

1958

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**S E A T T L E  
U N I V E R S I T Y**



**BULLETIN  
OF  
INFORMATION  
1958-1959**

**BROADWAY AND MADISON  
SEATTLE 22, WASHINGTON**

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There is one central mail room on the campus to which all mail addressed to Seattle University, Broadway and Madison, Seattle 22, Washington, is delivered. Mail for student residence halls must be addressed to their respective locations. It will expedite delivery on the campus to specify the following as indicated:

Correspondence relating to the general interest of the university:

*Very Reverend Father President*

Communications regarding curriculum, scholastic problems, degree programs:

*The Dean of the particular school or the Academic Vice President*

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*Director of Admissions*

Alumni affairs:

*Executive Secretary, Seattle University Alumni Association*

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*Director of Athletics*

Bulletins and Catalogues:

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*Director, Counseling and Testing Center*

Diplomas and Graduation:

*Registrar*

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*Women: Dean of Women*

Evening Classes:

*Director, Evening Division*

Foreign Students:

*Director of Admissions or Foreign Student Advisor*

Graduate Study:

*Dean of the Graduate School*

Jesuit Faculty Residence:

*Father Minister*

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*Dean of Students*

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*Placement Office*

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*Committee on Scholarships*

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*Director of the Summer School*

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Testing Program:

*Director, Counseling and Testing Center*

Transcripts, Student Records, Grades:

*Registrar*

Tuition, Payment of Bills, Refunds:

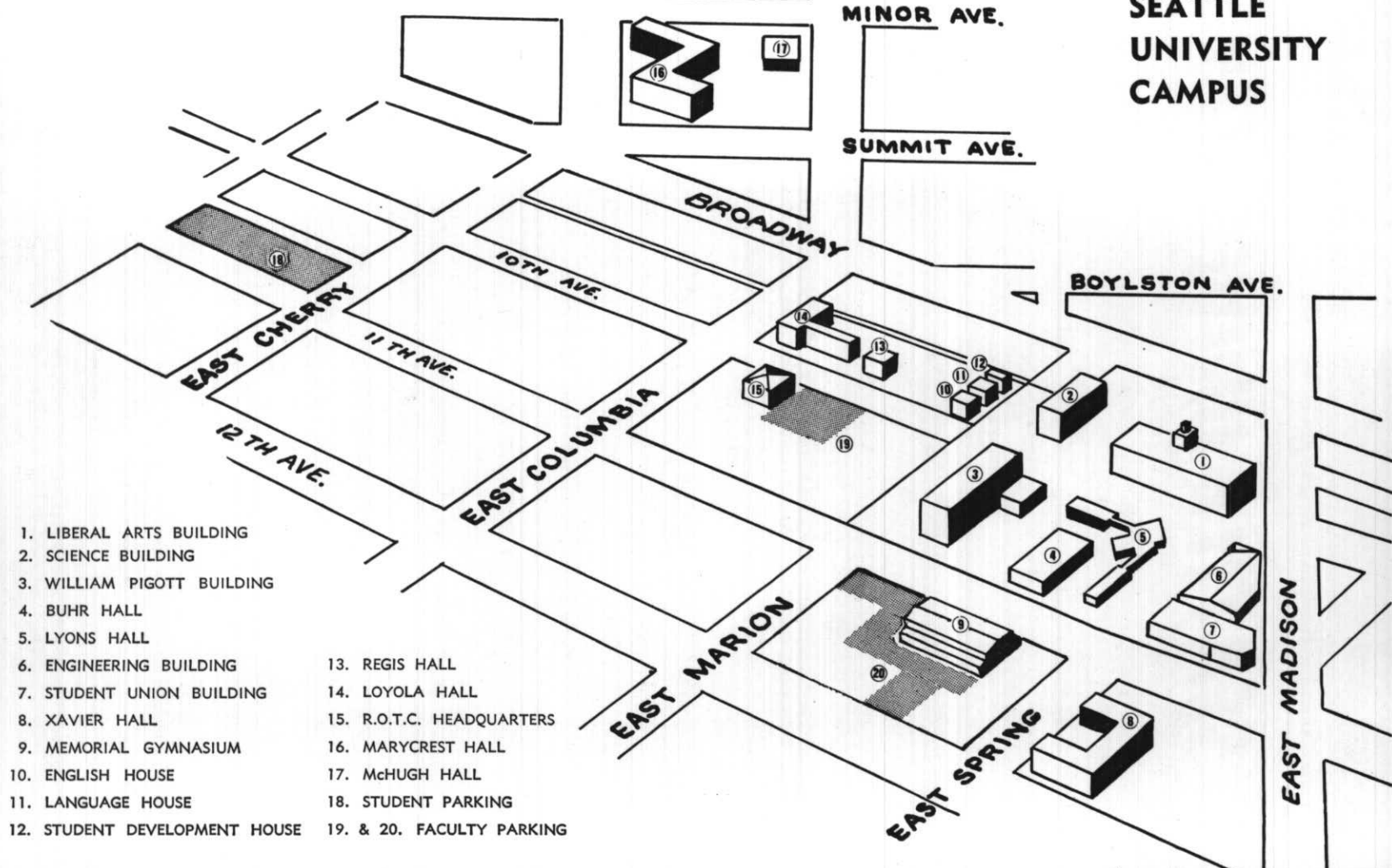
*Treasurer's Office*

Veterans' Education:

*Veterans' Coordinator*

Visitors are welcome at the university. The administrative offices are open Monday through Friday, 8:00 a.m. to 4:30 p.m. except on church or legal holidays. The evening division office is open from 9:00 a.m. to 4:30 p.m. daily and 6:30 p.m. to 8:00 p.m., Monday through Thursday.

# SEATTLE UNIVERSITY CAMPUS



- |                               |                           |
|-------------------------------|---------------------------|
| 1. LIBERAL ARTS BUILDING      | 13. REGIS HALL            |
| 2. SCIENCE BUILDING           | 14. LOYOLA HALL           |
| 3. WILLIAM PIGOTT BUILDING    | 15. R.O.T.C. HEADQUARTERS |
| 4. BUHR HALL                  | 16. MARYCREST HALL        |
| 5. LYONS HALL                 | 17. McHUGH HALL           |
| 6. ENGINEERING BUILDING       | 18. STUDENT PARKING       |
| 7. STUDENT UNION BUILDING     | 19. & 20. FACULTY PARKING |
| 8. XAVIER HALL                |                           |
| 9. MEMORIAL GYMNASIUM         |                           |
| 10. ENGLISH HOUSE             |                           |
| 11. LANGUAGE HOUSE            |                           |
| 12. STUDENT DEVELOPMENT HOUSE |                           |

# **SEATTLE UNIVERSITY**



## **Bulletin For The Academic Year 1958-1959**

- **College of Arts and Sciences**
- **School of Commerce and Finance**
- **School of Education**
- **School of Engineering**
- **School of Nursing**
- **Graduate School**
- **College of Sister Formation**  
(Institutional Branch)

**SEATTLE UNIVERSITY**

**EAst-3-9400**

**BROADWAY and MADISON**

**SEATTLE 22, WASHINGTON**

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# 1958

# 1959

| S M T W T F S  | S M T W T F S  |
|--|--|
| <b>JAN</b>   | <b>JULY</b>  |
| 1 2 3 4<br>5 6 7 8 9 10 11<br>12 13 14 15 16 17 18<br>19 20 21 22 23 24 25<br>26 27 28 29 30 31    | 1 2 3 4 5<br>6 7 8 9 10 11 12<br>13 14 15 16 17 18 19<br>20 21 22 23 24 25 26<br>27 28 29 30 31    |
| <b>FEB</b>   | <b>AUG</b>   |
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| <b>MAR</b>   | <b>SEPT</b>  |
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| <b>APR</b>   | <b>OCT</b>   |
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| <b>MAY</b>   | <b>NOV</b>   |
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| <b>JUNE</b>  | <b>DEC</b>   |
| 1 2 3 4 5 6 7<br>8 9 10 11 12 13 14<br>15 16 17 18 19 20 21<br>22 23 24 25 26 27 28<br>29 30       | 1 2 3 4 5 6<br>7 8 9 10 11 12 13<br>14 15 16 17 18 19 20<br>21 22 23 24 25 26 27<br>28 29 30 31    |

| S M T W T F S  | S M T W T F S  |
|--|--|
| <b>JAN</b>   | <b>JULY</b>  |
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| <b>FEB</b>   | <b>AUG</b>   |
| 1 2 3 4 5 6 7<br>8 9 10 11 12 13 14<br>15 16 17 18 19 20 21<br>22 23 24 25 26 27 28                | 1<br>2 3 4 5 6 7 8<br>9 10 11 12 13 14 15<br>16 17 18 19 20 21 22<br>23 24 25 26 27 28 29<br>30 31 |
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| <b>APR</b>   | <b>OCT</b>   |
| 1 2 3 4<br>5 6 7 8 9 10 11<br>12 13 14 15 16 17 18<br>19 20 21 22 23 24 25<br>26 27 28 29 30       | 1 2 3<br>4 5 6 7 8 9 10<br>11 12 13 14 15 16 17<br>18 19 20 21 22 23 24<br>25 26 27 28 29 30 31    |
| <b>MAY</b>   | <b>NOV</b>   |
| 1 2<br>3 4 5 6 7 8 9<br>10 11 12 13 14 15 16<br>17 18 19 20 21 22 23<br>24 25 26 27 28 29 30<br>31 | 1 2 3 4 5 6 7<br>8 9 10 11 12 13 14<br>15 16 17 18 19 20 21<br>22 23 24 25 26 27 28<br>29 30       |
| <b>JUNE</b>  | <b>DEC</b>   |
| 1 2 3 4 5 6<br>7 8 9 10 11 12 13<br>14 15 16 17 18 19 20<br>21 22 23 24 25 26 27<br>28 29 30       | 1 2 3 4 5<br>6 7 8 9 10 11 12<br>13 14 15 16 17 18 19<br>20 21 22 23 24 25 26<br>27 28 29 30 31    |

## 1958-1959 ACADEMIC CALENDAR SUMMER QUARTER 1958

June 21, Saturday.....Registration  
 June 23, Monday.....Classes Resume  
 June 26, Thursday.....Last Day to Add a Course  
 July 4, Friday.....Independence Day (No Classes)  
 July 11, Friday.....Comprehensive and Language Examination for M.A.  
 July 25, Friday.....Senior Philosophy Comprehensive Examination  
 August 11-12, Monday, Tuesday.....Final Examinations



## FALL QUARTER 1958

|  |   |
|--|---|
| September 27, Saturday.....                        | Grade Prediction Test (Entering Freshmen) |
| September 29-30, Monday, Tuesday.....              | Freshman Orientation                      |
| September 30, Tuesday.....                         | Registration—All Returning Students       |
| October 1, Wednesday.....                          | Registration—All New Students             |
| October 2, Thursday.....                           | Classes Resume                            |
| October 8, Wednesday.....                          | Last Day to Add a Class                   |
| October 22, Wednesday.....                         | Mass of the Holy Spirit                   |
| October 31, Friday.....                            | Last Day to Remove Incompletes            |
| November 6-7, Thursday, Friday.....                | Mid-Quarter Examinations                  |
| November 11, Tuesday.....                          | Admission Day                             |
| November 17-18-19, Monday, Tuesday, Wednesday..... | Annual Retreat                            |
| November 27-28, Thursday, Friday.....              | Thanksgiving Holidays                     |
| December 3, Wednesday.....                         | Last Day to Withdraw Officially           |
| December 5, Friday.....                            | Senior Philosophy Comprehensive           |
| December 8, Monday.....                            | Feast of the Immaculate Conception        |
| December 17-18, Wednesday, Thursday.....           | Final Examinations                        |

## WINTER QUARTER 1959

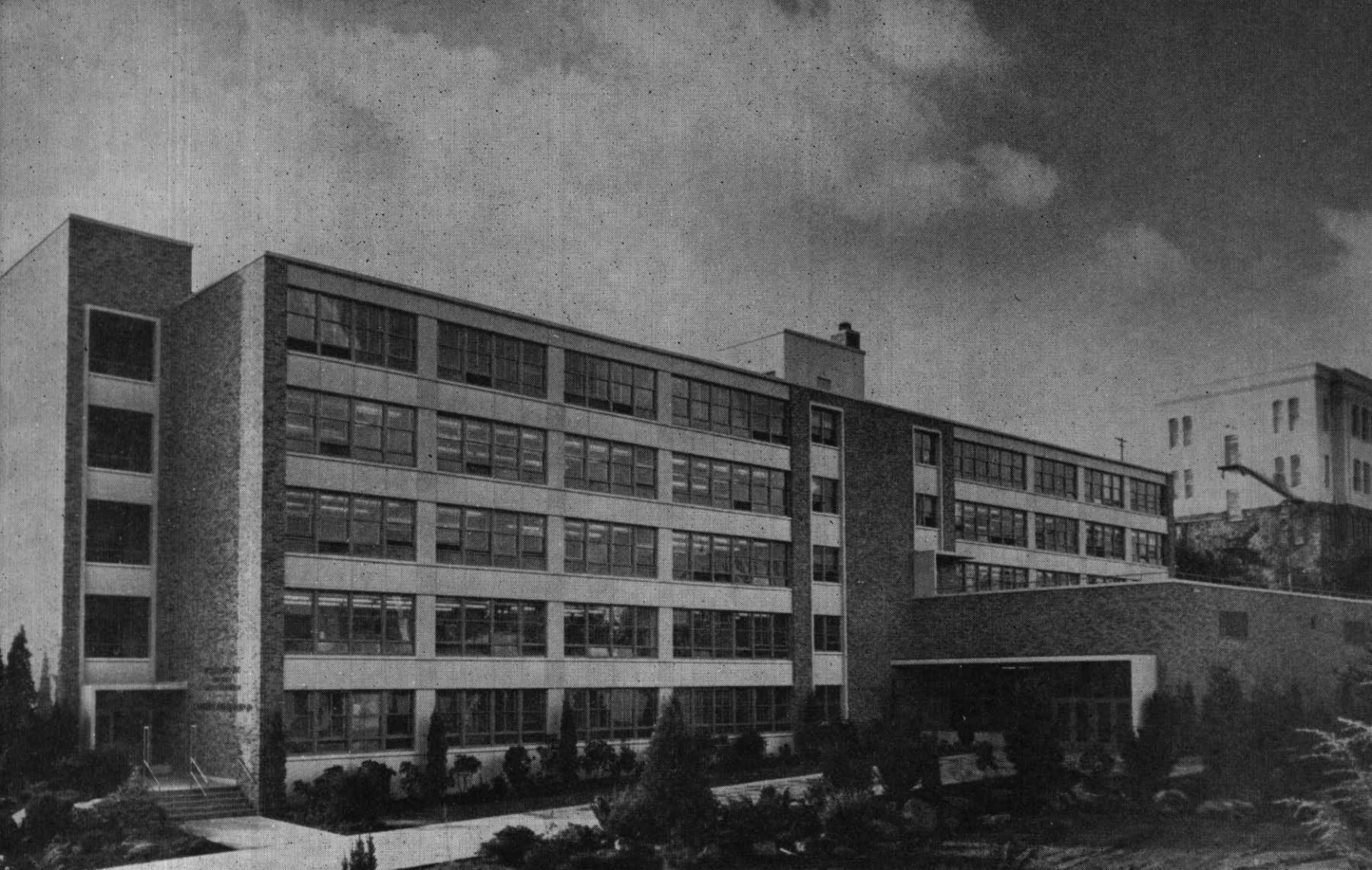
|  |   |
|--|---|
| January 5-6, Monday, Tuesday.....        | Registration                                |
| January 7, Wednesday.....                | Classes Resume                              |
| January 13, Tuesday.....                 | Last Day to Add a Course                    |
| February 6, Friday.....                  | Last Day to Remove Incompletes              |
| February 11-12, Wednesday, Thursday..... | Mid-Quarter Examinations                    |
| To Be Announced.....                     | President's Day                             |
| February 23, Monday.....                 | Washington's Birthday                       |
| March 6, Friday.....                     | Senior Philosophy Comprehensive Examination |
| March 4, Wednesday.....                  | Last Day to Withdraw Officially             |
| March 19-20, Thursday, Friday.....       | Final Examinations                          |

## SPRING QUARTER 1959

|                                   |   |
|-----------------------------------|---|
| March 30-31, Monday, Tuesday..... | Registration                                |
| April 1, Wednesday.....           | Classes Resume                              |
| April 7, Tuesday.....             | Last Day to Add a Course                    |
| April 24, Friday.....             | Senior Philosophy Comprehensive Examination |
| April 30, Thursday.....           | Last Day to Remove Incompletes              |
| May 7, Thursday.....              | Ascension Thursday                          |
| May 27, Wednesday.....            | Last Day to Withdraw Officially             |
| May 30, Saturday.....             | Memorial Day                                |
| June 4, Thursday.....             | Baccalaureate Mass                          |
| June 4, Thursday.....             | Senior Reception                            |
| June 5, Friday.....               | Commencement                                |
| June 8-9, Monday, Tuesday.....    | Final Examinations                          |

## FALL QUARTER 1959

|  |   |
|--|---|
| September 26, Saturday.....                        | Grade Prediction Test (Entering Freshmen) |
| September 28-29, Monday, Tuesday.....              | Freshman Orientation                      |
| September 29, Tuesday.....                         | Registration—All Returning Students       |
| September 30, Wednesday.....                       | Registration—New Students                 |
| October 1, Thursday.....                           | Classes Resume                            |
| October 7, Wednesday.....                          | Last Day to Add a Course                  |
| October 21, Wednesday.....                         | Mass of the Holy Spirit                   |
| October 30, Friday.....                            | Last Day to Remove Incompletes            |
| November 5-6, Thursday, Friday.....                | Mid-Quarter Examinations                  |
| November 11, Wednesday.....                        | Admissions Day                            |
| November 16-17-18, Monday, Tuesday, Wednesday..... | Annual Retreat                            |
| November 26-27, Thursday, Friday.....              | Thanksgiving Holidays                     |
| December 3, Thursday.....                          | Last Day to Withdraw Officially           |
| December 4, Friday.....                            | Senior Philosophy Examination             |
| December 8, Tuesday.....                           | Feast of the Immaculate Conception        |
| December 17-18, Thursday, Friday.....              | Final Examinations                        |



THE UNIVERSITY OF  
MICHIGAN  
LANSING

***ADMINISTRATION***  
***AND***  
***FACULTY***



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| Mr. Richard T. Olson, LL.B.....                      | <i>Legal Adviser</i>                                    |

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### LAY FACULTY COMMITTEE

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### SCHOLARSHIPS AND AWARDS

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### STUDENT WELFARE AND CONDUCT

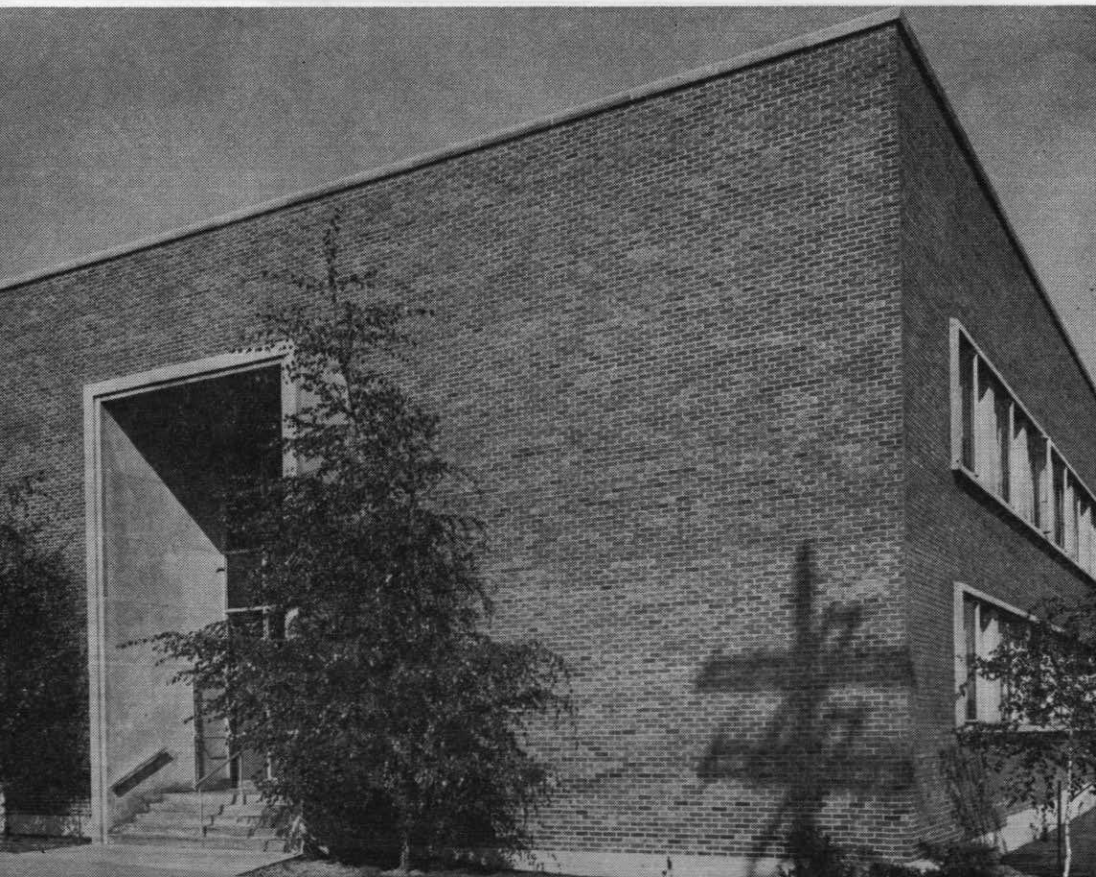
Rev. Robert J. Rebhahn, S.J., Chairman; Rev. William J. Gill, S.J., Rev. John Harrington, S.J., Rev. Owen M. McCusker, S.J., Miss Agnes E. Reilly.

### U.G.N. COMMITTEE

Mr. Charles S. LaCugna, Lt. General; Mr. J. W. McLelland, Colonel; Mr. Joseph T. Page, Lt. Colonel in charge of student division; Mr. James T. Reilly, Lt. Colonel in charge of faculty division.

*Above—Loyola Hall*

*Below—Student Union* →





# FACULTY

- Clarence L. Abello (1953).....Instructor in Modern Languages  
B.Econ., 1933, University of London; M.A. Candidate, University of Washington.
- Walter M. Aklin (1935).....Assistant Professor of Music (Piano)  
Absolutorial, 1924, Zurich, Switzerland; A.B., 1942, Seattle University.
- Engelbert M. Axer, S.J. (1941-46; 1955).....Assistant Professor of Philosophy  
A.B., 1930, Valkenburg, Holland; S.T.L., 1940, St. Louis University; M.A., 1941,  
Gonzaga University; Ph.D., 1949, Georgetown University.
- Maryse Bader (1956).....Instructor in Mathematics  
B.A., 1956, University of California.
- Edward J. Baldinger (1957).....Professor of Civil Engineering  
B.S., 1940, Notre Dame University; M.S., 1951, University of Michigan; Registered  
Professional Engineer.
- Vincent H. Bammert (1955).....Associate Professor of Insurance  
B.S.S., 1949, Seattle University; M.B.A., 1951, University of Pennsylvania.
- Gerald R. Beezer, S.J., (1935).....Professor Emeritus of Chemistry  
A.B., 1921, M.A., 1922, M.S., 1933, Gonzaga University; Ph.D., 1946, Uni-  
versity of Washington.
- James Holland Bell (1951).....Associate Professor of Commercial Law  
B.S.L., 1928, Northwestern University; Member, Illinois and Washington Bar.
- Sister Marie Carmen Bergamini, F.C.S.P. (1954).....  
.....Assistant Professor and Director of Providence Clinical Unit  
B.S.N.Ed., 1950, Seattle University; M.S.N., 1954, Catholic University.
- Ernest P. Bertin, S.J. (1957).....Associate Professor of Chemistry  
A.B., 1944, M.S., 1945, Gonzaga University; S.T.L., 1952, Alma College; Ph.D.,  
1957, University of Notre Dame.
- Alfred F. Blank (1946).....Machinist in School of Engineering
- Gustav H. Bliesner (1957).....Lecturer in Electrical Engineering  
B.S.E.E., 1933, M.S., 1934, Ag.E., 1939, Washington State College.
- Frances Boley (1956).....Instructor in Nursing  
B.S.N., 1953, Seattle University.
- Alfred T. Brady, S.J. (1951).....Assistant Professor of Theology  
A.B., 1939, M.A., 1940, Gonzaga University; S.T.B., 1948, Alma College.
- Gordon F. Brown, SFC (1956).....ROTC Administrative NCO
- J. Gerard Bussy, S.J. (1948).....Assistant Professor of Philosophy  
L.Ph., 1933, S.T.L., 1937, Gregorian; M.A., 1952, Seattle University; Ph.D.,  
1957, University of Washington.
- Robert J. Carmody, S.J. (1933).....Professor of English  
A.B., 1931, M.A., 1932, Gonzaga University; S.T.L., 1939, Alma College; Ph.D.,  
1949, University of Washington.
- Walter A. Carmody (1947).....Professor of Chemistry  
B.S., 1923, M.S., 1924, University of Washington; Ph.D., 1925, Catholic Uni-  
versity.
- Vincent C. Cazzetta (1956).....Head Basketball Coach  
B.S., Physical Ed., 1950, Arnold College; M.A., 1952, Columbia University.
- Thelma M. Chaney (1958).....Assistant Professor of Mathematics  
A.B., 1948, M.A., 1950, University of Oregon; Ph.D., 1955, University of Wash-  
ington.
- Chu Chiu Chang (1956).....Assistant Professor of Mathematics  
A.B., 1942, Central Political Institute, Chungking, China; M.A., 1956, Univer-  
sity of Washington.

- Theodore S. Chihara (1955).....Associate Professor of Mathematics  
B.S., 1951, Seattle University; M.S., 1953, Ph.D., 1955, Purdue University.
- Regina A. Cleveland (1949).....Assistant Professor of Nursing  
B.S.N.Ed., 1950, Seattle University; M.S., 1955, Marquette University.
- William J. Codd, S.J. (1947).....Associate Professor of Education  
A.B., 1936, M.A., 1938, Gonzaga University; Ph. D., 1958, University of Washington.
- Vincent M. Conway, S.J. (1949).....Assistant Professor of History; Librarian  
A.B., 1934, M.A. (Phil.), 1935, Gonzaga University; M.A. (Hist.), 1937, Loyola University, Chicago; S.T.L., 1946, Alma College.
- John L. Corrigan, S.J. (1948).....  
.....Professor of Industrial Relations and Personnel Management  
A.B., 1933, M.A., 1934, Gonzaga University; S.T.L., 1941, Alma College; Ph.D., 1948, Catholic University.
- John S. Courchene (1952).....Assistant Professor of Biology  
B.S., 1950, M.S., 1952, Seattle University.
- James J. Cowgill, S.J. (1950-51; 1953).....Associate Professor of Physics  
B.S., 1938, M. S., 1939, Gonzaga University; S.T.L., 1946, Alma College; Ph.D., 1957, Notre Dame University.
- Robert T. Curtis, Captain (1958).....Assistant Professor of Military Science  
B.S., 1947, West Point Military Academy; M.A., 1955, Columbia University.
- Nikolas J. Damascus (1951).....Assistant Professor of Art  
B.F.A., M.F.A., Art Institute of Chicago.
- Margaret Mary Davies (1955).....Assistant Professor of Economics  
A.B., 1938, Ph.D. Candidate, University of Washington.
- Mary Lou Day (1956).....Instructor in Home Economics  
B.S., 1942, Washington State College; M.S., 1951, University of Washington.
- Sister Philias Denis, F.C.S.P. (1957).....Instructor in Nursing  
B.S.N., 1952, M.S.N., 1956, Catholic University.
- Charles E. Divoky (1952).....Assistant Professor of Economics  
B.C.S., 1949, Seattle University; M.A., 1951, Columbia University.
- Edward J. Doherty, S.J. (1953).....Assistant Professor of History  
A.B., 1940, M.A., 1943, Gonzaga University; Ph.D., 1956, Loyola University, Chicago.
- Michael J. Dolan, Lt. Col. (1957).....Professor of Military Science  
A.B., 1940, University of Portland; M.A., 1941, University of Notre Dame.
- Joseph P. Donovan, S.J. (1948).....Associate Professor of History  
A.B., 1938, Gonzaga University; M.A., 1940, Georgetown University; Ph.D., 1948, University of Pennsylvania.
- David A. Downes (1953).....Assistant Professor of English;  
Director, Lower Division Humanities  
A.B., 1949, Regis College, Denver; M.A., 1950, Marquette University; Ph.D., 1956, University of Washington.
- Thomas E. Downey (1957).....Associate Professor of History  
A.B., 1932, M.A., 1934, Loyola University, Chicago; Ph.D., 1944, University of California.
- Arthur C. Earl, S.J. (1944).....Assistant Professor of Accounting;  
Veterans' Coordinator  
B.S., 1929, Creighton University; M.A., 1937, Gonzaga University.
- Gerard M. Evoy, S.J. (1957).....Development Vice President  
A.B., 1930, Santa Clara; M.A., 1933, Gonzaga University.
- Alice L. Fisher (1950).....Associate Professor of Public Health Nursing  
B.S.N., 1930, University of Minnesota; M.S.P.H., 1936, University of Michigan.

