Prerequisite: one year of high school algebra and one year of 
high school geometry.

**MTH 112. FUNDAMENTALS OF COLLEGE MATHEMATICS II**

Continuation of Math. 111. The function concept; types of functions, including 
trigonometric with applications; the concept of a limit; rate of change of a 
function and elementary applications; significance of mathematics to other 
fields of knowledge. Three class periods a week. Prerequisite: Mth 111.

**MTH 115. FRESHMAN MATHEMATICAL ANALYSIS**

Primarily for students in engineering and those majoring in one of the physical 
sciences or mathematics, this course covers the usual topics in plane trigonometry, 
together with linear and quadratic equations, inequalities, progressions, and 
the analytical treatment of loci. Prerequisite: Three years of high school 
mathematics or Mth 13 and 14. Five class periods a week.

**MTH 116. FRESHMAN MATHEMATICAL ANALYSIS**

Continuation of Mth 115. Polar coordinates, complex numbers, theory of 
equations, conic sections, solid analytic geometry, and partial fractions. Pre-
requisite: Mth 115. Five class periods a week.

**MTH 121. COLLEGE ALGEBRA**

Following a review of linear and quadratic equations, systems of equations and 
other topics of high school algebra, the topics covered are: progressions, loga-
ithms, binomial theorem, complex numbers, determinants, partial fractions, 
theory of equations, and such additional topics in higher algebra as time per-
mits. Prerequisite: Two years of high school algebra, or Mth 14. Three class 
periods a week.

*Each Semester, Each Year—Evening*
MTH 122. TRIGONOMETRY THREE CREDIT HOURS
The usual topics of plane trigonometry with applications; such additional pertinent topics as polar coordinates and complex numbers, if time permits. Open to students with two years of high school mathematics, although three years are advisable. Three class periods a week. Each Semester, Each Year—Evening.

MTH 123. ANALYTIC GEOMETRY FOUR CREDIT HOURS
The fundamental disciplines connected with plane and solid analytic geometry; the straight line, locus problems, transformation of coordinates, conic sections, the plane, line in space, quadric surfaces; applications to mechanics. Prerequisite: Mth 121 and 122 or equivalent. Four class periods a week. Each Semester, Each Year—Evening.

MTH 200. TEACHERS' ARITHMETIC THREE CREDIT HOURS
Endeavors to provide a wider and more generous margin of mastery of arithmetic for teachers in elementary schools. Seeks to develop both a facility in computation and an insight into the meaning and significance of numbers. Second Semester, Each Year.

MTH 201. DIFFERENTIAL AND INTEGRAL CALCULUS I FOUR CREDIT HOURS
Differentiation of algebraic and transcendental functions with application to geometry and to physics. Integration of polynomials with applications to geometry and to physics. Fundamental theorem of integral calculus. Prerequisite: Mth 116 or Mth 123. Four class periods a week. Each Semester, Each Year.

MTH 202. DIFFERENTIAL AND INTEGRAL CALCULUS II FOUR CREDIT HOURS
Continuation of Mth 201. Integration of algebraic and transcendental functions. Approximate integration; indeterminate forms; infinite series; multiple integrals; application to geometry and physics; partial differentiation. Prerequisite: Mth 201. Four class periods a week. Each Semester, Each Year.

MTH 301. DIFFERENTIAL EQUATIONS THREE CREDIT HOURS
Equations of the first order and first degree; linear equations of higher order with constant coefficients; the method of Frobenius; Euler's equations and other special equations; application to physics, chemistry, and engineering. Prerequisite: Mth 202. Three class periods a week. First Semester, 1957-1958.

MTH 302. THEORY OF EQUATIONS THREE CREDIT HOURS
Complex numbers, integral and rational roots, general solution of the cubic and quartic equations, isolation of real roots, solution of numerical equations, determinants, system of linear equations, symmetric functions, elimination and resultants. Prerequisite: Mth 202 or registration therein. Three class periods a week. On Demand.

MTH 311. MATHEMATICAL STATISTICS THREE CREDIT HOURS
Frequency distributions, graphic representation, averages, moments, measures of dispersion, normal curve, curve fitting, correlation theory with the emphasis
on the mathematical derivations of the formulas. Prerequisite: Mth 202 or consent of the instructor. Three class periods a week.

First Semester, 1957-1958

MTH 312. MATHEMATICAL STATISTICS THREE CREDIT HOURS
A continuation of Math. 311. Probability and its relation to statistics, normal distribution, beta and gamma functions, general concepts of a distribution function of a continuous variable, normal correlation, surface, multiple and partial correlation, fundamentals of sampling theory. Fisher's t-distribution and the chi square distribution. Prerequisite: Mth 202 and 311. Three class periods a week.

Second Semester, 1957-1958

MTH 331. STATISTICS FOR ENGINEERS THREE CREDIT HOURS
Measure of central tendency, frequency distributions, dispersions, skewness and kurtosis, sampling and the determination of significant differences, correlation. Includes normal, chi-square, student's t, binomial, and Poisson distributions. Prerequisite: Mth 202.

First Semester, Each Year

MTH 332. INDUSTRIAL AND ENGINEERING APPLICATIONS OF STATISTICS THREE CREDIT HOURS
A study of the application of statistics to quality control, job evaluation, merit rating and wage determination, personnel selection and testing, time study, design of experiments, and economic and market analysis. Prerequisite: Mth 331.

MTH 341. ENGINEERING MATHEMATICS I THREE CREDIT HOURS
Differential equations of the first order and first degree, linear differential equations of higher order with constant coefficients, simultaneous differential equations, the Laplace transformation, and the solution of differential equations by the Laplace transformations, Bessel functions. Applications to problems in engineering. Three class periods a week. Prerequisite: Mth 202.

First Semester, Each Year

MTH 342. ENGINEERING MATHEMATICS II THREE CREDIT HOURS
Linear partial differential equations with solutions by the classical and operational methods, systems of partial differential equations, introduction to vector analysis and introduction to complex variables. Applications to engineering. Three class periods a week. Prerequisite: Mth 341. Second Semester, Each Year

MTH 401. COLLEGE GEOMETRY THREE CREDIT HOURS
Synthetic treatment of metric Euclidean geometry. Properties of the triangle, quadrangle, quadrilateral, coaxal circles, inversion, notable points, circles connected with a triangle, ruler and compasses construction. Prerequisite: Mth 115 or Mth 122. Three class periods a week.

On Demand

MTH 411. THEORY OF PROBABILITY THREE CREDIT HOURS
Permutation and combination, complementary, conditional and unconditional compound probabilities, Bernoulli's theorem, Bayes' theorem, probability inte-
**MTH 416. INTRODUCTION TO THE CALCULUS OF FINITE DIFFERENCES**

Three credit hours

Divided differences, Lagrange's interpolation formula, difference operators, Herschel's theorem, interpolation, Newton's interpolation formula, interpolation by iteration, inverse interpolation, reciprocal differences, Thiel's interpolation formula, polynomials of Bernoulli and Euler, numerical differentiation and integration. Prerequisite: Mth 202 and consent of the instructor. Three class periods a week.

**MTH 421. ADVANCED CALCULUS I**

Three credit hours

Limits and continuity, derivatives and differentials, functions of several variables, partial differentiation, Riemann integral, multiple integrals, line integrals, and surface integrals. Prerequisite: Mth 202. Three class periods a week.

**MTH 422. ADVANCED CALCULUS II**

Three credit hours

Continuation of Mth 421. Infinite series, power series with applications, improper integrals, and implicit functions. Prerequisite: Mth 421. Three class periods a week.

**MTH 431. VECTOR ANALYSIS**

Three credit hours

Vector algebra and calculus gradient, divergence and curl. Application to physics. Prerequisite: Mth 202. Three class periods a week.

**MTH 432. FOURIER SERIES AND BOUNDARY VALUE PROBLEMS**

Three credit hours

Fundamental definitions, partial differential equations of physics, orthogonal sets of functions, fundamental properties of Fourier series, uniqueness of expansions, Bessel functions, and Fourier-Bessel expansions. Prerequisite: Mth 321 or Mth 202 and the consent of the instructor. Three class periods a week.

**MTH 441. INTRODUCTION TO HIGHER ALGEBRA**

Three credit hours

The real number concept, sets, polynomial forms, matrices and linear transformations, introduction to the basic concepts of groups, rings, and fields. Prerequisite: Mth 202 and the consent of the instructor. Three class periods a week.

**MTH 451. INTRODUCTION TO HIGHER GEOMETRY**

Three credit hours

Projections and rigid motions, theorem of Desargues, the principles of duality, homogeneous coordinates, linear dependence, harmonic division, cross ratio, projective transformations, discussion of projective, affine and metric geom-
eteries, projective theory of conics. Prerequisite: Mth 202 and consent of the instructor. Three class periods a week.

First Semester, 1957-1958

MTH 461. INTRODUCTION TO THE THEORY OF FUNCTIONS OF A COMPLEX VARIABLE THREE CREDIT HOURS
Fundamental concepts, Cauchy integral theorem, analytic functions, analytic continuation, conformal transformations, the calculus of residues, applications to physics and engineering. Prerequisite: Mth 421 or registration therein. Three class periods a week.

Second Semester, 1956-1957

MTH 465. MODERN OPERATIONAL MATHEMATICS THREE CREDIT HOURS
The Laplace transformation and applications, partial differential equations, the inversion integral, applications to heat conduction, mechanical vibrations, and other problems. Prerequisite: Mth 202 and consent of the instructor. Three class periods a week.

On Demand

MECHANICAL ENGINEERING (MEE)

MR. HSU CHAIRMAN
MR. CHENG, MR. CZAKI, MR. SOMMER, BRO. PARR

MEE 202. MECHANICS OF MACHINERY ONE CREDIT HOUR
Kinematics of machinery; linkwork; cams; gearing-spur, bevel, screw, etc.; flexible connectors; intermittent motion mechanisms; trains of mechanisms. One class period a week. Prerequisites: Mth 201, Phy 206, GNE 102.

Each Semester, Each Year

MEE 202L. MECHANICS OF MACHINERY LABORATORY ONE CREDIT HOUR
Laboratory exercises based on the foregoing principles. One laboratory period a week. Corequisite: MEE 202.

Each Semester, Each Year

MEE 205-205a. MACHINE SHOP PRACTICE TWO CREDIT HOURS
Constructions of basic machine tools and principles of operations. Machining processes; turning, drilling, milling, shaping, punching, shearing, boring, reaming, tapping, polishing, cylindrical and surface grinding. Hand tools, precision measuring gages and instruments. For Mechanical, and non-Mechanical Engineering students. Two class periods a week. Prerequisites: Mth 116, Phy 206, GNE 101.

Each Semester, Each Year

MEE 205L-205aL. MACHINE SHOP PRACTICE LABORATORY ONE CREDIT HOUR
Laboratory exercises on the foregoing principles. One laboratory period a week. Corequisite: MEE 205-205a.

Each Semester, Each Year

MEE 301-302. THERMODYNAMICS SIX CREDIT HOURS
The general laws of thermodynamics; properties and processes of gases, vapor, and gas-vapor mixtures; cycles; and the flow of fluids. The application of
thermodynamics to machines such as engines, turbines, and compressors. Three class periods a week. Prerequisite: Mth 202; Corequisite: Phy 208.

*MEE 301a. THERMODYNAMICS*  
Three credit hours  
The general laws of thermodynamics; properties and processes of gases, vapor, and gas-vapor mixtures; cycles; and the flow of fluids. For non-Mechanical Engineering students. Three class periods a week. Prerequisite: Mth 202; Corequisite: Phy 208.

*MEE 303. METALLURGY*  
Two credit hours  
Structure and properties of metals and alloys with emphasis on steels and their heat treatment and mechanical working. Two class periods a week. Prerequisite: Chm 108; Corequisite: GNE 305.

*MEE 303L. METALLURGY LABORATORY*  
One credit hour  
Metallographic inspection of iron-base, copper-base and aluminum-base alloys; polishing, etching, and photographing of specimens; determination of the critical points in steels; heat treatment of steel. One laboratory period a week. Corequisite: MEE 303.

*MEE 304. HEAT POWER*  
Three credit hours  
A general course on the equipment of steam and gas power plants, including history of development and study of modern plant facilities. Fuels, combustion processes, and complete heat balances. Three class periods a week. Prerequisite: MEE 301.

*MEE 304L. HEAT POWER LABORATORY*  
Two credit hours  
Heating value of fuels; analysis of combustion products; determination of selected physical qualities of oils and lubricants; pump tests; steam engines; and compressors. Two laboratory periods a week. Corequisite: MEE 304.

*MEE 304a. HEAT POWER*  
Three credit hours  
Fuels; application of thermodynamics to boilers, prime movers, auxiliaries and refrigeration machines. For non-Mechanical Engineering students. Three class periods a week. Prerequisite: MEE 301a, or CME 301. Each Semester, Each Year

*MEE 304aL. HEAT POWER LABORATORY*  
One credit hour  
Petroleum products testing; proximate analysis of coal; determination of heating value of solid, liquid, and gaseous fuels. One laboratory period a week. Corequisite: MEE 304a.

*MEE 305L. MECHANICAL ENGINEERING LABORATORY*  
Two credit hours  
Basic experiments designed to teach theory, techniques of application and calibration of instruments for pressure, temperature, and volume, fluid flow, and power measurement. Two laboratory periods a week. Prerequisite: Phy 208.
MEE 307. MECHANICS OF MACHINERY       TWO CREDIT HOURS
Analysis of velocity, acceleration, Theorem of Coriolis, static and dynamic forces in machine parts. Study of inertia forces, balancing, governors, gyroscope and graphical calculus are included. Two class periods a week. Prerequisite: MEE 202.

MEE 307-L. MECHANICS OF MACHINERY LABORATORY   ONE CREDIT HOUR
Laboratory exercises based on the foregoing principles. One laboratory period a week. Corequisite MEE 307.

MEE 308. FLUID MECHANICS     THREE CREDIT HOURS
Laws and theory relative to compressible and incompressible fluids; momentum relations for steady flow; resistance of immersed bodies; dynamic lift and propulsion; lubrication; pumps; turbines; fluid couplings; fluid power and control systems. Three class periods a week. Prerequisite: MEE 301.

MEE 312. PRODUCTION MACHINERY AND METHODS       TWO CREDIT HOURS
Principles and applications of various production methods. Study of patterns for foundry, sand, and sandless castings, cold and hot shaping, turret and automatic lathes, other production machine tools, broaching and gear manufacturing machines, transfer and special machines, arc, gas, and resistance welding processes. Engineering materials and precision inspection apparatus. Prerequisite: MEE 205.

MEE 401-402. INTERNAL COMBUSTION ENGINES       SIX CREDIT HOURS
A study of the Otto and Diesel cycles including fuels, combustion, detonation, knock testing, performance factors, performance testing, exhaust gases, and engine vibration. Three class periods a week. Prerequisites: MEE 301, 302, 305. 
Full Year Course; Each Year

MEE 403. HEATING AND AIR CONDITIONING         THREE CREDIT HOURS
Heat losses and gains through building walls; heating and cooling loads of buildings; warm air, steam, and hot water heating, with discussion of the various units used in such systems. Complete air conditioning, creating and maintaining air temperature, humidity, air movement, and cleanliness. Prerequisites: MEE 301, 302, 305; Corequisite: MEE 409. First Semester, Each Year

MEE 403-L. HEATING AND AIR CONDITIONING LABORATORY
ONE CREDIT HOUR
Laboratory exercises based on the foregoing principles. One laboratory period a week. Corequisite: MEE 403. First Semester, Each Year

MEE 404. REFRIGERATION                       THREE CREDIT HOURS
Refrigeration methods used for domestic and commercial purposes; properties of refrigerants and compressors suitable for each; the thermodynamics of compression and absorption system of refrigeration; the economics and efficiency of cooling by liquid or gaseous refrigerants. Second Semester, Each Year
MEE 404-L. REFRIGERATION LABORATORY
Laboratory exercises based on the foregoing principles. One laboratory period a week. Corequisite: MEE 404.

MEE 406L. MECHANICAL ENGINEERING LABORATORY
Tests of a boiler and steam turbine installation, steam engines, internal combustion engines, and a refrigeration unit. Two laboratory periods a week. Prerequisites: MEE 304, 305, 401.

MEE 407a. ELEMENTS OF MACHINE DESIGN
An elementary course in stress analysis, columns, riveted construction; couplings and keys, brakes; clutches, gears and welding techniques. Two class periods a week. For non-Mechanical Engineering students. Prerequisites: GNE 301, 303, MEE 309.

MEE 407aL. ELEMENTS OF MACHINE DESIGN LABORATORY
Laboratory exercises based on the foregoing principles. Three laboratory periods a week. Corequisite: MEE 407a.

MEE 407-408. MACHINE DESIGN
Stress analysis, columns, screw fastenings, rivets; keys and couplings; connectors and drives; gearing, bearings, springs, brakes, friction clutches and friction drives; cams; welding, design problems. Two class periods a week. Prerequisites: CIE 304, GNE 301, 503, MEE 309. Full Year Course, Each Year

MEE 407L-408L. MACHINE DESIGN LABORATORY
Design problems on machine elements and entire assemblies based on the foregoing principles. One laboratory period a week. Corequisites: MEE 407-408.

MEE 409. HEAT TRANSMISSION
Laws of conduction, radiation and convection; heat transfer to boiling liquids or condensing vapors; over-all heat transfer steady state or variable flow. Three class periods a week. Prerequisite: MEE 301; Corequisite: MEE 308.

MEE 411. PUMPS AND COMPRESSORS
Factors determining pump and compressor performance. Selection of pumps including economic considerations. Major components of a centrifugal unit are designed. Prerequisite: MEE 308.

MEE 413. NON-FERROUS METALLURGY
Structure and properties of copper-base, aluminum-base, and magnesium-base alloys with emphasis on melting and casting procedures and heat treatment. Two class periods a week. Prerequisite: MEE 303.

MEE 413L. NON-FERROUS METALLURGY LABORATORY
Age-hardening of aluminum alloys; determination of an equilibrium diagram
of binary alloy via cooling curves; metallographic inspection of miscellaneous non-ferrous alloys, sintering of bronze and copper powders. One laboratory period a week. Corequisite: MEE 413.

**First Semester, Each Year**

MEE 414. **SEMINAR**

Required of all junior and senior Mechanical Engineering students. One class period a week for Junior and Senior years.

MEE 416. **MECHANICAL VIBRATIONS**

Vibrations without damping; damped vibrations; vibration of systems with several degrees of freedom; vibration isolation and absorption; theory of balancing; the Mobility Method; mechanical and electrical models of vibration systems. Two class periods a week. Prerequisite: MEE 310.

**Second Semester, Each Year**

MEE 416L. **MECHANICAL VIBRATIONS LABORATORY**

Laboratory exercises based on the foregoing principles. One laboratory period a week. Corequisite: MEE 416.

**MEDICAL TECHNOLOGY (Met)**

**DR. ABRAMSON, CHAIRMAN (St. Elizabeth Hospital)**

**DR. THOMPSON, CHAIRMAN (Good Samaritan Hospital)**

**DR. OOSTING, CHAIRMAN (Miami Valley Hospital)**

The work of the senior year in Medical Technology is done at Miami Valley Hospital, St. Elizabeth Hospital or Good Samaritan Hospital. The courses are conducted by the respective hospital faculties.

**Met 454. CHEMISTRY AND GASTRIC ANALYSIS**

SIX CREDIT HOURS

Instruction in biological chemical analyses pertaining to blood and to various excreta of the human body.

**Met 457. ELECTROCARDIOGRAPHY B.M.R.**

THREE CREDIT HOURS

The student familiarizes herself with the more commonly used machines, and masters the techniques of doing basal metabolisms and electrocardiograms.

**Met 461. URINANALYSIS AND RENAL FUNCTION**

FOUR CREDIT HOURS

Instruction in various methods of performing these tests with interpretation based on anatomical and physiological functions of the organs. Repeated studies stress need for accuracy.

**Met 462. HEMATOLOGY AND BLOOD BANK**

SIX CREDIT HOURS

Instruction in various methods for studying the cellular components of the blood with practice to facilitate speed. Interpretation of findings based on anatomical and physiological functions of the cellular components of the blood.
MET 463. BACTERIOLOGY AND PARASITOLOGY  FIVE CREDIT HOURS
Instruction in various methods of bacteriological examination of various excreta or secretions of the human body; tests for reactions of the body to specific diseases; tests for and study of various parasites found as pathogenic organisms in the human body.

MET 465. HISTOLOGY AND CYTOLOGY  FOUR CREDIT HOURS
Instruction in various methods of preparation for sectioning and staining of tissues in preparation for microscopic examination.

MET 466. SEROLOGY AND SPINAL FLUIDS  FIVE CREDIT HOURS
Instruction in the mechanism of and the performance of these tests, and some interpretation of the results.

MILITARY SCIENCE AND TACTICS (Mil)

COL. STERNER, CHAIRMAN
MAJ. CURLES, MAJ. DELPINO, MAJ. GRISWOLD, MAJ. MACLANE,
CAPT. O'MALLEY, M/SGT. CRAFT, M/SGT. HAWKINS, M/SGT. HOGG,
M/SGT. HUNSAKER, M/SGT. JOHNSON, M/SGT. MCGOVERN,
SFC. DAVIDSON, SFC. LOTT, SFC. MARROW

MIL 101-102. FIRST YEAR BASIC COURSE  THREE CREDIT HOURS
Training is provided in those military subjects common to all branches of the Army, such as organization of the Army and the ROTC; American military history; individual weapons and marksmanship; school of the soldier and exercise of command.

MIL 201-202. SECOND YEAR BASIC COURSE  THREE CREDIT HOURS
Continuation of the above course. Subjects include: crew-served weapons and gunnery; map and aerial photograph reading; school of the soldier and exercise of command. Prerequisite: MIL 101-102.

MIL 301-302. FIRST YEAR ADVANCED COURSE  SIX CREDIT HOURS
Enrollment limited to students who have: 1) satisfactorily completed the Basic Course ROTC; 2) passed required physical examination; 3) been selected to continue military studies. Subjects include: small unit tactics and communications; organization, function and mission of the Arms and Services; military teaching methods; advanced training in leadership and command. Attendance at ROTC Summer Camp is required. Prerequisite: MIL 201-202.

MIL 401-402. SECOND YEAR ADVANCED COURSE  SIX CREDIT HOURS
Continuation of the above course. Subjects include: logistics; operations; military administration and personnel management; service orientation. Commissions in the United States Army Reserve are awarded to qualified stu-
dents. Branch in which commissioned is influenced by major course of study, demonstrated aptitude, and requirements of the Military Service. Prerequisite: Mil 301-302.

Full Year Course, Each Year

**MUSIC** (Mus)

**MR. REICHARD, CHAIRMAN**

**MR. BLAGG, MR. DEGER, MR. ENOCH, MR. HEIMANN, MR. KATZ,**

**MISS KLINE, MR. REGER, BRO. SCHNEIDER, MRS. SMOOT,**

**MR. STURM, MR. TAGG, MISS THOMAS, MR. ZECH**

**Mus 102. Music Literature and Appreciation**

TWO CREDIT HOURS

A study of the masterpieces of music, with special reference to the listener; materials include compositions that have particular value for the classroom teacher. For students in elementary education. Not open to students who have credit for Mus 105.

Second Semester, Each Year

**Mus 105. Music Appreciation**

TWO CREDIT HOURS

A study of the masterpieces of music, with special reference to the listener. Its aim is to develop a broader understanding and an intelligent discrimination of music. For music majors and students in Music Education. Not open to students who have credit for Mus 102.

Second Semester, Each Year

**Mus 111-112. First Year Harmony**

SIX CREDIT HOURS

Formation of Scales and Intervals; positions and progressions of triads, seventh chords and their inversions; simple modulations; voice leading. Prerequisite: Knowledge of the fundamentals of music and preparatory study of piano or other keyboard instrument. Full Year Course, Each Year—Evening

**Mus 115-116-117. First Year Harmony**

SIX CREDIT HOURS

The material of the course is essentially the same as Mus 111-112. Designed for students who study privately with members of the staff. Not open to students with credit for Mus 111-112. Subject to private instruction fee.

On Request

**Mus 121-122. First Year Sight Singing and Ear Training**

FOUR CREDIT HOURS

Acquiring of technique for hearing melodic, harmonic, and rhythmic elements of music as based on the styles of the 18th and 19th centuries; study of the types of triads and intervals derived from them; practice in rhythmic reading; harmonic, melodic and rhythmic dictation; seventh chords, modal scales, key feeling and modulation. Prerequisite: Knowledge of the fundamentals of music and preparatory study of the piano or other keyboard instrument.

To be announced—Evening

**Mus 141. Introduction to Music**

TWO CREDIT HOURS

Designed for the student with no previous experience with the theory of music.
Reading and notation of music is developed along with key signatures and fundamental harmonic progression. Simple part-writing, easy sight singing and an introduction to the piano keyboard. Elementary ear training and dictation.

**Mus 151-152. First Year Theory**

Formation of scales and intervals; positions and progressions of triads, seventh chords and their inversions; simple modulations; voice leading; acquiring of technique for hearing melodic, harmonic, and rhythmic elements of music as based on the styles of the 18th and 19th centuries; practice in rhythmic reading; harmonic, melodic and rhythmic dictation. Not open to students who have credit for Mus 111-112 or Mus 121-122. Prerequisite: Knowledge of the fundamentals of music and preparatory study of piano or other keyboard instrument.

**Mus 181. Music in the Catholic Elementary School I**

Materials and techniques used in teaching first year music; treatment of the non-singer; care of the child voice; study of the development of intonation, rhythmic feel, and sight-singing, applied in songs. One class period a week for two semesters.

**Mus 211-212. Second Year Harmony**

Continuation of Music 111-112. Further study of modulation; altered and mixed harmonies; melodic embellishment and figuration; analysis. Prerequisite: Mus 111-112.

**Mus 215-216-217. Second Year Harmony**

Continuation of Mus 115-116-117. Material essentially the same as Mus 211-212. Not open to students who have credit for Mus 211-212. Subject to private instruction fee. Prerequisite: Mus 115-116-117, or Mus 111-112. On Request.

**Mus 221-222. Second Year Sight Singing and Ear Training**

Continuation of Mus. 121-122. Addition of altered chords; practical application of non-harmonic tones in chorale-style harmonic dictation. Two and three-voice contrapuntal dictation. Further practice in sight singing. Prerequisite: Mus 121-122.

**Mus 231. Teaching Music in Grades 1, 2, and 3**

Materials to be used in music for the first three grades and their presentation; problems and possibilities of the primary school music program. Prerequisite: Knowledge of the fundamentals of music equivalent to Mus 141.

**Mus 232. Teaching Music in Grades 4, 5, and 6**

Materials to be used in music for the fourth, fifth and sixth grades and their presentation; problems and possibilities of the elementary school music pro-
gram. Prerequisite: Knowledge of the fundamentals of music equivalent to Mus 141.

**MUS 235-236. VOICE CLASS**
Discussion and demonstration of the principles of good singing; development of voice; vocal literature. The course may be repeated to a total of eight credit hours with permission of the instructor. Prerequisite: permission of the instructor.

**MUS 245. GREGORIAN CHANT**
An introduction to Gregorian Chant. Principles of free rhythm; modal characteristics; fundamentals of choronomy. Conducted only at Mt. St. John and restricted to student members of the Society of Mary. Second Semester, Each Year

**MUS 251-252. SECOND YEAR THEORY**
Continuation of Mus 151-152; further study of modulation; altered and mixed harmonies; melodic embellishment and figuration; analysis; practical application of non-harmonic tones in chorale-style harmonic dictation. Two and three-voice contrapuntal dictation. Further practice in sight singing. Not open to students who have credit for Mus 211-212 or Mus 221-222. Prerequisite: Mus 151-152 or equivalent.

**MUS 281. MUSIC IN THE CATHOLIC ELEMENTARY SCHOOL II**
More complex problems in tone and rhythm; sight-singing in major, minor, and modal tonalities. Melodic and rhythmic dictation; creative activity; increase in song repertoire. One class period a week for two semesters. Prerequisite: Mus 181.

**MUS 301. HISTORY OF MUSIC I**
Development of music, instruments, forms, sacred and secular, from the earliest records through the Classical period. The relationship of music to the other arts and to broad movements in society and civilization.

**MUS 302. HISTORY OF MUSIC II**
Music of the nineteenth century; Romanticism; impressionism; nationalism; beginnings of the modern period. Relationship of music to social and cultural trends in Europe and America during the last one hundred and fifty years.

**MUS 303. MODERN MUSIC**
A survey of contemporary music; its relationship to modernism in the other arts and to present-day society; American music.

**MUS 311-312. EIGHTEENTH CENTURY COUNTERPOINT**
A study of the contrapuntal technique of the eighteenth century particularly as used in the instrumental works of Johann Sebastian Bach. Original compo-
sitions in the forms of the Invention and the Fugue. Prerequisite: Mus 251-252.

Mus 315-316. The Opera
A survey of opera from Gluck, Mozart and other eighteenth century composers to later Italian opera writers; the Wagnerian music drama; modern trends in opera.

Mus 321. Instrumental Conducting
Methods of controlling tempo and the dynamic elements of instrumental musical groups; technique of the baton; score reading; rehearsal routine; practical experience with campus organizations. Prerequisite: Junior standing in music and permission of the instructor.

Mus 322. Instrumentation and Orchestration
Scoring for string, reed, and brass instruments in small combinations and full orchestra and symphonic band; modern trends and techniques in arranging, with emphasis on the needs of school music organizations. Prerequisite: Junior standing in music and permission of the instructor.

Mus 325. Instrumental Class—Stringed Instruments
Class instruction in stringed instruments; teaching of stringed instruments in the schools.

Mus 326. Instrumental Class—Reed and Woodwind Instruments
Class instruction in reed and woodwind instruments; teaching of reeds and woodwinds in the schools.

Mus 327. Instrumental Class—Brass Instruments
Class instruction in brass instruments; teaching brass instruments in the schools.

Mus 328. Percussion Instruments—Marching Band Techniques
Class instruction in percussion instruments; teaching of percussion instruments in the schools. Materials and methods of instruction for the marching band.

Mus 331. Vocal Music in the High School
Materials used in the general music class and their presentation; glee club, choir, voice class, vocal ensembles. Prerequisite: Junior standing in Music Education.

Mus 332. The School Band and Orchestra
A general course in the organization and teaching of instrumental music in
the schools; materials; survey of equipment and facilities necessary for the instrumental music program. Prerequisite: Junior standing in Music Education.

Mus 345. GREGORIAN CHANT PRINCIPLES
A study of Gregorian notation, free rhythm and fundamentals of chironomy; the eight Church modes; the principal Masses of the Kyriale; for the student and organist with little or no previous knowledge of the official music of the Catholic Church.

Second Semester, 1956-1957

Mus 351. CHORAL CONDUCTING
Techniques needed to secure interpretative values in vocal groups; rehearsal routine; practical experience in experimental campus organizations. Prerequisite: Permission of the instructor.

Second Semester, Each Year

Mus 381. MUSIC IN THE CATHOLIC ELEMENTARY SCHOOL III
Expanding vocal range and flexibility. Modulation to related major and minor keys; introduction of part-singing; methods of presenting Gregorian Chant to children; application of tonal and rhythmic skills in songs. Prerequisites: Mus 181, 281.

Mus 411-412. MUSICAL COMPOSITION
Prerequisites: Mus 251-252, Mus 311-312 or Mus 417-418; other prerequisites to be determined in consideration of the aims and objectives of the student; permission of the instructor.

Full Year Course, Each Year

Mus 413-414. FORM AND ANALYSIS
A study of the structural designs used in musical composition; a survey of all polyphonic, homophonic, and the larger forms. Prerequisite: Mus 151-152.

Full Year Course, Each Year

Mus 415-416. MODERN HARMONIC STYLES
Analysis of contemporary harmonic and contrapuntal devices. Original composition in the styles of the composers studied. Prerequisite: Permission of the instructor.

Full Year Course, 1957-1958

Mus 417-418. SIXTEENTH CENTURY COUNTERPOINT
A study of the medieval modes and the vocal polyphony of the motet and the Mass, up to and including five-part writing. Performance of sixteenth century polyphony and original student compositions. Prerequisite: Permission of instructor.

Full Year Course, 1957-1958

Mus 421-422. LABORATORY IN ORCHESTRATION
Advanced work in orchestration; special problems in scoring for full orchestra, symphonic band or dance orchestra; transcription of orchestral works for band. Prerequisite: Mus 322, permission of instructor.

Full Year Course, Each Year
MUS 425-426. PROBLEMS IN INSTRUMENTAL MUSIC FOUR-SIX CREDIT HOURS
Practical problems and experience in instrumental music in actual teaching
situations approved by the Department of Music. Prerequisite: Senior standing
in Music Education; permission of the Head of the Department.