- John A. Fitterer, S.J. (1956).....Dean, College of Arts and Sciences;  
Assistant Professor of Classical Languages  
A.B., 1945, M.A., 1947, St. Louis University; S.T.L., 1955, Gregorian.
- Edward S. Flajole, S.J. (1945).....Professor of Modern Languages  
A.B., 1925, M.A., 1926, Gonzaga University; S.T.L., 1933, Valkenburg; Ph.D.,  
1951, University of Washington.
- Samuel E. Fleming (1956).....Instructor in Education  
A.B., 1907, Wabash College.
- Barbara Floyd (1956).....Instructor in Nursing  
B.S.N., 1955, Seattle University.
- Gene A. Ford (1957).....Director of Development  
A.B., 1951, Catholic University; M.A. Candidate, University of Iowa.
- Elizabeth P. Foster (1954).....Order Librarian  
B.S., 1956, Seattle University.
- Winfield S. Fountain (1957).....Assistant Professor of Education  
B.A., 1940, North Idaho State Normal; M.Ed., 1953, University of Washing-  
ton; Ed.D., 1956, University of Washington.
- Viola E. Frost (1952).....Instructor in Medical Records Librarian  
B.S., 1942, University of Washington.
- Louis B. Gaffney, S.J. (1956).....Assistant Professor of Psychology;  
Director, Counseling and Testing Center  
A.B., 1942, M.A., 1943, Gonzaga University; S.T.L., 1950, Alma College; Ph.D.,  
1956, University of Minnesota.
- Joseph T. Gardiner, MSGT (1956).....Instructor in Military Science
- Jose Attilio Giarola (1957).....Instructor in Electrical Engineering  
Electrical and Mechanical Engineer, 1954, Escola Politecnica da Universidade  
de Sao Paulo, Brazil.
- James A. Gilmore, S.J. (1940).....Professor of Speech  
A.B., 1917, M.A., 1918, Gonzaga University; Ph.D., S.T.D., 1925, Valkenberg,  
Holland.
- James P. Goodwin, S.J. (1950).....Associate Professor of Sociology  
B.A., 1937, M.A. (Phil.), 1938, Gonzaga University; M.A., (Soc.), 1950, Har-  
vard University.
- William A. Guppy (1952).....Instructor in Psychology; Clinical Psychologist  
A.B., 1950, Seattle University; M.A., 1953, Loyola University, Chicago.
- John E. Gurr, S.J. (1949; 1950; 1955).....Academic Vice President;  
Chairman of the Graduate School  
A.B., 1943, M.A., 1944, Gonzaga University; S.T.L., 1949, Weston College;  
Ph.D., 1955, St. Louis University.
- Francis J. Greene, S.J., (1958).....Instructor in Journalism  
A.B., 1947, M.A., 1948, Gonzaga University; S.T.L., 1954, Alma College; M.A.,  
1958, University of Missouri.
- Charles R. Harmon (1953).....Director of Evening Division  
B.S.S., 1950, Seattle University; M.A., 1957, University of Washington.
- John S. Harrington, S.J. (1951).....Assistant Professor of Sociology  
A.B., 1941, M.A. (Phil.), 1942, Gonzaga University; S.T.B., 1949, Alma College;  
M.A. (Soc.), 1951, St. Louis University.
- Frederick P. Harrison, S.J. (1938-39; 1950).....Assistant Professor of English  
A.B., 1937, M.A., 1938, Gonzaga University.
- Eugene A. Healy, S.J. (1952).....Associate Professor of Biology  
A.B., 1936, M.A., 1937, B.S., 1945 Gonzaga University; S.T.L., 1944, Alma  
College; M.S., 1948, Fordham University; Ph.D., 1952, Columbia University.
- Richard Hickey (1947).....Professor of English  
A.B., 1922, Dayton University; Ph.D., 1927, Fribourg, Switzerland.
- Lee Hodson (1957).....Education Librarian  
B.A., 1939, University of Redlands; Library Science, 1942, University of Cali-  
fornia.

- Norman S. Horner, Major (1957).....Assistant Professor of Military Science  
B.S., 1941, Oklahoma A. & M.
- Gladys M. Hunter (1955).....Assistant Professor of Education  
B.A., 1936, Valley City Teachers College; M.Ed., 1947, Teachers College,  
Columbia University.
- Edwin V. Jackson, MSGT (1954).....Instructor in Military Science
- Sister Jean Wilfred Jean, F.C.S.P. (1956).....Instructor in Nursing  
B.S.N., 1949, Seattle University; M.S.N., 1956, Catholic University.
- Francis J. Kane, S.J. (1940-44; 1947).....Treasurer  
A.B., 1922, M.A., 1923, Gonzaga University.
- Francis E. Keller (1957).....Instructor in Chemical Engineering  
B.S., 1956, Seattle University; M.S., 1958, University of Idaho.
- John J. Kelley, S.J. (1949).....Executive Vice-President;  
Director of Public Relations  
A.B., 1940, M.A., 1941, Gonzaga University; S.T.L., 1948, Alma College.
- George F. Keough (1954).....Assistant Professor of Education  
A.B., 1924, Campion College, Wisconsin; J.D., 1930, Loyola University, Chi-  
cago; M.A.Ed., 1952, Western State College of Colorado; Ed.D., Candidate,  
Stanford University.
- Edward W. Kimbark (1955).....Dean, School of Engineering;  
Professor of Electrical Engineering  
B.S., 1924, E.E., 1925, Northwestern University; M.S., 1933, Sc.D., 1937,  
Massachusetts Institute of Technology, Registered Professional Engineer.
- Harry Kinerk (1942-47; 1949).....Assistant Professor of Physics  
B.S., 1934, Santa Clara University; M.S., 1944.
- John W. Koerner (1955).....Instructor in Office Management  
Ph.B., 1952, Seattle University; M.A. Candidate, University of Washington.
- Michael J. Kohl (1955).....Assistant Professor of Education  
A.B., 1939, Georgetown University; M.A., 1953, Ph.D. Candidate, University  
of Washington.
- Charles S. LaCugna (1947).....Assistant Professor of Political Science  
A.B., 1937, Manhattan College; M.A., 1944, Fordham University; Ph.D. Can-  
didate, University of Washington.
- Sister Judith Lang, F.C.S.P. (1958).....Dean, School of Sister Formation  
A.B., 1932, College of St. Catherine; M.A., 1937, University of Washington;  
Ph.D., 1949, Catholic University of America.
- Raymond H. M. Larsen, Captain (1957)...Asst. Professor of Military Science
- James Robert Larson (1951).....Assistant Professor of Sociology  
A.B., 1949, Seattle University; M.A., 1951, Fordham University; Ph.D. Can-  
didate, University of Washington.
- Mary Alice Lee (1957).....Registrar  
A.B., 1949, Saint Louis University.
- Albert A. Lemieux, S.J. (1948).....President of the University;  
Professor of Philosophy  
A.B., 1931, M.A., 1932, Gonzaga University; S.T.L., 1939, Alma College; Ph.D.,  
1945, University of Toronto.
- Francis J. Lindekugel, S.J. (1946).....Associate Professor of Theology  
A.B., 1937, M.A., 1938, Gonzaga University; S.T.L., 1945, Alma College.
- Francis J. Logan, S.J. (1939).....Assistant Professor of Modern Languages  
A.B., 1925, M.A., 1926, Gonzaga University; Diplômé de l'Institut de Phoné-  
tique de l'Université de Paris, 1955.
- Rose Lorch (1952).....Instructor in Education  
A.B., Indiana State.
- Leo L. Lucero, MSGT (1957).....Instructor in Military Science

- Paul P. Luger, S.J. (1937-39; 1946-56; 1957).....Asst. Professor of Physics  
A.B., 1935, M.A., 1936, Gonzaga University; M.S., 1946, Fordham University.
- Owen M. McCusker, S.J. (1947).....Assistant Professor of English  
A.B., 1938, M.A., 1939, Gonzaga University.
- Francis J. McGarrigle, S.J. (1937).....Professor of Philosophy  
A.B., 1913, M.A., 1914, Gonzaga University; Ph.D., 1923, S.T.D., 1923, Valkenburg, Holland; Mag. Ag., 1927, Gregorian.
- James B. McGoldrick, S.J. (1931).....Dean Emeritus, School of Education;  
Professor of Psychology  
A.B., 1923, M.A., 1924, Gonzaga University; S.T.D., 1931, Gregorian; Ph.D., 1935, University of Washington.
- James T. McGuigan, S.J. (1946).....Assistant Professor of Philosophy  
A.B., 1929, M.A., 1930, Gonzaga University; S.T.L., 1937, Alma College.
- Thomas J. McInerney (1948).....Assistant Professor of English  
A.B., 1946, Dartmouth University; M.A., 1948, Boston College; Ph.D. Candidate, University of Washington.
- James H. McKay (1957).....Assistant Professor of Mathematics  
B.S., 1948, Seattle University; M.S., 1950, Ph.D., 1953, University of Washington.
- John W. McLelland (1947).....Associate Professor of Finance  
B.S., 1946, Seattle University; M.A., 1949, University of Washington.
- Edmund B. McNulty, S.J. (1941-44; 1946).....  
Business Manager of Student Housing and Food Services  
A.B., 1931, M.S. (Math.), 1933, B.S. (Engr.), 1941, Gonzaga University.
- Harry Majors, Jr. (1958).....Professor of Mechanical Engineering  
B.S., 1935, University of California; M.S., 1939, California Institute of Technology; Registered Professional Engineer.
- Bernard L. Malcolm, MSGT (1956).....Instructor in Military Science  
B.S., 1933, University of Nebraska.
- Clair A. Marshall, S.J. (1933-37; 1941-43; 1944-48; 1950).....  
Assistant Professor of Chemistry  
A.B., 1932, M.A., 1933, Gonzaga University; S.T.B., 1941, Alma College; M.S., 1950, Fordham University.
- Eunice Martin (1948).....Associate Professor of Home Economics  
B.S., 1944, M.A., 1952, University of Washington.
- James Vernon Metcalfe (1948).....  
Assistant Professor of Foreign Trade and Transportation  
LL.B., 1909, University of Washington.
- Joseph Monda (1955).....Instructor in English  
A.B., 1949, St. Martin's College; M.A., 1951, Marquette University.
- Raymond L. Nichols, S.J. (1930).....Professor of History  
A.B., 1921, M.A., 1922, Gonzaga University; Ph.D., 1928, Gregorian.
- Sister Mary Ruth Niehoff, O.P. (1951).....Acting Dean, School of Nursing;  
Associate Professor of Nursing  
B.S.N.Ed., 1952, M.Ed. 1955, Seattle University.
- Ralph K. O'Brien (1953).....Assistant Professor of Education  
B.S., 1939, Cortland State Teacher's College; M.S. Ed., 1941, Syracuse University; Ed.D., 1954, University of Washington.
- Louis T. O'Callaghan, S.J. (1948-49; 1951).....Associate Professor of Philosophy  
A.B., 1930, M.A. 1931, Gonzaga University; Ph.D., 1948, Fordham University.
- Cornelius J. O'Leary, S.J. (1953).....Instructor in Theology;  
Pre-Major Consultant  
A.B., 1943, M.A., 1944, Gonzaga University; S.T.B., 1951, Alma College.

- Joseph T. Page (1955).....Assistant Professor of Education  
B.S., 1950, M.S., 1951, Springfield College, Mass.; Ed.D. Candidate, University  
of Oregon.
- Giuseppe G. Patelli (1950).....Assistant Professor of Accounting  
D.C.S., 1925, University of Milan, Italy; C.P.A.
- Webster T. Patterson, S.J. (1956).....Assistant Professor of Theology  
A.B., 1943, M.A., 1944, Gonzaga University; S.T.L., 1952, Alma College; Ph.D.,  
1956, Gregorian.
- Ruth Peerenboom (1955).....Assistant Librarian  
Ph.B., 1951, Seattle University; M.L., 1953, University of Washington.
- Ernest G. Petersen, MSGT (1956).....Instructor in Military Science
- Ronald A. Peterson (1949).....Director of Admissions  
A.B., 1943, University of Omaha; LL.B., 1948, Creighton University.
- Vincent Podbielancik (1947).....Instructor in Chemistry  
B.S., 1938, Seattle University; M.S. Candidate, University of Washington.
- Walter J. Purcell (1949).....Assistant Professor of Civil Engineering  
C.E., 1926, M.S., 1946, Cornell University.
- Wilbur John Ramey (1956).....Assistant Professor of Marketing  
M.B.A., 1955, Ph.D. Candidate, University of Chicago.
- David H. Read (1948-51; 1954).....Associate Professor of Chemistry  
B.S., 1942, Seattle University; M.S., 1944, University of Illinois; Ph.D., 1949,  
Notre Dame University.
- Herbert D. Reas (1949).....Acting Dean, School of Education;  
Assistant Professor  
A.B., 1948, Seattle University; M.Ed., 1952, Ed.D. Candidate, University of  
Washington.
- Robert J. Rebhahn, S.J. (1950).....Dean of Students  
A.B., 1943, M.A., 1944, Gonzaga University.
- Ione Redford (1955).....Assistant Librarian  
A.B., 1952, M.L. 1954, University of Washington.
- James B. Reichmann, S.J. (1955).....Instructor in Philosophy  
A.B., 1946, M.A., 1947, Gonzaga University; S.T.L., 1954, Gregorian.
- Daniel J. Reidy, S.J. (1930).....Professor of Philosophy  
A.B., 1907, M.A., 1908, Gonzaga University; Ph.D., 1916, Gregorian.
- Agnes E. Reilly (1958).....Dean of Women  
A.B., 1929, Fontbonne College; A.B., 1932, Harris Teachers College; M.A.,  
1936, St. Louis University.
- James T. Reilly (1953).....Assistant Professor of Psychology;  
Assistant Director, Counseling and Testing Center  
A.B., 1950, Seattle University; M.A., 1953, Loyola University, Chicago.
- Castle O. Reiser (1956).....Professor of Chemical Engineering  
B.S., 1934, Colorado A. & M.; Petroleum Engineer, 1938, Colorado School of  
Mines; Ph.D., 1945, University of Wisconsin, Registered Professional Engineer.
- Donald K. Reynolds (1956).....Professor of Electrical Engineering  
A.B., 1941, M.A., 1942, Stanford University; Ph.D., 1948, Harvard University.
- Stephen B. Robel (1948).....Assistant Professor of Mechanical Engineering  
B.S., 1948, Seattle University; M.S., 1951, Notre Dame University.
- Theodore J. Ross (1947).....Professor of Accounting  
B.S., 1932, University of California; M.B.A., 1946, University of Chicago; C.P.A.
- James E. Royce, S.J. (1949).....Associate Professor of Psychology  
A.B., 1939, M.A., 1940, Gonzaga University; S.T.L., 1948, Alma College; Ph.D.,  
1945, Loyola University, Chicago.

- Geraldine Standaert Sabotta (1953).....Instructor in Art  
A.B., 1953, M.F.A. Candidate, University of Washington.
- Louis A. Sauvain, S.J. (1955).....University Chaplain;  
Assistant Professor of Theology  
A.B., 1940, Seattle University; M.A., 1948, Gonzaga University; S.T.B., 1953,  
Alma College.
- Leo A. Schmid, S.J. (1934-37; 1947).....Professor of Biology  
A.B., 1932, M.A., 1933, Gonzaga University; S.T.B. 1941, Alma College; M.S.,  
1942, Marquette University; Ph.D., 1947, Fordham University.
- Claire Shanahan (1955).....Assistant Librarian  
A.B., 1951, University of British Columbia; B.L.S., 1952, McGill University.
- Helen E. Shimota (1957).....Assistant Professor of Psychology,  
Clinical Psychologist  
A.B., 1952, The College of St. Catherine; Ph.D., 1956, University of Minnesota.
- Rubens Adolpho Sigelmann (1956).....Instructor in Electrical Engineering  
Electrical and Mechanical Engineer, 1952, Escola Politécnia da Universidade  
de São Pauli, Brazil.
- Francis J. Smedley (1940).....Assistant Professor of Mechanical Engineering  
B.S., 1933, U.S. Naval Academy; M.S. Candidate, University of Washington.
- Arthur F. Snyder, Major (1956).....Assistant Professor of Military Science  
B.B.A., 1941, University of Minnesota.
- Philip J. Soreghan, S.J. (1946).....Assistant Professor of Theology  
A.B., 1923, M.A., 1929, Gonzaga University; S.T.L., 1937, Alma College.
- Eunice Spencer (1945).....Assistant Librarian  
A.B. (Arts), 1916; A.B. (Librarianship), 1945, University of Washington.
- Edward H. Spiers (1949).....Director of Composition;  
Assistant Professor of English  
Ph.B., 1948, Seattle University; M.A., 1949, University of Washington.
- Margaret M. Sullivan (1956).....Instructor in Nursing  
B.S.N.Ed., 1954, Seattle University; Master of Nursing, 1956, University of  
Washington.
- J. Allen Suver (1953).....Instructor in Office Management  
A.B., 1953, University of Washington; M.Ed., 1955, Seattle University.
- John R. Talevich (1955).....Director of Information Services  
Instructor in Journalism  
A.B., 1949, Seattle University; M.A., 1952, Marquette University.
- Michael T. Toulouse, S.J. (1950).....Assistant Professor of Philosophy  
A.B., 1935, M.A., 1936, Gonzaga University.
- Hayden A. Vachon, S.J. (1948).....Assistant Professor of English and Art  
A.B., 1931, M.A., 1932, Gonzaga University.
- Robert F. Viggers (1949).....Associate Professor of Mechanical Engineering  
B.S., 1944, University of Washington; M.S., 1950, Oregon State College.
- Paul A. Volpe (1939-41; 1944).....Dean, School of Commerce and Finance;  
Professor of Management  
A.B., 1939, University of British Columbia; M.S., 1941, Ph.D., 1943, Catholic  
University.
- Francis P. Wood, S.J. (1952).....Assistant Professor of Electrical Engineering  
A.B., 1940, Gonzaga University; S.T.L., 1948, Alma College; M.S., 1952, Stan-  
ford University.
- Andre Louis Yandl (1956).....Assistant Professor of Mathematics  
B.S., 1954, M.A., 1956, University of Washington.
- Anita Yourglich (1948).....Assistant Professor of Sociology  
B.S., 1945, Seattle University; M.A., 1948, St. Louis University; Ph.D. Candi-  
date, University of Oregon.

## UNIVERSITY LECTURERS

### DAY SCHOOL AND EVENING DIVISION

- John R. Anderson (1955).....Lecturer in Mechanical Engineering  
B.S., 1949, University of Washington; M.M.E., 1952, Cornell University.
- Russell Earl Baetke (1958).....Lecturer in Mechanical Engineering  
B.S., 1947, University of Wisconsin.
- Alfred Berman (1956).....Lecturer in Statistics  
A.B., 1930, University of Manitoba; M.A., 1932, McGill University.
- Regina Wood Butler (1957).....Lecturer in Mathematics  
B.A., 1947, New York University; Ph.D. Candidate University of California.
- James Clem (1955).....Lecturer in Accounting  
A.B., 1951, St. Martin's College; M.B.A., 1955, University of Washington.
- Maurits P. deRegt (1955).....Lecturer in Mathematics  
B.S., 1942, Webb Institute of Naval Architecture.
- James Francis Dever (1958).....Lecturer in Electrical Engineering  
B.S., 1957, Seattle University.
- Harold F. Duex (1953).....Lecturer in Accounting  
B.C.S., 1950, Seattle University; C.P.A., M.B.A. Candidate, University of Wash-  
ington.
- William Gordon Dunbar (1958).....Lecturer in Electrical Engineering  
B.S., 1948, University of South Dakota; M.S., 1956, Iowa State College.
- Helen Finlay (1952).....Lecturer in Education  
B.S., 1929, University of Washington; M.Ed. Candidate, Seattle University.
- Mildred Wright Gellermann (1951).....Lecturer in Education  
A.B., 1928, M.F.A., 1954, University of Washington.
- Kenneth J. Hammerle (1956).....Lecturer in Electrical Engineering  
B.S.E.E., 1945, M.S.E.E., 1947, Ph.D., 1951, Purdue University.
- William J. Henry (1956).....Lecturer in Mechanical Engineering  
B.S., 1907, Purdue University.
- Howard R. Herrigel (1957).....Lecturer in Chemical Engineering  
B.S., 1952, Ph.D. Cand., University of Washington.
- Henry R. Huttenbach (1956).....Lecturer in English Composition and Literature  
A.B., 1951, Gonzaga University; M.A., 1952, Fordham University.
- Boris B. Kramer (1953).....Lecturer in Commercial Law  
A.B., Yale University; LL.B., Harvard University.
- Curtis LeFever (1958).....Lecturer in Civil Engineering  
B.S., 1926, University of Michigan; Captain (retired), U.S. Coast and Geodetic  
Survey; Registered Professional Engineer.
- Henry S. Mar (1956).....Lecturer in Mathematics  
B.S., 1953, M.S., 1956, University of Washington.
- George Mead (1956).....Lecturer in Mathematics  
B.S., 1947, Seattle University.
- Jerome H. Molitor (1956).....Lecturer in Mathematics  
B.S., 1954, M.S., 1956, Marquette University.
- Gilbert A. Nyerges (1954).....Lecturer in Engineering  
B.S., 1942, M.S., 1950, Case Institute of Technology.
- Robert White Okey (1958).....Lecturer in Civil Engineering  
B.S., 1950, Iowa State College; B.S., 1953, M.S., 1957, University of Wash-  
ington.
- Nancy-Lou Patterson (1955).....Lecturer in Education  
A.B., 1951, University of Washington.
- William A. Pelton (1956).....Lecturer in Education  
B.S., 1957, Macalester University; M.A., 1940, University of Minnesota.
- Raymond A. Pembroke (1949).....Lecturer in Accounting  
B.C.S., 1948, Seattle University; C.P.A.
- Estelle A. Rankin (1955).....Lecturer in Education  
B.S., 1932, University of Washington; M.A., 1935, Columbia University.



- James A. Ryan (1957).....Lecturer in Civil Engineering  
B.S., 1951, M.S., 1952, Gonzaga University.
- Robert P. St. Germain (1957).....Lecturer in Civil Engineering  
B.S., 1949, University of Washington; Registered Professional Engineer.
- Martin Schumacher.....Graduate Assistant in Physics  
B.S., 1956, Seattle University; M.S. Candidate, 1958, University of Wash-  
ington.
- James R. Snook (1957).....Lecturer in Geology  
B.S., 1952, M.S., 1957, Oregon State College.
- Charles E. Stalzer (1956).....Lecturer in Mathematics  
B.S., 1953, Notre Dame University; M.S., 1955, Massachusetts Institute of  
Technology.
- John P. Stanford (1952).....Lecturer in Insurance  
B.C.S., 1949, Seattle University, M.B.A., 1950, University of Pennsylvania;  
C.L.U. and C.P.C.U.
- Andrew M. Stein (1956).....Lecturer in Chemistry  
B.S., 1940, Texas College; M.S., 1942, University of Iowa.
- Russel W. Stineman (1956).....Lecturer in Electrical Engineering  
B.S., 1949, Northwestern University; M.S., 1954, University of Washington.
- Etric L. Stone (1957).....Lecturer in Mechanical Engineering  
B.S., 1951, M.S., 1953, Oregon State College.
- Lee Ferrand Sugnet.....Lecturer in Commerce and Finance  
B.S., 1925, U.S. Naval Academy; M.B.A. 1957, University of Washington.
- Neil H. Twelker (1958).....Lecturer in Civil Engineering  
B.S., 1942, University of Washington; M.A., 1954, Harvard University; Ph.D.,  
1958 (Cand.), Harvard University.
- Margaret Marie Tuttle (1956).....Lecturer in Metallurgy  
B.S., 1952, M.S., 1954, University of Washington.
- Lewis G. Watts (1956).....Lecturer in Sociology  
A.B., 1938, Morehouse College; M.S.W., 1949, University of Washington.
- Walter E. Webster, Jr. (1957).....Lecturer in Business Law  
B.S.S., 1950, Seattle University; L.L.B., 1953, Georgetown University.
- Garnett H. Wilson (1957).....Lecturer in Management  
B.S.C., 1956, Seattle University; M.B.A., 1957, University of Washington.

### LECTURERS IN THE SCHOOL OF NURSING

- Sylvester N. Berens, M.D. (1937).....Lecturer in Nursing  
M.D., 1928 Creighton University.
- Donald Burke, M.D.  
B.S., 1945, Creighton University; M.D., 1948, Creighton University.
- John J. Callahan, M.D. (1947).....Lecturer in Nursing  
M.D., 1942, McGill University.
- Carl E. Chism, M.D. (1952).....Lecturer in Nursing  
M.D., 1941, University of Nebraska.
- Raymond J. Clark, M.D. (1950).....Lecturer in Nursing  
B.S., 1943, St. Martin's College; M.D., 1946, St. Louis University.
- John Codling, M.D. (1946).....Lecturer in Nursing  
M.D., 1942, University of Oregon.
- Daniel Coleman, M.D.  
B.S., 1942, Carroll College; M.D., 1945, Jefferson Medical College.
- Dean K. Crystal, M.D. (1947).....Lecturer in Nursing  
B.S., 1935, University of Washington; B.A., 1938, Oxford University; M.D.,  
1941 Johns Hopkins University.
- Robert F. Foster, M.D. (1947).....Medical Dir. of Health Program  
for Professional Nursing Students  
M.D., 1930, Northwestern University.
- Leroy H. Goss, M.D. (1951).....Lecturer in Nursing  
B.S., 1917; M.D., 1917; M.S., 1922, University of Minnesota; F.A.C.S.

- Paul E. Hardy, M.D. (1955).....Lecturer in Nursing  
M.D., 1951, St. Louis University.
- William J. Kelly, M.D. (1953).....Lecturer in Nursing, Medical Consultant  
to Curriculum Committee  
B.S., 1941, Seattle University; M.D., 1945, Temple University.
- James D. Layman, M.D. (1950).....Lecturer in Nursing  
B.S., 1943, Seattle University; M.D., 1947, St. Louis University.
- Wood Lyda, M.D.....Lecturer in Nursing  
B.S., 1940, University of Washington; M.D., 1943, Washington University;  
FACS.
- Eugene McElmeel, M.D. (1950).....Lecturer in Nursing  
B.S., 1930, St. Thomas College; M.D., 1936, University of Minnesota.
- Albert F. Mangan, M.D. (1955).....Lecturer in Nursing  
B.S., 1942, New York State College of Forestry; M.D., 1954, Syracuse Uni-  
versity.
- Waldo Mills, M.D.  
B.A., 1937, Willamette University; M.D., 1940, University of Oregon.
- Carl Pinard, M.D.  
B.S., University of South Dakota; M.D., 1939, Creighton University.
- Robert F. Polley, M.D. (1950).....Lecturer in Nursing  
B.S., 1941, Gonzaga University; M.D., 1945, M.S., 1950, St. Louis University.
- L. J. Sheinman, M.D. (1950).....Lecturer in Nursing  
A.B., 1942, University of North Carolina; M.D., 1945, Long Island College of  
Medicine.
- Edward B. Speir, M.D.  
B.A., 1929, University of Kansas; M.D., 1933, University of Kansas; FACS.
- Joseph B. Sullivan (1955).....Lecturer in Nursing  
B.S. in Pharmacy, 1952, University of Washington.
- Ernest Tardif, M.D.  
B.S., 1940, Seattle University; M.D., 1943, Marquette University.

### LECTURERS IN THE DEPARTMENT OF MUSIC

- Donald Anderson (1951).....Lecturer in Music (Trumpet)
- Francis Aranyi (1951).....Lecturer in Music (Orchestral Instruments  
and Chamber Music)  
Artist's Diploma, 1908, Berlin Hochschule fur Musik; Professor's Diploma, 1911,  
Budapest Royal Academy.
- Francis J. Armstrong (1935).....Lecturer in Music (Violin)  
Royal Conservatory of Music, 1908, Leipzig, Germany.
- Norman Benno (1949).....Lecturer in Music (Oboe)
- Talmage F. Elwell (1957).....Lecturer in Music (Organ)  
B.B.A., 1924, University of Washington; C.P.U., 1935, American College of  
Life Underwriters.
- Leonore Forbes (1949).....Lecturer in Music (Viola)
- Hubert Graf (1951).....Lecturer in Music (Harp)
- John P. Jesson (1956).....Lecturer in Music (Clarinet and Saxophone)
- Robert Marsh (1957).....Lecturer in Music (Band)
- Leslie Martin (1949).....Lecturer in Music (Base Violin and Tuba)
- Leonard M. Moore (1954).....Lecturer in Music (Voice)  
Mus.B., 1934, University of Washington.
- Richard Neeson (1954).....Lecturer in Music (Organ)  
Mus.B., 1930, Notre Dame University.
- Edward K. Ottum (1948).....Lecturer in Public School Music Methods  
A.B., 1944, M.A., 1950, University of Washington.
- Thomas Peterson (1957).....Lecturer in Music (Composition,  
French Horn, Trombone)  
A.B., 1956, University of Washington.
- Carl A. Pitzer (1949).....Lecturer in Music (Choral Director and Voice)  
A.B., 1923, M.A., 1928, University of Washington.
- Kathryn W. Sullivan (1956).....Lecturer in Music (Piano)  
B.M.E., 1937, Mundelein College; M.Mus., 1943, Northwestern University.

***GENERAL  
INFORMATION***



# GENERAL INFORMATION

Seattle University is a private coeducational university open to students of all faiths, incorporated under the laws of the State of Washington and conducted by the Oregon Province of the Society of Jesus, more commonly known as the Jesuit Order.

Six major academic units compose the University: The College of Arts and Sciences, The School of Commerce and Finance, The School of Education, The School of Engineering, The School of Nursing, and the College of Sister Formation (Institutional Branch). The University also has a Graduate School, a program of Pre-professional studies and a full-time Evening Division, offering degree programs.

## HISTORY

The history of Seattle University and the development of Seattle and the Pacific Northwest are closely interwoven. In 1890, concerned with the problem of educating young people in this rapidly expanding area, the Rt. Rev. Aegidius Yunger, second Bishop of the Nesqually diocese, asked the Jesuit fathers to found an institution of higher education in the city. Two pioneer priests, the Rev. Victor Garrand, S.J., and the Rev. Adrian Sweere, S.J., were sent by the Rev. Joseph Cataldo, S.J., superior of the Rocky Mountain Province, to answer Bishop Yunger's call.

They arrived in Seattle on Sept. 27, 1891 and first established themselves in St. Francis Hall, at what is now the corner of Sixth and Spring streets. There, they took over the administration of the church and school, changing the name of the latter to the School of the Immaculate Conception.

The first block of the present campus, at Broadway and Madison streets, had been obtained earlier in 1891, and in 1893 the cornerstone of the first building, now Science Hall, was laid. The building originally served both as a school and as the first Immaculate Conception Church in Seattle.

In 1894, under the direction of the Rev. Conrad Brusten, S.J., and the Rev. Patrick Mahony, S.J., students were first enrolled in an "Academic" course of studies at the high school level. In 1898, the school received its charter as an institution of higher learning from the State of Washington under the corporate title, Seattle College.

The years that followed were years of struggle for this young institution. The frontier atmosphere of the time was not especially conducive to its financial support and it was not until 1900 that the collegiate program was begun with a course of studies in "The Humanities," the forerunner of today's College of Arts and Sci-

*Above—Xavier Hall*

←

*Below—Marycrest Hall*

ences. The following year graduate studies were introduced and in 1907, at the request of former students, evening courses were added to the curriculum.

A marked growth in Seattle's population during succeeding years brought about a need for the college's expansion. In 1918, through the generosity of Mr. and Mrs. Thomas C. McHugh, a seven acre campus on Interlaken Boulevard and two buildings, well suited to scholastic needs, were presented to the college. The new site was ready for the 1919 fall term. Both college and high school classes were held on the new campus until 1931 when the college program was returned to its former site at Broadway and Madison.

A School of Nursing Education was added to the faculties in 1933, when the Providence Hospital School of Nursing became affiliated with the college. A third academic unit, the School of Education, was added in 1935. The rapid growth of the student body during the next ten years brought a need for expansion of physical facilities. In 1941, construction was begun on the three-story Liberal Arts building. The School of Engineering was established the same year and a building adjoining the campus was acquired to provide necessary laboratory facilities.

In 1945, a fifth academic unit, the School of Commerce and Finance was added. On May 28, 1948, a university charter was granted by the State of Washington and Seattle College became Seattle University.

Since achievement of university status and under the direction of the Very Rev. A. A. Lemieux, S.J., president since 1948, Seattle University has greatly enlarged its facilities and increased its enrollment. It is now the largest private school in the Pacific Northwest and the largest Catholic university in the West. A modern, functional Student Union Building was completed in 1953. Marycrest Hall (1954) and Xavier Hall (1955) are student residences.

Loyola Hall (1955) is the Jesuit Faculty Residence. A five-story Commerce and Finance and Education building, named in honor of William H. Pigott, was completed in 1957. Present development plans call for three more buildings: Science Building, Library and Armory-Gymnasium.

## LOCATION

Situated on historic First Hill, Seattle University's campus is within easy access of the many educational, cultural and recreational facilities available in the city. The new Seattle Public Library, the City Art Museum, the Frye Art Museum, opportunities for symphony, opera and theatre entertainment, the Court and other agencies of Municipal, State and National Government, banks and commercial centers—all are within easy reach of students interested in the advantages of urban life.

## OBJECTIVES

One of 28 Jesuit colleges and universities in the United States, Seattle University derives its traditions and objectives from the four centuries of academic experience and educational ideals of the Society of Jesus.

The aim of Seattle University's system of education is shaped by the Christian, and specifically Catholic, concept of the complete nature and final destiny of man.

That man, a morally responsible being, must know something about himself as a citizen, the goals of his existence, the purposes of organized society and the other elements which encompass the broad sweep of political, economic and social life is self-evident; hence the specific objectives of Seattle University are:

- To provide a complete and integrated education; moral, intellectual and aesthetic.
- To develop the whole human person in an orderly and balanced manner for complete living in time and eternity.
- To provide professional guidance and instruction for developing those qualities which prepare for competent leadership and service in all fields of human endeavor.

To educate an unchanging nature in the midst of a changing world, the University strives to present to its students knowledge of the complex problems of modern life and to assist in their solution through the application of eternal principles. Realizing that neither age nor modernity is the final touchstone of truth, the Jesuit Fathers and lay faculty of Seattle University have as their objective the education of youth by the light of the tested wisdom of the past in the academic and practical concerns of the present, in order to form for the future the true and finished man of character and culture.

## ACCREDITATION

Seattle University is fully accredited and its students are accepted for graduate study or transfer by leading colleges and universities in all parts of the country. The University is accredited by:

Northwest Association of Secondary and Higher Schools

Accrediting Service, National League for Nursing, Inc.

American Chemical Society

is approved by:

Washington State Board of Education

American Medical Association

American Society of Clinical Pathologists

American Association of Medical Records

Librarians

is a member of:

Jesuit Educational Association  
National Catholic Educational Association  
Association of American Colleges  
American Council on Education  
Northwest Association of Colleges  
National Commission on Accrediting

### **STUDENT HOUSING**

Recently constructed residence halls provide Seattle University students with excellent facilities for campus living. Marycrest Hall, completed in 1954, has quarters for 330 women students. Xavier Hall, completed in 1955, provides housing for 206 men students. Rooms in both halls provide accommodations for two students and are comfortably furnished with beds, desks, chairs, chests, book-cases and bulletin boards. Each room also has a wash basin and mirror and a telephone. Bath, laundry and storage facilities are located on all floors in the halls.

Other smaller residence halls are also available to both men and women students. All undergraduate students not living at home or with immediate relatives are required to live in the University's residence halls.

Board and room charges for both halls, based upon a plan which calls for two meals daily, are \$560 per year. This is payable in three installments—\$280 upon entry, \$175 at the beginning of the second quarter in January and \$105 at the beginning of the third quarter in March.

All resident women students and all freshmen and sophomore men students are required to follow this residence plan. Junior and senior men students may have the option of room only. This latter plan calls for payment in three installments—\$120 upon entry, \$75 in January and \$45 in March.

Residence facilities for nursing students in Providence Hospital Clinical Unit are available at Providence Hall. Arrangements for residence elsewhere must be made through the Dean of Women.

Requests for room reservations and all matters pertaining to housing should be addressed either to the Dean of Students or Dean of Women, Seattle University, Broadway and Madison, Seattle 22, Washington. A \$70 room deposit is required to make reservations.

Admission to Residence Halls is contingent upon admission to the University. Reservation of a room does not constitute application and admission to Seattle University.

### **ATHLETIC POLICY**

Seattle University is a member of the National Collegiate Athletic Association and its athletic policy is governed by the Constitution and By-Laws of that Association.



## ADMISSION

Seattle University is interested in graduating all candidates of character and ability who seek admission and are prepared for college work by a sound secondary school education. Where circumstances may limit attendance to only a year or two the University is likewise anxious to provide the best of educational experience and opportunity. Consequently, admission procedures are designed to matriculate only those who show evidence of that ability and fitness on which hope of success in university work can rest.

University admission policy is established by the Academic Council, which also acts as the Board of Admissions, and is administered by the Academic Vice President through the Director of Admissions and the Registrar.

### APPLICATION BLANKS

Application blanks may be obtained by writing to the Registrar of Seattle University. In the State of Washington these may also be obtained from the high school principal. The application should be completed, including biographical data and academic record, and forwarded to the Registrar, Seattle University, together with \$5 application fee to cover processing of application. These records are kept on permanent file by the University and cannot be returned to the student. To be considered official, transcripts should be forwarded directly from the Registrar of the previous school to the Registrar of Seattle University.

To avoid delay in obtaining reports from secondary schools, candidates for admission should submit their applications as early as possible. In the case of the high school student seeking admission to the Fall Quarter, the credentials may be forwarded after the seventh semester. Application does not insure admission. Within two weeks after the receipt of the secondary school record, the applicant will be informed by mail that he (1) has been accepted; or (2) has not been accepted; or (3) the Board of Admissions desires further academic or personal information. In this last instance the Board may request that the applicant be interviewed or that he appear at the University for a series of examinations. Those desiring residence in University housing must make further application to the Dean of Students, or Dean of Women, either at the time of the academic application or after receiving notification of acceptance.

### APPLICATION FOR ADMISSION

Applicants fall into two broad groups: (1) Those applying for admission to the Freshman Class from secondary schools and (2) Those who have already completed work in some other college or university and wish to transfer to Seattle University.

#### Admission into the Freshman Class

All entering Freshmen must observe the following:

1. Submit from an accredited high school an official applica-

tion-for-admission form which includes all credits and grades and a statement that the student has completed his high school course with a diploma of graduation. A high school diploma may not be substituted for the official blank.

2. The applicant must present as part of his record 16 high school credits in the minimum unit admission requirements. These 16 secondary school units must be distributed as follows:

| Subject                              | Unit |
|--------------------------------------|------|
| English .....                        | 3    |
| Mathematics (Algebra, Geometry)..... | 2    |
| History .....                        | 1    |
| Laboratory Science .....             | 1    |
| Electives (Approved) .....           | 9    |

To count as a unit, a subject must be taught five times a week in periods of not less than 45 minutes for a high school year of 36 weeks. A student who has not studied a modern foreign language in high school and wishes to begin in college and those who wish to begin the study of a new foreign language should consult the Head of the Language Department as to the number of quarters the course must be followed.

3. In addition to minimum unit requirements, the applicant must meet the University's scholastic *quality* requirement in high school work. High school academic grade point average must be at least 2.00 (equivalent to a C average on the Washington State grading system).
4. All applicants to the university are required to take the grade prediction tests of the Pre-College Differential Guidance Program now in use at a number of colleges in Washington State. This may be arranged in the fourth year of high school by residents of the State of Washington. During Fall Quarter and at the beginning of Winter and Spring Quarters, there will be a special administration of these tests for students who are residents of other states, and for Washington students who did not take them in their senior year of high school. The date of these tests will be announced by the Counseling and Testing Center.

Applicants who have taken the aptitude tests of the College Entrance Examination Board should arrange for results to be sent to the Registrar at Seattle University. They must also make arrangements to take the grade prediction test.

5. In order to determine the level at which they are ready to begin college work in English and mathematics, new students are required to take placement tests in these subjects before registering for their courses. English placement is determined from the grade prediction test. For those who manifest an exceptional grasp of the material, the En 101 requirements will be waived. All Freshmen English students will be grouped according to ability and achievement.

Placement in mathematics is determined by proficiency examinations administered by the department of mathematics. All new students (either Freshmen or transfer students) who plan to take one or more courses in this depart-

ment while at Seattle University are required to take a proficiency examination in basic algebra before registering for any mathematics course. Examinations in intermediate algebra and in trigonometry are available at the same time for those students who feel that they can demonstrate proficiency in one or both of these subjects also.

On the basis of these examinations the mathematics department will advise students and their faculty advisers of the course with which it would be best for the student to begin his study of mathematics at the University. It should be understood that this is the sole purpose of the proficiency examinations and that *they are not waiver examinations*; that is, passing these examinations does not entitle a student to any academic credit for the corresponding courses, nor does it release him from the obligation to take any courses required in his curriculum.

6. A graduate of an accredited high school whose grade-point average is below 2.00 academic may petition the Board of Admissions for admission to the University on probation, provided he meets other requirements for regular admission to freshman standing. This petition must be accompanied by evidence that the applicant is able to do a higher grade of scholastic work than is indicated by his high school scholastic record.

#### **SUBJECT DEFICIENCIES AND PROVISIONAL ADMITTANCE**

Those applicants for the Freshman class who lack certain of the subjects specified above as requirements for admission to the University may, at the discretion of the Academic Vice President, be permitted to enter with provisional standing. Such students must fully satisfy entrance requirements and remove the entrance deficiency by the end of their third quarter. Provisional standing is only a temporary classification by way of exception and must be terminated in favor of regular standing as soon as possible. Any applications for a readmission to a fourth quarter with provisional standing must be referred to the Dean of the School and to the Academic Vice President.

A deficiency is considered removed when the student presents evidence of having successfully completed the appropriate courses, either at Seattle University or in approved Adult Education or Extension courses. Ten quarter hour college credits are equivalent to one high school unit. Mathematics 10 and 20 courses (Algebra and Plane Geometry) do not carry university credit. The laboratory science unit may be made up with college credit. In the case of English composition, where the student has taken the two college courses in order to remove his deficiency in high school English, he has also satisfied the university requirement of ten hours in composition. However, these ten hours may not count toward graduation requirements and the student must take an additional ten hours of English work in order to complete his graduation requirements.

## ADMISSION BY EXAMINATION

Students who give exceptional promise may be admitted without rigid adherence to minimum unit requirements even if they have not graduated from high school or have graduated from a non-accredited high school. Decision as to admission in these cases is reserved to the Academic Vice President and the Board of Admissions. In each and every such case the student must be directed to the Counseling and Testing Center at Seattle University for guidance and testing, including all regular and placement examinations.

## ADVANCED PLACEMENT

Students who have carried advanced work in secondary school under a *bona fide* advanced placement plan may be admitted to one or more advanced courses in the Freshman year, if they have passed the advanced placement tests of Seattle University's Counseling and Testing Center. If the student has taken the advanced placement tests of the College Entrance Examination Board, results should be forwarded to the Director of Admissions at Seattle University.

## ORIENTATION

To assist new students in becoming better acquainted with the University and familiar with their academic program, the Academic Vice President, assisted by the Dean of Students, the Director of the Counseling and Testing Center, and members of the Student Government, sponsors a Freshman Orientation Program for all Fall Quarter Freshmen. All Freshmen students must attend all of the Orientation sessions. Transfer students are responsible for arranging with the Counseling and Testing Center for their participation in any testing program required of all new students.

## ADVISORY SYSTEM

The deans of the several schools supervise the academic guidance and counseling program of both Freshmen and upperclassmen in their school. Through the department heads, they assign an adviser for each student according to his major or area of concentration. Students selecting an area major are under the academic guidance of the department head in whose subject the student is taking the most hours.

The chaplains and Jesuit faculty members are also available for counseling on personal matters. Needless to say, students are free to seek advice at any time from any member of the faculty, lay or Jesuit. Prefects and housemothers in the residence halls are always available to answer questions and give advice. The advising system in no way supplants personal initiative and responsibility on the part of the student, each of whom is held responsible for making out programs and schedules and choosing courses and degrees.

## COUNSELING AND TESTING CENTER

In addition to the academic and personal advising mentioned above, specialized counseling is available at the Counseling and Testing Center. This office administers university-wide testing programs and academic make-up examinations. Interest, aptitude, personal and vocational counseling is offered by specially trained counselors. Although this service is largely restricted to Seattle University students, a limited number of adults and some referrals from elementary and secondary schools are accepted. This specialized testing and counseling is generally administered on a fee basis. The fee for Seattle University students is reduced by one half.

## ADMISSION OF VETERANS

Seattle University welcomes veterans provided they can meet the University's entrance requirements. Seattle University is an approved institution for training under the Servicemen's Readjustment Acts, Public Laws 346 and 550 (G. I. Bills) and under the Vocational Rehabilitation Act for Veterans with service-connected disability, Public Laws 16 and 894. Veterans obtain their certificates of eligibility for training from the Regional Office of the Veterans Administration before coming to college. The function of the campus Office of Veterans' Coordinator is to certify training and to transmit necessary credentials and information to the proper authorities. It does not issue certificates of eligibility. Veterans enrolled under Public Law 550 (Korean Veteran's Benefits) are required to report monthly to the Coordinator of Veterans' Affairs.

## TRANSFER STUDENTS FROM ANOTHER UNIVERSITY

Students may be admitted to Seattle University on transfer from American and foreign colleges and universities. Each transfer student must:

1. By letter or in a personal interview explain to the Academic Vice President why he wishes to transfer, and include a tentative plan for the major subject of the program to be pursued towards graduation. Students of other colleges or universities who have been put on probation or suspended or excluded will not be admitted to Seattle University unless the lapse of time and nature of the circumstances give grounds for an exception. This exception can be made only by the Academic Vice President and the Board of Admissions. In such cases letters of recommendation will be helpful.
2. Procure and complete an application form and submit to the Registrar at Seattle University complete transcripts *in duplicate* from each college previously attended, with honorable dismissal in good academic standing from the college most recently attended. One copy of these transcripts will go to the dean of the school or to the department head under whom the student begins his work at Seattle University. All transfer students must have fulfilled, as far as

their secondary school records are concerned, the requirements for admission to the Freshman class and when requested must present evidence of having fulfilled these requirements. No applicant may disregard a previous college record and apply for Freshman standing or fail to supply complete college credentials when applying for advanced standing under penalty of immediate dismissal from the University, whenever such deception may come to the attention of the University authorities.

3. Arrange with the Counseling and Testing Center at Seattle University for counseling and testing as may be required by the Academic Vice President and the Board of Admissions.
4. Present a minimum 2.00 grade point average for college work completed prior to transfer. Courses completed at the lowest passing grade in another institution are not acceptable for transfer into Seattle University. For work done in institutions whose academic standing is unknown or for work with private teachers, advanced credit will be granted only upon examination. Application for advanced credit examination to establish credit for such work may be made only after the completion of forty-five quarter hours in residence. This credit is granted according to the conditions set down on page 36 in the Bulletin, under *Credit by Examination*.
5. Definite advanced standing is not determined until the completion of two quarters in residence. The dean of the particular school (or someone appointed by him) into which the transfer student seeks admission will give a tentative evaluation of transfer credits for the purpose of guidance in registration. All evaluations are subject to the approval of the Academic Vice President and the Academic Council.

The following conditions apply to transfer students in granting credits acceptable to Seattle University.

1. Transfer of junior college credit may be applied to University freshman and sophomore years only. A student who has completed a portion of his freshman and/or sophomore years in a four-year college may not transfer junior college credit in excess of that necessary for completion of the first two years in the University. In no case may the transfer of junior college credit to the University exceed 98 quarter hours of credit.
2. In no case of admission to advanced standing will more than three years of academic credit (146 quarter hours) be accepted toward a Bachelor's degree requiring four years of college study. All transfer students must take at least two courses in their major field of study at Seattle University and meet the regular requirement in Philosophy and Theology.
3. Credit earned through extension will be accepted if the institution offering such work is a member of the National University Extension Association. Not more than forty-five (45) quarter hours of extension credit can be accepted.

Credit earned through correspondence shall not exceed ten (10) quarter hours and must be included in the extension credit total.

### **FOREIGN STUDENTS**

Foreign students must satisfy the same general requirements as those from American schools and must submit an acceptable statement of proficiency in the English language and a statement regarding their means of support while attending the University. The official record of Canadian students is the matriculation certificate or university admission certificate of their province.

### **SPECIAL STUDENTS**

Mature individuals may apply to the Board of Admissions for special standing. A special student may take such regular courses as the dean of his school may determine. A special student may not represent the University, nor is he eligible for any degree. By fulfilling the requirements for admission to the college in which he is enrolled, he may become a regular student.

### **PROVISIONAL STUDENTS**

Admission as a provisional student is granted to:

1. Applicants who do not wish to complete all the requirements for a degree.
2. Applicants who have not been able to complete all arrangements for formal admission by registration time.
3. Those students admitted with deficiencies.

### **TRANSIENT STUDENTS**

Admission as a transient student is granted to a student in good standing in any recognized college who is taking work to be transferred to his college.

### **READMISSION**

Students who have been absent from Seattle University for one or more quarters and students who have attended another school, or schools, since withdrawing from Seattle University are required to fill out an application-for-readmission form. A re-entering student who has attended another school, or schools, since his withdrawal from Seattle University must arrange that a transcript of his work be submitted to the Registrar before his application for readmission can be considered by the Board of Admissions.

### **AUDITOR**

Admission as an auditor must be approved by the dean of his school and the instructor of the course. An auditor may not participate in class discussion or laboratory work and will not be required to meet the assignments or take the examinations.

## CREDIT BY EXAMINATION

Credit by examination will be given in the following cases:

1. Examinations for advanced credit in courses offered by the University may be taken by a currently registered regular student on work done in private study, or on subject matter which has been taken at a non-accredited college or university.
2. No student may take an advanced credit examination in a course in which he has already been registered.
3. The maximum number of credits obtainable by advanced credit examination is thirty (30), not more than fifteen (15) of which may be obtained in one subject matter field. All credits obtained by examination will be counted as extension credit and included in the maximum of forty-five (45) extension credits allowed by institutions which are members of the National University Extension Association.
4. No credit will be granted unless the applicant has earned a minimum of forty-five (45) resident credits with a minimum grade-point average of 2.50.
5. No student within a given field of study may receive advanced credit in subject matter more elementary than that for which he has previously received credit.
6. No student will be permitted to repeat any examination for advanced credit.
7. No student may take examinations for more than fifteen (15) advanced credits in any one quarter.
8. No student may receive advanced credit by examination for lower division foreign language courses in his native language.
9. A student who wishes to qualify for credit by examination must apply to the Registrar and Treasurer for approval.

## ACADEMIC PROCEDURES

### REGISTRATION

Applicants who are accepted for admission to Seattle University must present themselves at the University for registration, which takes place at the beginning of each quarter. All students without exception, including auditors, transfer students and those readmitted after attendance during a previous quarter, must register in person for each quarter on the date specified in the University calendar or elsewhere by the Registrar.

Registration at a date later than the days designated is permitted for a serious reason by way of exception and on payment of a special penalty fee of five dollars (\$5.00) for the first day and the further cumulative fee of one dollar (\$1.00) per additional day thereafter, up to a total of ten dollars (\$10.00). After the first day of instruction, no student will be permitted to register without the



permission of the Academic Vice President. Students registering late are held accountable for absences thus incurred. Registration is completed when fees are paid and the registration book turned in before leaving the Treasurer's Office. No person may attend any University course in which he has not been registered as a student or as an auditor.

### PROGRAM OF STUDY

Each student's individual program of courses must be approved by a member of the faculty, usually the adviser, at each registration. But such approval does not give official sanction to any failure in complying with the rules and conditions set forth in this Bulletin nor free the student of that responsibility necessary to intelligent personal choice. The choice of a program of study, therefore, must be based on knowledge of the following definitions and divisions. Detailed descriptions of programs, degree requirements and courses will be found in the following sections of the Bulletin. A regular program consists of fifteen (15) quarter hours exclusive of lower division R.O.T.C. courses and Theology.

### DEFINITIONS

The unit of instruction in use for computing the amount of work required for graduation at Seattle University is the quarter hour. A **quarter hour** is ordinarily defined as a course of instruction which has been taken one hour a week for a minimum of eleven weeks. Two hours of laboratory work is considered the equivalent of one hour of lecture and/or recitation work, except in the School of Engineering.

Each student entering the University must choose his **Curriculum** or organized **Program of Studies**. Curricula are organized and administered according to Schools, and therefore every student necessarily belongs to one of the six Schools which constitute the University. A **School**, or **College** as it is sometimes known, may be defined as an academic and administrative unit of the University consisting of the Dean and his advisory board, the faculty of the college or school, and the students registered in the School. A **Department** is a division of a school or college consisting of those faculty members who are actively engaged in instruction, or administrative or research work in a given field under the direction of a head.

The courses of instruction which belong to each curriculum and lead to a degree are described in detail on pages 54-83 of this bulletin. A **Course of Instruction** is a complete set of lectures, quizzes, recitations, student exercises, laboratory periods, and examinations on a given subject. In order to give the best possible broad liberal education, as well as concentration in the field selected by the individual student, the curricula at Seattle University are composed of two distinct but inter-related elements: the core curriculum and the specific curriculum.

## THE CORE CURRICULUM

The **Core Curriculum** which is basically the same for all students, varies in extent according to the various Schools of the University. Since certain basic subjects in the Humanities and in the Natural and Social Sciences are the foundation of Seattle University's liberal education, this Core Curriculum in the College of Arts and Sciences embraces three comprehensive fields of knowledge:

| Group I                | Group II          | Group III      |
|------------------------|-------------------|----------------|
| English and Literature | Economics         | Biology        |
| Fine Arts              | History           | Chemistry      |
| *Art                   | Political Science | Home Economics |
| Music                  | Psychology        | Mathematics    |
| *Languages             | Sociology         | Physics        |
| *Journalism            |                   |                |
| Philosophy             |                   |                |
| *Speech                |                   |                |
| *Theology              |                   |                |

\*Minor only.

These fundamental groups introduce the student to the basic field of human interests and culture. In all schools of the University, students are required to complete at least ten (10) hours in three of these comprehensive fields, as well as an additional fifteen (15) hours in the comprehensive field of their choice in one of the schools of the University. Twenty-six (26) hours of Philosophy and, generally speaking, sixteen (16) hours of Theology for Catholic students are required.

## THE SPECIFIC CURRICULUM

This is offered to and selected by the student who wishes courses in preparation for a particular field of endeavor. These courses are termed the **Field of Concentration**, and are offered by the component Schools of the University according to various degree requirements. For example, a student desiring a broad liberal education as a preliminary to teaching or journalism might elect the specific curriculum of Bachelor of Arts and major in English and history as a field of concentration. Another, working toward a Bachelor of Commercial Science in the School of Commerce and Finance, might make a further choice of accounting or industrial relations as his field of concentration. Students in the School of Engineering must select one of four programs: Chemical Engineering, Civil Engineering, Electrical Engineering or Mechanical Engineering.

Thus at the close of his sophomore year, if not before, the student, with his adviser's assistance, must select a field of concentration within the specific curriculum of his endeavor around which most of the work of his junior and senior years will center. The purpose of this selection of courses is to give the student a comprehensive grasp of at least one field of knowledge, consisting of a major, a minor, and a limited number of electives.

## **FIELDS OF CONCENTRATION**

### **COLLEGE OF ARTS AND SCIENCES**

Area Majors are offered in the Humanities, the Social Sciences and the Natural Sciences.

Departmental Majors are offered in Biology, Chemistry, Economics, English, General Science, History, Home Economics, Latin, Mathematics, Medical Technology, Medical Records Librarian, Music, Philosophy, Physics, Political Science, Military Science and Tactics, Psychology, Sociology and X-Ray Technology.

Departmental Minors are offered in Art, Journalism, Languages (French, German, Greek, Spanish), Medical Secretary, Speech and Theology.

Pre-Professional Programs are offered in Pre-Dentistry, Pre-Law, Pre-Medicine, Pre-Physical Therapy and Pre-Veterinary Medicine.

A Liberal Arts Lower Division Humanities Program is offered freshmen and sophomores who have not yet selected a major either in Liberal Arts or in one of the schools of the University.

### **SCHOOL OF COMMERCE AND FINANCE**

The School of Commerce and Finance offers eight fields of concentration: Accounting, Finance and Banking, Foreign Trade, Industrial Relations and Personnel Management, Insurance and Real Estate, General Commerce, Office Management, and Marketing.

### **SCHOOL OF EDUCATION**

The School of Education offers five fields of concentration called broad areas of concentration: Applied Arts and Fine Arts, Health and Physical Education, Language Arts, Natural Sciences and Mathematics, and Social Studies.

### **SCHOOL OF ENGINEERING**

The School of Engineering offers four fields of concentration: Chemical, Civil, Electrical and Mechanical Engineering.

### **SCHOOL OF NURSING**

The School of Nursing offers one field of concentration: Nursing.

### **COLLEGE OF SISTER FORMATION**

The College of Sister Formation offers a Bachelor of Arts with the field of concentration in social sciences.

### **GRADUATE SCHOOL**

The Graduate School offers six fields of concentration: Biology, Education, English, History, and Electrical and Mechanical Engineering.

### **EVENING DIVISION**

The Evening Division offers the degrees of Bachelor of Arts, Bachelor of Science, Bachelor of Commercial Science, Bachelor of Science and Master of Science in Electrical and Mechanical Engineering.

## **MILITARY SCIENCE AND TACTICS**

The Department of Defense through the Department of Military Science, offers the Senior Division of the Reserve Officers Training Corps to male students enrolled at Seattle University. The General Military Science program of instruction covers military fundamentals common to all branches of the service.

### **CREDIT HOUR LOAD**

The normal credit hour load is considered to be 17 to 19 quarter hours. No student may carry excess credit hours unless he has express permission from the dean of his school signified by initials on the student's registration card.

Students on academic probation may be required by the Academic Vice President and/or the dean of the particular school to carry less than the normal credit hour load. Each student is responsible to his dean for judging the correct ratio between credit hour load, co-curricular activities and outside employment, so that he has adequate time for academic preparation. Study, assignments, and collateral preparation come first.

### **THEOLOGY REQUIREMENTS**

Catholic students are required to take all the specified courses in Theology. Non-Catholic students are to take the two-hour course entitled Foundations of Natural Religion (Th 100) and are to substitute electives where Theology is indicated in the rest of the requirements.

### **ADMISSION TO CLASS**

No student may be admitted to any class without presentation to the professor of an official class card. At the end of the quarter the instructor uses this card to transmit the student's grade to the Registrar. Without this card the student cannot be considered officially enrolled in the class and consequently cannot be given credit for work performed.

### **ATTENDANCE**

Cuts are not permitted, but a maximum of fifteen per cent (15%) absences is allowed to cover emergencies. Tardiness counts as absence. Any student absent from fifteen per cent (15%) or more of his classes or laboratory sessions will be dropped from the class with an E for the course, unless reinstated by his dean. A student's absences are recorded from the day of the first scheduled class meeting regardless of the first day of class attendance. Attendance requirement extends to religious academic functions on the Academic Calendar such as the Mass of the Holy Spirit, the Annual Retreat and the Baccalaureate Mass.

### **EXAMINATIONS**

Examinations in all courses are regularly held at the middle and end of each quarter, and at such other times as the instructor may determine. Absence from an announced written examination

is excusable at the discretion of the instructor and subject to review by the Academic Vice President. Students absenting themselves from a scheduled examination without justifiable cause will receive an "E" for the examination.

Make-up examinations assigned by an instructor for students excused from a scheduled one are administered by the Counseling and Testing Center. Arranging for a make-up exam and payment of the fee is completely the responsibility of the student.

#### **CHANGE OF REGISTRATION**

After a student has officially registered he may not drop a course by simply absenting himself from class. In case it is advisable for a student to drop or add a course, or otherwise change his program of studies, he must obtain a change of course card from the Office of the Registrar. The change must be approved by the student's adviser and by the Treasurer. A student who drops a course without following this procedure will receive an EW (unofficial withdrawal). This will be computed as an "E" in the grade point average. A fee of one dollar (\$1.00) is charged for each subject dropped, changed or added. Subjects cannot be added after the fifth day of class.

#### **WITHDRAWAL**

Students desiring to withdraw from the University during the quarter will obtain a withdrawal card from the Office of the Registrar and obtain the signatures of the instructor, dean, Treasurer, Veterans' Coordinator (if veterans) and Registrar. Failure to comply with this procedure results in an EW being entered on the student's transcript. No withdrawal may be made in the period within two weeks of the end of the quarter, unless for an emergency reason, in which case an "Incomplete" will be given if the student has been doing passing work.

#### **DISMISSAL**

Any student who fails seven (7) quarter hours or more in any one quarter is subject to dismissal from the University. The Academic Council shall decide when a student on probation, because of continued low scholarship, shall be dropped from the University. In order to be reinstated, the student must petition the Academic Council through the Academic Vice President. A student withdrawing voluntarily from the University is entitled to a statement of honorable dismissal if he is not liable to dismissal on account of scholarship, absence, breach of discipline or financial indebtedness to the University.

#### **INCOMPLETE**

A student's work in a course may, at the discretion of the instructor, be reported Incomplete (I), if on account of serious illness or other justifiable cause some small portion remains to be done, provided the work thus far completed is satisfactory and provided the student has passed the final examination. The missing work must be completed within thirty days after the beginning of the

next quarter or the student will be given a grade of E for the course.\* To remove an Incomplete a student must obtain an Incomplete Removal Card from the Office of the Registrar.

### TRANSFER WITHIN THE UNIVERSITY

Students who desire to transfer from one school of the University to another or from one department to another (change of Major) within a school must make application for transfer.

The procedure for transfer is as follows:

1. Obtain a transfer card from the Registrar's Office and present it to the dean of the school in which the student is currently enrolled.
2. When the card has been signed by the dean it is to be taken to the Registrar for her signature.
3. The card is then presented with an official transcript to the dean of the school in which the student wishes to enroll.