Full Year Course, Each Year

MUS 431-432. PROBLEMS IN VOCAL MUSIC FOUR CREDIT HOURS
Practical problems and experience in vocal music in actual teaching situations
approved by the Department of Music. Prerequisites: Senior Standing in Music
Education; permission of the Head of the Department.

Full Year Course, Each Year

MUS 441-442. HARMONIC ANALYSIS FOUR CREDIT HOURS
An analytical study of the harmonic and melodic structures of music from the
early classics up to and including some of the modern composers. Prerequisite:
MUS 251-252.

Full Year Course, 1956-1957

MUS 481. MUSIC IN THE CATHOLIC ELEMENTARY SCHOOL IV
TWO CREDIT HOURS
A study of Gregorian Chant, its notation, rhythm, modes; Latin pronunciation;
the Ordinary of the Mass, integrated with the study of the Mass in Religion
class, culminating in participation, through singing, in the Mass.

To be announced

APPLIED MUSIC

Credit for private instructions in piano, organ, violin, voice, stringed or wind
instruments is allowed at the rate of two credit hours per lesson a week.

In order to register for credit toward a major in Applied Music, students
must have studied sufficient preparatory material. In Piano, this should include
ability to play major and minor scales in a moderate tempo in parallel motion,
ability to play major and minor triads in arpeggio form in all keys. The student
should have studied Hanon, Vol. I; Pischna; Czerny, Op. 299, or their
equivalent; some of the Mozart and Haydn sonatas, Little Preludes and Fugues
by Bach, Songs Without Words by Mendelssohn, the Lyric Pieces by Grieg,
or the equivalent.

Piano, semester fee .............................................. $20.00 to $64.00
Voice, semester fee ........................................... 20.00 to 80.00
(Class instruction in Voice is likewise offered; see course
number 235-236.)

Violin, semester fee ........................................... 32.00 to 64.00
Reed, Woodwind Instruments, semester fee .................... 40.00
Cornet, Trumpet, Horn, semester fee ......................... 40.00
Trombone, Baritone, Tuba, semester fee ..................... 32.00
ENSEMBLES

*Orchestra* (Dayton Philharmonic Training Orchestra)
*Band* (Marching Band, Concert Band)
*Choir* (Mixed Chorus)
*Glee Clubs* (Men’s Glee Club, Women’s Glee Club)
*Ensembles* (Brass Choir, String, Woodwind Ensembles)

Credit in Music may be earned in Orchestra, Band, Choir, and Glee Club by students enrolled in music courses. Credit will be allowed at the rate of one-half credit hour per semester in each organization, and is required of students majoring in Music or qualifying for Bachelor of Music or Bachelor of Science in Music Education degrees. The amount of requirement is to be determined by the needs and experience of the student, and/or State requirements in Music Education. Maximum: Toward Music Major in A.B. degree, or as an elective in other degrees: four credit hours in all organizations; toward B.M. or B.S. in Mus. Ed. degrees, six credit hours. Prerequisite: permission of the Director.

NURSING (Nsg)

**MISS O'BRIEN, CHAIRMAN**

**MRS. BERNER, MISS FROEBE, MISS KING,**
**SISTER MYRA JAMES, S.C., MISS VOJNOVICH**

All courses in nursing are restricted to registered professional nurses whose professional qualifications have been approved by the University of Dayton and the Department of Nursing.

**Nsg 317. CURRENT TRENDS IN AMERICAN NURSING**  THREE CREDIT HOURS

A thorough discussion of the modern improvements and the prevailing professional problems arising in the numerous fields of nursing and the related professions. Consideration is given to the relation of the nurse to these improvements and to the active work of the professional organizations.

*Second Semester, 1956-1957*

**Nsg 326. ADVANCED MEDICAL AND SURGICAL NURSING**  THREE CREDIT HOURS

Advanced study and review of the principles and techniques of medical and surgical nursing. Consideration is given to the latest developments of medical science and the most recent information regarding causes, nursing care and prevention of medical and surgical conditions; wide reading of current literature in the field; study of social, economic and medical factors involved, research problems, discussions and reports of various medical and surgical situations with attendance at clinics, demonstrations, special lectures and ward rounds.

*To be announced*

**Nsg 327. ADVANCED MEDICAL AND SURGICAL NURSING FIELD WORK**  FOUR CREDIT HOURS

Practiced concurrently with Nsg 326. Observation and supervised experience
in the hospital, clinics, and other community agencies. Selected experience in
the nursing of patients with medical and surgical conditions, with emphasis
on social and emotional factors, and stressing rehabilitation and health teaching.

To be announced

Nsg 329. Guidance Programs in Schools of Nursing
THREE CREDIT HOURS
A discussion of the meaning and purpose of guidance with emphasis on stu-
dents in schools of nursing. Includes methods of studying the student nurse and
assisting with orientation and adjustment problems. Considers the character-
istics of the guidance-minded instructor and supervisor; the functions of guid-
ance counselors, and techniques of organization and administration of guid-
ance programs in hospitals and schools of nursing. First Semester, 1956-1957

Nsg 330. Survey of Public Health Nursing
THREE CREDIT HOURS
Historical development of public health nursing and public health with its
underlying principles and practices; the organized services available to urban
and rural areas under private and public auspices, the duties of the nurse in
specialized programs, and the study of community welfare and health programs
to meet health needs.

To be announced

Nsg 332. Principles and Techniques of Teaching in
Schools of Nursing
THREE CREDIT HOURS
Consideration is given to general principles underlying the learning process,
types of learning, conditions affecting learning, the learning environment, and
effective study habits as applied to students in schools of nursing. Techniques
of teaching in the formal classroom and clinical area will be reviewed, with
special emphasis on the use of audio-visual materials. Lesson planning and
methods of evaluation will also be studied. First Semester, 1956-1957

Nsg 339. Comprehensive Nursing
THREE CREDIT HOURS
Review of the necessity and opportunities for considering the patient as an
individual with social, cultural, economical, spiritual, psychological and en-
vironmental needs, regardless of his physical illness or disability, real or imagi-
nary. Consideration is given to health teaching in the home, clinic, school, in-
dustry or hospital, embracing preventive, curative and rehabilitative measures.
Stress is placed upon a knowledge of community agencies to whom patients
and/or their families may be referred for assistance or guidance.

To be announced

Nsg 402. Diet in Disease
THREE CREDIT HOURS
Adaptation of diet to disease. A previous knowledge is required of the funda-
mentals of human nutrition, including requirements of the body for the nutriti-
tive essentials, the composition of foods and the planning of adequate diet for
health. Second Semester, 1957-1958

Nsg 431. Advanced Obstetrical Nursing
THREE CREDIT HOURS
Advanced study and review of the principles and techniques of obstetrical
nursing, with consideration given to current trends to early ambulation, room-
ing-in and natural childbirth. Health teaching and utilization of community
resources for the promotion of maternal and infant welfare are emphasized.

To be announced

NSG 432. ADVANCED OBSTETRICAL NURSING FIELD WORK

FOUR CREDIT HOURS

Practiced concurrently with NSG 431. Observation and supervised experience
in the application of the principles studied. Clinical experience is offered in the
labor and delivery rooms, newborn and premature nurseries, formulae room,
care of the post partum patient, participation in clinics and teaching the mother
self care and the organization of environmental facilities for home care of the
baby.

To be announced

NSG 471. WARD ADMINISTRATION

THREE CREDIT HOURS

A study of the principles of scientific management and of the fundamentals of
effective ward management. This includes a survey of hospital standards and
requirements, planning for total patient care, record keeping, planning and
supervising activities of professional and ancillary personnel, discussion and
analysis of problems relative to ward administration, and the relation of the
clinical area to the school of nursing and to the hospital administration.

Second Semester, 1956-1957

NSG 481. ADVANCED PSYCHIATRIC NURSING

THREE CREDIT HOURS

Advanced study and review of the principles and techniques of psychiatric
nursing. Consideration is given the latest theories and developments of the
causes, management, treatment and rehabilitation of psychiatric conditions,
with particular emphasis upon mental hygiene and the early recognition of
symptoms, guidance and treatment for the prevention of serious consequences.

To be announced

NSG 482. ADVANCED PSYCHIATRIC NURSING FIELD WORK

FOUR CREDIT HOURS

Practiced concurrently with NSG 481. Observation and supervised experience
in the application of the principles studied. Clinical experience is offered in
planning daily activities, accompanying patients to observe reactions to treat-
ments and activities, and assisting with therapies prescribed to aid in prevent-
ing, modifying or correcting disorders found among immature, disorganized or
disintegrated personalities.

To be announced

PHILOSOPHY (Phl)

FR. BRUDER, CHAIRMAN
MR. BAKER, FR. BLOEMER, FR. DOMBRO,
MR. MARKENRIDER, FR. RHODES, MR. SUMMERS

Courses required for a major are: Phl 311, 315, 306, 406, 324, 404, 405, elective.
Courses required for a minor are: Phl 311, 315, 404, elective.
PHIL 101-102. Logic
This course introduces the freshmen to the meaning of philosophy and its various branches and briefly shows the relation between philosophy and the other college subjects. In particular, it aims to train the student's mind in habits of correct and orderly thinking.

PHIL 105-106. Problems in Ethics
This course is given at Mount St. John. Enrollment is restricted to members of the Society of Mary.

PHIL 205-206. Philosophical Psychology
Essential difference between living and non-living beings; nature of the vital principle and vital operations in plant and animal life; essential superiority of human life; external and internal sense perception; the origin of ideas and the nature of the intellect; sensory and rational appreciation; the nature, origin, and immortality of the soul.

PHIL 224. Applied Ethics
Offered for Technical Institute students. For description, see Phil 324.

PHIL 303. Cosmology
A study of the principles of motion as found in Aristotle's philosophy of nature; matter and form; potency and act; types of causation.

PHIL 304. Philosophy of Man
The nature and act of knowledge; external and internal senses; the appetitive aspect of man; sentient life; rational life; man's intellect and will; liberty; the human soul; the origin of life. Conducted only in the Division of Arts at Carthagena.

PHIL 306. Epistemology
A study of the validity of intellectual and sensory knowledge in the light of Thomistic principles, with special reference to the difficulties posed by modern thought.

PHIL 307. Philosophy of Nature
Changeable being and its principles; the multiplicity and nature of bodies; quantity; motion; inorganic mobile being; living being; vegetative and sentient activities. Conducted only in the Division of Arts at Carthagena.

PHIL 311. Logic
Deductive logic treats of concepts and terms; of judgments and propositions; of inference, particularly in the syllogism. Inductive logic treats of the validity and method of scientific investigation.
PHL 315. PHILOSOPHICAL PSYCHOLOGY
Three credit hours
Essential difference between living and non-living beings; nature of the vital principle and vital operations in plant and animal life; essential superiority of human life; external and internal sense perception; the origin of ideas and the nature of the intellect; sensory and rational appetition; the nature, origin, and immortality of the soul.

Second Semester, Each Year

PHL 321-322. RATIONAL PSYCHOLOGY
Six credit hours
This course is given at Mount St. John. Enrollment is restricted to members of the Society of Mary.

PHL 324. ETHICS
Three credit hours
A study of the human act in its nature, ends, norms, morality, properties, consequences, and modifiers; man's threefold relation: to God, self, and neighbor.

Each Semester, Each Year

PHL 404. ONTOLOGY
Three credit hours
A study of the existential philosophy of St. Thomas Aquinas; the application of the theory of act and potency to various phases of the problem of the one and the many; a study of causality, substance, and person.

First Semester, Each Year

PHL 405. THEODICY
Three credit hours
A philosophic study of the existence and nature of God; criticism of atheism and agnosticism; the relation of the universe to God; the problem of evil.

Second Semester, Each Year

PHL 406. HISTORY OF GREEK PHILOSOPHY
Three credit hours
This course is a survey of philosophical speculation among the Greeks, with special emphasis on the philosophies of Socrates, Plato, and Aristotle.

First Semester, Each Year

PHL 407. HISTORY OF MEDIEVAL PHILOSOPHY
Three credit hours
This course traces the development of philosophy from the second to the fourteenth century.

Second Semester, Each Year

PHL 408. HISTORY OF MODERN PHILOSOPHY
Three credit hours
This course outlines the development of philosophy from the fourteenth to the twentieth century. It discusses the progress and the retrogressions of Philosophy.

To be announced

PHL 413. PHILOSOPHY OF THE STATE
Three credit hours
A consideration, in the light of Christian thought, of the nature, origin, end, and functions of the state; the nature, forms, and functions of government; law and political authority; the rights and duties of citizens; patriotism, nationalism, and internationalism; the various kinds of political freedom.

Second Semester, Each Year
PHILOSOPHY

PHILOSPHY OF LAW

Aim of the course is to explain nature of law, natural law, positive law, juridical origin of law, effect of law, limitations of civil law, justice, genetic origin of law, rights, and duties.

PHIL 416. HISTORY OF ANCIENT PHILOSOPHY

A study of the development of philosophical thought from the beginnings of speculation among the Greeks until the time of St. Augustine. Special emphasis is placed upon the contributions of Plato and Aristotle. Readings in the works of the authors are an integral part of the course. Conducted only in the Division of Arts at Carthagena.

PHIL 417. HISTORY OF MEDIEVAL PHILOSOPHY

The tracing of the development of philosophy under the influence of Christianity from the time of St. Augustine to the full blossoming of Scholastic Philosophy in the thirteenth century is the aim of this course. Interest is centered upon the evolution of a truly Christian philosophy. Conducted only in the Division of Arts at Carthagena.

PHIL 418. HISTORY OF MODERN PHILOSOPHY

This course outlines the breakdown of philosophy at the end of the Medieval Period and studies the principal attempts to supply a philosophy during the period stretching from the thirteenth to the twentieth century. Emphasis is placed upon the contributions and errors of those systems which influence the contemporary scene. Conducted only in the Division of Arts at Carthagena.

PHIL 419. HISTORY OF CONTEMPORARY PHILOSOPHY

A study of the pragmatism of William James and the instrumentalism of John Dewey; the reaction of Henri Bergson against scientism; the instinctive man of Freudian psychoanalysis; the dialectical materialism of Karl Marx. The existentialists: Soren Kierkegaard, Jean Paul Sartre, Gabriel Marcel. The development of Neo-Scholasticism.

PHIL 421. METAPHYSICS I

Preface to Metaphysics; a study of the existing of sense perceptible Being in so far as it demands the existing of Subsisting Being—the existence and simplicity of God. Conducted only in the Division of Arts at Carthagena.

PHIL 422. METAPHYSICS II

An analysis of the attributes of participated Being and of Subsisting Being. Conducted only in the Division of Arts at Carthagena.

PHIL 423. METAPHYSICS OF KNOWLEDGE

The metaphysics of knowing; a metaphysical analysis of the knowledge of man and of the knowledge of God. Conducted only in the Division of Arts at Carthagena.
PHL 424. **PROBLEMS OF METAPHYSICS**

Three Credit Hours

Special problems of metaphysics in which the primary place is given to a metaphysical analysis of love and finality. Conducted only in the Division of Arts at Carthagena. 

*Second Semester, Each Year*

PHL 430. **PHILOSOPHY OF PLATO**

Three Credit Hours

The purpose of the course is to give an insight into the philosophy of Plato by reading, analyzing and commenting on four of Plato's dialogues: Phaedo, Symposium, Protagoras and the Republic. 

*First Semester, Each Year*

PHL 432. **PHILOSOPHY OF ARISTOTLE**

Three Credit Hours

Readings and classroom discussion of selections from the basic works of Aristotle, including the Physics, Metaphysics, Ethics and Politics. 

*Second Semester, Each Year*

PHL 433. **INTRODUCTION TO ST. THOMAS AQUINAS**

One Credit Hour

Introduction to the writings of St. Thomas: contents, chronology, style and structure, editions. Life of St. Thomas. Thomistic commentators and bibliographies. Methods of Interpretation. Selected passages from Aristotle and St. Thomas. Conducted only in the Division of Arts at Carthagena. 

*Second Semester, Each Year*

PHL 434. **ST. THOMAS AQUINAS**

Three Credit Hours

This course offers St. Thomas' teachings on God, Creation, Man, Law, Grace, Habit, Virtue and kindred subjects, derived from the Summa Theologica and the Summa Contra Gentiles. 

*First Semester, Each Year*

PHL 482. **MEDICAL ETHICS**

Three Credit Hours

Problems of medical practice, professional rights and duties; religion and ethics; problems concerning birth and death; problems concerning marriage and the family. Prerequisite: Phl 324. 