### STUDENT CLASSIFICATION

Freshman—One who has completed less than 49 quarter hour credits.

Sophomore—One who has completed at least 49 but less than 97 quarter hour credits.

Junior—One who has completed at least 97 but less than 146 quarter hour credits.

Senior—One who has completed more than 146 quarter hour credits.

\*Spring Quarter incompletes must be made up within 30 days after the beginning of the Fall Quarter.

### GRADING SYSTEM

The following is the grading system followed at the University:

| Grade | Percentage Value | Descriptive Value   |
|-------|------------------|---|
| A     | 93-100           | A superior student. He shows ability to use factual knowledge in reaching independent conclusions and can synthesize facts into a logical and coherent pattern. He has an interest in relating collateral reading to the principles developed in course work. Scholarship exceeds requirements. |
| B     | 85-92            | An above average student; knowledge is very good, scholarship meets all requirements, information is complete but not detailed.   |
| C     | 77-84            | Average student; knowledge is good, scholarship meets assignments, but information is incomplete.   |
| D     | 70-76            | Below average student; knowledge is fair, scholarship does not meet assignments, essential information is lacking or false information given.   |

|    |  |                    |
|----|--|--------------------|
| E  | Below 70   | A failing student. |
| I  | Incomplete   |                    |
| W  | Official withdrawal during first thirty calendar days of quarter.  |                    |
| PW | Official withdrawal after first thirty calendar days with passing grade (D or better).                         |                    |
| EW | Unofficial withdrawal at any time during quarter to be computed as an E in calculation of grade point average. |                    |

### QUALITY POINTS

The quality point is the unit used in measuring the quality of student achievement in a course. Quality points are assigned as follows:

|         |                           |
|---------|---------------------------|
| Grade A | 4 quality points per hour |
| Grade B | 3 quality points per hour |
| Grade C | 2 quality points per hour |
| Grade D | 1 quality point per hour  |
| Grade E | 0 quality points per hour |

I and W count neither as registered hours nor as quality points.

### GRADE-POINT AVERAGE

The grade-point average achieved by a student is computed by dividing the total number of quality points by the total number of credit hours attempted.

### TRANSCRIPTS OF RECORD AND GRADE REPORTS

Students wishing transcripts of records (in order to transfer from the University to another college) should make application on a transcript request form at the Office of the Registrar. The first official transcript will be sent free of charge, but each additional copy will require a fee of one dollar (\$1.00).

Student quarterly grade reports (unofficial transcripts) are issued at the end of every quarter. Additional student copies may be obtained for a fee of fifty cents (.50). Fall and winter student transcripts are available for pick-up at the time of registration. Spring and summer quarter grades will be mailed to the student.

Seattle University will not issue a transcript of a student's or graduate's record to any third party unless the student or graduate notifies the Registrar that he wishes it sent and supplies the necessary name and address. Parents or guardians may receive a copy of the student's record on request to the Office of the Registrar.

Letters of recommendation or transcripts should be requested at least a week before they are required. They will not be issued during the period of registration, examinations or commencement or at any time when a student has an unsatisfied financial or property obligation to the University.

The University does not hold itself responsible for any error on a transcript which is not brought to the attention of the Registrar within six months after the issuance of the transcript.

## PROBATION

Whenever a student's grade point falls so low as to make almost impossible the attainment of the grade point required for graduation the student is subject to dismissal from the University for poor scholarship. If during a given quarter a student falls below the standard he must maintain in order to graduate he may be placed on probation by the Academic Vice President and given the opportunity to improve the quality of his work before final dismissal. A student will be placed on probation if his cumulative grade point average in any one quarter falls below the following scale:

|                 |      |
|-----------------|------|
| Freshman .....  | 1.75 |
| Sophomore ..... | 2.00 |
| Junior .....    | 2.00 |
| Senior .....    | 2.00 |

While on probation, a student is subject to the supervision and direction of the dean of the school, and at his discretion both the number of credits carried per quarter and participation in extra-curricular activities may be curtailed. Ordinarily, probation may extend for two quarters after warning and at the discretion of the Academic Vice President before dismissal becomes mandatory.

## REPEATING A COURSE

Students who receive a grade of D or E may repeat the course in which these grades were obtained, and in such cases the grade received the second time shall be the one counted in computing the grade point average required for graduation. The grade earned the second time cannot be higher than a "C." For the purpose of determining University graduation honors, however, only the grade received the first time will be counted.

## CHANGE IN GRADE

Once a grade has been recorded, it can be changed only by the Academic Vice President on the written faculty action sheet completed by the instructor and countersigned by the department head or school dean and only in cases of clerical error. In no case will the grade be changed after thirty (30) days following the issue of the student's quarterly grade reports.

## GENERAL DEGREE REQUIREMENTS

The general requirements for the Bachelor's degree are as follows:

1. Satisfaction of the specific requirements of the college or school from which the student expects to graduate.
2. A minimum of one hundred and ninety-six (196) quarter hours of credit, with a grade-point average of at least 2.00.
3. At least sixteen (16) quarter hours of credit in Theology if he is a Catholic, or two (2) quarter hours of credit in Theology if non-Catholic.\*

\*Only ten (10) quarter hours of Theology are required of Catholic students in the School of Engineering.



4. Completion of at least twenty-six (26) hours of Philosophy requirements and satisfactory completion of the Comprehensive Examination in Philosophy.
5. Completion of at least sixty (60) quarter hours of credit in upper division work with a grade point average of at least 2.00.
6. Completion of a Field of Concentration with a grade point average of at least 2.00 in all required courses.
7. The Senior year must be spent in residence at the University, which shall be understood to mean the final 50 quarter hours of degree requirements, and the class work is to be taken in the University classrooms under the personal direction of members of the faculty.
8. Completion of all degree requirements within ten (10) years of the date on which the college work was begun. Students who have been in attendance prior to October 1951 are not affected by this regulation.
9. Completion of the requirements of Military Science by all eligible male students as specified in the section "Department of Military Science and Tactics."
10. Satisfaction of all financial obligations toward the University.
11. All candidates for degrees must be present at the Baccalaureate and Commencement exercises to receive their degrees.

Application for the degree should be made in the Winter Quarter. An application-for-degree form for that purpose should be obtained from the Office of the Registrar, and must be on file with that office before February 15th.

New degree requirements of a qualitative, quantitative, or content nature are required of regular students immediately following the announcement but these may not be retroactive in the sense of affecting parts of the program already completed prior to the announcement.

All responsibility for fulfilling the requirements for graduation rests upon the individual student concerned.

### **GRADUATION WITH HONORS**

Graduation with honors requires the earning of at least ninety (90) quarter hours of credit as a junior and senior at Seattle University. It also requires the earning of at least a B in the Philosophy Comprehensive Examination.

A candidate for an undergraduate degree who has a grade point average of 3.25 graduates CUM LAUDE; one who has a grade point average of 3.50 graduates MAGNA CUM LAUDE; one who has a grade point average of 3.75 graduates SUMMA CUM LAUDE.

### **STUDENT TENURE**

The Academic Council shall have discretionary powers for all cases not covered by the foregoing rules and regulations. The

enrollment and the graduation of each student, the awarding of academic credits and the granting of any award degree are strictly subject to the disciplinary power of the University.

### **SPECIAL AWARDS**

**The President's Cup** is awarded to the graduating senior who has maintained the highest scholarship throughout the four years of college work.

**The Bishop Shaughnessy Medal**, in memory of the Most Reverend Gerald Shaughnessy, S.M., S.T.D., late Bishop of Seattle, is awarded to the graduating senior achieving the highest grade in the written Philosophy Comprehensive Examination and having maintained outstanding grades in Theology.

**Loyalty Cups** are presented by the Seattle University Alumni to the students chosen by the faculty and student body as outstanding in their loyalty, leadership and participation in student activities.

**Bill Bates' Cup** is annually presented by the Silver Scroll to the graduating senior who most nearly resembled, in the opinion of the faculty and student body, the spirit of Bill Bates, Class of 1943.

**The Lindberg Medal**, the gift of the Honorable and Mrs. William J. Lindberg, is annually awarded to the outstanding student debater of the University.

### **DEPARTMENT OF MILITARY SCIENCE AND TACTICS**

The Department of Defense through the Department of Military Science, offers the Senior Division of the Reserve Officers Training Corps to male students enrolled at Seattle University. The General Military Science program of instruction covers military fundamentals common to all branches of the service.

The mission of the U. S. Army Detachment of Military Science is to train and ultimately commission as junior officers in the Organized Reserve Corps and Regular Army, those male students who have fulfilled the academic and leadership requirements prescribed in the Military Science Curriculum in conformance with the principles and educational aims of Seattle University.

### **BASIC COURSE**

This course is a requirement for physically fit male students of Seattle University, who do not fall under the provisions of the paragraph entitled "Exemptions." The Basic Course consists of two hours of classroom instruction and one drill period (1 hour and 20 minutes) per week for six quarters. Twelve quarter-hours may be applied toward graduation.

### **ADVANCED COURSE**

The Advanced Course (ROTC) is an elective for qualified male students who have successfully completed the two year basic course, or have been granted credit by the Professor of Military

Science and Tactics. Applicants for the Advanced ROTC Program are required to achieve a satisfactory grade on the ROTC qualifying examination, be eligible for graduation and commissioning prior to reaching their 28th birthday, fulfill the medical requirements of the Army physical examination and satisfy the academic requirements of the University. Final selection of candidates will be accomplished by a board of Military Staff Officers.

The Advanced Course consists of four (4) hours of classroom instruction and a minimum of one drill period (1 hour and 20 minutes) for six academic quarters. Students completing the first year advanced course (MS 301 through MS 303) are required to attend a six week Summer Camp at Fort Lewis, Washington. Summer Camp is scheduled during the last week of June through the first week of August.

Twenty-one (21) credit hours (3 credit hours per quarter) received from the advanced course may be applied toward fulfilling credit requirements for graduation.

### EXEMPTIONS

Department of Army Regulations (AR 145-350) and University policy require that all male students participate in the ROTC program, unless exempted from such training.

Exemptions may be granted for the following reasons:

1. Students with prior military service. (See 10 below)
2. Students who are under 14 or over 23 years of age, at time of initial freshman registration.
3. Non-citizens of the United States.
4. Students with military training at other educational institutions. (See 10 below)
5. Transfer students, without previous ROTC training, who have reached junior status prior to enrolling at Seattle University.
6. Students who hold or formerly held a commission in the Armed Forces.
7. Students found physically disqualified as a result of a physical examination conducted at Seattle University, or students classified 4F by their local draft board.
8. (Temporary) While classed as a Special Student. (See page 35.)
9. Special cases not covered here will be referred to an Exemption Board appointed by the Department of Military Science for decision.
10. Students with previous training will be required to complete the Basic Course, Senior Division, ROTC as follows:

### ACTIVE MILITARY SERVICE

6-12 months active duty—Complete MS 201, 202, 203.

12 or more months active duty—No training required.

## **RESERVE PROGRAM**

(Army, Navy, Marine Corps, Air Force, Coast Guard)

Less than 12 months in the active reserves—Complete two year Basic Course.

12 or more months in the active reserves—No training required.

## **SERVICE ACADEMIES**

(Army, Navy, Air Force, Coast Guard)

1 year—Complete MS 201, 202, 203.

2 years—No training required.

## **MILITARY SCHOOLS DIVISION ROTC**

MST 1 and 2—Complete 201, 202, 203.

MST 1, 2, and 3—Complete 201, 202, 203.

MST 1, 2, 3, and 4 or more—No training required.

## **JUNIOR DIVISION ROTC**

MT 1, 2 and 3 (3 yrs.)—Complete 201, 202, 203.

## **SENIOR DIVISION ROTC**

(Army, Navy and Air Force)

All credit is interchangeable between above services.

## **UNIFORMS AND TEXTS**

Uniforms, arms, equipment and text books are furnished by the Government without cost to the student. A deposit of twenty dollars (\$20.00) is required of all ROTC students to protect the University against loss of, or damage to, Government property which must be returned in a satisfactory condition. This deposit, less ten per cent (10%) service charge, will be returned at the completion of the basic course, or in case of a student's withdrawal from the University.

## **REGISTRATION**

All male students, at the time of quarterly registration, must report to the Department of Military Science's registration table either to enroll in the Basic Course or to receive exemptions as stated above. At this time students desiring exemption will present documentary evidence supporting their request for exemption. Students failing to report to the Department of Military Science, as stated above, will be considered for dismissal from the University.

## **K.O.T.C. ACTIVITY FEE**

A fee not to exceed \$4.00 per year, will be collected by the Treasurer at the time of registration.

## **SCHOLARSHIPS**

Students awarded scholarships for scholastic achievements must maintain a cumulative quality point average of 2.50 and must attain a mark of at least C in every subject. Students receiving grants-in-aid must maintain as a minimum a cumulative grade point average of 2.00. Failure to fulfill these and the other scho-

lastic and disciplinary requirements of the University entails forfeiture of the scholarship. Books, fees and other incidentals ordinarily are not included in any scholarship. Award of scholarship does not supplant the usual procedures of application for admission and registration.

Seattle University annually awards approximately 100 scholarships. These include academic, competitive, need, and special talent types. Listed below are some of the more important scholarships offered.

**Founders':** Three one-year tuition scholarships are awarded annually in memory of Rev. Victor Garrand, S.J. and Rev. Adrian Sweere, S.J.

**Handley:** Five one-year tuition scholarships have been founded by Miss Agnes Handley in memory of her brothers, Martin, Harry Edgar, John Leo, Daniel and George Nagle Handley.

**Palmer Supply Company:** An annual \$500 scholarship awarded to an outstanding student in the Northwest in honor of Ethel L. Dupar. A matching fund of \$500 is also awarded the school for operational expenses.

**Pacific Western Foundation:** Four annual \$500 engineering scholarships are awarded in honor of the late Philip L. Bannan, Sr. A matching fund of \$500 for each scholarship awarded is given the school for operational expenses.

**Boeing Airplane Company:** A total annual grant of \$2900 a year to be disbursed by the Scholarship Committee to those scholarship students majoring in Engineering or Commerce and Finance. A matching fund of \$2000 annually is given the school for operational expenses.

**Crown Zellerbach:** An annual \$600 scholarship granted to a third or fourth year student already attending Seattle University. A matching fund of \$400 is also awarded the school for operational expenses.

**Italian Club Scholarship:** Three \$500 scholarships granted to a boy or girl whose mother or father is of Italian origin. Recipient must be a resident of King County.

**Lawrence M. Arnold:** A \$500 scholarship awarded annually to the son or daughter of a Seattle First National Bank employee in the State of Washington. A matching fund of \$500 is also awarded the school for operational expenses.

**Thomas C. McHugh:** A tuition scholarship awarded annually to a graduate from the Seattle Preparatory School in grateful tribute to a generous benefactor.

**Miscellaneous:** Six one-year tuition scholarships are awarded annually as a result of the generosity of friends of the University.

**Forensic:** One-year tuition scholarships awarded to the winners of the men's and women's divisions in the Northwest High School Forensic Tournament held annually at Seattle University.

**Music:** One-year tuition scholarships are awarded by the Music Department to students comprising the Double Quartet and their accompanist. Also a limited number of partial scholarships are awarded to outstanding instrumentalists.

**Foreign:** Ten tuition scholarships are granted annually to foreign students by Seattle University.

**Catholic High School:** One-year tuition scholarships are awarded annually to a promising senior student from each of the following high schools in the Northwest: Holy Angels, Holy Names, Holy Rosary, O'Dea, Immaculate, Blanchet, Forest Ridge Convent of Seattle; Bellarmine of Tacoma; St. Joseph's and Marquette of Yakima; Gonzaga Prep, Marycliff of Spokane and Loyola of Missoula.

Besides the above there are several other scholarships offered annually at Seattle University to deserving high school students as well as to those already attending the University.

FOR INFORMATION on all the above scholarships write the COMMITTEE ON SCHOLARSHIPS, SEATTLE UNIVERSITY, BROADWAY AND MADISON, SEATTLE 22, WASHINGTON.

Alumni and alumnae, friends of Seattle University, and all those interested in Catholic higher education are invited to establish a scholarship fund. This will associate your name, or that of a loved one, or a friend, or a group, in the memory of generations of grateful men and women who will have profited by this generosity and will carry on the ideals of Christian living in a world of scientific achievements.

A perpetual tuition scholarship requires \$15,000

A four-year tuition scholarship requires \$1,740

A one-year tuition scholarship requires \$435

### **STUDENT PLACEMENT SERVICE**

The University maintains a placement service for its students and alumni. Students seeking part-time employment are required to register with the placement office and pay a service fee of two dollars (\$2.00). The placement office also cooperates with other University departments in maintaining relationships with area and national firms seeking graduates. Interviews with business and industrial personnel representatives are scheduled throughout the academic year.

The University's morning class schedule and its nearness to business and industrial areas provide students with excellent part-time employment opportunities and helps reduce the transportation problem.

# STUDENT EXPENSES

## TUITION AND FEES MUST BE PAID AT TIME OF REGISTRATION DAY SCHOOL

### TUITION

|   |          |
|---|----------|
| Tuition per quarter (10 to 15 hours)..... | \$145.00 |
| Extra hours (over 15) each.....           | 14.50    |
| Less than 10 hours, per quarter hour..... | 14.50    |

### FEES

#### Regular Fees:

|                                 |       |
|---------------------------------|-------|
| †General Fee (per quarter)..... | 25.00 |
|---------------------------------|-------|

#### Occasional Fees:

|  |       |
|--|-------|
| *Application Fee (paid only once).....   | 5.00  |
| *Matriculation, paid once, at first entrance.....  | 5.00  |
| *High School deficiency, per course, non-credit—   |       |
| Geometry .....   | 25.00 |
| Algebra .....  | 25.00 |
| English .....  | 25.00 |
| History .....  | 25.00 |
| *Change of Registration, per change.....   | 2.00  |
| *Late Registration, added to tuition and fees, \$5.00 for first day<br>and \$1.00 for each additional day, not to exceed a total of...   | 10.00 |
| *Special Examination, per subject examination.....   | 2.50  |
| *Make-up Examination .....   | 1.00  |
| *Credit by Examination, per credit hour.....   | 3.00  |
| *Removal of Incomplete.....  | 1.00  |
| *Withdrawal Fee .....  | 1.00  |
| *Grade Prediction Test (if not taken in High School).....  | 5.00  |
| *Graduation Fee (Bachelor).....  | 15.00 |
| *Graduation Fee (Master).....  | 25.00 |
| Senior Comprehensive Examination (re-take).....  | 3.00  |
| Master's Comprehensive Examination.....  | 10.00 |
| Duplicate Official Transcript.....   | 1.00  |
| Duplicate Student's Transcript, non-official.....  | .50   |
| Cap and Gown rental.....   | 2.50  |
| Special Service: Reader Service will be furnished to entitled<br>disabled veterans as required, cost not to exceed the rate of<br>75 cents per hour.   |       |
| ROTC deposit .....   | 20.00 |
| This is required of all ROTC students to protect the Uni-<br>versity against loss of, or damage to, government property<br>entrusted to students. A refund of \$18.00 will be made if<br>property is returned in good order. |       |
| ROTC Activity Fee, per year.....   | 4.00  |
| *Remedial Reading (student) per quarter.....   | 20.00 |
| Employment Fee .....   | 2.00  |

\*Non-refundable fees.

†Covers registration, library, health, insurance fees; yearbook, student newspaper; stu-  
dent organization allotment; admission to student productions and other athletic  
events.

## Laboratory Fees:

### Art:

|                               |      |
|-------------------------------|------|
| All courses .....             | 2.00 |
| Except Art 351, 352, 353..... | 3.00 |

### Biology:

|  |       |
|--|-------|
| 376 .....  | 2.00  |
| 501, 504, 505, 550, 561, 600, 601.....   | 3.00  |
| 110, 130, 131, 132, 133, 179, 200, 201, 204, 220, 221, 222,<br>251, 255, 325, 370, 375, 451, 475, 499..... | 5.00  |
| 307, 308 .....   | 10.00 |

### Chemistry:

|   |       |
|---|-------|
| 101, 102, 111, 112, 114, 115, 120, 230, 351, 356, 357, 497,<br>498, 499 ..... | 6.50  |
| 221, 225, 226, 227, 335, 336, 338, 350, 426, 445.....                         | 10.00 |

### Commerce and Finance:

|   |      |
|---|------|
| Special Fee for School of Commerce and Finance Departmental Library and Machine Laboratories..... | 6.00 |
| Office Management 120, 121, 122, 216.....   | 5.00 |

### Education:

|   |       |
|---|-------|
| 351 .....                               | 3.00  |
| 102 .....                               | 20.00 |
| 370 .....                               | 5.00  |
| Washington State Manual, flat rate..... | 2.50  |

### Engineering:

|   |       |
|---|-------|
| ChE 343, 344, 450, 452.....   | 10.00 |
| CE 103, 204, 206, 301, 302, 365, 403, 461, 462, 464.....  | 10.00 |
| EE 220, 225, 311, 312, 315, 330, 331, 332, 333, 337, 480, 481,<br>482, 483, 486, 489, 491, 492..... | 10.00 |
| ME 114, 116, 324, 425, 426, 427, 428, 429, 475, 476.....  | 10.00 |

### Home Economics:

|  |      |
|--|------|
| 140, 160, 161, 260, 270, 360, 370..... | 2.00 |
| 110, 111, 225, 310, 315.....           | 7.50 |

### Music:

|  |       |
|--|-------|
| Voice or Instrumental Music, one-half hour lesson, per week,<br>per quarter .....      | 30.00 |
| Voice or Instrumental Music, one hour lesson, per week, per<br>quarter .....           | 50.00 |
| Music Theory, if taken privately, one-half hour lesson, per<br>week, per quarter ..... | 30.00 |
| Music Theory, if taken privately, one hour lesson, per week,<br>per quarter .....      | 50.00 |
| Organ Practice, one hour daily, per quarter.....                                       | 15.00 |
| Piano Practice Room, one hour daily, per quarter.....                                  | 5.00  |
| Instrument rental for Instrument Methods Class.....                                    | 7.50  |

### Nursing:

|  |       |
|--|-------|
| †Entrance Tests .....  | 3.50  |
| *Achievement Tests .....                                     | 10.00 |
| Fundamentals of Nursing.....                                 | 5.00  |
| Psychiatric Nursing .....                                    | 6.00  |
| **Tuberculosis Nursing .....                                 | 5.00  |
| Public Health Nursing (Paid to the University of Washington) | 53.00 |
| Health Fees .....  | 30.00 |
| Uniforms (approximate cost).....                             | 35.00 |

†Fees payable to the Counseling and Testing Center when the students take the tests.  
\*\*Fee temporarily suspended.



Students pay cost of transportation to and from cooperating teaching units which are located in Seattle and King County, and American Lake. Living expenses and medical care during the quarter in Public Health Nursing are paid by the student.

Students are urged to have a current Washington driver's license and if possible to have access to a car for public health nursing.

*Psychology:*

|  |      |
|--|------|
| Experimental Laboratory, 401, 402..... | 5.00 |
| Psychological Tests, 381.....          | 5.00 |

*Physics:*

|                                    |       |
|------------------------------------|-------|
| Occupational Psychology, 426n..... | 5.00  |
| All Laboratory Courses.....        | 10.00 |

**RESIDENCE ON CAMPUS**

*Room and Board:*

Men's and Women's residence halls, for school year..... 560.00

Books may be secured at the Broadway Bookstore at current rates.

**REFUNDS**

Refunds are based on period from first class day date to date of office withdrawal:

|  |     |
|--|-----|
| Up to and including 10 class days..... | 80% |
| Up to and including 15 class days..... | 60% |
| Up to and including 20 class days..... | 40% |
| Thereafter .....                       | 00% |

At least 10 days must elapse between payment and refund of fees.

N.B. Auditing Day School classes, tuition and fees the same as Day School rates.

**TUITION DISCOUNT**

Members of a family with the same home address, paying full tuition, are entitled to discount of one credit hour each (\$14.50), if they apply for it at time of registration.

**EVENING DIVISION**

**TUITION**

|                                 |          |
|---------------------------------|----------|
| Tuition, per quarter hour.....  | \$ 10.00 |
| 12 to 15 hours.....             | 115.00   |
| Extra hours (over 15) each..... | 11.50    |

**FEEES**

|                                      |      |
|--------------------------------------|------|
| Library Fee, per quarter.....        | 1.00 |
| Auditor's Fee, per quarter hour..... | 7.00 |

**THE TUITION PLAN**

Seattle University students are eligible to participate in The Tuition Plan. The plan is a convenient way to meet tuition and other academic fees out of regular income. Parents and guardians can use this deferred payment system to spread all costs over the entire school year.

Two, three and four year plans are available. Payment schedules and interest rates are:

For a contract covering one and one-half or two academic years, 5% of the Cash Basis.

For a contract covering two and one-half to four academic years, 6% of the Cash Basis.

For additional information on The Tuition Plan, write: Treasurer's Office, Seattle University, Seattle 22, Washington.



# PROGRAMS of STUDY

College of Arts and Sciences Center (the following Degrees)

Bachelor of Arts with a minor in Economics, English

History, Mathematics, Music, Philosophy, Political Science, Psychology, Religion and Sociology

Bachelor of Arts (with a minor in Psychology)

Psychic History, Philosophy, Shakespeare, Music, Philosophy

Political Science, Psychology, Science, Social Science and

Sociology

Bachelor of Science in Biology, Chemistry, Home Economics

General Science, Mathematics, Physics, Medical Health, Biology

Technology, Latin Language, History, Science and X-Ray Tech-

nology

Bachelor of Science in

Mathematics, Physics, Chemistry, Biology, and

General Science

and students who have had a minor

School of Commerce and Business

Bachelor of Commerce

Finance and Economics

Personal Management and Business

General Commerce

School of Education Center

Bachelor of Arts in Education and the Bachelor of Education

with concentration in the following: the Applied Art

and Physical Health and Physical Education Programs, Art

Mathematics and Natural Science, Social Studies

School of Engineering Center

Bachelor of Science with a minor in Electrical, Civil, Industrial

and Mechanical Engineering

School of Nursing Center

Bachelor of Science in Nursing

College of Sister Formation Center

Bachelor of Arts

The Graduate School Center

Master of Arts in Education and Leadership Studies in

Education, Education, Health, History, Education, and Leadership

Education

# PROGRAMS of STUDY

## College of Arts and Sciences Confers the Following Degrees:

*Bachelor of Arts Classical* with a major in Economics, English, History, Mathematics, Music, Philosophy, Political Science, Psychology, Science and Sociology.

*Bachelor of Arts (Non-Classical)* with a major in Economics, English, History, Humanities, Mathematics, Music, Philosophy, Political Science, Psychology, Science, Social Science and Sociology.

*Bachelor of Science* in Biology, Chemistry, Home Economics, General Science, Mathematics, Physics, Medical Records, Medical Technology, Home Economics, Military Science, and X-Ray Technology.

*Bachelor of Music.*

*Pre-Professional Programs* in Pre-Dentistry, Pre-Law, Pre-Medicine, Pre-Physical Therapy and Pre-Veterinary Medicine.

*Lower Division Humanities Program* for Freshman and Sophomore students who have not declared a major.

## School of Commerce and Finance Confers:

*Bachelor of Commercial Science* with majors in Accounting, Finance and Banking, Foreign Trade, Industrial Relations and Personnel Management, Marketing, Insurance and Real Estate, General Commerce, Office Management.

## School of Education Confers:

*Bachelor of Arts in Education* and the *Bachelor of Education* with concentration in the following broad areas: the Applied Arts and Fine Arts, Health and Physical Education, Language Arts, Mathematics and Natural Sciences, Social Studies.

## School of Engineering Confers:

*Bachelor of Science* with majors in Chemical, Civil, Electrical and Mechanical Engineering.

## School of Nursing Confers:

*Bachelor of Science in Nursing.*

## College of Sister Formation Confers:

*Bachelor of Arts*

## The Graduate School Confers:

*Master of Arts, Master of Education* and *Master of Science* in Biology, Education, English, History, Electrical, and Mechanical Engineering.

# COLLEGE of ARTS and SCIENCES

REV. JOHN A. FITTERER, S.J., M.A., S.T.L., *Dean*

The College of Arts and Sciences is the oldest School at Seattle University and has the largest enrollment. The College has as its objective the education of young Americans as responsible Christian citizens. To this end its programs of study strive to imbue the student with a deep awareness of Christian culture and love of truth according to the traditional principles of the Jesuit *Ratio Studiorum*.

## LIBERAL ARTS CURRICULUM

The Liberal Arts Curriculum is designed to develop habits of orderly thinking through such courses as Logic, Mathematics and the Natural Sciences; the ability to express oneself clearly and forcefully through such courses as Composition, Language, and Public Speaking; a knowledge of the past through History; a knowledge of the present, a social awareness, and an attitude of social and civic responsibility through courses in the Social Sciences and Modern History; a clear knowledge and love of ultimate philosophical, moral, and religious values through courses in Philosophy and Theology.

## DEPARTMENTAL ORGANIZATION

The College comprises nineteen departments. Each department has a head, who in collaboration with his faculty, administers and arranges the programs of study and counsels the individual students. At least 196 quarter hours are required for graduation. Any student who wishes to inquire about these programs should consult either the office of the dean or the individual department heads listed in that section of the Bulletin entitled "Description of Courses."

## LANGUAGE REQUIREMENTS

The Bachelor of Arts Classical Program requires 15 hours in Latin or Greek courses above 101 and 102.

The Bachelor of Arts Classical and non-Classical Programs require the completion of a Modern Language up to and including course 203 or its equivalent. In the other programs in the College of Arts and Sciences, 15 hours in one of the Modern Languages are required. In Chemistry and the Pre-Medical Program, German is the preferred language.

Any student who has taken the equivalent of Modern Language 101, 102 or 153 in high school and achieved excellent marks will be allowed to take a Language Department Examination in the courses he wishes to waive. Upon passing these examinations satisfactorily, he will be allowed to substitute electives for the course or courses waived. These waiver examinations apply also to Latin and Greek courses numbered 101 and 102.

# BACHELOR of ARTS

## CLASSICAL

The field of concentration may be in any of the approved subject-matter areas in the Humanities, the Natural Sciences or the Social Sciences.

The number of quarter-hour credits required for a major or a minor is indicated by each department in the section "Description of Courses."