*Second Semester, Each Year*

**PHYSICAL AND HEALTH EDUCATION (Phe)**

**MR. BAUJAN, MR. BLACKBURN, MISS CORT, MR. DOUGLASS, MR. FERRAZZA, MR. KERR, MR. STOECKLEIN**

PHE 101. **PHYSICAL EDUCATION**

One-half Credit Hour

The teaching of fundamental skills in various individual sports and recreational activities, while aiming to promote vigorous health through large-muscle activities. Required of freshman men and women. Two class periods a week. 

*First Semester, Each Year, for Women; Each Semester, Each Year, for Men*

PHE 102. **PHYSICAL EDUCATION**

One-half Credit Hour

Continuation of Phe 101. Required of freshman women. Two class periods a week. 

*Second Semester, Each Year*
PHYSICAL EDUCATION

PHE 103. Health
The course aims to establish and promote individual health and proper health habits through a study of the fundamentals of physical well being. Required of freshman men and women. One class period a week. First Semester, Each Year

PHE 104. Health
Continuation of PHE 103. For freshman women. One class period a week. Second Semester, Each Year

PHE 119. Theory and Techniques of Officiating (men)
A development of knowledge of rules of football, basketball, baseball, and track, and the application of the knowledge to actual game situations. Two class periods a week. First Semester, Each Year

PHE 120. Theory and Techniques of Officiating (men)
Continuation of PHE 119. Two class periods a week. Second Semester, Each Year

PHE 132. Hygiene and Sanitation (men) (women) Two credit hours
Personal health and prevention of disease in the family and community; relation of community health to disease control; important communicable diseases and their control. Lectures, discussions, and directed readings. Two class periods a week. First Semester, Each Year

PHE 201-202. Physical Education (women)
Continuation of PHE 101-102. Two class periods a week. Full Year Course, Each Year

PHE 205-206. Human Anatomy and Physiology
(Six credit hours)
Full Year Course, Each Year

PHE 210. Coaching Football and Basketball
Study of theory, strategy, generalship, styles of offense and defense, methods of organizing practice and handling men. Demonstration and practice in fundamentals for all positions. Two class periods a week. First Semester, Each Year

PHE 212. Coaching Baseball and Track
One-half the time will be spent on the theory and practice of each sport. Form and not athletic achievement will be stressed considering the abilities to be acquired. All events and positions will be given due consideration. Two class periods a week. Second Semester, Each Year

PHE 216. Methods in Minor Sports (men)
This course deals with instruction in the skills and methods in some of the so-called minor sports such as soccer, speedball, volleyball, touch football, six-man football, and similar games. Three class periods a week. First Semester, Each Year
PHE 217. Team Sports (Women)  
Skills and methods needed to teach hockey, soccer, speedball, and basketball.  
Four class periods a week.  
First Semester, Each Year

PHE 228. Recreational Sports for Women  
Skills and methods needed to teach bowling, archery, volleyball and softball.  
Four class periods a week.  
Second Semester, 1957-1958

PHE 231. Play and Camping  
The theory of play and recreation; characteristics of the different age periods; classification and organization of play activities suitable for different age levels. Study of facilities, programs, leadership, and administration of summer camps and playgrounds.  
Second Semester, Each Year

PHE 245. Modern Dance (Women)  
Techniques involved in modern dance with emphasis on composition. The study of dance as an art. Offered every other year. Three class periods a week.  
First Semester, 1956-1957

PHE 250. Principles and Administration of Health Education  
Two credit hours

PHE 301. Principles of Physical Education  
A study of the aims, scope, and biological aspects of physical education with special treatment of its place in education. Two class periods a week.  
First Semester, Each Year

PHE 308. Teaching of Health  
Three credit hours
Application of principles of methodology to health education in the elementary and secondary schools. Develops standards and techniques for selecting suitable source material to be used in health teaching. Application of scientific knowledge to the solution of school health problems.  
First Semester, Each Year

PHE 309. Methods in Physical Education  
Two credit hours
Application of principles of methodology to physical education; analysis and study of the techniques of measurement devices for grading and classifying students. Practice will be given in leadership in physical education activities. Two class periods a week.  
Second Semester, Each Year

PHE 323. Program Building  
Two credit hours
Theory and principles of program construction applied to physical education. Critical analysis of existing programs and evaluation of activities in the light of modern trends. Practical application of principles in the construction of a program for a specific situation. Two class periods a week.  
First Semester, Each Year
PHE 325. FUNDAMENTAL RHYTHMS  
Deals with the teaching of fundamental rhythms and folk dancing in the elementary and secondary schools. Includes a study and practice of simple rhythms, gymnastic dancing, and the various kinds of folk dancing. Some attention is given to social dancing and conducting of school dances. Three class periods a week.  
Second Semester, Each Year

PHE 328. RECREATIONAL ACTIVITIES (MEN)  
Teaching of the skills and methods of presenting individual activities such as tennis, badminton, handball, squash and bowling. Two class periods a week.  
Each Semester, Each Year

PHE 329. RECREATIONAL ACTIVITIES (MEN)  
Teaching of the skills and methods in golf and archery. (Golf clubs must be furnished by the students.) Two class periods a week.  
Each Semester, Each Year

PHE 330. INSTRUCTOR'S FIRST AID  
A knowledge of first aid for injuries in the home, school, and community. Lectures and discussions on first aid as well as applied laboratory experiences relating to dressing, bandaging, splinting, etc. Three class periods a week.  
Prerequisite: Bio 205-206.  
Second Semester, Each Year

PHE 331A. (FOR MEN) GAMES OF LOW ORGANIZATION  
Actual teaching of team and non-team games and stunts for progressive game parties, social mixers, noon hour activities, and camp nights. Elementary and secondary school levels. Three class periods a week.  
Second Semester, Each Year

PHE 331B. (FOR WOMEN) GAMES OF LOW ORGANIZATION  
Learning the game activities of elementary school children through participation and teaching; relating the needs and abilities of children to the games program. Includes methods and materials for planning, teaching, and evaluating the games program for elementary schools. Three class periods a week.  
Second Semester, Each Year

PHE 346. PROBLEMS IN PHYSICAL EDUCATION FOR WOMEN  
A study of problems in the organization of intramural sports programs for girls and women; policies, activities, types of competition; point systems, awards, and athletic associations. Two class periods a week.  
First Semester, Each Year

PHE 402. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION  
Problems of organization and administration of physical education with added emphasis on the supervision of required and elective courses, intramural athletics and interschool athletics. Two class periods a week.  
First Semester, Each Year
PHE 405. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION  
TWO CREDIT HOURS  
Critical analysis of existing testing methods in physical education. Study of current tests from the practical and theoretical viewpoint. The use of tests in the physical education program. Application of the principles of test construction to specific problems in physical education. Two class periods a week.  
First Semester, Each Year

PHE 407. MODERN PROBLEMS IN PUBLIC HEALTH  
TWO CREDIT HOURS  
The public health problems as they exist will be discussed with regard to their effect on living. Field trips will be included. Two class periods a week.  
First Semester, Each Year

PHE 409. CORRECTIVE PHYSICAL EDUCATION  
TWO CREDIT HOURS  
This course deals with the corrective or remedial measures to be used in providing proper exercises and procedures in handling individuals with handicapped conditions. Three class periods a week.  
Second Semester, Each Year

PHE 413. TEACHING OF HEALTH IN ELEMENTARY SCHOOL  
THREE CREDIT HOURS  
This course is designed to help teachers understand the health services the school should provide, the kind of physical and social environment essential for maintaining and promoting the growth and well-being of the elementary student, and the nature of the problems which should be studied in health and other related fields.  
First Semester, Each Year

PHE 433. PHYSICAL EDUCATION ACTIVITIES (MEN)  
THREE CREDIT HOURS  
Conditioning, tumbling, horses, bucks, low and high bar, pyramid building, wrestling, trampoline, stunts with and without equipment. Five class periods a week.  
Second Semester, Each Year

PHYSICS (PHY)  
BRO. MANN, CHAIRMAN  
MR. ENGLER, BRO. GRANDY, MR. HIEBER, MR. ROOT, MR. RAMBAUSKE

A major in physics consists of 24 credit hours, exclusive of Phys. 206-207-208. A student intending to specialize in this field should consult with the chairman of the department to arrange his courses.

PHY 12. ELEMENTARY PHYSICS  
NO COLLEGE CREDIT  
Primarily intended for those students who never have had a course in physics or wish to review the fundamentals of physics. Five class periods a week.  
Each Semester, Each Year

PHY 201. GENERAL PHYSICS  
FOUR CREDIT HOURS  
This course, especially adapted to the needs of pre-medical and pre-dental stu-
dents, covers the fields of mechanics and heat. Three class periods and one laboratory period a week.  

**PHY 202. GENERAL PHYSICS**  
**FOUR CREDIT HOURS**  
A continuation of Phy 201, covering the fields of magnetism, electricity, sound and light. Three class periods and one laboratory period a week. Prerequisite: Phy 201.  

**PHY 206. GENERAL PHYSICS**  
**FOUR CREDIT HOURS**  
This course is intended for students preparing to major in physics or engineering. The laboratory work involves careful determination and precise measurements based on the fundamental laws of physics. Mechanics and Sound comprise the subject matter of the course. Three class periods and one laboratory period a week. Prerequisite: Mth 115-116 or registration in Mth 116.  

**PHY 207. GENERAL PHYSICS**  
**FOUR CREDIT HOURS**  
A continuation of Physics 206, covering the fields of magnetism and electricity. Three class periods and one laboratory period a week. Prerequisite: Phy 206.  

**PHY 208. GENERAL PHYSICS**  
**FOUR CREDIT HOURS**  
A continuation of Phy 206-207. Subject matter, Heat and Light. Three class periods and one laboratory period a week. Prerequisite: Phy 206.  

**PHY 301. THERMODYNAMICS**  
**THREE CREDIT HOURS**  
The general laws of thermodynamics; entropy, isothermal and adiabatic processes, the cycles; flow of fluids. Three class periods a week. Prerequisite: Mth 202; Corequisite: Phy 208.  

**PHY 303. MECHANICS**  
**THREE CREDIT HOURS**  
This course discusses the fundamental concepts of mechanics; discusses the dynamics and statics of both the particle and the rigid body, constrained motion, oscillations and the motion of aggregates of particles. Brief consideration will be given deformable bodies and mechanics of fluids. Prerequisites: Mth 201-202, Phy 206, 207, 208.  

**PHY 311. ATOMIC PHYSICS**  
**THREE CREDIT HOURS**  
This course treats the electron and some of its properties as well as the photoelectric and thermonic emission of electrons. There is also a development of the special theory of relativity and an introduction to the quantum theory and wave mechanics. Atomic spectra and X-rays are also considered and an introduction to nuclear phenomena and cosmic rays. Three class periods a week. Prerequisites: Mth 201-202, Phy 206, 207, 208.  

**PHY 313-314. ELECTRICAL MEASUREMENTS I AND II (ELE 303-304)**  
**SIX CREDIT HOURS**  
A lecture and laboratory course in the measurement of electrical quantities: re-
sistance, inductance, capacitance, electromotive force, current and power. Study of galvanometers, bridges, and potentiometers. Calibration of instruments. Two class periods a week and one laboratory period a week. Prerequisite: ELE 201; Corequisite: ELE 305.

**PHE 321. NUCLEAR PHYSICS**

Three credit hours

Primarily a descriptive course introducing nuclear physics. It discusses radioactive, particle accelerators, the interaction of nuclear radiation with matter, particle detection, fission, and cosmic rays from the phenomenological point of view. Three class periods a week. Prerequisites: Mth 201-202, Phy 206, 207, 208.

**PHY 401. VIBRATION AND SOUND**

Three credit hours

Discusses vibrating systems, sources of sound, the transmission of sound, the reception of sound, and the application of acoustics. Three class periods a week. Prerequisites: Mth 201-202, Phy 206, 207, 208.

**PHY 403. GEOMETRICAL OPTICS**

Three credit hours

This course discusses the rectilinear propagation of light, ray tracing, and first order theory, optical systems and their aberrations, theory of aperture stops, image brightness and photometry. Prerequisites: Phy 206, 207, 208; Mth 201, 202.

**PHY 404. OPTICS**

Three credit hours

This course discusses the wave theory of light, interference, diffraction, dispersion, polarization, velocity of light and electromagnetic theory of light. Three class periods a week. Prerequisites: Mth 201-202, Phy 206, 207, 208.

**PHY 408. ELECTRICITY AND MAGNETISM**

Three credit hours

A study of the electric field, electrostatic energy and capacitance, conduction, magnetic fields and magnetic materials. The Maxwell equations and plane electromagnetic waves are also considered. Prerequisites: Mth 201-202, Phy 206, 207, 208. Suggested concurrent course: Mth 431.

**PHY 411. THEORETICAL PHYSICS**

Three credit hours

LaPlace's equation, coordinate systems, vectors, LaGrange's equations. Hamilton's equations, heat flow, Schrodinger's equation and the hydrogen atom. Three class periods a week. Prerequisites: Phy 206, 207, 208, 303.

**PHY 412. THEORETICAL PHYSICS II**

Three credit hours

Continuation of Phy 411. Prerequisite: Phy 411.

**PHY 431. ADVANCED LABORATORY I**

Two credit hours

A laboratory course in which the student performs experiments in optics, mechanics, electricity and magnetism, and modern physics at a level beyond...
that of the elementary laboratory. He uses interferometers, spectrometers, measures absorption of light and x-rays, the charge on the electron and e/m of the electron, learns how to use the cathode ray oscilloscope and does other experiments with high grade apparatus. Corequisite: an advanced course in physics.

**PHY 432. ADVANCED LABORATORY II**

TWO CREDIT HOURS

A continuation of Phy 431, but may be taken without having had Phy 431. Corequisite: an advanced physics course.

**PHY 440. X-RAYS**

THREE CREDIT HOURS

This course deals with the nature, production and properties of x-rays and their interaction with matter. Some consideration is also given to applications and x-ray spectroscopy. Prerequisites: Phy 206, 207, 208; Mth 201, 202. Recommended previous course: Phy 311.

**POLITICAL SCIENCE (Pol)**

**BRO. A. ROSE, CHAIRMAN**

**BRO. LIEBLER**

Required courses for a major in Political Science are: Pol. 201, 202, 314, 412, 417, 421.

**POL 201. AMERICAN GOVERNMENT—NATIONAL**

THREE CREDIT HOURS

A functional study of the origin, organization, and operations of the federal government with a rapid survey of the American system of state and local governments.

_Each Semester, Each Year_

**POL 202. OHIO GOVERNMENT—STATE AND LOCAL**

THREE CREDIT HOURS

An examination of the state, county, and local government of Ohio with special reference to Montgomery County and the City of Dayton.

_Each Semester, Each Year_

**POL 304. EUROPEAN GOVERNMENTS**

THREE CREDIT HOURS

A general survey of the present status of the nations of Europe from the standpoint of government structure, operation, and policy.

_Second Semester, 1956-1957_

**POL 306. INTERNATIONAL LAW**

THREE CREDIT HOURS

An analysis of the development of international law, its theory and application to the various phases of international relations.

_First Semester, 1956-1957_

**POL 310. POLITICAL PARTIES**

THREE CREDIT HOURS

A descriptive analysis of the nature and interaction of parties, pressure groups, and the functioning of public opinion on the national and state level.

_First Semester, 1957-1958_
POL 312. NATIONAL LEGISLATIVE PROCESS three credit hours
A detailed treatment of the United States Congress, its organization, powers and functions, particularly lawmaking; and the procedures of, and influences on, federal legislation.  
Second Semester, 1956-1957

POL 314. INTERNATIONAL RELATIONS three credit hours
An exposition of the dynamic forces influencing nations in their conduct of world affairs.  

POL 315. THE UNITED NATIONS IN ACTION three credit hours
An evaluation of the actual achievements of the various organizations and specialized agencies operating under the United Nations.  
Second Semester, 1956-1957

POL 331. BASIC ENGLISH AND AMERICAN DOCUMENTS three credit hours
An analysis and appreciation of the great political documents.  
Second Semester, 1956-1957

POL 405. WORLD PROBLEMS OF THE UNITED STATES three credit hours
A critical examination of the development of the communist front in the European and Asian areas and the attempts of the United States and other nations to meet this situation.  
First Semester, 1956-1957

POL 408. AMERICAN FOREIGN POLICY three credit hours
An analytic study of policies and methods followed by the State Department in its relations with other countries. Accredited in History.  
Second Semester, 1957-1958

POL 410. PUBLIC ADMINISTRATION three credit hours
A study of the nation-wide Public Administration Service, of local and national departments, and bureaus in their operations.  
First Semester, 1957-1958

POL 412. CONSTITUTIONAL LAW three credit hours
An exposition of the fundamental principles underlying the Constitution, Common Law, delegated powers of government, etc., with special application to contemporary situations.  
Second Semester, 1957-1958

POL 413. PHILOSOPHY OF THE STATE three credit hours
A consideration, in the light of Christian thought, of the nature, origin, end and functions of the state; the nature, forms and functions of government; law and political authority; the rights and duties of citizens; patriotism, nationalism and internationalism; the various kinds of political freedom.  
Second Semester, Each Year

POL 415. PAN-AMERICAN RELATIONS three credit hours
A development of the social, cultural, and political phases of relations among the American countries with special consideration of recent developments.  
Second Semester, 1956-1957
POL 417. HISTORY OF POLITICAL THOUGHT
A general survey of the development of political philosophy amid the interplay of the opposed principles of autonomy and authority from the days of the Ancient Chinese to and including its culmination in the modern theories of anarchism, democratic liberalism and state absolutism.

First Semester, Each Year

POL 421. GOVERNMENT SEMINAR
Open only to majors in Political Science. Group discussions and projects on pertinent topics.

First Semester, 1956-1957

POL 435. LEGAL RESEARCH
Open to Pre-Law students only. A direct preparation for admission to law school. Students are assigned to local law offices and to judicial chambers to learn procedures and to do research.

Each Semester, Each Year

PSYCHOLOGY (Psy)
FR. ROESCH, CHAIRMAN
MR. BEVAN, MRS. GALLICO, MR. NOLAND, MR. RANCURELLO,
MR. RENSEL, MR. SCHEIDLER

Required courses for a major in Psychology are: Psy 204, 302, 305, 308, 309, 402, 409 and 454. Also required are Bio 101-102 or 103, and 203-204.

PSY 190. GENERAL AND EDUCATIONAL PSYCHOLOGY I
This course covers backgrounds from General Psychology (human personality, mental powers, dynamic factors) and introduces the student to human growth and development through childhood and adolescence. It also endeavors to include such areas as nature and nurture of abilities, measurement of intelligence, individual differences. Observation is included. Intended for second semester freshmen. For irregular students, an approved course in General or Introductory Psychology may substitute for this.

Second Semester, Each Year

PSY 201. INTRODUCTORY PSYCHOLOGY
Man as an integrated personality is the object of this introductory course in psychology. Topics treated will include human growth and development, motivation, emotion and adjustment, learning, perceiving and thinking, individual differences, and the application of psychological principles to personal, social, educational and industrial problems. This course will not include the physiological aspects of the brain, nervous system and sense organs. The course aims to prepare students for further studies which will benefit from a knowledge of fundamental psychological concepts. This course is to be replaced by Psych. 204 by students majoring in psychology, and all others who desire the physiological aspect of psychological phenomena.

Each Semester, Each Year
Psy 203. Educational Psychology II  
This course is equivalent to the psychology of learning with special emphasis on the educational aspects. Considers the nature, the conditions and the principles of learning. Noted studies in the field of learning as well as actual classroom experimentation in learning situations will be emphasized.  
Second Semester, Each Year

Psy 204. General Psychology  
A study of the basic principles necessary for an understanding of any of the major fields of psychology. Views man as an integrated personality by thoroughly touching the physical, intellectual, emotional, social, moral and aesthetic growth and development of the human organism. Physiology of the brain, nervous system and sense organs is included. Sensation, perception, imagery, thought, intelligence, learning, and volition are studied. It is recommended that this course be followed by Elementary Statistics and Experimental Psychology. This course is required of students majoring in psychology, nursing and pre-medical programs.  
Each Semester, Each Year

Psy 205. Applied Psychology  
Emphasizes practical applications of psychology in the fields of mental hygiene, education, business and industry, and similar areas pertinent to the needs of the class. Utilizes the concept of human adjust as a frame of reference. Intended primarily for students working toward associate degrees in technology or business, and those not planning further courses in psychology. It is not equivalent to Introductory or General Psychology (Psy 201 or 204).  
Each Semester, Each Year

Psy 302. Elementary Statistics  
This course is an introduction to statistics applied to psychological, social and educational problems. No exceptional mathematical ability or training is necessary beyond high school algebra. Emphasis is placed on the understanding of applied statistics, rather than upon the memorization and derivation of formulae. Each student is allowed, within reason, to set his own pace, thus allowing for individual differences. Measures of central tendency, deviation, correlation, probability curve, and theory of errors are approached through problems and discussion. Required of all students majoring or minoring in psychology.  
Each Semester, Each Year

Psy 304. Adolescent Psychology  
Treats the interrelated physical, mental, social, emotional, moral and aesthetic development of adolescents, alerting the student to causal factors in preparing him to accept and to guide adolescent interests, ideals, and adjustments. Child Psychology is recommended as a prerequisite, though not required.  
First Semester, Each Year

Psy 305. Mental Hygiene  
Explains the underlying processes which motivate man in his adjustment to life. Indicates in detail the various mechanisms of behavior that are employed
when problem situations arise. Shows the interrelationship of the psychosomatic components in adjustment. Study of the neuroses included. Concentrates on the prevention of psychotic disorders, rather than on their treatment. Prerequisite for Abnormal and Clinical Psychology.  

**PSY 306. CHILD PSYCHOLOGY**  
A longitudinal study of childhood development with some concentration on prenatal growth trends. Explains in detail the genetic sequences appearing in the life of the child, e.g., motor development, sociability, language, intelligence, and imaginative life. Shows how discipline or training should be dependent upon the development growth patterns that emerge in the life of the child. Treats children up to the age of puberty.  

**PSY 307. PSYCHOLOGY OF EXCEPTIONAL CHILDREN**  
Deals with an understanding, from a psychological point of view, of those children who are handicapped either physically, mentally, socially, or emotionally, when compared to the norms of average childhood development. Concentrates principally upon the early years in so far as adjustment at this level is preparatory to adjustment in adult life. Forms of psychotherapy as applied to children will be discussed. Prerequisite: Child or Adolescent Psychology.  

**PSY 308. EXPERIMENTAL PSYCHOLOGY I**  
Emphasizes scientific procedure and experimental design. Laboratory experimentation in learning, memory, association, suggestibility, emotional reactions, higher thought processes and volition. Required of all majors in psychology and personnel.  

**PSY 309. EXPERIMENTAL PSYCHOLOGY II**  
Laboratory course comprising individual and group experiments designed to study in detail the psychological factors in vision, audition, olfaction, taste and kinesthesis. Experimental work in perception also included. Required of all majors in psychology.  

**PSY 312. ABNORMAL PSYCHOLOGY**  
Explains the various types of abnormalities, concentrating principally upon the mental aberrations, whether influenced directly or indirectly by physical causes. Describes the syndrome, gives the etiology of the various disorders. Detailed treatment is given the neuroses, psychoses, mental deficiency, epilepsy, and the sociopathic personality. Various types of psychotherapies are discussed from an eclectic point of view.  

**PSY 318. MENTAL HYGIENE FOR TEACHERS**  
This course explains the contribution which the classroom teacher can make in guiding the development of the normal, integrated personalities of their pupils. Provides basis for evaluating questionable school practices, especially through a constructive view of discipline. Deals primarily with the normal
child. Mental health practices for the teacher are also stressed. Required of all Education students.

PSY 401. ADVANCED STATISTICS
THREE CREDIT HOURS
A seminar-type course presenting some concepts of advanced psychological and educational statistics, including analysis of variance, multiple correlation, partial correlation, factor analysis, regression and prediction, and advanced correlational techniques. Prerequisite: Elementary Statistics or permission of the instructor.

PSY 402. PSYCHOLOGICAL TESTS AND MEASUREMENTS
THREE CREDIT HOURS
Opens with discussion of historical background of testing and the ethics involved in this field. Concentration is given to the requirements of tests in general. Intensive study is made of the principal tests of intelligence. Reference is made to aptitude and achievement tests and rating scales. Appreciation of projective methods is included. Class is limited to twelve students. Prerequisite: Elementary Statistics.

PSY 405. PSYCHOLOGY OF HUMAN AFFAIRS
THREE CREDIT HOURS
A more advanced course in the practical application of psychology to the home, industry, marketing and advertising, law and criminology, social relations, medicine, music and art, and warfare.

PSY 408. SOCIAL PSYCHOLOGY
THREE CREDIT HOURS
Presents a systematic, dynamic and practical treatment of the social forces affecting behavior. Topics discussed include the methods of social psychology, social learning and motivation, attitude testing, opinion polling, propaganda, communication analysis, rumor, group psychology and social norms. Basic principles and contemporary readings will be critically discussed and evaluated.

PSY 409. HISTORY OF PSYCHOLOGY
THREE CREDIT HOURS
Aims at a clearer view of modern psychology by pointing out its origin in philosophy and science and by tracing its vigorous development since the founding of the first psychological laboratory. The growth of principles and techniques central to modern movements receive emphasis.

PSY 412. INTERVIEWING AND COUNSELING PROCEDURES
THREE CREDIT HOURS
Techniques, theories and levels of interviewing and counseling are discussed and evaluated. Practice provided by role playing and by actual counseling situations. Course is recommended for school counselors, social and personnel workers, teachers, and other professional advisers. Permission of the instructor required.
Psy 413. Educational and Vocational Testing
Three Credit Hours
Construction and selection of tests for educational and vocational guidance, aptitude, achievement, interest, mental capacities and special ability areas are investigated by individual and group techniques. Recommended for school guidance counselors and business personnel administrators.
Second Semester, Each Year

Psy 420. Industrial Psychology
Three Credit Hours
Introduction to modern psychological efforts to improve human adjustments in an industrial organization and society. Studies the selection of all classes of employees, the factors which favor optimum adjustment and efficiency under working conditions, including morale, incentive, and merit rating. Discusses also the psychology used in advertising, radio, television and other like media.
Second Semester, Each Year

Psy 451. Differential Psychology
Three Credit Hours
The problems, methods and results of differential psychology, including the nature and distribution of individual differences, the role of heredity and environment, the organization of psychological traits, sex differences, and differences among racial, national and other common groupings.
First Semester, 1957-1958

Psy 454. Physiological Psychology
Three Credit Hours
Study of the physical structure and function related to and influencing human experience and behavior. It aims to acquaint the student with the role of the special senses, the nervous and the glandular systems in sensation, perception, learning and adjustment. Prerequisite: Human Anatomy or Physiology.
Second Semester, Each Year

Psy 460. Clinical Psychology
Three Credit Hours
An introduction to the theory and use of clinical methods and techniques, such as the interview, case history, psychological tests, projective methods, clinical observation, and psychotherapy as used in guidance, education, hospitals, industry and other areas. The interrelationship between clinical psychology and experimental psychology will be considered. Prerequisites: Psy 305 and 312; recommended 402 and 403.
Second Semester, 1957-1958

Psy 470. Critique of Psychoanalytic Theory
Three Credit Hours
This course opens with the reading of An Introduction to Psychoanalysis by Freud, continues with a critical evaluation of psychoanalysis both as a philosophical system and as a therapeutic method, and concludes with a dynamic theory of normal personality. The course is a specially designed seminar for students intending graduate work in psychology. Junior or Senior standing required.
First Semester, Each Year

Psy 480. Seminar in Contemporary Psychological Literature
One Credit Hour
The objective of this seminar is to gain acquaintance with the current status of
psychological thought. Emphasis will be upon trends in methods and in theoretical integration as these appear in the professional journals. Two hours of discussion each week are required.

RADIOLOGICAL TECHNIQUE (Rad)

DR. NICOLL, CHAIRMAN (Miami Valley Hospital)
MISS COTRELL, MR. COTTER
DR. LAND, CHAIRMAN (St. Elizabeth Hospital)
SR. LAMBERTINA, MR. LYKINS, MISS MINNICK,
MISS ORDING, SR. PHILOBERTA

The work of the senior year in Radiological Technique is done at Miami Valley Hospital or St. Elizabeth Hospital. The courses are conducted by the respective hospital faculties.

RAD 451. RADIOLOGICAL PHYSICS three credit hours
This is a practical course in X-ray physics and its application to radiography. Fundamental electric concepts, electron theory, and the X-ray tube. Basic X-ray generating circuits.

RAD 452. THE X-RAY MACHINE three credit hours
A general discussion on the X-ray apparatus; a knowledge of the controls and the indicating instruments on the X-ray panel. Technique of manipulation of the X-ray machine. Essentials of an X-ray generating apparatus.

RAD 453. PROCESSING TECHNIQUE two credit hours
Processing technique acquaints the student with development, fixing, and washing of films; procedures—care of films, screens, saucers, etc.; solutions—their composition and action, preparation and care; efficiency—controls, timing, wet viewing; dark room design—equipment, facilities, lighting, ventilation, and drying.

RAD 454. ROUTINE STANDARD POSITIONING eight credit hours
Positioning in general, positioning in particular cases; demonstration; actual positioning with equipment and models; technical factors; systematic radiographic procedure; resultant radiographs; a detailed study of the roentgenogram.

RAD 455. SPECIAL EXAMINATIONS USING OPAQUE MATERIALS six credit hours
Examinations with contrast media; initial preparation, medium used; roentgen studies.

RAD 456. FLUOROSCOPIC PROCEDURE two credit hours
Technical factors in fluoroscopy; general assistance to the diagnostician; precautions and protection.
RAD 457. RADIATION THERAPY
Knowledge of the X-ray for therapeutic purposes. Operation and care of the therapy equipment. Record keeping; positioning of patients under the supervision of the radiologist.

RELIGION (Rel)

FR. LEIMKUHLER, CHAIRMAN
FR. BARTHOLOMEW, FR. HOELLE, FR. HOFSTETTER,
FR. KOHMESCHER, FR. MONHEIM, FR. ROCHA, FR. STANLEY

Religion courses on the campus cover the fundamental of theology for the layman with emphasis upon awakening and developing a sense of vocation and mission in the member of the Mystical Body of Christ for the enduring work in later life of collaborating in the organized apostolate of the Hierarchy in the mission of the Church.

REL 105. DOGMATIC THEOLOGY
The nature of theology; the true religion; the Church of Christ; the sources of revelation; the existence and nature of God; the blessed Trinity; creation; angels; the governance of the world. [First Semester, Each Year]

REL 107. PRINCIPLES OF CHRISTIAN LIVING
Happiness—man's final goal; human acts; the morality of human acts; man's emotions; internal principles of good living; vices and sins; law; divine grace. [Second Semester, Each Year]

REL 198. OLD TESTAMENT
History, theology, spirituality and message. [First Semester, Each Year]

REL 199. NEW TESTAMENT
History, theology, spirituality and message. [Second Semester, Each Year]

REL 201. CHRIST AND HIS SACRAMENTS
Christ; Incarnation; Redemption; Resurrection and Ascension; the sacramental system; baptism; confirmation; eucharist; sacrament and sacrifice; penance; extreme unction; holy orders; matrimony. [First Semester, Each Year]

REL 203. CHRISTIAN MARRIAGE
Detailed study of the encyclical by Pius XI "On Christian Marriage." Marriage as a divine institution; its blessings and benefits; vices opposed; remedies; preparation for marriage. [Second Semester, Each Year]

REL 303. CHRISTIAN VIRTUES
Faith and hope; charity; prudence; justice; the parts of justice; fortitude; temperance; states of life. (Two hours at evening) [First Semester, Each Year]
REL 315-316. CHRIST AND HIS SACRAMENTS  
A study of Christ (Incarnation and Redemption), the sacraments (in general and in particular), and the final end of man. This course is given at Mount St. John. Enrollment is restricted to members of the Society of Mary.  
*Full Year Course, Each Year*

REL 317-318. MORALS  
General Moral Theology (end of man, human acts, conscience, law, virtues, sins, grace) and special Moral Theology (theological and moral virtues, gifts of Holy Spirit, states of life). This course is given at Mount St. John. Enrollment is restricted to members of the Society of Mary.  
*Full Year Course, Each Year*

REL 325. CHRISTIAN SOCIAL PRINCIPLES  
Detailed study of the encyclical by Pius XI "On Reconstructing the Social Order." History of social question; freedom of association; ownership or right to property; wages and salaries; industry councils; changes in economics; moral renovation; social justice. (Two hours at evening and Tech. Inst.)  
*First Semester, Each Year*

REL 326. THE ANSWER TO COMMUNISM  
Detailed study of the encyclical by Pius XI "On Atheistic Communism." Historical background; doctrinal errors; remedy is seen in social aspect of Christianity and particularly in social justice. (Two hours at evening)  
*Second Semester, Each Year*

REL 330. THE MYSTICAL BODY OF CHRIST  
Detailed study of the encyclical by Pius XII on "The Mystical Body of Christ." The Church as the foundation of society; scope and norm of society; basis of authority; impact on secularist mind. (Two hours at evening)  
*Second Semester, Each Year*

REL 341. INTRODUCTORY ASCETICAL THEOLOGY  
*First Semester, Each Year*

REL 417-418. DOGMA  
Nature of theology, true religion, church of Christ, sources of revelation, existence and nature of God, Trinity, creation, angels, governance of world. This course is given at Mount St. John. Enrollment is restricted to members of the Society of Mary.  
*Full Year Course, Each Year*

REL 419. MARY IN DOGMA  
Study of the place of the Mother of God in the great truths of faith, with
emphasis on her own special prerogatives. This course is given at Mount St. John. Enrollment is restricted to members of the Society of Mary.