### FRESHMAN YEAR

| First Quarter     |                    | Second Quarter |                 | Third Quarter      |   |
|-------------------|--------------------|----------------|-----------------|--------------------|---|
| En 101            | Composition        | 5              | En 102          | Composition        | 5 |
| Hs 101            | History            | 5              | Hs 102          | History            | 5 |
| *Lt 153           | Latin or higher    | 5              | *Lt 260         | Latin or higher    | 5 |
| Th 113            | Theology           | 2              | Th 133          | Theology           | 2 |
| MS 101            | Mil. Sci. or elec. | 2              | MS 102          | Mil. Sci. or elec. | 2 |
| En 164 Literature |                    | 5              | En 165 Language |                    | 5 |
| †101              | Mod. Language      | 5              | †153            | Mod. Language      | 5 |
| Pl. 201           | Phil. of Being     | 5              | Pl 251          | Phil. of Man       | 5 |
| Th 213            | Theology           | 2              | Th 233          | Theology           | 2 |
| MS 201            | Mil. Sci. or elec. | 2              | MS 202          | Mil. Sci. or elec. | 2 |

### JUNIOR YEAR

| First Quarter |                    | Second Quarter       |          | Third Quarter        |          |
|---------------|--------------------|----------------------|----------|----------------------|----------|
| §Mt. 101      | Math. or Science   | 5                    | †203     | Mod. Language        | 5        |
| Pl 301        | General Ethics     | 5                    | §Mt 110  | Math. or Science     | 5        |
| †Sc 100       | or Pls 150, Soc. 5 | 5                    | Pl 321   | Special Ethics       | 5        |
| Th 313        | Theology           | 2                    | †Pls 202 | or Sc. 201 or Higher | 5        |
| §Mt 131       |                    | Math. and/or Science | Th 333   |                      | Theology |
|               |                    | 10                   |          |                      | 2        |

### SENIOR YEAR

| First Quarter               |              | Second Quarter              |         | Third Quarter               |   |
|-----------------------------|--------------|-----------------------------|---------|-----------------------------|---|
| Major or related 10 courses |              | Major or related 10 courses |         | Major or related 15 courses |   |
| Pl 351                      | Epistemology | 3                           | Sph 140 | Speech                      | 5 |
| Th 413                      | Theology     | 2                           | Th 433  | Theology                    | 2 |

Total hours . . . . . 199

## NON-CLASSICAL

This degree differs from the Bachelor of Arts Classical in the Language, Mathematics and Science requirements, and in the type of concentration permitted.

The Field of Concentration:

1. May be a subject-major in a specific department with each department indicating its own requirements. The degree in this instance will be granted with a major in a particular subject-field.
2. May be an area-major with sixty hours of Upper Division Course work in the Humanities, or in Social Science. Subjects may be taken in both areas provided the courses chosen have a unity essential to purposeful study. The quarter-hour arrangement may be one of the following: 45-15; 40-20; 35-15-10; 25-20-15. When such a combination is pursued, the Head of the Department in which the 45, 40, 35 or 25 hour credit choice is made shall be the student's adviser. The degree will be granted with a major either in the Humanities or in Social Science. Students desiring a solid major in a subject field, e.g., Sociology, should not elect this area-major option.

\*Greek may be substituted for Latin.

†Students who have had two years of high school modern language are required to take Modern Language 203 only, upon satisfactorily passing waiver examinations in 101, 102 and 153.

‡Sociology or Politics majors may interchange with History in Freshman year.

§Programs of studies that require ten hours of mathematics or science require these hours to be taken in the same science. A faculty action is required for exception.

|                           |   |
|---------------------------|---|
| <b>First Quarter</b>      |   |
| En 101 Composition        | 5 |
| *Hs 101 History           | 5 |
| † 101 Mod. Language       | 5 |
| Th 113 Theology           | 2 |
| MS 101 Mil. Sci. or elec. | 2 |

|                           |   |
|---------------------------|---|
| <b>First Quarter</b>      |   |
| En 164 or 165 Literature  | 5 |
| PI 201 Phil. of Being     | 5 |
| Pls 150 Politics          | 5 |
| Th 213 Theology           | 2 |
| MS 201 Mil. Sci. or elec. | 2 |

|                             |    |
|-----------------------------|----|
| <b>First Quarter</b>        |    |
| Concentration and electives |    |
| PI 301 General Ethics       | 10 |
| Th 313 Theology             | 2  |

|                             |   |
|-----------------------------|---|
| <b>First Quarter</b>        |   |
| Concentration and electives |   |
| Th 413 Theology             | 2 |

## FRESHMAN YEAR

|                           |   |
|---------------------------|---|
| <b>Second Quarter</b>     |   |
| En 102 Composition        | 5 |
| Hs 102 History            | 5 |
| †102 Mod. Language        | 5 |
| Th 133 Theology           | 2 |
| MS 102 Mil. Sci. or elec. | 2 |

## SOPHOMORE YEAR

|                           |   |
|---------------------------|---|
| <b>Second Quarter</b>     |   |
| †203 Mod. Language        | 5 |
| ‡Mt 101 Math. or Science  | 5 |
| PI 251 Phil. of Man       | 5 |
| Th 233 Theology           | 2 |
| MS 202 Mil. Sci. or elec. | 2 |

## JUNIOR YEAR

|                             |   |
|-----------------------------|---|
| <b>Second Quarter</b>       |   |
| Concentration and electives |   |
| PI 321 Sp. Ethics           | 2 |
| Sph 140 Speech              | 5 |

## SENIOR YEAR

|                             |   |
|-----------------------------|---|
| <b>Second Quarter</b>       |   |
| Concentration and electives |   |
| Th 433 Theology             | 2 |

|                           |   |
|---------------------------|---|
| <b>Third Quarter</b>      |   |
| En 164 or 165 Literature  | 5 |
| † 153 Mod. Language       | 5 |
| PI 181 Logic              | 3 |
| MS 103 Mil. Sci. or elec. | 2 |

|                           |   |
|---------------------------|---|
| <b>Third Quarter</b>      |   |
| ‡Mt 110 Math. or Sci.     | 5 |
| PI 281 Phil. of Pure Act  | 3 |
| Sc 100 Sociology          | 5 |
| MS 203 Mil. Sci. or elec. | 2 |

|                             |   |
|-----------------------------|---|
| <b>Third Quarter</b>        |   |
| Concentration and electives |   |
| PI 351 Epistemology         | 3 |
| Th 333 Theology             | 2 |

|                             |     |
|-----------------------------|-----|
| <b>Third Quarter</b>        |     |
| Concentration and electives |     |
| Total                       | 196 |

## MUSIC

This curriculum in the Fine Arts stresses techniques. Its aim is to equip the student with the technical skill needed in such an art.

Electives in the quantity required may be selected from any suitable subject matter in the College of Arts and Sciences.

## FRESHMAN YEAR

|                                    |   |
|------------------------------------|---|
| <b>First Quarter</b>               |   |
| En 101 Composition                 | 5 |
| Mu 115 Music Fund.                 | 5 |
| Mu 138 Choral Methods              | 2 |
| Mu 148 Voc. or Instru. Music       | 3 |
| Mu 182 Chorale or Instru. Ensemble | 1 |
| Th 113 Theology                    | 2 |
| MS 101 Mil. Science or electives   | 2 |

|                                    |   |
|------------------------------------|---|
| <b>Second Quarter</b>              |   |
| En 102 Composition                 | 5 |
| Mu 116 Intro. Harmony              | 5 |
| Mu 139 Choral Lit.                 | 2 |
| Mu 149 Voc. or Instru. Music       | 3 |
| Mu 183 Chorale or Instru. Ensemble | 1 |
| Th 133 Theology                    | 2 |
| MS 102 Mil. Science or electives   | 2 |

|                                    |   |
|------------------------------------|---|
| <b>Third Quarter</b>               |   |
| En 164 or 165 Literature           | 5 |
| Mu 117 Intern. Harm'y              | 5 |
| Mu 140 Tech. of Choral Conducting  | 2 |
| Mu 150 Voc. or Instru. Music       | 3 |
| Mu 184 Chorale or Instru. Ensemble | 1 |
| PI 181 Logic                       | 3 |
| MS 103 Mil. Science or electives   | 2 |

## SOPHOMORE YEAR

|  |   |
|--|---|
| <b>First Quarter</b>                   |   |
| Mu 248 Voc. or Instru. Music           | 3 |
| Mu 258 Instru. Meth.                   | 2 |
| Mu 282 Univ. Chorale or Instru. Ensem. | 1 |
| PI 201 Phil of Being                   | 5 |
| Th 213 Theology                        | 2 |
| MS 201 Mil. Science or electives       | 2 |

|  |   |
|--|---|
| <b>Second Quarter</b>                  |   |
| Mu 249 Voc. orf Instru. Music          | 3 |
| Mu 259 Instru. Meth.                   | 2 |
| Mu 283 Univ. Chorale or Instru. Ensem. | 1 |
| PI 251 Phil. of Man                    | 5 |
| Th 233 Theology                        | 2 |
| MS 202 Mil. Science or electives       | 2 |

|  |   |
|--|---|
| <b>Third Quarter</b>                   |   |
| Mu 250 Voc. or Instru. Music           | 3 |
| Mu 260 Instru. Meth.                   | 2 |
| Mu 284 Univ. Chorale or Instru. Ensem. | 1 |
| PI 281 Phil of Pure Act                | 3 |
| Sph. 140 Speech                        | 5 |
| MS 203 Mil. Science or electives       | 2 |

## JUNIOR YEAR

|  |   |
|--|---|
| <b>First Quarter</b>                   |   |
| Mu 301 Adv. Harmony                    | 3 |
| Mu 348 Voc. or Instru. Music           | 3 |
| Mu 372 Intro. to Mus. Lit.             | 3 |
| Mu 383 Univ. Chorale or Instru. Ensem. | 1 |
| Social Science                         | 5 |
| Th 313 Theology                        | 2 |

|  |   |
|--|---|
| <b>Second Quarter</b>                  |   |
| Mu 302 Counterpoint                    | 3 |
| Mu 317 El. Comp. & Arg.                | 5 |
| Mu 349 Voc. or Instru. Music           | 3 |
| Mu 373 Music Lit. & Hist.              | 3 |
| Mu 384 Univ. Chorale or Instru. Ensem. | 1 |
| Th 333 Theology                        | 2 |

|  |   |
|--|---|
| <b>Third Quarter</b>                   |   |
| Mu 303 Musical Forms                   | 3 |
| Mu 350 Voc. or Instru. Music           | 3 |
| Mu 374 Music Lit. & Hs.                | 3 |
| Mu 385 Univ. Chorale or Instru. Ensem. | 1 |
| Electives                              | 3 |

## SENIOR YEAR

|  |   |
|--|---|
| <b>First Quarter</b>                   |   |
| Mu 375 Study of Gr. Operas             | 2 |
| Mu 448 Voc. or Instru. Music           | 3 |
| Mu 482 Univ. Chorale or Instru. Ensem. | 1 |
| PI 301 General Ethics                  | 5 |
| Th 413 Theology                        | 2 |

|  |   |
|--|---|
| <b>Second Quarter</b>                  |   |
| Mr 376 Study of Gr. Operas             | 2 |
| Mu 449 Voc. or Instru. Music           | 3 |
| Mu 479 Recital                         | 2 |
| Mu 483 Univ. Chorale or Instru. Ensem. | 1 |
| PI 321 Special Ethics                  | 2 |
| Th 433 Theology                        | 2 |
| electives                              | 2 |

|  |     |
|--|-----|
| <b>Third Quarter</b>                   |     |
| Mu 377 Study of Gr. Operas             | 2   |
| Mu 449 Voc. or Instru. Music           | 3   |
| Mu 484 Univ. Chorale or Instru. Ensem. | 1   |
| PI 351 Epistemology                    | 3   |
| electives                              | 6   |
| Total                                  | 196 |

‡Programs of studies that require ten hours of mathematics or science require these hours to be taken in the same science. A faculty action is required for exception.

# BACHELOR of SCIENCE

## BIOLOGY

The concentration called for in this program is designed to prepare the student for professional work in the various fields of Basic and Applied Biology.

### FRESHMAN YEAR

|                           |   |  |
|---------------------------|---|--|
| <b>First Quarter</b>      |   |  |
| Ch 111 Gen. Inorg. Chem.  | 5 |  |
| En 101 Composition        | 5 |  |
| Mt 101 Algebra            | 5 |  |
| Ms 101 Mil. Sci. or elec. | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>Second Quarter</b>     |   |  |
| Ch 112 Gen. Inorg. Chem.  | 5 |  |
| En 102 Composition        | 5 |  |
| Mt 110 Trigonometry       | 5 |  |
| Th 113 Theology           | 2 |  |
| MS 102 Mil. Sci. or elec. | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>Third Quarter</b>      |   |  |
| Ch 116 El. Qual. Anal.    | 5 |  |
| En 164 or 165 Literature  | 5 |  |
| PI 181 Logic              | 3 |  |
| Th 133 Theology           | 2 |  |
| MS 103 Mil. Sci. or elec. | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>First Quarter</b>      |   |  |
| BI 200 Zoology            | 5 |  |
| BI 375 Microtechnique     | 2 |  |
| Ch 335 Org. Chem.         | 5 |  |
| Th 213 Theology           | 2 |  |
| MS 201 Mil. Sci. or elec. | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>Second Quarter</b>     |   |  |
| BI 201 Zoology            | 5 |  |
| Ch 336 Org. Chem.         | 5 |  |
| PI 201 Phil. of Being     | 5 |  |
| Th 233 Theology           | 2 |  |
| MS 202 Mil. Sci. or elec. | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>Third Quarter</b>      |   |  |
| BI 251 Vertebrate Embry.  | 5 |  |
| PI 251 Phil. of Man       | 5 |  |
| Sc 100 Sociology          | 5 |  |
| MS 203 Mil. Sci. or elec. | 2 |  |

|                          |   |  |
|--------------------------|---|--|
| <b>First Quarter</b>     |   |  |
| BI 132 Anatomy           | 5 |  |
| Ph 105 Gen. Physics      | 5 |  |
| PI 281 Phil. of Pure Act | 3 |  |
| Th 313 Theology          | 2 |  |

|                       |   |  |
|-----------------------|---|--|
| <b>Second Quarter</b> |   |  |
| BI 133 Physiology     | 5 |  |
| Hs 101 History        | 5 |  |
| Ph 106 Gen. Physics   | 5 |  |
| Th 333 Theology       | 2 |  |

|                          |   |  |
|--------------------------|---|--|
| <b>Third Quarter</b>     |   |  |
| BI 255 Histology         | 5 |  |
| Ph 107 Gen. Physics      | 5 |  |
| PI 301 Gen. Ethics elec. | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>First Quarter</b>      |   |  |
| 101 Language              | 5 |  |
| PI 321 Special Ethics     | 2 |  |
| Th 413 Theology electives | 4 |  |

|                       |   |  |
|-----------------------|---|--|
| <b>Second Quarter</b> |   |  |
| CF 101 Economics      | 5 |  |
| 102 Language          | 5 |  |
| PI 351 Epistemology   | 5 |  |
| Th 433 Theology       | 2 |  |

|                        |   |  |
|------------------------|---|--|
| <b>Third Quarter</b>   |   |  |
| BI 221 Bacteriology    | 5 |  |
| 153 Language electives | 5 |  |
|                        | 4 |  |

Total ..... 196

## CHEMISTRY

The concentration called for in this program is designed to prepare the student for professional work in the various fields of Basic and Applied Chemistry.

The curriculum is approved by the Committee on Professional Training of the American Chemical Society and satisfies the minimum standards of that committee.

A minimum grade of C is required in all science and mathematics courses.

### FRESHMAN YEAR

|                                 |   |  |
|---------------------------------|---|--|
| <b>First Quarter</b>            |   |  |
| Ch 111 or 114 Gen. Inorg. Chem. | 5 |  |
| En 101 Composition              | 5 |  |
| Mt 110 Pl. Trig.                | 5 |  |
| Th 113 Theology                 | 2 |  |
| MS 101 Mil. Sci. or elec.       | 2 |  |

|                                 |   |  |
|---------------------------------|---|--|
| <b>Second Quarter</b>           |   |  |
| Ch 112 or 115 Gen. Inorg. Chem. | 5 |  |
| En 102 Composition              | 5 |  |
| Mt 111 Coll. Algebra            | 5 |  |
| MS 102 Mil. Sci. or elec.       | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>Third Quarter</b>      |   |  |
| Ch 120 El. Qual. Anal.    | 3 |  |
| Mt. 131 Anal. I.          | 5 |  |
| PI 181 Logic              | 3 |  |
| Th 133 Theology           | 2 |  |
| MS 103 Mil. Sci. or elec. | 2 |  |

|                               |   |  |
|-------------------------------|---|--|
| <b>First Quarter</b>          |   |  |
| Ch 225 Adv. Qual. Anal.       | 3 |  |
| Mt 132 Anal. II               | 5 |  |
| Ph 200 or 105 Mech. and Sound | 5 |  |
| Th 213 Theology               | 2 |  |
| MS 201 Mil. Sci. or elec.     | 2 |  |

|                               |   |  |
|-------------------------------|---|--|
| <b>Second Quarter</b>         |   |  |
| Ch 220 Quant. Anal.           | 4 |  |
| Mt 231 Anal. III              | 5 |  |
| Ph 201 or 106 Elect. and Mag. | 5 |  |
| MS 202 Mil. Sci. or elec.     | 2 |  |

|                              |   |  |
|------------------------------|---|--|
| <b>Third Quarter</b>         |   |  |
| Ch 227 Quant. Anal.          | 5 |  |
| Ph 202 or 107 Heat and Light | 5 |  |
| PI 201 Phil. of Being        | 5 |  |
| Th 233 Theology              | 2 |  |
| MS 203 Mil. Sci. or elec.    | 2 |  |

|                             |   |  |
|-----------------------------|---|--|
| <b>First Quarter</b>        |   |  |
| CH 335 Elem. Org. Chem.     | 5 |  |
| Ch 355 Phys. & Theor. Chem. | 5 |  |
| PI 251 Phil. of Man         | 5 |  |
| Th 313 Theology             | 2 |  |

|                             |   |  |
|-----------------------------|---|--|
| <b>Second Quarter</b>       |   |  |
| Ch 336 El. Org. Chem.       | 5 |  |
| Ch 356 Phys. & Theor. Chem. | 5 |  |
| PI 281 Phil. of Pure Act    | 3 |  |
| Th 333 Theology             | 2 |  |

|                             |   |  |
|-----------------------------|---|--|
| <b>Third Quarter</b>        |   |  |
| CH 337 Adv. Org. Chem.      | 3 |  |
| Ch 338 Org. Prep. Chem.     | 2 |  |
| Ch 357 Phys. & Theor. Chem. | 5 |  |
| Sph 140 Speech              | 5 |  |

\*Sociology or Politics majors may interchange with History in Freshman year.  
 †Students who have had two years of high school modern language are required to take Modern Language 208 only, upon satisfactorily passing waiver examinations in 101, 102 and 158.



## SENIOR YEAR

| First Quarter            |   |  |
|--------------------------|---|--|
| Ch 415 Adv. Inorg. Chem. | 3 |  |
| Ch 497 Research          | 2 |  |
| En 164 Literature        | 5 |  |
| Gr 101 German            | 5 |  |
| PI 301 Gen. Ethics       | 5 |  |

| Second Quarter       |   |  |
|----------------------|---|--|
| Ch 426 Instru. Anal. | 3 |  |
| Ch 498 Research      | 2 |  |
| Gr 102 German        | 5 |  |
| PI 321 Sp. Ethics    | 2 |  |
| Th 413 Theology      | 2 |  |

| Third Quarter       |     |        |
|---------------------|-----|--------|
| Ch 445 Org. Qual.   | 3   |        |
| Ch 499 Research     | 2   |        |
| Gr 153 German       | 5   |        |
| PI 351 Epistemology | 3   |        |
| Th 433 Theology     | 2   |        |
| Total               | 197 | or 199 |

## GENERAL SCIENCE

The concentration called for in this program requires 60 hours of work beyond the Freshman year distributed thus: 25 hours in one science, 20 in another and 15 in a third.

The Head of the Department in which the 25 hour choice is made will be the student's adviser.

Topics in General Engineering may be included in the General Science Concentration.

### FRESHMAN YEAR

| First Quarter                    |   |  |
|----------------------------------|---|--|
| En 101 Composition               | 5 |  |
| Hs 101 History or Social Science | 5 |  |
| Prerequisites                    | 5 |  |
| Th 113 Theology                  | 2 |  |
| MS 101 Mil. Sci. or elec.        | 2 |  |

| Second Quarter                   |   |  |
|----------------------------------|---|--|
| En 102 Composition               | 5 |  |
| Hs 102 History or Social Science | 5 |  |
| Math. or Science Prerequisites   | 5 |  |
| Th 133 Theology                  | 2 |  |
| MS 102 Mil. Sci. or elec.        | 2 |  |

| Third Quarter                  |    |  |
|--------------------------------|----|--|
| En 164 or 165 Literature       | 5  |  |
| Math. or Science Prerequisites | 10 |  |
| MS 103 Mil. Sci. or elec.      | 2  |  |

| First Quarter                  |   |  |
|--------------------------------|---|--|
| 101 Mod. Language              | 5 |  |
| Math. or Science Prerequisites | 5 |  |
| PI. 181 Logic                  | 3 |  |
| Th 213 Theology                | 2 |  |
| MS 201 Mil. Sci. or elec.      | 2 |  |

### SOPHOMORE YEAR

| Second Quarter                 |   |  |
|--------------------------------|---|--|
| 102 Mod. Language              | 5 |  |
| Math. or Science Prerequisites | 5 |  |
| PI 201 Phil. of Being          | 5 |  |
| Th 233 Theology                | 2 |  |
| MS 202 Mil. Sci. or elec.      | 2 |  |

| Third Quarter                  |   |  |
|--------------------------------|---|--|
| 153 Mod. Language              | 5 |  |
| Math. or Science Prerequisites | 5 |  |
| PI 251 Phil. of Man            | 5 |  |
| MS 203 Mil. Sci. or elec.      | 2 |  |

| First Quarter           |   |  |
|-------------------------|---|--|
| First Science           | 5 |  |
| Second Science          | 5 |  |
| PI 281 Phil of Pure Act | 3 |  |
| Th 313 Theology         | 2 |  |

### JUNIOR YEAR

| Second Quarter        |   |  |
|-----------------------|---|--|
| First Science         | 5 |  |
| Second Science        | 5 |  |
| PI 301 General Ethics | 5 |  |
| Th 333 Theology       | 2 |  |

| Third Quarter         |   |  |
|-----------------------|---|--|
| First Science         | 5 |  |
| Second Science        | 5 |  |
| Third Science         | 5 |  |
| PI 321 Special Ethics | 2 |  |

| First Quarter  |   |  |
|----------------|---|--|
| First Science  | 5 |  |
| Second Science | 5 |  |
| Third Science  | 5 |  |

### SENIOR YEAR

| Second Quarter            |   |  |
|---------------------------|---|--|
| First Science             | 5 |  |
| Third Science             | 5 |  |
| Th 413 Theology electives | 2 |  |

| Third Quarter             |     |  |
|---------------------------|-----|--|
| PI 351 Epistemology       | 3   |  |
| Th 433 Theology electives | 2   |  |
| Total                     | 196 |  |

## HOME ECONOMICS

Three programs of study are offered by the Department of Home Economics.

The Non-Professional Curriculum is designed to provide a background without specialization.

The Professional Curriculum is designed to give preliminary training for specialists in various fields, such as magazines, newspaper, department store, public utilities, quantity food service work, testing and research work.

The Teaching Curriculum involves a fifth year program which qualifies one for the Standard General Certificate.

### The Non-Professional Curriculum

#### FRESHMAN YEAR

| First Quarter               |   |  |
|-----------------------------|---|--|
| Ch 101 Gen. Inorg. Chem.    | 5 |  |
| En 101 Composition          | 5 |  |
| HE 160 Cloth. Sel. & Const. | 5 |  |
| HE 180 Per. & Soc. Living   | 3 |  |

| Second Quarter     |   |  |
|--------------------|---|--|
| Ch 102 Org. Chem.  | 5 |  |
| En 102 Composition | 5 |  |
| Sph 140 Speech     | 5 |  |
| Th 113 Theology    | 2 |  |

| Third Quarter             |   |  |
|---------------------------|---|--|
| BI 130 Gen. Human Biology | 5 |  |
| HE 110 Family Foods       | 5 |  |
| PI 181 Logic              | 3 |  |
| Th 133 Theology           | 2 |  |

|                       |   |  |
|-----------------------|---|--|
| <b>First Quarter</b>  |   |  |
| En 164 Literature     | 5 |  |
| HE 140 Everyday Art   | 5 |  |
| PI 201 Phil. of Being | 5 |  |
| Th 213 Theology       | 2 |  |

|                          |   |  |
|--------------------------|---|--|
| <b>First Quarter</b>     |   |  |
| HE 220 Nutrition         | 5 |  |
| PI 281 Phil. of Pure Act | 3 |  |
| Sc 100 Intr. Soc.        | 5 |  |
| Th 313 Theology          | 2 |  |

|                               |   |  |
|-------------------------------|---|--|
| <b>First Quarter</b>          |   |  |
| 101 Mod. Language or elective | 5 |  |
| PI 351 Epistemology           | 3 |  |
| Th 413 Theology electives     | 2 |  |
|                               | 6 |  |

## SOPHOMORE YEAR

|                                |   |  |
|--------------------------------|---|--|
| <b>Second Quarter</b>          |   |  |
| En 165 Literature              | 5 |  |
| HE 111 Food Prep.              | 5 |  |
| HE 161 Cloth. Des. by Fl. Pat. | 5 |  |
| Th 233 Theology                | 2 |  |

|                                |   |  |
|--------------------------------|---|--|
| <b>JUNIOR YEAR</b>             |   |  |
| <b>Second Quarter</b>          |   |  |
| HE 270 Dress & Hshld. Textiles | 5 |  |
| PI 301 General Ethics          | 5 |  |
| Pls 150 Survey Pol.            | 5 |  |
| Th 333 Theology                | 2 |  |

|                               |   |  |
|-------------------------------|---|--|
| <b>SENIOR YEAR</b>            |   |  |
| <b>Second Quarter</b>         |   |  |
| 102 Mod. Language or elective | 5 |  |
| HE 290 Choosing the Home      | 3 |  |
| Th 433 Theology electives     | 2 |  |
|                               | 7 |  |

|                               |   |  |
|-------------------------------|---|--|
| <b>Third Quarter</b>          |   |  |
| HE 150 Personal & Family Fin. | 5 |  |
| Hs 101 History                | 5 |  |
| PI 251 Phil. of Man           | 5 |  |

|                               |    |  |
|-------------------------------|----|--|
| <b>Third Quarter</b>          |    |  |
| PI 321 Spec. Ethics electives | 2  |  |
|                               | 15 |  |

|   |    |  |
|---|----|--|
| <b>Third Quarter</b>                    |    |  |
| 103 Mod. Language or elective electives | 5  |  |
|   | 10 |  |

Total ..... 196

## The Professional Curriculum

### FRESHMAN YEAR

|                           |   |  |
|---------------------------|---|--|
| <b>First Quarter</b>      |   |  |
| Ch 101 Gen. Inorg. Chem.  | 5 |  |
| En 101 Composition        | 5 |  |
| HE 110 Family Foods       | 5 |  |
| HE 180 Per. & Soc. Living | 3 |  |

|                        |   |  |
|------------------------|---|--|
| <b>First Quarter</b>   |   |  |
| BI 132 Gen. Hum. Anat. | 5 |  |
| CF 101 Economics       | 5 |  |
| PI 201 Phil. of Being  | 5 |  |
| Th 213 Theology        | 2 |  |

|                      |   |  |
|----------------------|---|--|
| <b>First Quarter</b> |   |  |
| HE 140 Everyday Art  | 5 |  |
| HE 220 Nutrition     | 5 |  |
| Sc 260 The Family    | 5 |  |
| Th 313 Theology      | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>First Quarter</b>      |   |  |
| HE 360 Tailoring          | 5 |  |
| PI 301 Gen. Ethics        | 5 |  |
| Th 413 Theology electives | 2 |  |
|                           | 5 |  |

|                                |   |  |
|--------------------------------|---|--|
| <b>Second Quarter</b>          |   |  |
| Ch 102 Organic Chem.           | 5 |  |
| En 102 Composition             | 5 |  |
| HE 270 Dress & Hshld. Textiles | 5 |  |
| Th 113 Theology                | 2 |  |

### SOPHOMORE YEAR

|                        |   |  |
|------------------------|---|--|
| <b>Second Quarter</b>  |   |  |
| BI 133 Gen. Physiology | 5 |  |
| CF 102 Economics       | 5 |  |
| HE 111 Food Prep.      | 5 |  |

### JUNIOR YEAR

|                                |    |  |
|--------------------------------|----|--|
| <b>Second Quarter</b>          |    |  |
| HE 161 Cloth. Des. by Fl. Pat. | 5  |  |
| PI 281 Phil. of Pure Act       | 3  |  |
| Th 333 Theology electives      | 2  |  |
|                                | 10 |  |

### SENIOR YEAR

|                           |   |  |
|---------------------------|---|--|
| <b>Second Quarter</b>     |   |  |
| BI 220 Microbiology       | 5 |  |
| HE 190 Choosing the Home  | 3 |  |
| PI 321 Special Ethics     | 2 |  |
| Th 433 Theology electives | 2 |  |
|                           | 5 |  |

|                             |   |  |
|-----------------------------|---|--|
| <b>Third Quarter</b>        |   |  |
| HE 150 Per. & Fam. Finances | 5 |  |
| HE 160 Cloth. Sel. & Const. | 5 |  |
| PI 181 Logic                | 3 |  |
| Th 133 Theology             | 2 |  |

|                      |   |  |
|----------------------|---|--|
| <b>Third Quarter</b> |   |  |
| CF 315 Marketing     | 5 |  |
| PI 251 Phil. of Man  | 5 |  |
| Psy 100 Intr. Psych. | 5 |  |
| Th 233 Theology      | 2 |  |

|                               |   |  |
|-------------------------------|---|--|
| <b>Third Quarter</b>          |   |  |
| HE 260 Cloth. Des. by Draping | 5 |  |
| HE 310 Adv. Foods electives   | 5 |  |
|                               | 7 |  |

|                               |   |  |
|-------------------------------|---|--|
| <b>Third Quarter</b>          |   |  |
| HE 195 Furnishing the Home    | 3 |  |
| HE 315 Dem. Tech.             | 3 |  |
| PI 351 Epistemology electives | 3 |  |
|                               | 5 |  |

Total ..... 196

## Teaching Curriculum

### FRESHMAN YEAR

|                             |   |  |
|-----------------------------|---|--|
| <b>First Quarter</b>        |   |  |
| Ch 101 Gen. Inorg. Chem.    | 5 |  |
| En 101 Composition          | 5 |  |
| HE 160 Cloth. Sel. & Const. | 5 |  |
| HE 180 Per. & Soc. Living   | 3 |  |

|                        |   |  |
|------------------------|---|--|
| <b>First Quarter</b>   |   |  |
| BI 132 Gen. Hum. Anat. | 5 |  |
| HE 140 Everyday Art    | 5 |  |
| PI 201 Phil. of Being  | 5 |  |
| Th 213 Theology        | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>First Quarter</b>      |   |  |
| Ed 322 Psy. of Gr. & Dev. | 5 |  |
| Ed 356 Arith. Meth.       | 3 |  |
| HE 220 Nutrition          | 5 |  |
| Sc 260 The Family         | 5 |  |

|                                |   |  |
|--------------------------------|---|--|
| <b>Second Quarter</b>          |   |  |
| CH 102 Organic Chem.           | 5 |  |
| En 102 Composition             | 5 |  |
| HE 270 Dress & Hshld. Textiles | 5 |  |
| Th 113 Theology                | 2 |  |

### SOPHOMORE YEAR

|                                   |   |  |
|-----------------------------------|---|--|
| <b>Second Quarter</b>             |   |  |
| BI 133 Gen. Hum. Physio.          | 5 |  |
| HE 111 Food Prep.                 | 5 |  |
| HE 161 Cloth. Des. by Fl. Pattern | 5 |  |
| Th 233 Theology                   | 2 |  |

### JUNIOR YEAR

|                          |   |  |
|--------------------------|---|--|
| <b>Second Quarter</b>    |   |  |
| Ed 201 Wn. St. Man.      | 0 |  |
| Ed 202 Hs. of Pac. N.W.  | 3 |  |
| En 164 Literature        | 5 |  |
| HE 190 Choosing the Home | 3 |  |
| PI 281 Phil. of Pure Act | 3 |  |
| Th 313 Theology          | 2 |  |

|                               |   |  |
|-------------------------------|---|--|
| <b>Third Quarter</b>          |   |  |
| HE 110 Family Foods           | 5 |  |
| HE 150 Per. & Family Finances | 5 |  |
| PI 181 Logic                  | 3 |  |
| Th 133 Theology               | 2 |  |

|                       |    |  |
|-----------------------|----|--|
| <b>Third Quarter</b>  |    |  |
| Ed 101 Intr. to Educ. | 3  |  |
| Ed 353 Music Orient.  | 3  |  |
| HE 310 Adv. Foods     | 5  |  |
| PE Activity           | +1 |  |
| PI 251 Phil. of Man   | 5  |  |

|                               |    |  |
|-------------------------------|----|--|
| <b>Third Quarter</b>          |    |  |
| Ed 325 Psy. of Learn.         | 5  |  |
| Ed 352 Health & PE Orient.    | 3  |  |
| HE 260 Cloth. Des. by Draping | 5  |  |
| PE Activity                   | +1 |  |
| Th 333 Theology               | 2  |  |

## SENIOR YEAR

| First Quarter          |   |
|------------------------|---|
| Ed 331 Princ. of Tchg. | 3 |
| Ed 333 Dir. Observ.    |   |
| HE 360 Tailoring       |   |
| PI 301 Gen. Ethics     |   |
| Th 413 Theology        | 2 |

| Second Quarter          |    |
|-------------------------|----|
| Ed 433 Sec. Cadet Tchg. | 10 |
| HE 330 HE Methods       | 2  |
| HE 331 HE Methods       | 2  |
| PI 321 Sp. Ethics       | 2  |

| Third Quarter            |     |
|--------------------------|-----|
| Ed 432 Elem. Cadet Tchg. | 5   |
| En 165 Literature        | 3   |
| HE 315 Dem. Tech.        | 3   |
| PI 351 Epistemology      | 2   |
| Th 433 Theology          | 2   |
| Total                    | 197 |

## MATHEMATICS

The following program is designed to prepare the student for advanced study, teaching and professional work in the fields of pure and applied mathematics.