**First Semester, Each Year**

**REL 441. ASCETICAL THEOLOGY**
TWO CREDIT HOURS
The purification of the soul, or, the purgative way. The prayer of beginners. Penance. Mortification. The struggle against the capital sins and vices. Temptations. Conducted only in the Division of Arts at Carthagena.

**Second Semester, Each Year**

RETAILING (Ret)

**MR. COMER, MR. MURPHY, MR. WHALEN**

The programs in this field are designed to
(a) prepare students for merchandising and sales departments of manufacturing and wholesale establishments,
(b) train students for executive positions in Retailing,
(c) offer specialized courses in Retailing to those who can benefit from them.

Retailing is becoming a more complicated business each year. If a person is to make the most of the opportunities offered, he must possess adequate knowledge and training in various functions of Retailing, such as, merchandising, operations and sales promotion.

The co-operative program leading to a Major in Retailing is designed to train students properly for an executive career in Retailing. It offers classroom theory and emphasizes its practical applications. In conjunction with the Dayton Retail Merchants Association, the student obtains experience through a supervised work program in downtown stores.

Thus with the aid of those who have both studied and practiced sound principles of Retailing, the student avoids the trial and error method of jobs and learning, and can make rapid progress towards an executive career.

The University of Dayton offers either a Major or a Minor in Retailing.

**RET 305. INTRODUCTION TO RETAILING**
THREE CREDIT HOURS
Presents the opportunities in retailing, the marketing institutions, functions, and costs, the background and development of retailing, retail institutions of today, retail store policies, the development of the consumer, governmental regulations of marketing. Open to Retailing students in lieu of Bus 305.

**First Semester, Each Year**

**RET 310. RETAIL SALESMAINSHP**
THREE CREDIT HOURS
Responsibilities of the sales-person; retail selling techniques, meeting the customer, developing the sales presentation, obtaining conviction, how to make the merchandise speak for itself, increasing the average sale. Students have the opportunity to analyze practical selling situations and to participate in demonstration sales.

**First Semester, Each Year**
RET 311. RETAIL SALES PROMOTION  THREE CREDIT HOURS
An analysis of the scope and activities of sales promotion; where, when and what to promote; budgeting and planning of sales promotion, events and activities; emphasis upon the coordination of sales promotion activities. Prerequisite: Ret. 307 or consent of instructor.  
Second Semester, Each Year

RET 316. TEXTILES  THREE CREDIT HOURS
Recognition of fabrics with emphasis on appropriate use, care, and serviceability factors. Intended to enable those concerned with buying and selling to identify fabrics and to help them in the selection of ready-to-wear and household textiles. Three class periods a week. Laboratory fee, $3.00.  
First Semester, Each Year

RET 318. RETAIL PERSONNEL RELATIONS  THREE CREDIT HOURS
Evaluation of personnel problems and policies; planning manpower needs, job analysis and evaluation, sources of labor supply, selection and placement, training plans and procedures, personnel ratings and reviews, wages and wage stabilization, employee activities, labor relations, current legislation, supervisory techniques.  
Second Semester, Each Year

RET 319. COLOR, DESIGN AND INTERIOR DECORATION  THREE CREDIT HOURS
The course is designed to develop judgment in selection and arrangement of well-designed furnishings in the home. Three class periods a week. Laboratory fee, $3.00.  
First Semester, Each Year

RET 405. RETAIL MERCHANDISING MATHEMATICS  THREE CREDIT HOURS
Study of mathematical principles involved in buying and selling. Includes purchase planning, open to buy, markup, inventories-cost, retail and LIFO methods—stock turnover, and initial markup formula. Drill is provided in solving mathematical problems.  
First Semester, Each Year

RET 409. RETAILING ORGANIZATION AND OPERATION  THREE CREDIT HOURS
Devoted to principles of store management and their application by successful stores. Such factors as store location, buildings and equipment, store organization, receiving and marking, store protection, and coordination of retail store activities are studied.  
Second Semester, Each Year

RET 414. BUYING FOR RETAIL STORES  THREE CREDIT HOURS
Covers the work of the store buyer. Considers types of buyers, organization for buying in independents and chains, determining what to buy, selection of brands, how much to buy, model stocks, market resources, resident buying, terms and dating, and buyer’s order.  
First Semester, Each Year

RET 420-421. RETAILING LABORATORY  TWO CREDIT HOURS
One class hour plus a minimum of sixteen hours a week of approved work experience. Student will participate in a variety of both selling and non-selling work as provided in the training program worked out with the cooperating store. Success in the store will be evaluated by the store’s supervisory personnel.
SECRETARIAL STUDIES 229

as well as periodic reports and assignments at the weekly class meeting. Prerequisite: consent of instructor. Each Semester, Each Year

RET 425. RETAILING SEMINAR TWO CREDIT HOURS
A thorough analysis of special problems of current importance in retailing. Class meetings consist of individual reports, student panel presentations, open class discussions and original student research projects.

Second Semester, Each Year

SECRETARIAL STUDIES (Sec)

MRS. MILLER, CHAIRMAN
MRS. CIVILLE, MR. KRIEGBAUM

SEC 101. ELEMENTARY SHORTHAND THREE CREDIT HOURS
Gregg Shorthand is the system employed in this course. Using the simplified functional method, the entire theory is covered during the first semester. Transcription is introduced. Five class periods a week. First Semester, Each Year

SEC 102. ELEMENTARY SHORTHAND THREE CREDIT HOURS
Gregg theory is reviewed. Reading practice continues but transcription is emphasized. Five class periods a week. Second Semester, Each Year

SEC 103. ELEMENTARY TYPEWRITING THREE CREDIT HOURS
The keyboard is memorized. Drill is given in the function and care of the machine. The ability to produce straight copy work is the aim of this course. Five class periods a week. For use of typewriter, $5.00 per semester. First Semester, Each Year

SEC 104. ELEMENTARY TYPEWRITING THREE CREDIT HOURS
The aim is to develop further skill in the use of the typewriter and to provide some experience in letter arrangement and simple tabulations. Five class periods a week. For use of typewriter, $5.00 per semester. Second Semester, Each Year

SEC 105. SECRETARIAL ACCOUNTING THREE CREDIT HOURS
A short course in accounting especially designed for private secretaries; covers the fundamental principles of accounting as applied to mercantile and personal service enterprises operated by sole proprietors. Two class periods and two laboratory periods a week. First Semester, Each Year

SEC 106. SECRETARIAL ACCOUNTING THREE CREDIT HOURS
This course develops further the accrual basis of accounting for mercantile enterprises, with emphasis on partnership transactions, but with an introduction to corporation accounting. Practice sets of a general nature are introduced. Two class periods and two laboratory periods a week. Second Semester, Each Year
SEC 107. PERSONAL TYPEWRITING
The aim is to familiarize the students with the keyboard and the various parts of the machine and to apply the typing machine to personal typing problems. Three class periods a week. For use of typewriter, $3.00 per semester.
Each Semester, Each Year

SEC 108. PERSONAL TYPEWRITING
The students are encouraged to bring in personal problems of their own, such as themes, outlines, postal card messages, personal letters, etc. Continued emphasis is placed on the improvement of skill so that vocational typewriting power may be developed for those students who will continue in other typing classes. Three class periods a week. For use of typewriter, $3.00 per semester.
Each Semester, Each Year

SEC 110. SECRETARIAL MATHEMATICS
Review and practice of the more common mathematical usages found in business offices; development of proficiency in these functions. Three class periods a week.
First Semester, Each Year

SEC 201. ADVANCED SHORTHAND
Gregg principles are reviewed. Rapid reading is emphasized. Sustained writing periods are increased. Practical office dictation speeds are employed. Five class periods a week.
First Semester, Each Year

SEC 202. ADVANCED SHORTHAND
Phraseology of a technical nature is taken up. Industrial and civil service testing programs are studied. Rapid dictation and transcription. Five class periods a week.
Second Semester, Each Year

SEC 203. ADVANCED TYPEWRITING
Advanced practice in various office skills. Survey of all letter forms, tabulation, manuscripts, and rough drafts. Five class periods a week. For use of typewriter, $5.00 per semester.
First Semester, Each Year

SEC 204. ADVANCED TYPEWRITING
Designed to develop practice in business forms, more complicated tabulations, legal typing, etc., with emphasis upon office production standards; speed work. Five class periods a week. For use of typewriter, $5.00 per semester.
Second Semester, Each Year

SEC 205. SECRETARIAL THEORY
A study of the duplicating processes, including ditto and mimeograph. Practice in the use of dictaphone, ediphone, and soundscriber machines. Filing practice is also studied. Four class periods a week.
First Semester, Each Year

SEC 206. SECRETARIAL THEORY
Advanced training in color duplicating processes, dictating machines and filing techniques. Four class periods a week.
Second Semester, Each Year
SEC 301. METHODS IN SOCIAL-BUSINESS SUBJECTS 
Objectives, instructional materials, teaching procedures, curricular organization 
and other teaching problems in the Social-Business program; emphasis on 
visual aids and projects in the field. Three class periods a week. 
First Semester, Each Year

SEC 302. TEACHING OF COMMERCIAL SUBJECTS 
This course applies to the general principles of teaching high school commercial 
subjects. It includes a survey of commercial textbooks, curricula construction, 
testing programs, professional periodicals, commercial teacher organizations, clubs, etc. Three class periods a week. 
First Semester, Each Year

SEC 303. DICTATION AND TRANSCRIPTION 
Rapid dictation and transcription. Phraseology of a technical nature is taken up. Three class periods a week. 
To be announced—Evening

SEC 304. DICTATION AND TRANSCRIPTION 
Industrial and civil service testing programs are studied. Three class periods a week. 
To be announced—Evening

SOCIOLOGY (Soc)

MR. HUTH, CHAIRMAN
MR. GREEN

A major in sociology must complete thirty-one semester hours in sociology, including Soc 201, 202, 301, 303, 307, 308, 309, 313, 401, and 414.

SOC 201. GENERAL SOCIOLOGY 
The basic course in the principles of sociology; an introduction to the fundamental concepts of modern sociology. A systematic explanation of man's social nature, types of groups and institutions, social processes, and social change. A prerequisite for specialized courses in sociology. 
Each Semester, Each Year

SOC 202. SOCIAL PROBLEMS 
This course deals with the facts of social pathology, the maladjustments of society. The aim is to provide a clear understanding of the causes, extent, treatment, mitigation, and prevention of abnormal conditions affecting society. Required for advanced courses in sociology. 
Each Semester, Each Year

SOC 301. MARRIAGE AND THE FAMILY 
A general survey of the social nature of the family; its organization through courtship, marriage, and parenthood; its primary role in the development of personality; the influence of social and economic changes; means of ensuring family integrity; programs for the improvement and reconstruction of family life. Required of majors and minors in sociology. 
First Semester, Each Year
Soc 303. Population
A study of the growth, decline, distribution and classification of population; analysis of population theories; birth, morbidity and death rates; relation of numbers to resources; human migration; future growth of population in the United States and its consequences; world population problems.
*First Semester, 1956-1957*

Soc 304. Minority Groups
This course is concerned with the contributions of the "Old" and the "New" immigration to American life; immigration laws and policies; adjustment problems of the Negro, the Jew, and the immigrant; techniques of social control by the dominant group; types of minority counter-assertions.
*Second Semester, 1957-1958*

Soc 305. Introduction to Social Work
This course is designed for preprofessional students in social work. Among the fields included are: social casework, social group work, community organization, and social welfare administration. Students who expect to become civic leaders will find this an invaluable course.
*First Semester, 1957-1958*

Soc 307. Criminology and Penology
A review of the etiology, extent, treatment, and means for the prevention of crime; history and methods of punishment; administration of criminal law; police systems; prisons and prison reform; indeterminate sentence, probation, parole, and pardon; objectives of the new penology.
*First Semester, 1957-1958*

Soc 308. Anthropology
An introductory course in cultural and physical anthropology; the social, economic, political, religious, and artistic life of primitive people in relation to contemporary civilization. This course is designed to furnish a more objective understanding of contemporary civilization.
*Second Semester, 1956-1957*

Soc 309. Urban Sociology
A course dealing with the origin, development, nature and significance of urban communities; types of cities; structure and functions of the city; characteristics of urban populations; major problems of the city, including city planning.
*Second Semester, 1956-1957*

Soc 310. Rural Sociology
History of the rural community and its social organization. An analysis of the farm-family system; the evolution and functioning of rural institutions; the ecology of rural problems such as housing, health, education, religion, morals, communication, and recreation; the characteristics of rural population.
*Second Semester, 1957-1958*

Soc 311. Public Opinion and Propaganda
Public opinion and propaganda in relation to social control and collective behavior. Organized and unorganized communication processes. Press, radio,
television, motion pictures as agencies of mass-impression. Special attention given to propaganda agencies and techniques; polling organizations and their operations.  

First Semester, 1956-1957

SOC 313. JUVENILE DELINQUENCY  
This is a study of the causes, extent, treatment, and prevention of juvenile delinquency. Among the topics considered are: the home, school, church, state, police, and juvenile court; child guidance clinics; bureaus of juvenile research; probation and parole; correctional institutions.  

Second Semester, 1956-1957

SOC 315. INDUSTRIAL SOCIOLOGY  
A study of the industrial plant as a social system; sociological aspects of labor-management relations; the impact of industry on the community and society; social controls of industry. Analysis of work situations, labor movement, industrial leadership, and morale.  

First Semester, 1956-1957

SOC 318. ETHICAL HUMAN RELATIONS  
The purpose of this course is to examine the facts and trends of contemporary social and economic life in their moral or immoral manifestations, and to show their agreement or disagreement with sound principles of social welfare. It deals with the forces of disorganization and of evil which beset man; of the means for protecting and promoting his general welfare.  

Second Semester, 1957-1958

SOC 401. SOCIAL RESEARCH  
The problems and methods of research in sociology and in social work. Methods of observation, collection, recording, classifying, interpreting, and presenting social data statistically; planning and completing reports. A required course for majors in sociology.  

First Semester, 1956-1957

SOC 403. HISTORY OF SOCIAL THOUGHT  
An historical approach to, and a comparative analysis of, the leading societal concepts of ancient, medieval, and modern social theorists. Examination of social theory in terms of its logical rigor and empirical validity.  

Second Semester, 1957-1958

SOC 406. SOCIAL MOVEMENTS  
Comparative analysis of the development of social movements and their functions in social change; the sociology of fashion, reform, counter-movements, and revolution. Techniques of reform, leaders of reform, the causes for reform movements, results in terms of the general welfare.  

Second Semester, 1957-1958

SOC 409. SOCIAL CONTROL  
Means of control in primitive and advanced societies. The role of the family, school, and church; propaganda, indoctrination, advertising, campaign strategy; informal and formal phases of human control. Group valuations, praise, rewards, symbols, slogans, ridicule, and intimidation in relation to individual behavior.  

First Semester, 1957-1958
Soc 412. Educational Sociology  
Three credit hours
The relationship of the school to the total cultural pattern and the development of interaction between school and community are appraised and concrete suggestions are presented. The nature of the individual child and his relations with his society and culture; the special culture of the school and its accompanying social world; school, teacher, and community relations.  
Second Semester, 1956-1957

SOC 414. Seminar  
One credit hour
This is a required course for sociology majors.  
Second Semester, Each Year

SOC 418. Community Organization  
Three credit hours
An analysis of the nature and operation of social processes in urban and rural development; the history and functions of agencies designed to guide and enrich community life; methods of using institutions and equipment in the establishment of programs for the general welfare.  
Second Semester, 1957-1958

SOC 421. Group Behavior  
Three credit hours
This course examines representative aspects of group behavior, including gangs, crowds, mobs, publics, classes and masses; collective behavior as illustrated in motion pictures and literature; social movements as stages in institutional disorganization and reorganization.  
First Semester, 1957-1958

SOC 431. Police Administration  
Three credit hours
This course describes superior practices in all branches and at all levels of police service. It analyzes the organization, structure, administrative practices, and operating procedures of police forces in the United States. Discussion of the principles and practices of traffic regulation; state police and federal police organizations.  
First Semester, 1956-1957

SOC 436. Human Ecology  
Three credit hours
Social class structure in the contemporary American community; its relation to social participation, the functioning of social institutions, conflicts and cleavages, integration, and other phases of community organization. Urbanization, patterns of urban growth and structure; the rural habitat; the agricultural revolution; rural-urban integration.  
Second Semester, 1956-1957

SPEECH (Spe)
FR. PREISINGER, CHAIRMAN
MR. BIERsACK, MR. GILVARY, MR. MCGRATH, MR. SHEA

Valuable experience in all phases of the theatre can be obtained by joining the University Players.

SPE 100. Voice and Diction  
Three credit hours
The speaking voice; training in voice improvement and effective utterance in
daily life; the correction of the ordinary speech defects. This course is primarily for Speech Majors.  

**SPE 101. FUNDAMENTALS OF EFFECTIVE SPEAKING**  
Three credit hours  
The basic principles of speech composition and delivery. Practice in preparing and presenting short, informative, entertaining and convincing talks. Methods are applicable to social and business conversation, as well as to public speaking.  
*First Semester, Each Year*  

**SPE 201. SPEAKING TECHNIQUES**  
Three credit hours  
The theory and practice of the application of the fundamentals of speech work in the special problems that the student will face in life. Practice in reading, speaking, and critical survey work throughout.  
*Each Semester, Each Year*  

**SPE 202. INTERPRETATIVE READING**  
Three credit hours  
The reading of poetry and prose for private and professional use to enable the student to develop a deeper intellectual and emotional appreciation of literature. Practice and theory are combined throughout.  
*First Semester, 1956-1957*  

**SPE 203. ACTING I**  
Three credit hours  
Study and practice in the fundamentals of acting technique, involving the physical, mental and emotional processes by means of the voice, imagination and bodily movements.  
*Each Semester, Each Year*  

**SPE 204. DRAMATIC TECHNIQUE**  
Three credit hours  
A comprehensive course embracing the fundamentals of acting, stage movements, interpretation, and stagecraft. Assigned projects to meet special group interests.  
*Second Semester, 1956-1957*  

**SPE 301. SPEECH COMPOSITION**  
Three credit hours  
The special methods by which speech is made clear, interesting and forceful before various groups of audiences, and on the ordinary occasions that the student is often called on to face in life. The writing and study of written speeches is emphasized.  
*Second Semester, 1956-1957*  

**SPE 302. ARGUMENTATION AND DEBATE**  
Three credit hours  
Analysis of the arguments that arise in conversation and group discussion and debate. Practice in finding evidence, brief-making, and presenting oral arguments in actual debating exercises.  
*To be announced*  

**SPE 303. ADVANCED INTERPRETATIVE READING**  
Three credit hours  
This is a continuation of the fundamental course in this subject. Individual work and reading is stressed much more than in the previous course. Prerequisite: Spe 202.  
*Second Semester 1956-1957*  

**SPE 304. ACTING II**  
Three credit hours  
This is a follow-up of the elementary course in acting. Much more individual training is here given. Prerequisite: Spe 203.  
*Second Semester, Each Year*
SPE 305. STAGECRAFT AND LIGHTING
This is a more detailed treatment of the problems met with in the study of elementary dramatic technique. Stage mechanics, scene construction, painting, backstage organization, and the technical problems met with in lighting a play. Prerequisite: Spe 204.

First Semester, 1956-1957

SPE 306. RADIO FUNDAMENTALS
This course treats the elementary problems involved in adapting the principles of effective speaking to the radio. Practice is given in announcing, radio drama, etc.

First Semester, 1956-1957

SPE 307. DISCUSSION AND REPORTS
Through principles and practice, this course treats the problems involved in group discussions, committee meetings, etc., and shows how to draw up a good report of the same in writing.

Second Semester, 1956-1957

SPE 308. ART OF PERSUASION
The theory and practice involved in convincing others are taught in this course.

First Semester, 1956-1957

SPE 309. BASIC TELEVISION
This course covers equipment, personnel, and fundamentals of studio production.

Second Semester, 1956-1957

SPE 401. ADVANCED PUBLIC SPEAKING
This course takes for granted a modicum of skill and confidence in speech making. Then the advanced principles of personal development, audience psychology, speech composition and delivery are studied. Special types of speaking situations and their requirements are looked into. Constant practice.

First Semester, 1956-1957

SPE 402. PLAY DIRECTING
The fundamentals of play directing: script selection, casting, rehearsal steps, stage business, tempo, etc. Problems ordinarily met in school dramatics will be discussed.

Second Semester, 1956-1957

SPE 403. HISTORY OF THE THEATRE I
The history of the non-literary aspects of the theatre, from ancient Greece to the days of Shakespeare. This is a course in appreciation of dramatic art, as well as its history.

First Semester, 1957-1958

SPE 404. HISTORY OF THE THEATRE II
The course of theatrical art from Shakespeare to the present day. When time allows, the history and appreciation of motion picture art is included.

Second Semester, 1957-1958

SPE 405. RADIO DRAMATICS
This course continues the fundamentals of radio work, and emphasizes espe-
cially play production on the radio and television. Practice in dramatizing radio
scripts. Prerequisite: Spe 306.

First Semester, 1957-1958

Spe 406. The Teaching of Speech in Secondary Schools

THREE CREDIT HOURS

This course treats the problems met with by the beginner in teaching speech
work in secondary schools, the conducting of assemblies, of speech contests, and
of school play production.

Second Semester, 1956-1957

Spe 411-412. Television Problems

SIX CREDIT HOURS

Working with a television station, business problems, and studio production
 technique, with actual work on TV shows, are treated in this course.

Full Year Course, 1956-1957

TECHNICAL INSTITUTE

MR. AVERDICK, MR. CARNEY, MR. GOLDEN, MR. HAZEN, MR. HOLLY,
MR. KNISLEY, MR. LAKE, MR. LOUGHRAN, MR. MCGRAW, BRO. MORGANA

ELECTRICAL TECHNOLOGY (ETI)

ETI 101. Electrical Circuits

SIX CREDIT HOURS

Nature of direct and alternating current; practical concepts of power, power
factor, resistance, reactance, and impedance; simple a.c. and d.c. circuit calcula-
tions. Five hours of class and three hours of laboratory a week. Prerequisites:
STI 102 and STI 111.

ETI 105. Electrical Shop Practices

ONE CREDIT HOUR

Fundamentals of electrical equipment installation and maintenance. Three hours
of laboratory a week.

ETI 106. Electrical Code

ONE AND ONE-HALF CREDIT HOURS

A study of the National Electrical Code to provide safe practices in the installa-
tions of electrical equipment in buildings. One and one-half hours of class a
week.

ETI 202. Electronics

FOUR CREDIT HOURS

Principles of operation of the more common types of vacuum and gas tubes,
thyratrons, photoelectric cells and simple circuits used with them. Three hours
of class and three hours of laboratory a week. Prerequisite: ETI 101.

ETI 203. Electrical Measurements

FOUR CREDIT HOURS

Fundamentals of direct and alternating current measuring instruments and
methods of measurement, with particular emphasis on industrial applications.
Three hours of class and three hours of laboratory a week. Prerequisite: ETI 101.
ETI 210. Electrical Machinery  
Fundamentals of the construction and application of direct current and alternating current machines and apparatus to industrial uses. Three hours of class and three hours of laboratory a week. Prerequisite: ETI 101.

ETI 211. Motor Control  
Industrial uses of standard controllers for electric motors. Three hours of class and three hours of laboratory a week. Prerequisite or corequisite: ETI 210.

ETI 212. Electrical Blueprints and Diagrams  
Standards and symbols used on electrical blueprints and wiring diagrams primarily for control circuits. Three hours of laboratory a week. Prerequisite: MTI 101.

ETI 220. Radio Fundamentals  
Elementary principles of operation and structural details of fundamental units of radio apparatus. Three hours of class and three hours of laboratory a week. Prerequisite: ETI 202.

ETI 221. Television Fundamentals  
Elementary principles of operation and structural details of basic television equipment with primary emphasis on receivers. Three hours of class and three hours of laboratory a week. Prerequisite or corequisite: ETI 220.

ETI 222. Electronic Circuit Diagrams  
Standards and symbols used on electronic circuit diagrams. Three hours of laboratory a week. Prerequisite: MTI 101. Corequisite: ETI 221.

GENERAL STUDIES (GTI)

GTI 101. Effective Writing  
Review of basic principles of grammar, spelling and punctuation, with special emphasis on composition. One and one-half hours of class a week.

GTI 102. Effective Speaking  
Organization and presentation of spoken material with special emphasis on voice and physical delivery and audience reaction. One and one-half hours of class a week.

GTI 110. Technical Institute Survey  
An orientation course designed to give the freshman students a general view of the engineering technician and his place in the engineering team. In addition will be included such subjects as "How to Study," use of the slide rule and general information concerning the University. One hour of class a week.

GTI 111. Applied Psychology  
Fundamentals of psychology as applied to normal behavior and personal adjust-
ment, with special emphasis on possible uses in industrial application. Three hours of class a week.

GTI 203. Report Writing THREE CREDIT HOURS
The preparation and presentation of industrial reports. Three hours of class a week. Prerequisite: GTI 101.

GTI 204. Conference Leadership ONE AND ONE-HALF CREDIT HOURS
Training and practice in conducting and participating in small group conferences, shop committees, instructional groups and problem solving groups. One and one-half hours of class a week. Prerequisite: GTI 102.

GTI 221. American Political Ideas and Practices THREE CREDIT HOURS
Fundamentals of democratic processes in government and the practices in which they function. Three hours of class a week.

GTI 222. Economics in Industry THREE CREDIT HOURS
Basic economic principles as applied to major industrial problems. Three hours of class a week.

INDUSTRIAL TECHNOLOGY (ITI)

ITI 101. Industrial Organization and Production THREE CREDIT HOURS
A survey of the operational, financial, marketing and accounting activities of industrial organization. Also included is a detailed survey of the duties of management as related to the production function of planning, control, personnel and human factors. Three hours of class a week.

ITI 103. Industrial Materials and Methods of Manufacture TWO AND ONE-HALF CREDIT HOURS
A study of modern materials used in industry with emphasis on their chemical and physical properties and methods by which they may be fabricated. One and one-half hours of class and three hours of laboratory a week.

ITI 108. Production Methods and Control THREE CREDIT HOURS
Principles and the techniques used in production; current practices in production planning, routing, scheduling and dispatching; study of production standards, labor efficiency and costs; quantity and quality control. Three hours of class a week. Prerequisites: ITI 101 and ITI 103.

ITI 202. Elements of Supervision THREE CREDIT HOURS
A study of the supervisor's relation to his men and his place in developing an effective production team. Three hours of class a week. Prerequisites: ITI 101 and GTI 111.

ITI 204. Motion and Time Study THREE CREDIT HOURS
Fundamentals of work simplification and motion economy using the techniques
of motion and time study for the development of effective methods of production. Two hours of class and four hours of laboratory a week. Prerequisites: ITI 101 and STI 102.

ITI 206. **Job Evaluation and Wage Determination** **Three credit hours**
Job evaluation methods; determining requirements of jobs; establishing grade levels; development of basic rates, salary classification and performance rating. Three hours of class a week. Prerequisites: ITI 101.

ITI 207. **Elements of Cost Control** **Three credit hours**
A survey of the methods of breakdown and cost analysis of labor, material and overhead. All related to modern industrial practices. Three hours of class a week. Prerequisite: ITI 101.

ITI 209. **Industrial Safety** **One and one-half credit hours**
Basic principles of industrial accident prevention and organization for mechanical safeguards, fire prevention, occupational disease, hygiene and first aid, safety codes, compensation and safety education programs. One and one-half hours of class a week. Prerequisite: ITI 101.

ITI 210. **Plant Layout** **Two and one-half credit hours**
A study of the economical arrangement of stocks, machines and layout of aisles for efficient material handling and production. One and one-half hours of class and three hours of laboratory a week. Prerequisites: ITI 108 and MTI 101.

ITI 211. **Operation Planning and Control** **One and one-half credit hours**
Pre-production planning of the most economical methods, machines, operations, and materials for the manufacture of a product. Production control procedures. One and one-half hours of class a week. Prerequisites: ITI 101 and ITI 108.

ITI 212. **Production Procedures** **One and one-half credit hours**
Primarily for students enrolled in Mechanical Technology, Option B, Tool Design. A survey of motion and time study and layout of production equipment. One and one-half hours of class a week. Prerequisite: ITI 211.

ITI 213. **Quality Control** **One and one-half credit hours**
An introduction to the techniques of industrial process control using statistical methods. One and one-half hours of class a week. Prerequisite: STI 102.

**MECHANICAL TECHNOLOGY (MTI)**

MTI 101. **Technical Drawing** **Three credit hours**
An introduction to technical drawing with the emphasis upon orthographic projection and conventional industrial practices. One hour of class and five hours of laboratory a week. Prerequisite or corequisite: STI 101.
MTI 102. **Graphical Computations**

Three Credit Hours

Fundamental descriptive and analytic geometry principles as applied to the solution of engineering problems: included are intersections and developments of planes and solids, layout of objects in space and clearance. One hour of class and five hours of laboratory a week. Prerequisite: MTI 101; Prerequisite or corequisite: STI 202.

MTI 203. **Machine and Tool Drawing**

Two and One-Half Credit Hours

Preparation of complete working drawings from layouts for interchangeable manufacture, computation of fits, limit dimensions and tolerances. One and one-half hours of class and three hours of laboratory a week. Prerequisites: ITI 103 and MTI 102.

MTI 205. **Die Design**

Three Credit Hours

Fundamental principles of the design and construction of piercing, blanking, forming, drawing, progressive and compound dies. One hour of class and five hours of laboratory a week. Prerequisite: MTI 203.

MTI 206. **Jig and Fixture Design**

Two and One-Half Credit Hours

Fundamental principles of the design and construction of drill and combination jigs, and milling, reaming and tapping fixtures. One and one-half hours of class and three hours of laboratory a week. Prerequisite: MTI 203.

MTI 207. **Gage Design**

Two and One-Half Credit Hours

Design of gages for interchangeable manufacture. One and one-half hours of class and three hours of laboratory a week. Prerequisite: MTI 203.

MTI 210. **Machine Shop Practices**

Three Credit Hours

A study of the use of hand and machine tools and measuring instruments as well as standard physical testing equipment such as the Rockwell hardness tester and tensile machines. One hour of class and five hours of laboratory a week. Prerequisites: MTI 101, STI 102, STI 111.

MTI 220. **Mechanics: Statics and Dynamics**

Three Credit Hours

Forces acting on rigid bodies at rest and in motion. Three hours of class a week. Prerequisites: STI 102 and STI 111.

MTI 221. **Strength of Materials**

Three Credit Hours

Stress and strain; riveted and welded joints; torsion; shear; bending and deflection of beams; combined stresses; columns. Three hours of class a week. Prerequisite: MTI 220.

MTI 222. **Machine Design**

Two and One-Half Credit Hours

Fundamentals of design and experimental procedure in the calculation of machine members and elements of testing. One and one-half hours of class and three hours of laboratory a week. Prerequisites: ITI 103 and MTI 221.
MTI 223. Mechanism

Fundamentals of displacements, motions and velocities, design of linkages, gears, cams and flexible connections. One hour of class and five hours of laboratory a week. Prerequisites: MTI 203 and MTI 220.

PHYSICAL SCIENCE (STI)

STI 101. Industrial Mathematics I

A review of the fundamentals of arithmetic and a study of selected topics from geometry and algebra with application to industrial problems. Three hours of class a week.

STI 102. Industrial Mathematics II

Selected topics from algebra and trigonometry with particular emphasis on industrial problems. Three hours of class a week. Prerequisite: STI 101.

STI 111. Physics: Mechanics

A study of the laws of simple machines, forces, linear and angular motion, conditions of equilibrium and fluids. Three hours of class and two hours of laboratory a week. Prerequisite or corequisite: STI 101.

STI 113. Physics: Electricity

The basic principles of electricity and their application in industry. Three hours of class and two hours of laboratory a week. Prerequisite: STI 111.

STI 121. Introduction to Industrial Chemistry

A survey of the general principles of chemistry including elements and their simpler compounds. Special emphasis on topics of importance in industrial activities. One and one-half hours of class and three hours of laboratory a week. Prerequisite: STI 101.