It is assumed that a student intending to follow this program will have completed the equivalents of Mt. 10 (Basic Algebra), Mt. 20 (Basic Geometry), Mt. 101 (Intermediate Algebra) and Mt. 110 (Plane Trigonometry) in high school. Students who have not done so must complete this sequence of courses at the University before taking further courses in mathematics. In such cases Mt 101 and Mt 110 may be taken for graduation credit and counted as electives.

### FRESHMAN YEAR

| First Quarter              |   |
|----------------------------|---|
| En 101 Composition         | 5 |
| Mt 111 College Algebra     | 5 |
| Ph 105 or 200 Mech. & Snd. | 5 |
| Th 113 Theology            | 2 |
| MS 101 Mil. Sci. or elec.  | 2 |

| Second Quarter             |   |
|----------------------------|---|
| En 102 Composition         | 5 |
| Mt 131 Elem. Anal. I       | 5 |
| Ph 106 or 201 Elec. & Mag. | 5 |
| MS 102 Mil. Sci. or elec.  | 2 |

| Third Quarter              |   |
|----------------------------|---|
| Mt 132 Elem. Anal. II      | 5 |
| Ph 107 or 202 Heat & Light | 5 |
| PI 181 Logic               | 3 |
| Th 133 Theology            | 2 |
| MS 103 Mil. Sci. or elec.  | 2 |

### SOPHOMORE YEAR

| First Quarter               |   |
|-----------------------------|---|
| Fr 101 or Gr 101 Mod. Lang. | 5 |
| Mt 231 Elem. Anal. III      | 5 |
| PI 201 Phil. of Being       | 2 |
| Th 213 Theology             | 2 |
| MS 201 Mil. Sci. or elec.   | 2 |

| Second Quarter              |   |
|-----------------------------|---|
| Fr 102 or Gr 102 Mod. Lang. | 5 |
| Mt 232 Elem. Anal. IV       | 5 |
| PI 251 Phil. of Man         | 5 |
| MS 202 Mil. Sci. or elec.   | 2 |

| Third Quarter               |   |
|-----------------------------|---|
| Fr 153 or Gr 153 Mod. Lang. | 5 |
| Mt. 341 Elem. Diff. Eq'n's. | 5 |
| PI 281 Phil. of Pure Act    | 3 |
| Th 233 Theology             | 2 |
| MS 203 Mil. Sci. or elec.   | 2 |

### JUNIOR YEAR

| First Quarter         |   |
|-----------------------|---|
| Mt Mathematics        | 5 |
| Mt Mathematics        | 5 |
| PI 301 General Ethics | 5 |

| Second Quarter        |   |
|-----------------------|---|
| Mt. Mathematics       | 5 |
| Mt Mathematics        | 5 |
| PI 321 Special Ethics | 2 |
| Th 313 Theology       | 2 |

| Third Quarter       |   |
|---------------------|---|
| Mt Mathematics      | 5 |
| PI 351 Epistemology | 3 |
| Sph 140 Speech      | 5 |
| Th 333 Theology     | 2 |

### SENIOR YEAR

| First Quarter         |   |
|-----------------------|---|
| En 175 Literature     | 5 |
| Mt. Mathematics Minor | 5 |

| Second Quarter            |   |
|---------------------------|---|
| Mt. Mathematics Minor     | 5 |
| Th 413 Theology electives | 5 |
|                           | 4 |

| Third Quarter             |     |
|---------------------------|-----|
| Mt Mathematics Minor      | 5   |
| Th 433 Theology electives | 2   |
|                           | 3   |
| Total                     | 196 |

## MEDICAL RECORDS LIBRARIAN

(Biology Department)

Students in this program spend three years in academic work on the campus and fifty weeks in medical records training in an approved hospital. Upon completion of the course they are eligible to apply for registration with the American Association of Medical Records Librarians. Forty-five quarter hours are granted toward a degree for the hospital training work provided this training is taken after at least one year of academic work on the campus of Seattle University. Credits are given only at the time of graduation from Seattle University.

### FRESHMAN YEAR

| First Quarter      |   |
|--------------------|---|
| CF 120 Typing      | 3 |
| Ch 101 Gen. Chem.  |   |
| En 101 Composition |   |
| Th 113 Theology    | 2 |

| Second Quarter     |   |
|--------------------|---|
| CF 121 Typing      | 3 |
| En 102 Composition | 5 |
| Th 133 Theology    | 2 |
| Sph 140 Speech     | 5 |

| Third Quarter     |   |
|-------------------|---|
| CF 122 Typing     | 3 |
| En 164 Literature | 5 |
| PI 181 Logic      | 3 |
| Sc 100 Sociology  | 5 |
| Th 213 Theology   | 2 |

## SOPHOMORE YEAR

|  |   |  |
|--|---|--|
| <b>First Quarter</b><br>BI 221 Bacteriol. 5<br>* 101 Language 5<br>CF 218 Office Organ. 5<br>Th 233 Theology 2 | <b>Second Quarter</b><br>* 102 Lang. 5<br>CF 215 Bus. Writ. 5<br>PI 201 Phil. of Being 3<br>Th 313 Theology 2 | <b>Third Quarter</b><br>* 153 Language 5<br>Sc 201 Statis. 5<br>PI 251 Phil. of Man 5<br>electives 3 |
|--|---|--|

## JUNIOR YEAR

|   |  |  |
|---|--|--|
| <b>First Quarter</b><br>BI 132 Anatomy 5<br>CF 101 Economics 5<br>PI 281 Phil. of Pure Act 3<br>Th 333 Theology 2 | <b>Second Quarter</b><br>BI 133 Physiology 5<br>PI 301 Gen. Ethics 5<br>Th 413 Theology 2<br>electives 6 | <b>Third Quarter</b><br>CF 102 Economics 5<br>PI 321 Special Ethic 5<br>PI 351 Epistemology 5<br>elective 3<br>Th 433 Theology 2 |
|---|--|--|

## SENIOR YEAR

12 months in an approved hospital ..... 45 quarter hrs.  
 \*Latin preferred.

## MEDICAL SECRETARIAL CURRICULUM

(Biology Department)

For the present, the program in Medical Secretarial Studies falls under the degree in General Science. The three fields of concentration are: Medical Secretarial Studies, Biological Science, and Philosophy.

### FRESHMAN YEAR

|  |   |   |
|--|---|---|
| <b>First Quarter</b><br>CF 120 Typing 3<br>Ch 101 Chemistry 5<br>En 101 Composition 5<br>Th 113 Theology 2 | <b>Second Quarter</b><br>BI 371 General Science 3<br>CF 121 Typing 3<br>Ch 102 Chemistry 5<br>En 102 Composition 5<br>Th 133 Theology 2 | <b>Third Quarter</b><br>CF 122 Typing 3<br>En 164 or 165 Literature 5<br>PI 181 Logic 3<br>Sc 100 Sociology 5 |
|--|---|---|

### SOPHOMORE YEAR

|   |   |  |
|---|---|--|
| <b>First Quarter</b><br>BI 132 Anatomy 5<br>CF 216 Business Mach. 2<br>PI 201 Phil. of Being 5<br>Th 213 Theology 2 | <b>Second Quarter</b><br>BI 133 Physiology 5<br>CF 215 Business Writing 3<br>PI 251 Phil. of Man 2<br>Th 233 Theology 2 | <b>Third Quarter</b><br>BI 220 Microbiology 5<br>PI 281 Phil. of Pure Act 3<br>Sph 140 Speech 5<br>Th 313 Theology 2 |
|---|---|--|

### JUNIOR YEAR

|  |  |   |
|--|--|---|
| <b>First Quarter</b><br>CF 101 Economics 5<br>CF 116 Shorthand 5<br>PI 301 General Ethics 5<br>Th 333 Theology 2 | <b>Second Quarter</b><br>CF 102 Economics 5<br>CF 117 Shorthand 5<br>CF 130 Accounting 5 | <b>Third Quarter</b><br>CF 118 Shorthand 5<br>CF 218 Secre. Pract. 5<br>CF 290 Insurance 5<br>Th 413 Theology 2 |
|--|--|---|

### SENIOR YEAR

|   |  |  |
|---|--|--|
| <b>First Quarter</b><br>BI 170 Med. Terminology 2<br>CF 473 Casual. Insurance 3<br>PI 321 Special Ethics 2<br>Psy 310 Men. Hygiene 5<br>electives 3 | <b>Second Quarter</b><br>BI 420 Medical Dictation 3<br>CF 110 Business Law I 5<br>PI 351 Epistemology 3<br>Th 433 Theology 2 | <b>*Third Quarter</b><br>BI 422 Appl. Med. Sec. 7<br>Prac. 7<br>electives 12 |
|---|--|--|

\*Spring Quarter Senior year taken at Providence Hospital.

## MEDICAL TECHNOLOGY

(Biology Department)

Students in this program spend three years in academic work on the campus and a fourth year of internship in an approved hospital. Those who successfully complete their year of internship will be granted 45 hours of credit toward a degree at Seattle University and are eligible for certification by the Registry of Medical Technologists.

The 45 quarter hours for internship will be granted only to those who have spent at least one full year on campus prior to internship. Hence these credits are not granted to students who have interned from some other school and come to Seattle University to complete their degree.

|                          |   |  |
|--------------------------|---|--|
| <b>First Quarter</b>     |   |  |
| BI 132 Anatomy           | 5 |  |
| CH 111 Gen. Inorg. Chem. | 5 |  |
| En 101 Composition       | 5 |  |
| Th 113 Theology          | 2 |  |

|                         |   |  |
|-------------------------|---|--|
| <b>First Quarter</b>    |   |  |
| BI 221 Bacteriology     | 5 |  |
| Ch 221 Quant. Anal.     | 5 |  |
| Sc 105 Mod. Soc. Probs. | 5 |  |
| Th 213 Theology         | 2 |  |

|                      |   |  |
|----------------------|---|--|
| <b>First Quarter</b> |   |  |
| CF 130 Accounting    | 5 |  |
| CF 120 Typing        | 3 |  |
| PI 251 Phil. of Man  | 5 |  |
| Th 413 Theology      | 2 |  |

Internship 45 credits.

### FRESHMAN YEAR

|                          |   |  |
|--------------------------|---|--|
| <b>Second Quarter</b>    |   |  |
| BI 133 Physiology        | 5 |  |
| Ch 112 Gen. Inorg. Chem. | 5 |  |
| En 102 Composition       | 5 |  |
| Th 133 Theology          | 2 |  |

### SOPHOMORE YEAR

|                         |   |  |
|-------------------------|---|--|
| <b>Second Quarter</b>   |   |  |
| BI 222 Commun. Diseases | 3 |  |
| Ch 102 Org. Chem.       | 5 |  |
| PI 181 Logic electives  | 5 |  |

### JUNIOR YEAR

|                       |   |  |
|-----------------------|---|--|
| <b>Second Quarter</b> |   |  |
| BI 375 Microtechnique | 5 |  |
| CF 121 Typing         | 3 |  |
| PI 301 Gen. Ethics    | 5 |  |
| Psy 310 Ment. Hyg.    | 5 |  |
| Th 433 Theology       | 2 |  |

### SENIOR YEAR

|                            |   |  |
|----------------------------|---|--|
| <b>Third Quarter</b>       |   |  |
| Ch 116 El. Qual. Anal.     | 5 |  |
| En 175 Literature          | 5 |  |
| Sc 100 Sociology electives | 2 |  |

|                           |   |  |
|---------------------------|---|--|
| <b>Third Quarter</b>      |   |  |
| Ch 350 Biochem.           | 5 |  |
| PI 201 Phil. of Being     | 5 |  |
| Th 233 Theology electives | 5 |  |

|                          |   |  |
|--------------------------|---|--|
| <b>Third Quarter</b>     |   |  |
| BI 451 Histology         | 5 |  |
| BI 204 Zoology electives | 8 |  |

Total.....197

### MILITARY SCIENCE

This curriculum is not open to the general student body of the University. It is normally restricted to students who presently hold Regular, Reserve and National Guard Commissions. For these students credit is given for the Military Science and Military Leadership requirements totaling 33 hours of the degree. A notation to this effect is to be made on the student's transcript.

### FRESHMAN YEAR

|                        |   |  |
|------------------------|---|--|
| <b>First Quarter</b>   |   |  |
| CF 101 Economics       | 5 |  |
| En 101 Composition     | 5 |  |
| Mt 101 Intern. Algebra | 5 |  |
| Th 113 Theology        | 2 |  |

|                       |   |  |
|-----------------------|---|--|
| <b>Second Quarter</b> |   |  |
| CF 102 Economics      | 5 |  |
| En 102 Composition    | 5 |  |
| Mt 110 Trig.          | 5 |  |
| Th 133 Theology       | 2 |  |

|                        |   |  |
|------------------------|---|--|
| <b>Third Quarter</b>   |   |  |
| Ed 372 Geography       | 5 |  |
| Hs 131 Top. Hist. U.S. | 5 |  |
| Mt 111 Coll. Algebra   | 5 |  |

### SOPHOMORE YEAR

|                      |   |  |
|----------------------|---|--|
| <b>First Quarter</b> |   |  |
| En 164 Literature    | 5 |  |
| 101 Mod. Language    | 5 |  |
| PI 181 Logic         | 3 |  |
| Th 213 Theology      | 2 |  |

|                       |   |  |
|-----------------------|---|--|
| <b>Second Quarter</b> |   |  |
| En 165 Literature     | 5 |  |
| 102 Mod. Language     | 5 |  |
| PI 201 Phil. of Being | 5 |  |
| Th 233 Theology       | 2 |  |

|                      |   |  |
|----------------------|---|--|
| <b>Third Quarter</b> |   |  |
| 153 Mod. Lang.       | 5 |  |
| PI 251 Phil. of Man  | 5 |  |
| PIs 211 U.S. Const.  | 5 |  |

### JUNIOR YEAR

|                            |   |  |
|----------------------------|---|--|
| <b>First Quarter</b>       |   |  |
| 203 Mod. Long. Major Field | 5 |  |
| PI 281 Phil. of Pure Act   | 5 |  |
| Th 313 Theology            | 2 |  |

|                       |   |  |
|-----------------------|---|--|
| <b>Second Quarter</b> |   |  |
| Major Field           | 5 |  |
| PI 301 General Ethics | 5 |  |
| PIs 160 Amer. Gov't.  | 5 |  |
| Th 333 Theology       | 2 |  |

|                       |   |  |
|-----------------------|---|--|
| <b>Third Quarter</b>  |   |  |
| Major Field           | 5 |  |
| PI 321 Special Ethics | 5 |  |
| PIs 349 Intern. Rel.  | 5 |  |
| Sc 100 Intro. Soc.    | 5 |  |

### SENIOR YEAR

|                           |    |  |
|---------------------------|----|--|
| <b>First Quarter</b>      |    |  |
| Major Field               | 10 |  |
| Th 413 Theology electives | 2  |  |
|                           | 3  |  |

|                           |   |  |
|---------------------------|---|--|
| <b>Second Quarter</b>     |   |  |
| Major Field               | 5 |  |
| PI 351 Epistemology       | 3 |  |
| Th 433 Theology electives | 2 |  |
|                           | 5 |  |

|                      |    |  |
|----------------------|----|--|
| <b>Third Quarter</b> |    |  |
| Major Field          | 10 |  |
| electives            | 5  |  |

### MAJOR FIELDS

Commerce and Finance  
 Accounting—130, 131, 265, 329, 330, 331 or 486 and 488, 485 or 487 and 489.  
 Finance and Banking—130, 131, 275, 322, 325, 465, 470, 475.  
 Foreign Trade—130, 131, 275, 322, 325, 470, 495, 496.  
 Industrial Relations & Personnel Management—250, 275, 305, 335, 336, 470, 475, 490.  
 Marketing—322, 323, 326, 470, 475, 480.  
 Insurance and Real Estate—320, 340, 342, 450, 455, 470, 472, 475, 482, 497.  
 General Commerce—290, 310, 315, 320, 325, 450, 470.  
 Personnel Work—CF 305, 475; Psy 100, 310, 315, 340, 360, 427; Sc 256, 259, 260.  
 Economics—101, 102, 260, 455, 460, and three Economics courses the students may select from the following: 275, 290, 305, 315, 320, 325, 450, 470.  
 History and Politics—PIs 160, 202, 211, 214, 220, 224, 340, 390, 399 and electives in History.  
 Science—40 hours in Biology, Chemistry or Physics.  
 General Engineering—40 hours, prescribed by School of Engineering.

### NATURAL SCIENCE

The field of concentration may be in Biology, Chemistry, Mathematics or Physics.

The number of quarter-hour credits required for a major or a minor is indicated by each department in the section "Description of Courses."

|                          |   |  |                        |    |   |                          |   |  |
|--------------------------|---|--|------------------------|----|---|--------------------------|---|--|
| <b>FRESHMAN YEAR</b>     |   |  | <b>FRESHMAN YEAR</b>   |    |   | <b>FRESHMAN YEAR</b>     |   |  |
| <b>First Quarter</b>     |   |  | <b>Second Quarter</b>  |    |   | <b>Third Quarter</b>     |   |  |
| En 101 Composition       | 5 |  | En 102 Composition     | 5  |   | En 164 or 165 Literature | 5 |  |
| Hs 101 or 102 History    | 5 |  | Math or Science        |    |   | Math or Science          |   |  |
| Math of Science          |   |  | Prerequisite           | 5  |   | Prerequisite             | 5 |  |
| Prerequisite             | 5 |  | Mod. Language          | 5  | * | 102 Mod. Language        | 5 |  |
| Th 113 Theology          | 2 |  | Th 133 Theology        | 2  |   | MS 103 Mil. Science or   |   |  |
| MS 101 Mil. Science or   |   |  | MS 102 Mil. Science or |    |   | electives                | 2 |  |
| electives                | 2 |  | electives              | 2  |   |                          |   |  |
| <b>FRESHMAN YEAR</b>     |   |  | <b>SOPHOMORE YEAR</b>  |    |   | <b>FRESHMAN YEAR</b>     |   |  |
| <b>First Quarter</b>     |   |  | <b>Second Quarter</b>  |    |   | <b>Third Quarter</b>     |   |  |
| Math. or Science         |   |  | Math. or Science       |    |   | Math. or Science         |   |  |
| Prerequisite             | 5 |  | Prerequisites          | 10 |   | Prerequisite             | 5 |  |
| * 153 Mod. Language      | 5 |  | PI 201 Phil. of Being  | 5  |   | PI 251 Phil. of Man      | 5 |  |
| PI 281 Logic             | 3 |  | Th 233 Theology        | 2  |   | Sph 140 Speech           | 5 |  |
| Th 213 Theology          | 2 |  | MS 202 Mil. Science or |    |   | MS 103 Mil. Science or   |   |  |
| MS 201 Mil. Science or   |   |  | electives              | 2  |   | electives                | 2 |  |
| electives                | 2 |  | electives              | 2  |   |                          |   |  |
| <b>FRESHMAN YEAR</b>     |   |  | <b>JUNIOR YEAR</b>     |    |   | <b>FRESHMAN YEAR</b>     |   |  |
| <b>First Quarter</b>     |   |  | <b>Second Quarter</b>  |    |   | <b>Third Quarter</b>     |   |  |
| Major Science            | 5 |  | Major Science          | 5  |   | Major Science            | 5 |  |
| Social Science           | 5 |  | Social Science         | 5  |   | PI 321 Special Ethics    | 2 |  |
| PI 281 Phil. of Pure Act | 3 |  | PI 301 General Ethics  | 5  |   | electives                | 5 |  |
| Th 313 Theology          | 2 |  | Th 333 Theology        | 2  |   |                          |   |  |
| <b>FRESHMAN YEAR</b>     |   |  | <b>SENIOR YEAR</b>     |    |   | <b>FRESHMAN YEAR</b>     |   |  |
| <b>First Quarter</b>     |   |  | <b>Second Quarter</b>  |    |   | <b>Third Quarter</b>     |   |  |
| Major Science            | 5 |  | Major Science          | 5  |   | Major Science            | 5 |  |
| PI 351 Epistemology      | 3 |  | Th 433 Theology        | 2  |   | Major Science            | 7 |  |
| Th 413 Theology          | 2 |  | electives              | 10 |   | electives                |   |  |
| electives                | 5 |  |                        |    |   |                          |   |  |
|                          |   |  |                        |    |   | Total . . . . . 196      |   |  |

\*German preferred.

### PHYSICS

The concentration offered in this program is designed to prepare the student for graduate work in Physics.

|                            |   |  |                             |   |  |                             |   |  |
|----------------------------|---|--|-----------------------------|---|--|-----------------------------|---|--|
| <b>FRESHMAN YEAR</b>       |   |  | <b>FRESHMAN YEAR</b>        |   |  | <b>FRESHMAN YEAR</b>        |   |  |
| <b>First Quarter</b>       |   |  | <b>Second Quarter</b>       |   |  | <b>Third Quarter</b>        |   |  |
| En 101 Composition         | 5 |  | En 102 Composition          | 5 |  | PI 181 Logic                | 3 |  |
| Mt 111 College Algebra     | 5 |  | Mt 131 Elem. Anal. I        | 5 |  | Mt 132 Elem. Anal. II       | 5 |  |
| Ch 114 Gen. Inorg. Chem.   | 5 |  | Ch 115 Gen. Inorg. Chem.    | 5 |  | Ch 120 El. Qual. Anal.      | 3 |  |
| Th 113 Theology            | 2 |  | Th 133 Theology             | 2 |  | CE 101 Eng. Prob.           | 3 |  |
| MS 101 Mil. Science or     |   |  | MS 102 Mil. Science or      |   |  | MS 103 Mil. Science or      |   |  |
| electives                  | 2 |  | electives                   | 2 |  | electives                   | 2 |  |
| <b>FRESHMAN YEAR</b>       |   |  | <b>SOPHOMORE YEAR</b>       |   |  | <b>FRESHMAN YEAR</b>        |   |  |
| <b>First Quarter</b>       |   |  | <b>Second Quarter</b>       |   |  | <b>Third Quarter</b>        |   |  |
| Fr 101 or Gr101 Mod. Lang. | 5 |  | Fr 102 or Gr 102 Mod. Lang. | 5 |  | Fr 153 or Gr 153 Mod. Lang. | 5 |  |
| Mt 231 Elem. Anal. III     | 5 |  | Mt 232 Elem. Anal. IV       | 5 |  | Mt 341 Elem. Diff. Equat.   | 5 |  |
| Ph 200 Mech. & Sound       | 2 |  | Ph 201 Elect. & Mag.        | 5 |  | Ph 202 Heat & Light         | 5 |  |
| Th 213 Theology            | 2 |  | Th 233 Theology             | 2 |  | MS 203 Mil. Science or      |   |  |
| MS 201 Mil. Science or     |   |  | MS 202 Mil. Science or      |   |  | electives                   | 2 |  |
| electives                  | 2 |  | electives                   | 2 |  |                             |   |  |
| <b>FRESHMAN YEAR</b>       |   |  | <b>JUNIOR YEAR</b>          |   |  | <b>FRESHMAN YEAR</b>        |   |  |
| <b>First Quarter</b>       |   |  | <b>Second Quarter</b>       |   |  | <b>Third Quarter</b>        |   |  |
| Ph 360 Mod. Physics        | 4 |  | Ph 361 Mod. Physics         | 4 |  | Ph 370 Nuclear Physics      | 5 |  |
| Ph 310 Mechanics           | 5 |  | Ph 311 Mechanics            | 5 |  | Ph 480 Int. Theo. Phy.      | 5 |  |
| PI 201 Phil. of Being      | 5 |  | PI 251 Phil. of Man         | 5 |  | PI 281 Phil. of Pure Act    | 3 |  |
| Th 313 Theology            | 2 |  |                             |   |  | Th 333 Theology             | 2 |  |
| <b>FRESHMAN YEAR</b>       |   |  | <b>SENIOR YEAR</b>          |   |  | <b>FRESHMAN YEAR</b>        |   |  |
| <b>First Quarter</b>       |   |  | <b>Second Quarter</b>       |   |  | <b>Third Quarter</b>        |   |  |
| Ph 320 Thermodynamics      | 5 |  | Ph 350 Optics               | 3 |  | Ph 351 Optics               | 5 |  |
| Ph 430 Elect. & Mag.       | 5 |  | Ph 431 Elect. & Mag.        | 5 |  | Ph 485 Int. Math. Ph.       | 5 |  |
| PI 301 General Ethics      | 5 |  | PI 321 Special Ethics       | 2 |  | PI 351 Epistemology         | 3 |  |
| Th 413 Theology            | 2 |  | Ph 410 Stat. Mech.          | 3 |  | Th 433 Theology             | 2 |  |
|                            |   |  |                             |   |  | Total . . . . . 197         |   |  |

### X-RAY TECHNOLOGY

(Biology Department)

Seattle University offers two programs in X-Ray Technology. One leads to a Certificate and the other to a bachelor's degree. Eighteen months are spent in an approved hospital. Upon com-

pletion of this period of training 49 quarter hours are granted toward a degree at Seattle University. These credits are granted only to those who have spent at least one year on campus prior to interning.