STI 212. Physics: Heat, Light and Sound

The elementary principles of heat, light and sound with particular emphasis on industrial application. Three hours of class and two hours of laboratory a week. Prerequisite: STI 111.
Degrees and Awards

DEGREES AWARDED

(No reference to the city of residence is made of those graduates who live in Dayton, Ohio.)

June 4, 1955

TWO-YEAR PROGRAMS

Associate in Business Administration

Donald Milton Barnhart
Miriam Annette DeBord
Patricia Ann Gaughan
John Henry Kunsemiller
Gertrude Mary Lawler
Robert G. MacNealy
Leland Stanford Reichert
Ruth Lieselotte Weber
Ruth Marie Wyen

Tipp City, Ohio
Louisville, Kentucky
Piqua, Ohio
Urbana, Ohio

Associate Degree in Engineering

Associate in Engineering

Edward David Blackman
Richard A. Bowell
Joseph A. Cattani
Granville Combs
Francis Xavier Fessler
Dennis Eugene Garman
Donald L. Gordon
Robert Lee Haines
Charles Elmer Heisey
James Clement Holverstott
Frank G. Huls
Thomas L. Inderrieden
Ray E. Kimbrough
Byron L. McNelly
Myron M. Mitchel
Wayne E. Norris
Douglas Charles Richard Pelking
Denton W. Phillips, Jr.
James Raymond Philpot
Francis J. Plumer
Burl Jacob Queener
Philip David Reisinger
George Kenneth Revenaugh
James Edward Rodgers
Charles D. Schmelzer

Yellow Springs, Ohio
Cleveland, Ohio
Oregonia, Ohio
Celina, Ohio
Ottoville, Ohio
Bradford, Ohio
Xenia, Ohio
Ft. Loramie, Ohio
Middletown, Ohio
Paulding, Ohio
Baltimore, Maryland
Fairborn, Ohio
Lebanon, Ohio
Delphos, Ohio
Raymond J. Schmidlin  
Louis Eugene Staniszewski, Jr.  
†James Louis Stine  
Jerry D. Strange  
Gerald Joseph Wännemacher  
Robert Linton Wenger  
Ronald Lee Wilson  
Ronald A. Yingling  

Lyndhurst, Ohio  
Payne, Ohio  
Clayton, Ohio  
West Carrollton, Ohio  
Massillon, Ohio  

COLLEGE OF ARTS AND SCIENCES  

Bachelor of Arts  

Charles Murray Barker  
Ronald James Barrans, C.P.P.S.  
Raymond G. Bauer, C.P.P.S.  
Mark Louis Beischel, C.P.P.S.  
John Francis Berner  
William Joseph Beuth, C.P.P.S.  
Robert Gene Bowling  
Elmer C. Bruns  
Robert E. Daley  
Gordon Richard Danielak, C.P.P.S.  
C. James DeHart  
Donald Gerald Dugan  
Edward Francis Flynn  
Thomas E. Gallagher  
William Francis Griglak, C.P.P.S.  
Joseph Henry Grilliot, C.P.P.S.  
James E. Hecker  
Bruce Vehlow Herath  
Donald L. Jones, S.M.  
James Patrick Kinney, C.P.P.S.  
Leonard August Kistler, C.P.P.S.  
C. Arthur Kulinski  
Allan Thomas Langen  
Helen M. Lawrence  
Lynn Walter Leary  
Arthur Anthony LeClair, C.P.P.S.  
Marilyn C. Lemming  
Jerome Francis Lennon  
Barbara Armstrong Leopard  
John Steele McClelland  
Shirley Ann McGarvey  
*Terence Alan Masterson  
Stanley A. Mersol  
John Paul Nichols, S.M.  
Robert G. O’Brien  
*Sally Ann Payne  
Edward John Perotti  
Paul Joseph Plumer  

Sandusky, Ohio  
Carthagea, Ohio  
Carthagea, Ohio  
Carthagea, Ohio  
Miamisburg, Ohio  
Carthagea, Ohio  
Carthagea, Ohio  
Elyria, Ohio  
Carthagea, Ohio  
Carthagea, Ohio  
San Antonio, Texas  
Carthagea, Ohio  
Carthagea, Ohio  
Erie, Pennsylvania  
Springfield, Ohio  
Cleveland, Ohio  
Cleveland, Heights, Ohio  
Xenia, Ohio  
Lakewood, Ohio  
Cleveland, Ohio  
Cincinnati, Ohio  
Cleveland, Ohio  
Parma, Ohio  
Baltimore, Maryland  

*Awarded the Alpha Sigma Tau Honor Key, signifying a cumulative Point Average for seven semesters of 3.50 based on 4.00 quality points.  
†In absentia.
William Granville Potter
John Paul Prosser
Herbert M. Ross
John Sam Rossi
Albert Julius Roth, C.P.P.S.
Benjamin LeRoy Schwegman
James Healy Short, S.M.
Joseph William Silvester, C.P.P.S.
Stephen K. Stewart, Jr.
Arthur Wendell Suel
*William Victor Thomas
Roger Bernard Witte
Otto J. Zolg

Middletown, Ohio
Poland, Ohio

Middletown, Ohio
Carthage, Ohio
Pittsburgh, Pennsylvania
Carthage, Ohio
Trenton, New Jersey

Bachelor of Fine Arts

Catherine Louise DeVol
Paul Edward Petkwitz
*Richard James Schierloh

Zanesville, Ohio

Bachelor of Science

Robert William Albers
Frank Michael Annunziata, S.M.
Rita Kinsella Bardo
Truman Wells Bennett
Alan Paul Berens
Dudley Best Bishop
Jude Anthony Blau
Mary Elaine Brockmeyer
Joseph Bertram Bronder
Herbert Malcolm Campbell, Jr.
Willard Clarence Clark, Jr.
John Loree Cron
*Richard Lawrence Dobbins
Joyce Ann Ely
*Lael Marguerite Ely
Lowell Edwin Ford
Sr. Laura Marie Frietch, S.P.S.F.
†Celestia Lillian Gahan
Ted H. Goss
Constance Lourine Hall
Robert Keith Hankey
James Megarr Hartigan, Jr.
Joan Eve Herman
John Taylor Janning
Thomas Bernard Janning
Edward C. Jordan
Marilyn Catherine Koester
Leo Joseph Lammers
*Frank F. Ledford, Jr.
*Paul Charles McWilliams
Cecilia Helen Maas
John Thomas Mattingly
Charles Edward Nahm, Jr.
James Robert Parker

Cleveland Heights, Ohio

Ft. Loramie, Ohio
Brooklyn, New York
Ft. Thomas, Kentucky

Cleveland, Ohio
Chillicothe, Ohio
Sharon, Pennsylvania

Jackson, Ohio
Covington, Ohio
Fairborn, Ohio

Zanesville, Ohio

Bellerose, New York
Waynesfield, Ohio

Leipsic, Ohio

Delaware, Ohio
Gasper Parrino  
Helen Carr Peake  
Harry L. Ritz  
Thomas Lewis Volk  

**Bachelor of Science in Home Economics**

*Joan Elizabeth Brennan  
Catherine Angela Sewell Frost  
Sue Ann Riley  
Patricia Cecilia Schorsch  
Lynda Smith*

Brooklyn, New York

**Bachelor of Science in Medical Technology**

Lenora Eaton Coldiron  
Nancy Elizabeth Frueh

Middletown, Ohio  
Chicago, Illinois

**Bachelor of Science in Nursing**

Eva Marie Crowell  
Mary B. Linton Haacke  
Rosemarie Patricia Mahoney  
Anita Marie Schmidt  
Doris Marie Shoemaker  
Mary Riepenhoff Williams

Lima, Ohio

**Bachelor of Science in Nursing Education**

Emma L. Beverley  
Jane Shefbuch Burger  
Gladys Juanita Fletcher  
Christine Doherty Graybill  
Sr. M. Therese Martin Hessler, S.P.S.F.  
Marie T. Kennedy  
Annmae R. Kostelnik  
Evalyn E. Marshall  
Sr. M. Carmelita Rice, S.P.S.F.  
Ethelyn Emerson Roper  
Genevieve C. Tolentino  
Mary Morefield Vaughan  
Rose Tamae Watanabe

Vandalia, Ohio  
Covington, Ohio  
Gainesville, Florida  
Bethlehem, Pennsylvania  
West Carrollton, Ohio  
Middletown, Ohio  
Hakalau, Hawaii  
Kona, Hawaii

**Bachelor of Science in Education**

Jack L. Adams  
Gertrude Martha Anderson  
Hattie M. Baker  
Norma Sue Bowman  
Thomas Howard Boyle, S.M.  
William Joseph Cahe  
August Caresani  

West Milton, Ohio  
Philadelphia, Pennsylvania  
Chicago, Illinois
Rosa Mary Clayton
Esta A. Crouse
*Alice Elizabeth Devers
Anna H. Dickey
Mary Agnes Ens
*Patricia Louise Falke
Marion S. Fisher
*Anne Mary Flynn
Charlie L. Graham
Janet Ann Grentz
Charles Joseph Guida
James Edward Haggerty
Elma G. Henn
Carol Ann Hilton
John Francis Horan
*Julie Claire Horvath
Kathleen A. Jardine
Thelma Noble Jones
Rosetta Virginia King
Charlotte Murray Lee
†Sr. Mary Gerard Leitz, O.S.F.
*Ann Elizabeth Lyons
Carolyn S. McCroskey
Kenneth Mark McDonough
Mary Jane McMillan
Paul Joseph Mackey
John E. Martin
Edmund Michael Mershad
Sr. Mary Emerentia Monnin, C.P.P.S.
Joan Marie Moore
Karen Druscilla Munn
Nona Lutalie Neff
Cosmina Mary Pagura
Ardell Chilton Paulson
*Irmengard Paula Rauch
Jack W. Sallee
Norman Joseph Schmidt
†Roland Sebastian
*Bertel Stelzer Shattock
Martha Carol Sheetz
Paula M. Stelzer
Rebecca M. Strominger
Ann Kathryn Tennery
Mary Carmel Thobe
Sr. M. Angela Tiencken, M.S.C.
*Edna Mae Wentrick
William Edison West
Leslie John Winters
Myrtle F. Yates
Edmund John Yemec
Raymond Edward York
Constance M. Youngman
James William Zimmerman, C.P.P.S.

Bachelor of Science in Art Education

*Dorothy Agnella Foley
Armand Anthony Martino

Pittsburgh, Pennsylvania
Philadelphia, Pennsylvania
Sayre, Pennsylvania
Brookville, Ohio
Minneapolis, Minnesota
Honolulu, Hawaii
Oxford, Ohio
Cincinnati, Ohio
Columbus, Ohio
Springfield, Ohio
Jackson, Kentucky
Bernharts, Reading, Pennsylvania
Helenwood, Tennessee
Wilmington, California
Maple Heights, Ohio
Canton, Ohio
Cleveland, Ohio
Bachelor of Science in Music Education

Lois Marie Crutcher
Ruth Ann Drees
Frederick Joseph Miller
Robert Eugene Thompson
Donald Nicholas Welks

Sidney, Ohio
Miamisburg, Ohio
Fairborn, Ohio

Bachelor of Science in Business Administration

Manuel J. Alves, Jr.
†James A. Ball, Jr.
Richard D. Brown
John E. Brune
Cyril H. Buehler
Alexander Buehhaus
†Robert E. Capron
*James W. Cisco
Donald F. Cizek
Constantine Costas
James Costas
Richard J. Daum
Stephen J. Driscoll
William L. Entz
Charles H. Ernst
Louis W. Feldmann, Jr.
Roy F. Fischer
Robert L. Fisher
Ronald M. Free
L. Anthony Fussnecker
Norbert E. Groeber
Paul W. Grubbs
Dale P. Hahn
Lee E. Hamer
Donald P. Hammond
Carl N. Hemmelgarn
Robert B. Huelskamp
Robert A. Hueslman
Patricia A. Jacobson
Howard R. Jarrell
Charles F. Jeffords
Henry A. Kirshe
Mary E. Knese
Donald E. Knollmeyer
Donald J. Kobes
Raymond W. Koren
Walter J. Kozlowski
Pin-Lin Kuan
Arthur C. Kundmueller
Lawrence E. Leese
Richard W. Leist
Richard T. Litzinger
George C. McCune, Jr.
Donald R. McFarland
James E. Marshall, Jr.
James J. Martin
Paul J. Merland, S.M.

Lowell, Massachusetts
Springfield, Kentucky
Fairborn, Ohio
Paulding, Ohio
Zanesville, Ohio
Watertown, New York
Miamisburg, Ohio
Cincinnati, Ohio
Lakewood, Ohio
Columbus, Ohio
Andrews, Indiana
Springfield, Ohio
Springfield, Ohio
Germantown, Ohio
Florissant, Missouri
Minster, Ohio
Portsmouth, Ohio
Bellerose, New York
Linn, Missouri
Cleveland, Ohio
Tai-Pei, Formosa, China
Cleveland, Ohio
Somerset, Ohio
Toledo, Ohio
Norwood, Ohio
Richard E. Miller
John E. Moore
Richard L. Mumma
Thomas L. Muth
Earl H. Nicholson
Thomas C. Nyhan
*Janet E. Ogle
†Howard K. S. Pang
James E. Poelking
Henry D. Prewitt
John A. Price
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Alliance, Ohio
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Shelbyville, Indiana
University City, Missouri
Parkersburg, W. Va.
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Aurora, Illinois
Columbus, Ohio
Vandalia, Ohio
Tipp City, Ohio
Glenshaw, Pennsylvania
St. Marys, Ohio
Cleveland, Ohio
Wayland, New York

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Heinz Gustav Friedrich
Victor Phillip Herbert
Joseph Edward Howard
James J. Scharf
Edward Henry Wehner

Louisville, Kentucky
West Lafayette, Indiana

Bachelor of Civil Engineering

Charles William Howard
Yuh Hwa Hsiung
Daniel Edmund Meiring
Manuel Antonio Yanes, Jr.

Formosa, China
Ft. Recovery, Ohio
Santurce, Puerto Rico

Bachelor of Electrical Engineering

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Daniel John Brennan
Wilbert H. K. Chang
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Honolulu, Hawaii
Streator, Illinois
Mario Marco Fortini
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*Joseph Michael Gorman
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Piqua, Ohio
Lancaster, Ohio
Marion, Ohio
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Bachelor of Industrial Engineering

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Conneaut, Ohio

Bachelor of Mechanical Engineering

Laureano Jose Carus
Richard D. Doody
John Leonard Duell
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Joseph D. Gebele
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Maurice F. Krug
Richard Samuel Litton
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*Neal L. Scheidler
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Tsu-Teh Soong
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John Zampatti

San Juan, Puerto Rico
Xenia, Ohio
Norwalk, Ohio
Cincinnati, Ohio
Cincinnati, Ohio
Formosa, China

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His Grace
The Most Reverend Karl J. Alter, D.D., Ph.D., LL.D.
Archbishop of Cincinnati

July 31, 1955

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Norbert C. Brockman, S.M.
Harold Casper Brown, C.PP.S.
Bertrand Andrew Buby, S.M.
Leonard Goldman

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Cincinnati, Ohio
Carthage, Ohio
E. Pittsburgh, Pennsylvania
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Bachelor of Fine Arts

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Bachelor of Science

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Fairborn, Ohio
British Guiana, South America
East Cleveland, Ohio
Pittsburgh, Pennsylvania
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Miamisburg, Ohio

Chicago Illinois

Lakewood, Ohio

Honolulu, Hawaii

Bernharts, Reading, Pennsylvania

Grand Rapids, Michigan

Bachelor of Science in Music Education

Donald Wayne Wigal, S.M.
Indianapolis, Indiana

Associate in Business Administration

Robert L. Ashenfelter
Fairborn, Ohio

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Bachelor of Science in Business Administration

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Alan Berens, Dayton, Ohio

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The Reverend Charles Polichek Award of Excellence in Philosophy in the Senior Class:

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The Central Women’s Organization Award of General Excellence in both academic and extracurricular activities:

Patricia Jacobson, Dayton, Ohio

The Phi Alpha Theta Scholarship Key, awarded on the basis of excellence in the study of History:

Berteli S. Shatlock, Dayton, Ohio

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Patricia L. Falke, Dayton, Ohio
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The University of Dayton

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3. Business Annex
4. Old Gymnasium
5. St. Mary's Hall
6. Chaminade Hall
7. Chapel
8. St. Joseph's Hall
9. Stadium
10. Music Building
11. Alumni Hall
12. Founders Hall
13. ROTC Building
14. Mechanical Engineering Building
15. Student Union
16. Chemistry Annex