### The Certificate Curriculum FRESHMAN YEAR

| First Quarter |                              | Second Quarter |        | Third Quarter                |   |
|---------------|------------------------------|----------------|--------|------------------------------|---|
| BI 132        | Anatomy                      | 5              | En 102 | Composition                  | 5 |
| En 101        | Composition                  | 5              | Mt 110 | Trigonometry                 | 5 |
| Mt 101        | Algebra                      | 5              | Ph 100 | Physics                      | 5 |
| MS 101        | Mil. Science or<br>electives | 2              | Th 113 | Theology                     | 2 |
|               |                              |                | MS 102 | Mil. Science or<br>electives | 2 |
|               |                              |                |        |                              | 2 |
|               |                              |                | En 175 | Literature                   | 5 |
|               |                              |                | Ph 101 | Physics                      | 5 |
|               |                              |                | Sc 100 | Sociology                    | 5 |
|               |                              |                | MS 103 | Mil. Science or<br>electives | 2 |

### The Degree Curriculum FRESHMAN YEAR

| First Quarter |                              | Second Quarter |        | Third Quarter                |   |
|---------------|------------------------------|----------------|--------|------------------------------|---|
| Ch 101        | Gen. Chem.                   | 5              | Ch 102 | Gen. Chem.                   | 5 |
| En 101        | Composition                  | 5              | En 102 | Composition                  | 5 |
| Mt 101        | Algebra                      | 5              | Mt 110 | Trig.                        | 5 |
| MS 101        | Mil. Science or<br>electives | 2              | Th 113 | Theology                     | 2 |
|               |                              |                | MS 102 | Mil. Science or<br>electives | 2 |
|               |                              |                |        |                              | 2 |
|               |                              |                | En 175 | Literature                   | 5 |
|               |                              |                | PI 181 | Logic                        | 3 |
|               |                              |                | Sc 100 | Sociology                    | 5 |
|               |                              |                | Th 133 | Theology                     | 2 |
|               |                              |                | MS 103 | Mil. Science or<br>electives | 2 |

### SOPHOMORE YEAR

| First Quarter |                              | Second Quarter |        | Third Quarter                |   |
|---------------|------------------------------|----------------|--------|------------------------------|---|
| BI 132        | Anatomy                      | 5              | BI 133 | Physiology                   | 5 |
| Ph 105        | Gen. Physics                 | 5              | Ph 106 | Gen. Physics                 | 5 |
| PI 201        | Phil. of Being               | 5              | PI 251 | Phil. of Man                 | 5 |
| Th 213        | Theology                     | 2              | Th 233 | Theology                     | 2 |
| MS 201        | Mil. Science or<br>electives | 2              | MS 202 | Mil. Science or<br>electives | 2 |
|               |                              |                |        |                              | 2 |
|               |                              |                | Ph 107 | Gen. Physics                 | 5 |
|               |                              |                | PI 281 | Phil. of Pure Act            | 3 |
|               |                              |                | Th 313 | Theology                     | 2 |
|               |                              |                | MS 203 | Mil. Science or<br>electives | 2 |

### JUNIOR YEAR

| First Quarter |                | Second Quarter |         | Third Quarter         |   |
|---------------|----------------|----------------|---------|-----------------------|---|
| 101           | Language       | 5              | BI. 204 | Zoology               | 5 |
| Ph 260        | Mod. Physics   | 5              | 102     | Language              | 5 |
| PI 301        | General Ethics | 5              | PI 421  | Special Ethics        | 5 |
| Th 333        | Theology       | 2              | Th 413  | Theology              | 2 |
|               |                |                |         |                       | 2 |
|               |                |                | 153     | Language              | 5 |
|               |                |                | PI 351  | Epistemology          | 3 |
|               |                |                | Th 433  | Theology<br>electives | 2 |
|               |                |                |         |                       | 5 |

### SENIOR YEAR

18 months in an approved Hospital ..... 49 quarter hours  
Total ..... 196

## PRE-MEDICAL AND PRE-DENTAL

The minimum requirements for admission to a school of medicine are three years of work in an approved college of arts and sciences.

The minimum requirements for admission to a school of dentistry are two years of work in a college of arts and sciences.

The best preparation for either, however, is a complete four-year course leading to a bachelor's degree.

Students should learn the specific entrance requirements of the medical or dental school which they hope to enter. Their adviser will provide them with the necessary information and will adjust the program outlined below to meet their particular needs.

### FRESHMAN YEAR

| First Quarter |                              | Second Quarter |        | Third Quarter                |   |
|---------------|------------------------------|----------------|--------|------------------------------|---|
| Ch 111        | Gen. Inorg.<br>Chem.         | 5              | Ch 112 | Gen. Inorg.<br>Chem.         | 5 |
| En 101        | Composition                  | 5              | En 102 | Composition                  | 5 |
| Mt 101        | Interim. Alg.                | 5              | Mt 110 | Plane Trig.                  | 5 |
| MS 101        | Mil. Science or<br>electives | 2              | Th 113 | Theology                     | 2 |
|               |                              |                | MS 102 | Mil. Science or<br>electives | 2 |
|               |                              |                |        |                              | 2 |
|               |                              |                | Ch 116 | El. Qual. Anal.              | 5 |
|               |                              |                | En 165 | Literature                   | 5 |
|               |                              |                | PI 181 | Logic                        | 3 |
|               |                              |                | Th 133 | Theology                     | 2 |
|               |                              |                | MS 103 | Mil. Science or<br>electives | 2 |

### SOPHOMORE YEAR

| First Quarter |                              | Second Quarter |        | Third Quarter                |   |
|---------------|------------------------------|----------------|--------|------------------------------|---|
| BI 200        | Zoology                      | 5              | BI 201 | Zoology                      | 5 |
| Ch 335        | El. Org. Chem.               | 5              | Ch 336 | El. Org. Chem.               | 5 |
| PI 201        | Phil. of Bein                | 5              | Sc 100 | Sociology                    | 5 |
| Th 213        | Theology                     | 2              | MS 202 | Mil. Science or<br>electives | 2 |
| MS 201        | Mil. Science or<br>electives | 2              |        |                              | 2 |
|               |                              |                | BI 251 | Zoology                      | 5 |
|               |                              |                | Ch 221 | Quant. Anal.                 | 5 |
|               |                              |                | PI 251 | Phil. of Man                 | 5 |
|               |                              |                | Th 233 | Theology                     | 2 |
|               |                              |                | MS 203 | Mil. Science or<br>electives | 2 |

## JUNIOR YEAR

|   |  |   |
|---|--|---|
| <b>First Quarter</b><br>Ph 105 Gen. Physics 5<br>Pl 281 Phil. of Pure Act 3<br>Pls 349 Intern. Relations 5<br>Th 313 Theology 2 | <b>Second Quarter</b><br>Ph 106 Gen. Physics 5<br>Pl 301 General Ethics 5<br>Sc 105 Mod. Soc. Probs. 5 | <b>Third Quarter</b><br>CF 101 Economics 5<br>Ph 107 Gen. Physics 5<br>Pl 321 Special Ethics 2<br>Th 333 Theology 2 |
|---|--|---|

## SENIOR YEAR

|  |  |   |
|--|--|---|
| <b>First Quarter</b><br>BI 255 Histology 5<br>101 Language 5<br>Pl 351 Epistemology 3<br>Th 413 Theology 2 | <b>Second Quarter</b><br>Hs 101 History or elec. 5<br>102 Language 5<br>Th 433 Theology 2<br>electives 3 | <b>Third Quarter</b><br>153 Language 5<br>Sph 140 Speech or elec. 5<br>electives 4<br>Total ..... 196 |
|--|--|---|

## PRE-PHYSICAL THERAPY

(Biology Department)

Two or three year programs are offered in Pre-Physical Therapy which satisfy the requirements of most schools of Physical Therapy. Substitutions may be made in the suggested courses to meet the specific requirements of the school to which the student wishes to apply for completion of training.

### FRESHMAN YEAR

|  |   |   |
|--|---|---|
| <b>First Quarter</b><br>Ch 101 Gen. Chem. 5<br>En 101 Composition 5<br>Sc 100 Sociology 5<br>Th 113 Theology 2 | <b>Second Quarter</b><br>BI 204 Zoology 5<br>Ch 102 Gen. Chem. 5<br>En 102 Composition 5<br>Th 133 Theology 2 | <b>Third Quarter</b><br>BI 220 Microbiology 5<br>En 175 Literature 5<br>Pl 181 Logic 3<br>electives 4 |
|--|---|---|

### SOPHOMORE YEAR

|   |   |   |
|---|---|---|
| <b>First Quarter</b><br>BI 132 Anatomy 5<br>Pl 201 Phil. of Being 5<br>Th 213 Theology 2<br>electives 5 | <b>Second Quarter</b><br>BI 133 Physiology 5<br>Ph 100 Gen. Physics 5<br>Pl 251 Phil. of Man 5<br>Th 233 Theology 2 | <b>Third Quarter</b><br>Ph 101 Gen. Physics 5<br>Sc 105 Mod. Soc. Probs. 5<br>electives 5 |
|---|---|---|

### JUNIOR YEAR\*

|   |   |  |
|---|---|--|
| <b>First Quarter</b><br>101 Language 5<br>Pl 301 General Ethics 5<br>Psy 315 Abnor. Psych. 5<br>Th 313 Theology 2 | <b>Second Quarter</b><br>CF 130 Accounting 5<br>102 Language 5<br>Psy 310 Men. Hyg. & Pers. Adjus. 5<br>Th 333 Theology 2 | <b>Third Quarter</b><br>153 Language 5<br>electives 10 |
|---|---|--|

## PRE-VETERINARY MEDICINE

(Biology Department)

A two year program is available for those interested in Veterinary Science. Specific requirements should be obtained from the school to which interested students wish to apply.

### FRESHMAN YEAR

|   |  |  |
|---|--|--|
| <b>First Quarter</b><br>Ch 111 Gen. Inorg. Chem. 5<br>En 101 Composition 5<br>Mt 101 Algebra 5<br>Th 113 Theology 2<br>MS 101 Mil. Science or electives 2 | <b>Second Quarter</b><br>En 102 Composition 5<br>Mt 110 Trig. 5<br>Psy 100 Psychology 5<br>Th 133 Theology 2<br>MS 102 Mil. Science or electives 2 | <b>Third Quarter*</b><br>En 175 Literature 5<br>Sc 100 Sociology 5<br>MS 103 Mil. Science or electives 5 |
|---|--|--|

### SOPHOMORE YEAR

|   |  |   |
|---|--|---|
| <b>First Quarter</b><br>BI 200 Zoology 5<br>BI 221 Bacteriology 5<br>Ph 105 Gen. Physics 5<br>Th 213 Theology 2<br>MS 201 Mil. Science or electives 2 | <b>Second Quarter</b><br>BI 201 Zoology 5<br>Ph 106 Gen. Physics 5<br>Psy 315 Abnor. Psych. 5<br>Th 233 Theology 2 | <b>Third Quarter</b><br>electives 5<br>BI 251 Zoology 5<br>CF 101 Economics 5 |
|---|--|---|

\*Suggested courses in third year to satisfy requirements of professional schools which demand three years of college as entrance requirements.

## PRE-LAW

The minimum requirements for entrance to a law school are the completion of two years academic work in an approved college of Arts and Sciences. The best preparation, however, is the com-



pletion of a four-year degree program leading to a bachelor's degree. A few schools require such a degree for admission; a number ask the student to offer three years of work toward a degree.

Students are urged to learn the specific entrance requirements of the School of Law which they hope to enter. Those who have not determined upon any particular school are advised to follow the Bachelor of Arts curricula. Some of the electives indicated therein may be used for Accounting but the Field of Concentration should be in History, Political Science, Economics or Commerce. Students should consult the Pre-Law adviser before registration.

A Pre-Law student who is unable to complete the degree program and has been in residence in the University for the full final year of his Pre-Law training and has completed one hundred and forty-nine (149) quarter hours of credit with a grade-point average of at least 2.00, and who has met all the Philosophy and Theology requirements, may apply up to forty-seven (47) quarter hours of credit successfully earned at an approved Law School toward the completion of a degree at Seattle University.

### **LOWER DIVISION HUMANITIES PROGRAM**

Freshmen and Sophomore students who have not yet selected a Major within the College of Arts and Sciences or within one of the other Schools of the University take the Liberal Arts Humanities Program. This is the Non-Classical or Classical A.B. Program with an emphasis on liberal education in core curriculum subjects. The Lower Division Humanities status may be terminated any time by declaring a Major and must be terminated by the end of one's sophomore year. Each student has an academic adviser appointed through the Office of Lower Division Humanities Guidance with whom he plans his course and to whom he makes a progress report each quarter.

# SCHOOL OF COMMERCE AND FINANCE

PAUL A. VOLPE, PH.D., *Dean*

## OBJECTIVES

The School of Commerce and Finance is a formally organized school within the University under the direction of a separate dean and faculty.

The objectives of the School are integrated with the primary objectives of the University. Although the School was organized for the specific purpose of preparing a student for a career in business, government or other specific major areas of economic endeavor, the transcendent responsibility of preparing him for life pervades the entire curriculum. That man, a morally responsible being, must know something about himself as a citizen, the goals of existence, the purposes of organized society and other elements which encompass the broad sweep of political, economic, and social life, is self-evident. Hence, our specific objectives are as follows:

1. To provide a complete and integrated education; intellectual, moral and aesthetic.
2. To develop the whole human person in an orderly and balanced manner, for complete living in time and eternity.
3. To provide professional guidance and instruction for developing those qualities which lead to competent leadership and service in the various fields of economic endeavor.

## CURRICULUM ORGANIZATION

The curriculum of the School of Commerce and Finance has been organized to achieve these objectives. That we may produce good men and women who possess deep understanding and critical discernment and are morally sound in their relations with God and man we have included integrated courses in Philosophy and Theology.

Further, that we might produce efficient and proficient men and women to assume responsible roles in the economic development of the Pacific Northwest and the Nation, we have included the areas of specialization which will prepare them to occupy the highest places in industry and government. To this end, the curriculum of the School of Commerce and Finance allows advanced students (Juniors and Seniors) to achieve a degree of specialization in one of the following fields of their choice: Accounting, Finance and Banking, Foreign Trade, General Commerce, Industrial Relations and Personnel Management, Marketing, Office Management, Insurance and Real Estate.

A collegiate education for business should prepare students for business careers, not simply for job-holding. This kind of scientific

business education—comparable to university studies in other professional fields—will not replace practical business experience, but it will provide a sound base upon which to build toward positions of managerial responsibility.

### GENERAL CURRICULUM

To achieve these goals, the curriculum of the School of Commerce is divided into three general categories:

1. Cultural courses, including History, Politics, English and Philosophy.
2. The "Commerce Core," a group of broad foundation courses intended to provide basic knowledge of the operation of the economic system and the principles of business management.
3. Courses which impart certain specialized knowledge and skills in specific fields of business endeavor. At present these include Accounting, Finance and Banking, Foreign Trade, General Commerce, Industrial Relations and Personnel Management, Marketing, Office Management, Insurance and Real Estate.

### REQUIREMENTS FOR GRADUATION

All students must complete a minimum of 196 credit hours. A credit hour is the satisfactory performance of work associated with attendance at lectures for one hour a week for one quarter. The candidate for a degree must have a minimum cumulative grade point average of 2.0 or a grade of "C." The total of 196 credit hours is distributed as follows:

|  |      |
|--|------|
| Philosophy .....                       | 26   |
| Commerce core .....                    | 78*  |
| Theology or electives.....             | 16** |
| English .....                          | 20   |
| History (or History and Politics)..... | 10   |
| Specialization .....                   | 30   |
| R.O.T.C. or electives.....             | 12   |
| Electives .....                        | 4    |
| Total.....                             | 196  |

All Commerce and Finance students except General Commerce majors, take 78 credit hours of courses in the general field of business. The specific subjects required are listed in the section entitled "Bachelor of Commercial Science." The student's attention is directed to the sequence of courses. If possible, subjects should be taken according to the order listed.

\*In the General Commerce major the distribution is the same as above except for the following: History—10 hours; Politics—5; Commerce Core—75; Mathematics or Science or Modern Language—10; Electives—22. For Office Management confer page 74.

\*\*Confer pages 40 and 160 for Theology requirements.

# BACHELOR OF COMMERCIAL SCIENCE

## GENERAL REQUIREMENTS (First Two Years)

| First Quarter          |   | Second Quarter           |   | Third Quarter           |   |
|------------------------|---|--------------------------|---|-------------------------|---|
| CF 101 Economics I     | 5 | CF 110 Business Law I    | 5 | CF 111 Business Law II  | 5 |
| CF 130 Accounting I    | 5 | CF 102 Economics II      | 5 | CF 131 Accounting II    | 5 |
| En 101 Composition I   | 5 | Th 133 Theology          | 2 | En 102 Composition      | 5 |
| Th 113 Theology        | 2 | electives                | 2 | MS 103 Mil. Science or  |   |
| MS 101 Mil. Science or |   | MS 102 Mil. Science or   |   | electives               | 2 |
| electives              | 2 | electives                | 2 |                         |   |
| First Quarter          |   | Second Quarter           |   | Third Quarter           |   |
| CF 265 Accounting III  | 3 | CF 140 Business Math.    | 2 | CF 250 Statistics       | 5 |
| Hs 131 History         | 5 | CF 260 Money &           |   | *CF 290 Insurance Prin. | 5 |
| PI 181 Logic           | 3 | Banking                  | 5 | PI 201 Phil. of Being   | 5 |
| Th 213 Theology        | 2 | En 164 or 165 Literature | 5 | MS 203 Military Science | 2 |
| MS 201 Mil. Science or |   | Th 233 Theology          | 2 |                         |   |
| electives              | 2 | MS 202 Mil. Science or   |   |                         |   |
|                        |   | electives                | 2 |                         |   |

\*CF 460, Business Cycles, may be taken in the Senior year as an alternate to CF 290, Insurance Principles. CF 460 is required of Marketing majors; CF 290 is required for Insurance majors.

## ACCOUNTING (Junior and Senior Years)

| First Quarter                     |   | Second Quarter           |   | Third Quarter                                     |   |
|-----------------------------------|---|--------------------------|---|---|---|
| CF 280 Accounting, Intern.        | 5 | CF 315 Marketing         | 5 | CF 305 or CF 310 Ind. Rel. or Prin. of Management | 5 |
| Hs or Pls 150 History or Politics | 5 | CF 329 Accounting        | 5 | CF 320 Investments                                | 5 |
| PI 251 Phil. of Man               | 5 | PI 281 Phil. of Pure Act | 3 | CF 330 Cost Accounting                            | 5 |
| Th 313 Theology                   | 2 | Th 333 Theology          | 2 |   |   |
| First Quarter                     |   | Second Quarter           |   | Third Quarter                                     |   |
| CF 450 Public Finance             | 5 | CF 455 Hs. of Econ. Tht. | 3 | CF 331 Auditing                                   | 5 |
| CF 489 Adv. Accounting            | 2 | CF 487 Adv. Accounting   | 3 | CF 486 Adv. Accounting                            | 3 |
| PI 301 General Ethics             | 5 | CF 488 Adv. Accounting   | 2 | CF 497 Bus. Col. & Org.                           | 5 |
| Th 413 Theology                   | 2 | En 164 or 165 Literature | 5 | PI 351 Epistemology                               | 3 |
| electives                         | 2 | electives                | 2 | Th 433 Theology                                   | 2 |
|                                   |   | PI 321 Special Ethics    | 2 |   |   |

## FOREIGN TRADE (Junior and Senior Years)

| First Quarter                     |   | Second Quarter                 |   | Third Quarter                                     |   |
|-----------------------------------|---|--------------------------------|---|---|---|
| CF 322 Transportation             | 5 | CF 315 Marketing               | 5 | CF 305 or CF 310 Ind. Rel. or Prin. of Management | 5 |
| Hs or Pls 150 History or Politics | 5 | CF 325 Intern. Trade & Finance | 5 | CF 320 Investments                                | 5 |
| PI 251 Phil. of Man               | 5 | PI 281 Phil. of Pure Act       | 3 | 101 Mod. Lang.                                    | 5 |
| Th 313 Theology                   | 2 | Th 333 Theology                | 2 |   |   |
| First Quarter                     |   | Second Quarter                 |   | Third Quarter                                     |   |
| CF 450 Public Finance             | 5 | CF 455 Hs. of Econ. Tht.       | 3 | CF 497 Bus. Pol. & Org.                           | 5 |
| 102 Mod. Lang.                    | 5 | CF 495 For. Trade              | 3 | CF 496 For. Tr. Pol.                              | 3 |
| PI 301 General Ethics             | 5 | Methods.                       | 3 | PI 351 Epistemology                               | 3 |
| Th 413 Theology                   | 2 | En 164 or 165 Literature       | 5 | Th 433 Theology                                   | 2 |
|                                   |   | PI 321 Special Ethics          | 2 | electives   | 5 |
|                                   |   | electives                      | 3 |   |   |

## GENERAL COMMERCE (Junior and Senior Years)

| First Quarter          |   | Second Quarter           |   | Third Quarter        |   |
|------------------------|---|--------------------------|---|----------------------|---|
| CF 310 Management      | 5 | CF 315 Marketing         | 5 | CF 320 Investments   | 5 |
| CF 290 Insurance Prin. | 5 | Math., Science           |   | CF 325 Intern. Trade | 5 |
| PI 251 Phil. of Man    | 5 | or Language              | 5 | electives            | 5 |
| Th 313 Theology        | 2 | PI 281 Phil. of Pure Act | 3 |                      |   |
|                        |   | Th 333 Theology          | 2 |                      |   |

## SENIOR YEAR

|                           |   |
|---------------------------|---|
| <b>First Quarter</b>      |   |
| CF 450 Public Finance     | 5 |
| PI 301 General Ethics     | 5 |
| Th 413 Theology electives | 5 |

|                                 |   |
|---------------------------------|---|
| <b>Second Quarter</b>           |   |
| En 164 or 165 Literature        | 5 |
| Math., Science or Language      | 5 |
| PI 321 Special Ethics electives | 5 |

|                           |   |
|---------------------------|---|
| <b>Third Quarter</b>      |   |
| CF 470 Govt. & Business   | 3 |
| PI 351 Epistemology       | 3 |
| Th 433 Theology electives | 7 |

\*In the first quarter of the sophomore year, Pls. 150, Survey of Politics, (5 hrs.) is substituted for CF 265, Accounting (8 hrs.).

## INSURANCE AND REAL ESTATE

(Junior and Senior Years)

### JUNIOR YEAR

|                                     |   |
|-------------------------------------|---|
| <b>First Quarter</b>                |   |
| CF 305 or CF 310 Ind. Rel. or Mgmt. | 5 |
| Hs or Pls 150 History or Politics   | 5 |
| PI 251 Phil. of Man                 | 2 |
| Th 313 Theology                     | 2 |

|                          |   |
|--------------------------|---|
| <b>Second Quarter</b>    |   |
| CF 315 Marketing         | 5 |
| CF 320 Investments       | 5 |
| PI 281 Phil. of Pure Act | 5 |
| Th 333 Theology          | 2 |

|                          |   |
|--------------------------|---|
| <b>Third Quarter</b>     |   |
| CF 340 Real Estate       | 5 |
| CF 342 Prop. Insurance   | 5 |
| En 164 or 165 Literature | 5 |

### SENIOR YEAR

|                           |   |
|---------------------------|---|
| <b>First Quarter</b>      |   |
| CF 450 Public Finance     | 5 |
| CF 455 Hs. of Econ. Tht.  | 3 |
| PI 301 General Ethics     | 5 |
| Th 413 Theology electives | 2 |

|                           |   |
|---------------------------|---|
| <b>Second Quarter</b>     |   |
| CF 470 Govt. & Bus.       | 3 |
| CF 482 Life Insurance     | 3 |
| CF 423 Sales Mgmt.        | 5 |
| Th 433 Theology electives | 2 |
| PI 321 Special Ethics     | 2 |

|                             |   |
|-----------------------------|---|
| <b>Third Quarter</b>        |   |
| CF 472 Cas. Insurance       | 5 |
| CF 497 Bus. Pol. & Org.     | 5 |
| PI 351 Epistemology         | 3 |
| CF 473 Acc. & Health Insur. | 3 |

## MARKETING

(Junior and Senior Years)

### JUNIOR YEAR

|                         |   |
|-------------------------|---|
| <b>First Quarter</b>    |   |
| CF 315 Pr. of Marketing | 5 |
| Hs Hist. or Pls 150     | 5 |
| PI 251 Phil. of Man     | 2 |
| Th 313 Theology         | 2 |

|                                       |   |
|---------------------------------------|---|
| <b>Second Quarter</b>                 |   |
| CF 327 Mark. Communications           | 3 |
| PI 281 Phil. of Pure Act              | 3 |
| Th 333 Theology                       | 2 |
| CF 475 Pers. Administration electives | 5 |
|                                       | 4 |

|                                   |   |
|-----------------------------------|---|
| <b>Third Quarter</b>              |   |
| CF 320 Investments                | 5 |
| CF 305 Ind. Rel. or Pr. of Manag. | 5 |
| CF 310 Pr. of Manag. electives    | 5 |

### SENIOR YEAR

|                           |   |
|---------------------------|---|
| <b>First Quarter</b>      |   |
| CF 450 Public Finance     | 5 |
| PI 301 Gen. Ethics        | 5 |
| Th 413 Theology           | 2 |
| CF 363 Price Pol. & Proc. | 5 |

|                            |   |
|----------------------------|---|
| <b>Second Quarter</b>      |   |
| CF 455 Hs. of Ec. Th.      | 3 |
| PI 321 Sp. Ethics          | 2 |
| En 164 or En 165 Eng. Lit. | 5 |
| CF 423 Sales Mgmt.         | 2 |
| CF 430-A Mark. Research    | 3 |

|                                   |   |
|-----------------------------------|---|
| <b>Third Quarter</b>              |   |
| CF 497 Bus. Pol. & Org.           | 5 |
| CF 480 Merchandising              | 5 |
| Th 443 Theology                   | 5 |
| PI 351 Epistemology               | 5 |
| CF 430-B Mark. Research electives | 2 |
|                                   | 2 |

## FINANCE AND BANKING

(Junior and Senior Years)

### JUNIOR YEAR

|                      |   |
|----------------------|---|
| <b>First Quarter</b> |   |
| CF 275 Corp. Finance | 5 |
| Hs History           | 5 |
| PI 251 Phil. of Man  | 2 |
| Th 313 Theology      | 2 |

|                           |   |
|---------------------------|---|
| <b>Second Quarter</b>     |   |
| CF 315 Marketing          | 5 |
| CF 325 Intern. Trade      | 5 |
| PI 281 Phil. of Pure Act  | 5 |
| Th 333 Theology electives | 2 |

|                                       |   |
|---------------------------------------|---|
| <b>Third Quarter</b>                  |   |
| CF 305 or 310 Ind. Rel. or Management | 5 |
| CF 320 Investments electives          | 5 |
|                                       | 5 |

### SENIOR YEAR

|                           |   |
|---------------------------|---|
| <b>First Quarter</b>      |   |
| CF 450 Public Finance     | 5 |
| CF 465 Bank Pol. & Admin. | 3 |
| PI 301 General Ethics     | 5 |
| Th 413 Theology electives | 2 |
|                           | 3 |

|                          |   |
|--------------------------|---|
| <b>Second Quarter</b>    |   |
| CF 455 Hs. of Econ. Tht. | 3 |
| CF 466 Credits & Coll.   | 3 |
| En 164 or 165 Literature | 5 |
| PI 321 Special Ethics    | 2 |
| Th 433 Theology          | 2 |

|                                       |   |
|---------------------------------------|---|
| <b>Third Quarter</b>                  |   |
| CF 340 Real Estate & Mortgage Banking | 5 |
| CF 470 Govt. & Business               | 3 |
| *CF 475 Pers. Admin.                  | 5 |
| CF 497 Bus. Pol. & Org.               | 5 |
| PI 351 Epistemology                   | 3 |

\*Recommended Elective.

## INDUSTRIAL RELATIONS AND PERSONNEL MANAGEMENT

(Junior and Senior Years)

### JUNIOR YEAR

|                                   |   |
|-----------------------------------|---|
| <b>First Quarter</b>              |   |
| CF 275 Corp. Finance              | 5 |
| Hs or Pls 150 History or Politics | 5 |
| PI 251 Phil. of Man               | 5 |
| Th 313 Theology                   | 2 |

|                          |   |
|--------------------------|---|
| <b>Second Quarter</b>    |   |
| CF 315 Marketing         | 5 |
| CF 335 Ind. Rel. Law     | 5 |
| PI 281 Phil. of Pure Act | 3 |
| Th 333 Theology          | 2 |

|                                       |   |
|---------------------------------------|---|
| <b>Third Quarter</b>                  |   |
| CF 305 or 310 Ind. Rel. or Management | 5 |
| CF 320 Investments                    | 5 |
| CF 336 Hist. of Ind. Rel. electives   | 3 |
|                                       | 5 |

## SENIOR YEAR

| First Quarter                |        |
|------------------------------|--------|
| CF 450 Public Finance        | 5      |
| CF 470 Govt. & Business      | 3      |
| PI 301 General Ethics        | 5      |
| Th 413 Theology<br>electives | 2<br>2 |

| Second Quarter           |   |
|--------------------------|---|
| CF 455 Hist. Econ. Tht.  | 3 |
| CF 475 Pers. Admin.      | 5 |
| En 164 or 165 Literature | 5 |
| PI 321 Special Ethics    | 2 |

| Third Quarter                |        |
|------------------------------|--------|
| CF 490 Collec. Barg.         | 3      |
| CF 497 Bus. Pol. & Org.      | 5      |
| PI 351 Epistemology          | 3      |
| Th 433 Theology<br>electives | 2<br>3 |

## OFFICE MANAGEMENT

### FRESHMAN YEAR

| First Quarter                |        |
|------------------------------|--------|
| CF 101 Economics I           | 5      |
| CF 120 Typing I              | 3      |
| En 101 Composition I         | 5      |
| Th 113 Theology<br>electives | 2<br>2 |

| Second Quarter               |        |
|------------------------------|--------|
| CF 102 Economics II          | 5      |
| CF 121 Typing II             | 3      |
| En 102 Composition           | 5      |
| Th 133 Theology<br>electives | 2<br>3 |

| Third Quarter     |   |
|-------------------|---|
| CF 122 Typing III | 3 |
| Hs 101 History    | 5 |
| PI 181 Logic      | 3 |
| electives         | 5 |

### SOPHOMORE YEAR

| First Quarter            |   |
|--------------------------|---|
| CF 116 Shorthand I       | 5 |
| En 164 or 165 Literature | 5 |
| PI 201 Phil. of Being    | 5 |
| Th 213 Theology          | 2 |

| Second Quarter               |        |
|------------------------------|--------|
| CF 117 Shorthand II          | 5      |
| CF 130 Accounting I          | 5      |
| Th 233 Theology<br>electives | 2<br>5 |

| Third Quarter                     |        |
|-----------------------------------|--------|
| CF 118 Shorthand III              | 5      |
| CF 131 Accounting II<br>electives | 5<br>5 |

### JUNIOR YEAR

| First Quarter                |        |
|------------------------------|--------|
| CF 110 Business Law I        | 5      |
| CF 215 Business Writing      | 3      |
| CF 216 Office Machines       | 2      |
| CF 218 Office Organ.         | 3      |
| Th 313 Theology<br>electives | 2<br>2 |

| Second Quarter         |   |
|------------------------|---|
| CF 111 Business Law II | 5 |
| Hs U. S. History       | 5 |
| PI 251 Phil. of Man    | 5 |
| Th 333 Theology        | 2 |

| Third Quarter                 |        |
|-------------------------------|--------|
| HE Home Economics             | 5      |
| PI 281 Phil. of Pure Act      | 3      |
| Sc 100 Sociology<br>electives | 5<br>3 |

### SENIOR YEAR

| First Quarter                |        |
|------------------------------|--------|
| CF 310 Prin. of Mgmt.        | 5      |
| PI 301 General Ethics        | 5      |
| Th 413 Theology<br>electives | 2<br>3 |

| Second Quarter               |        |
|------------------------------|--------|
| CF 475 Personnel Mgmt.       | 5      |
| PI 321 Special Ethics        | 2      |
| Pls 150 Politics             | 5      |
| Th 433 Theology<br>electives | 2<br>2 |

| Third Quarter                    |        |
|----------------------------------|--------|
| En 164 or 165 Literature         | 5      |
| PI 351 Epistemology<br>electives | 3<br>7 |

# SCHOOL OF EDUCATION

HERBERT D. REAS, CAND. ED.D., *Acting Dean*

## GENERAL STATEMENT

The School of Education was established at Seattle University in July, 1935. It is fully approved and authorized by the State Department of Public Instruction to prepare candidates for teacher certification. It consists of an undergraduate division offering complete programs for the degrees *Bachelor of Arts in Education* and *Bachelor of Education*, and a graduate division offering courses leading to the degrees *Master of Arts in Education* and *Master of Education*. These degrees qualify students for recommendation for teaching certificates issued by the State Department of Public Instruction. The two bachelor's degrees meet the requirements for the Provisional General Certificate, a certificate which qualifies teachers for both the elementary and secondary levels, while the master's degrees or an equivalent fifth year of graduate work meet the requirements for the Standard Certificates. Information and additional regulations governing the requirements for these and other certificates may be received from the office of the School of Education.

## OBJECTIVES

The School of Education is designed to prepare students for the professional field of teaching in both the elementary and secondary schools. The general requirements for degrees follow the requirements of the University as a whole. Candidates for degrees in Education, however, should realize that a heavy schedule of studies is necessary because of the specific requirements to be met in preparing teachers for both elementary and secondary levels.

The programs are designed to:

1. Provide a series of courses in general education to give a broad and liberal education in Philosophy, Theology, History, English, etc., recognizing that the profession of teaching is founded upon basic principles in these cultural subjects. The philosophy of education subscribed to and inculcated in the education and training of teachers at Seattle University is that of Christian Humanism, which has for its aim the complete and harmonious development of men and women, characterized by wisdom and intellectual integrity, of solid Christian character and an understanding of the nature of man and the universe.
2. Provide approximately forty hours in professional teacher training courses to give understanding and proficiency in the art of teaching.
3. Coordinate its own specialized professional curricula with those of the University as a whole and to integrate them with the general purposes of the University.
4. Provide a sequence of courses leading to specialization in at least one subject teaching field such as Language Arts, Social Studies, Science and Mathematics, Health and Physical Education, Fine and Applied Arts.
5. Offer in a fifth year or a master's program an opportunity for scholarly research, for enriching and broadening cultural backgrounds, and for deepening professional competency in the art of teaching and the subject matter areas.
6. Offer a program of studies leading to the Master of Arts in Education or the Master of Education. A candidate has the option of completing either one of the following programs:
  - (a) He may specialize in at least two of the following fields: educational psychology, educational administration and supervision, history and philosophy of education, curriculum and methods, guidance.
  - (b) He may major in one of the following: educational psychology, educational administration and supervision, history and philosophy of education, curriculum and methods, guidance; and minor in English or history.

## GENERAL PROGRAMS

1. *Bachelor of Arts*. A degree requiring specialization or emphasis in one major subject. Forty-five quarter hours are required in the major subject, with a minor of 15 quarter hours. Fifteen quarter hours of a foreign language are also required.

2. *Bachelor of Education*. A degree designed to give a wide range of preparation in two or three subject matter fields.

3. *Special Programs*. Designed for those students already possessing Bachelors' degrees who lack certain courses to meet the requirements for teacher certification.

4. *Fifth Year Non-Degree*. A program of studies designed to meet the State requirements for Standard Certification.

5. *Master of Arts*. A degree with emphasis on scholarly research, professional competency and knowledge of subject matter.

6. *Master of Education*. A degree designed to further a candidate's art and skill in the techniques of teaching and to broaden and deepen his knowledge of subject matter.

The Broad Areas of Concentration acceptable as teaching fields in the State of Washington are as follows:

1. Fine and Applied Arts: Art, Home Economics, Industrial Arts, Secretarial Studies, Music.
2. Health and Physical Education.
3. Language Arts: English, Literature, Foreign Language, Speech, Dramatics, Journalism.
4. Science and Mathematics: Biology, Chemistry, Physics, Mathematics, General Science.
5. Social Studies: History, Sociology, Economics, Politics, Geography.

Subjects acceptable for major concentration in the Bachelor of Arts program and suitable for high school teaching are as follows:

Art Education, Biology, Chemistry, English, French, German, Health and Physical Education, History, Home Economics, Industrial Arts, Journalism, Latin, Mathematics, Music, Physics, Physiology, Secretarial Studies, Sociology, Spanish, Speech, and Zoology.

### **TEACHER TRAINING PROGRAM**

1. The pre-service or undergraduate training leading toward a *Bachelor of Arts in Education* or a *Bachelor of Education*, one of which is prerequisite for the Provisional General Certificate.

2. The Internship or the first year of teaching experience.

3. The Fifth Year Program of academic studies, which qualifies students for the Standard Certificates.

### **TEACHING CERTIFICATES**

Consult the School of Education for State regulations regarding the requirements for specific certificates issued by the State Department of Public Instruction.

### **PRINCIPAL'S CREDENTIALS**

Consult the School of Education for information regarding the requirements for the Elementary and Secondary Principal's credentials.

### **HEALTH AND PHYSICAL EDUCATION**

Confer "Description of Courses," page 111.



# BACHELOR OF ARTS IN EDUCATION

| First Quarter |   |    |
|---------------|---|----|
| En 101        | Composition                                     | 5  |
| Hs 101        | or 102 History                                  | 5  |
| Sc 100        | or 105 Intro. Soc. or Mod. Soc. Probs. Activity | 5  |
| PE            | Activity  | +1 |
| MS 101        | Mil. Science                                    | 2  |

## FRESHMAN YEAR

| Second Quarter |   |    |
|----------------|---|----|
| BI 130         | or Ed 370 Gen. Hum. Biology or Gen. Sc. | 5  |
| En 102         | Composition electives                   | 2  |
| Th 113         | Theology                                | 2  |
| MS 102         | Mil. Science                            | 2  |
| PE             | Activity                                | +1 |

| Third Quarter |                   |   |
|---------------|-------------------|---|
| Ed 101        | Intro. to Educ.   | 3 |
| Ed 201        | Wn. State Man.    | 3 |
| Ed 202        | Wn. State Hist.   | 3 |
| En 164        | or 165 Literature | 3 |
| PI 181        | Logic             | 2 |
| Th 133        | Theology          | 2 |
| Ms 103        | Mil. Science      | 2 |

| First Quarter |                                |   |
|---------------|--------------------------------|---|
| Ed 351        | Basic Arts & Crafts            | 3 |
| PI 201        | Phil. of Being electives—Major | 5 |
| MS 201        | Mil. Science                   | 2 |

| Second Quarter |                          |   |
|----------------|--------------------------|---|
| PI 251         | Phil. of Man             | 5 |
| Th 213         | Theology electives—Major | 2 |
| MS 202         | Mil. Science             | 2 |

| Third Quarter |                     |   |
|---------------|---------------------|---|
| Ed 322        | Psy. of Grw. & Dev. | 5 |
| PI 281        | Phil. of Pure Act   | 3 |
| Th 233        | Theology            | 2 |
| MS 203        | Mil. Science        | 2 |

| First Quarter |                                      |   |
|---------------|--------------------------------------|---|
| Ed 325        | Psy. of Learning                     | 5 |
| Ed 372        | Geography                            | 5 |
| Ed 374        | or 375 Children's or Adolescent Lit. | 3 |
| Ed 376        | Arith. Methods                       | 3 |
| Th 313        | Theology                             | 2 |

| Second Quarter |                                |   |
|----------------|--------------------------------|---|
| Ed 331         | Prin. of Teaching              | 3 |
| Ed 333         | Directed Observ.               | 2 |
| Ed 334         | Audio-Vis. Meths.              | 2 |
| PI 301         | General Ethics electives—Major | 5 |

| Third Quarter |                          |   |
|---------------|--------------------------|---|
| ED 352        | Health & PE Or. 3        | 3 |
| Ed 353        | Music Fund.              | 3 |
| PI 321        | Special Ethics           | 2 |
| Th 333        | Theology electives—Major | 8 |

| First Quarter |                          |    |
|---------------|--------------------------|----|
| Ed 336        | or 337 Reading Meths.    | 3  |
| PI 351        | Epistemology             | 3  |
| Th 413        | Theology electives—Major | 2  |
|               |                          | 10 |

| Second Quarter |                                    |      |
|----------------|------------------------------------|------|
| Ed 430         | or 431 Spec. Meths.                | 2    |
| Ed 432         | or 433 Cad. Teach. electives—Major | 5-10 |
| Th 433         | Theology                           | 0-10 |
|                |                                    | 2    |

| Third Quarter |                                      |      |
|---------------|--------------------------------------|------|
| Ed 430        | or 431 Spec. Meths.                  | 2    |
| Ed 432        | or 433 Cad. Teaching electives—Major | 5-10 |
|               |                                      | 0-10 |

Total hours.....198

# BACHELOR OF EDUCATION

| First Quarter |   |    |
|---------------|---|----|
| En 101        | Composition                                     | 5  |
| Hs 101        | or 102 History                                  | 5  |
| Sc 100        | or 105 Intro. Soc. or Mod. Soc. Probs. Activity | 5  |
| PE            | Activity  | +1 |
| MS 101        | Mil. Science                                    | 2  |

## FRESHMAN YEAR

| Second Quarter |   |    |
|----------------|---|----|
| BI 130         | or Ed 370 Gen. Hum. Biology or Gen. Sc. | 5  |
| En 102         | Composition electives                   | 2  |
| Th 113         | Theology                                | 2  |
| MS 102         | Mil. Science                            | 2  |
| PE             | Activity                                | +1 |

| Third Quarter |                 |   |
|---------------|-----------------|---|
| Ed 101        | Intro. to Educ. | 3 |
| Ed 201        | Wn. State Man.  | 3 |
| Ed 202        | Wn. State Hist. | 3 |
| En 164        | or 165 Literat. | 3 |
| PI 181        | Logic           | 2 |
| Th 133        | Theology        | 2 |
| MS 103        | Mil. Science    | 2 |

| First Quarter |                          |   |
|---------------|--------------------------|---|
| Ed 351        | Basic Arts & Crafts      | 3 |
| PI 201        | Phil. of Being electives | 5 |
| MS 201        | Mil. Science             | 2 |

| Second Quarter |                    |   |
|----------------|--------------------|---|
| PI 251         | Phil. of Man       | 5 |
| Th 213         | Theology electives | 2 |
| MS 202         | Mil. Science       | 2 |

| Third Quarter |                     |   |
|---------------|---------------------|---|
| Ed 322        | Psy. Grw. & Dev.    | 5 |
| Ed 352        | Health & PE Orient. | 3 |
| Ed 353        | Music Orient.       | 3 |
| PI 281        | Phil. of Pure Act   | 3 |
| Th 233        | Theology            | 2 |
| MS 203        | Mil. Science        | 2 |

| First Quarter |                                      |   |
|---------------|--------------------------------------|---|
| Ed 325        | Psych. of Learn.                     | 5 |
| Ed 372        | Geography                            | 5 |
| Ed 374        | or 375 Children's or Adolescent Lit. | 3 |
| Ed 376        | Arith. Methods                       | 3 |
| Th 313        | Theology                             | 2 |

| Second Quarter |                          |   |
|----------------|--------------------------|---|
| Ed 331         | Prin. of Teach.          | 3 |
| Ed 333         | Directed Observ.         | 2 |
| Ed 334         | Audio Vis. Meths.        | 2 |
| PI 301         | General Ethics electives | 5 |

| Third Quarter |                    |    |
|---------------|--------------------|----|
| PI 321        | Special Ethics     | 2  |
| Th 333        | Theology electives | 13 |

| First Quarter |                       |    |
|---------------|-----------------------|----|
| Ed 336        | or 337 Reading Meths. | 3  |
| PI 351        | Epistemology          | 3  |
| Th 413        | Theology electives    | 2  |
|               |                       | 10 |

| Second Quarter |                              |      |
|----------------|------------------------------|------|
| Ed 430         | or 431 Special Meths.        | 2    |
| Ed 432         | or 433 Cad. Teach. electives | 5-10 |
| Th 433         | Theology electives           | 0-10 |
|                |                              | 2    |

| Third Quarter |                                |      |
|---------------|--------------------------------|------|
| Ed 430        | or 431 Special Meths.          | 2    |
| Ed 432        | or 433 Cad. Teaching electives | 5-10 |
|               |                                | 0-10 |

Total .....198

# SCHOOL OF ENGINEERING

EDWARD W. KIMBARK, Sc.D., *Dean*

The School of Engineering meets the demands of the atomic age by turning out graduates who are technically competent and who have mental and moral balance qualifying them for positions of leadership. It teaches the art of directing and controlling the forces and materials of nature for the benefit of mankind.

Four branches of engineering are taught at Seattle University:

**Chemical Engineering**, which embraces the industrial application of chemical processes and demands a thorough knowledge of both chemistry and engineering.

**Civil Engineering**, which deals with the location, design and construction of buildings, highways, bridges and railroads as well as water supply and sanitation systems for cities and towns.

**Electrical Engineering**, which deals with the applications of electricity to the transmission and distribution of power and to measurement, control and computation, and with electronics and communications by wire and radio.

**Mechanical Engineering**, which is concerned with the design, construction, selection, operation and maintenance of machines in all fields of production.

As there is a fund of basic knowledge necessary to all professional engineers, most of the work of the first two years is common to all branches. This enables a student to choose his major after he has come in close contact with the contents and aims of the several branches of engineering.

The degrees, *Bachelor of Science* in Engineering and the *Master of Science* (Electrical and Mechanical) are conferred by the School of Engineering. The *Master of Science* may be earned only through evening classes.

A minimum grade of C is required in all science and engineering subjects.

Students who are working full time are limited to not more than 10 quarter-hours of study.

To gain admission to Engineering subjects scheduled in the Junior and Senior years, an Engineering student must have a grade of C or better in each of the science, mathematics, and engineering subjects required in the first two years of his curriculum and the number of credits completed in these subjects must be within 10 quarter-hours of those required for his curriculum as tabulated in this Bulletin or revisions thereof. This requirement is to become effective starting Fall Quarter, 1959.

Each of the four engineering curricula is tabulated below in the normal sequence in which it would be taken by a full-time day student. It is assumed in these tables that the student will have taken Intermediate Algebra and Trigonometry before entering Seattle University, although these subjects are not required for admission.

# BACHELOR OF SCIENCE IN ENGINEERING

## CHEMICAL ENGINEERING

### First Quarter

|         |              |   |
|---------|--------------|---|
| *Ch 114 | Gen. Chem.   | 5 |
| En 101  | Composition  | 5 |
| ME 111  | Drawing I    | 2 |
| Mt 111  | Col. Algebra | 5 |
| MS 101  | Mil. Science | 2 |

### First Quarter

|        |                 |   |
|--------|-----------------|---|
| Ph 200 | Physics         | 5 |
| Mt 231 | Elem. Anal. III | 5 |
| PI 201 | Phil. of Being  | 5 |
| Th 213 | Theology        | 2 |
| MS 201 | Mil. Science    | 2 |

### First Quarter

|         |                |   |
|---------|----------------|---|
| Ch 355  | Phys. Chem.    | 5 |
| Th 313  | Theology       | 2 |
| ChE 341 | Stoichiometry  | 3 |
| CE 300  | Mechanics II   | 5 |
| CE 301  | Str. of Mat. I | 4 |

### First Quarter

|         |                   |   |
|---------|-------------------|---|
| ChE 443 | ChE Thermod.      | 5 |
| ChE 449 | Unit Operat. II   | 3 |
| ChE 450 | Chem. Eng. Lab. I | 2 |
| EE 313  | Elem. of EE I     | 4 |
| ChE 456 | Seminar           | 1 |
| †       | Electives         | 3 |

\*Ch 111 and 112 may be substituted.

†Electives approved by Adviser.

### FRESHMAN YEAR

#### Second Quarter

|         |               |   |
|---------|---------------|---|
| *Ch 115 | Gen. Chem.    | 5 |
| ME 112  | Drawing II    | 2 |
| Mt 131  | Elem. Anal. I | 5 |
| PI 181  | Logic         | 3 |
| Th 113  | Theology      | 2 |
| MS 102  | Mil. Science  | 2 |

### SOPHOMORE YEAR

#### Second Quarter

|         |                |   |
|---------|----------------|---|
| Ch 220  | Quant. Anal.   | 4 |
| Ph 201  | Physics        | 5 |
| Mt 232  | Elem. Anal. IV | 5 |
| ChE 240 | Chem. Tech.    | 3 |
| MS 202  | Mil. Science   | 2 |

### JUNIOR YEAR

#### Second Quarter

|         |             |   |
|---------|-------------|---|
| Ch 356  | Phys. Chem. | 5 |
| Ch 355  | Org. Chem.  | 5 |
| Mt 341  | Diff. Eqs.  | 5 |
| ChE 343 | Phys. Met.  | 3 |
| Th 333  | Theology    | 2 |

### SENIOR YEAR

#### Second Quarter

|         |                     |   |
|---------|---------------------|---|
| EE 314  | Elem. of EE II      | 4 |
| ChE 451 | Unit Operat. III    | 3 |
| ChE 452 | Chem. Engr. Lab. II | 2 |
| ChE 453 | ChE Econ. & Des.    | 3 |
| ChE 498 | Thesis              | 1 |
| PI 301  | General Ethics      | 5 |

### Third Quarter

|        |                |   |
|--------|----------------|---|
| Ch 120 | Qual. Anal.    | 3 |
| CE 101 | Eng. Problems  | 3 |
| Mt 132 | Elem. Anal. II | 5 |
| En 165 | Literature     | 5 |
| ME 114 | Machine Shop   | 1 |
| MS 103 | Mil. Science   | 2 |

### Third Quarter

|         |               |   |
|---------|---------------|---|
| Ph 202  | Physics       | 5 |
| ChE 344 | Fuels & Lubs. | 5 |
| PI 251  | Phil. of Man  | 5 |
| CE 271  | Mechanics I   | 5 |
| MS 203  | Mil. Science  | 2 |

### Third Quarter

|         |                   |   |
|---------|-------------------|---|
| Ch 357  | Phys. Chem.       | 5 |
| Ch 336  | Org. Chem.        | 5 |
| ChE 347 | Unit Operat. I    | 3 |
| PI 281  | Phil. of Pure Act | 3 |
| Th 413  | Theology          | 2 |

### Third Quarter

|         |                |   |
|---------|----------------|---|
| ChE 454 | Plant Design   | 5 |
| ChE 457 | Adv. ChE Calc. | 5 |
| ChE 499 | Thesis         | 1 |
| PI 321  | Spec. Ethics   | 2 |
| PI 351  | Epistemology   | 3 |

## CIVIL ENGINEERING

### FRESHMAN YEAR

#### Second Quarter

|        |                          |   |
|--------|--------------------------|---|
| CE 101 | Engr. Problems           | 3 |
| Ch 112 | or 115 Gen. Inorg. Chem. | 5 |
| ME 112 | Drawing II               | 2 |
| Mt 131 | Elem. Anal. I            | 5 |
| Th 113 | Theology                 | 2 |
| MS 102 | Mil. Science             | 2 |

### SOPHOMORE YEAR

#### Second Quarter

|        |                |   |
|--------|----------------|---|
| CE 205 | Adv. Surveying | 3 |
| Mt 232 | Elem. Anal. IV | 5 |
| Ph 201 | Engr. Physics  | 5 |
| PI 181 | Logic          | 3 |
| MS 202 | Mil. Science   | 2 |

### JUNIOR YEAR

#### Second Quarter

|        |                 |   |
|--------|-----------------|---|
| CE 302 | Str. of Mat. II | 4 |
| CE 304 | Struct. Anal.   | 4 |
| EE 314 | Elem. of EE II  | 4 |
| PI 201 | Phil. of Being  | 5 |
| Th 233 | Theology        | 2 |

### SENIOR YEAR

#### Second Quarter

|        |                   |   |
|--------|-------------------|---|
| CE 462 | Rein. Concrete II | 4 |
| CE 464 | Sanitary Engr.    | 3 |
| CE 466 | Stat. Ind. Str.   | 4 |
| PI 301 | General Ethics    | 5 |
| Th 313 | Theology          | 2 |

### Third Quarter

|         |                 |   |
|---------|-----------------|---|
| CE 103  | Plane Surveying | 3 |
| §En 165 | Literature      | 5 |
| ME 113  | Desc. Geometry  | 2 |
| ME 114  | Machine Shop I  | 1 |
| Mt 132  | Elem. Anal. II  | 5 |
| MS 103  | Mil. Science    | 2 |

### Third Quarter

|        |                    |   |
|--------|--------------------|---|
| CE 206 | Route Surveying    | 3 |
| CE 271 | Mechanics I        | 5 |
| Mt 341 | Elem. Diff. Equat. | 5 |
| Ph 202 | Engr. Physics      | 5 |
| MS 203 | Mil. Science       | 2 |

### Third Quarter

|        |                  |   |
|--------|------------------|---|
| CE 305 | Struct. (Timber) | 4 |
| CE 365 | Soil Mechanics   | 4 |
| Ph 320 | Thermodynamics   | 5 |
| PI 251 | Phil of Man.     | 5 |

### Third Quarter

|        |                |   |
|--------|----------------|---|
| CE 460 | Highway Design | 5 |
| CE 465 | Hydrology      | 3 |
| CE 498 | Seminar or     | 5 |
| CE 499 | Thesis         | 2 |
| PI 321 | Special Ethics | 2 |
| PI 351 | Epistemology   | 3 |

†En 102 is substituted by those who are excused from En 101.

§En 165 or 166 may be substituted.

## ELECTRICAL ENGINEERING

### FRESHMAN YEAR

| First Quarter                   |   | Second Quarter                  |   | Third Quarter         |   |
|---------------------------------|---|---------------------------------|---|-----------------------|---|
| Ch 111 or 114 Gen. Inorg. Chem. | 5 | CE 101 Engr. Problems           | 3 | En 165 Literature     | 5 |
| En 101 Composition              | 5 | Ch 112 or 115 Gen. Inorg. Chem. | 5 | Mt 132 Elem. Anal. II | 5 |
| ME 111 Drawing I                | 2 | ME 112 Drawing II               | 2 | Ph 200 Engr. Physics  | 5 |
| Mt 111 College Algebra          | 5 | Mt 131 Elem. Anal. I            | 5 | Th 113 Theology       | 2 |
| MS 101 Mil. Science             | 2 | MS 102 Mil. Science             | 2 | MS 103 Mil. Science   | 2 |

### SOPHOMORE YEAR

| First Quarter          |   | Second Quarter        |   | Third Quarter             |   |
|------------------------|---|-----------------------|---|---------------------------|---|
| ME 114 Machine Shop I  | 1 | Mt 232 Elem. Anal. IV | 5 | CE 271 Mechanics I        | 5 |
| Mt 231 Elem. Anal. III | 5 | Ph 202 Engr. Physics  | 5 | EE 226 Fund. of EE        | 4 |
| Ph 201 Engr. Physics   | 5 | PI 201 Phil. of Being | 5 | Mt 341 Elem. Diff. Equat. | 5 |
| PI 181 Logic           | 3 | MS 202 Mil. Science   | 2 | Th 213 Theology           | 2 |
| Th 133 Theology        | 2 |                       |   | MS 203 Mil. Science       | 2 |

### JUNIOR YEAR

| First Quarter          |   | Second Quarter          |   | Third Quarter            |   |
|------------------------|---|-------------------------|---|--------------------------|---|
| CE 300 Mechanics II    | 5 | EE 331 A.C. Circuits II | 4 | EE 332 Transformers      | 4 |
| CE 301 Str. of Mat. I  | 4 | EE 333 Electronics I    | 4 | EE 334 Electronics II    | 3 |
| EE 330 A.C. Circuits I | 4 | EE 336 Communicat'ns I  | 2 | EE 337 Communicat'ns II  | 3 |
| Ph 360 Modern Physics  | 4 | Ph 361 Modern Physics   | 4 | Ph 320 Thermodynamics    | 5 |
| Th 233 Theology        | 2 | PI 251 Phil. of Man     | 5 | PI 281 Phil. of Pure Act | 3 |

### SENIOR YEAR

| First Quarter         |   | Second Quarter            |   | Third Quarter             |   |
|-----------------------|---|---------------------------|---|---------------------------|---|
| EE 480 D.C. Machinery | 4 | EE 481 A.C. Machinery I   | 4 | EE 482 A.C. Mach. II      | 4 |
| EE 483 Radio I        | 4 | EE 484 Radio II           | 2 | *EE 489 Power Sys. An. II | 4 |
| EE 486 Transients     | 4 | EE 488 Power Sys. Anal. I | 4 | *EE 492 Field Theory III  | 4 |
| EE 490 Field Theory I | 3 | EE 491 Field Theory II    | 4 | *EE 496 Servomechanisms   | 3 |
| Th 313 Theology       | 2 | PI 301 General Ethics     | 5 | *EE 497 Elect. Design     | 3 |
|                       |   |                           |   | EE 498 Seminar or         |   |
|                       |   |                           |   | EE 499 Thesis             | 2 |
|                       |   |                           |   | PI 351 Epistemology       | 3 |
|                       |   |                           |   | PI 321 Social Ethics      | 2 |

\*Student will choose any two.

## MECHANICAL ENGINEERING

### FRESHMAN YEAR

| First Quarter                   |   | Second Quarter                  |   | Third Quarter          |   |
|---------------------------------|---|---------------------------------|---|------------------------|---|
| Ch 111 or 114 Gen. Inorg. Chem. | 5 | Ch 112 or 115 Gen. Inorg. Chem. | 5 | CE 103 Plane Surveying | 3 |
| En 101 Composition              | 5 | CE 101 Engr. Problems           | 3 | En 165 Literature      | 5 |
| ME 111 Drawing I                | 2 | ME 112 Drawing II               | 2 | ME 113 Desc. Geometry  | 2 |
| Mt 111 College Algebra          | 5 | Mt 131 Elem. Anal. I            | 5 | Mt 132 Elem. Anal. II  | 5 |
| MS 101 Mil. Science             | 2 | MS 102 Mil. Science             | 2 | Th 113 Theology        | 2 |

### SOPHOMORE YEAR

| First Quarter          |   | Second Quarter         |   | Third Quarter             |   |
|------------------------|---|------------------------|---|---------------------------|---|
| ME 114 Machine Shop I  | 1 | ME 116 Machine Shop II | 1 | CE 271 Mechanics I        | 5 |
| Mt 231 Elem. Anal. III | 5 | Mt 232 Elem. Anal. IV  | 5 | Mt 341 Elem. Diff. Equat. | 5 |
| Ph 200 Engr. Physics   | 5 | Ph 201 Engr. Physics   | 5 | Ph 202 Engr. Physics      | 5 |
| PI 181 Logic           | 3 | PI 201 Phil. of Being  | 5 | Th 213 Theology           | 2 |
| Th 133 Theology        | 2 | MS 202 Mil. Science    | 2 | MS 203 Mil. Science       | 2 |

### JUNIOR YEAR

| First Quarter         |   | Second Quarter         |   | Third Quarter         |   |
|-----------------------|---|------------------------|---|-----------------------|---|
| CE 300 Mechanics II   | 5 | ChE 343 Phys. Met.     | 3 | ChE 344 Fuels & Lubs. | 3 |
| CE 301 Str. of Mat. I | 4 | CE 302 Str. of Mat. II | 4 | ME 324 M. E. Lab.     | 4 |
| EE 313 Elem. of EE I  | 4 | EE 314 Elem. of EE II  | 4 | ME 370 Prod. Proc.    | 3 |
| ME 321 Thermo. I      | 3 | ME 322 Thermo. II      | 3 | ME 371 Mach. Des. I   | 3 |
| Th 233 Theology       | 2 | ME 361 Mechanisms      | 3 | PI 251 Phil. of Man   | 5 |
|                       |   | Th 313 Theology        | 2 |                       |   |

### SENIOR YEAR

| First Quarter            |   | Second Quarter         |   | Third Quarter         |   |
|--------------------------|---|------------------------|---|-----------------------|---|
| CE 403 Fluid Mechanics   | 5 | ME 476 Heat & Vent.    | 4 | ME 427 I. C. Engines  | 4 |
| ME 425 Steam Power       | 4 | ME 426 Turbines        | 4 | ME 474 Mach. Des. IV  | 2 |
| ME 472 Mach. Des. II     | 3 | ME 473 Mach. Des. III  | 3 | ME 475 Refrigeration  | 3 |
| ME 428 Ferrrous Metals   | 3 | ME 429 Nonferr. Metals | 3 | ME 498 Seminar or     |   |
| PI 281 Phil. of Pure Act | 3 | PI 301 General Ethics  | 5 | ME 499 Thesis         | 2 |
|                          |   |                        |   | PI 321 Special Ethics | 2 |
|                          |   |                        |   | PI 351 Epistemology   | 3 |

# SCHOOL OF NURSING

SISTER MARY RUTH, O.P., M.Ed., *Acting Dean*

The aims of the School of Nursing are to provide a cultural, intellectual and religious background to encourage the student to become a truly Christian woman who will be guided through life by fundamental religious principles; to assist the student to develop those ideals, attitudes and appreciations which will enable her to make satisfactory adjustments to life; to help the student acquire professional knowledge and technical skill which will enable her to understand and participate in meeting the health needs of the individual, family and community.

There are two programs in the School of Nursing. One is the Basic Degree Program designed for the high school graduate who wants a professional program in nursing. The other, the General Program, is planned for the registered nurse who wishes to complete the requirements for the *Bachelor of Science* degree.

In the Basic Degree Program the student spends six quarters on campus pursuing academic courses and eight quarters in professional nursing courses. At the beginning of the seventh quarter the student receives her cap and enters the Clinical Unit at Providence Hospital. The professional courses include Medical and Surgical, Maternal and Child Health, Tuberculosis, Psychiatric and Public Health Nursing.

The degree earned in the School of Nursing is the *Bachelor of Science in Nursing*, and the graduate is prepared for beginning positions including public health nursing.

## BACHELOR OF SCIENCE IN NURSING

### BASIC DEGREE PROGRAM

Fully Accredited by Accrediting Service, National League for Nursing, Inc.

Campus Courses (Six Quarters)

#### FRESHMAN YEAR

|                         |   |                       |   |                        |   |
|-------------------------|---|-----------------------|---|------------------------|---|
| <b>First Quarter</b>    |   | <b>Second Quarter</b> |   | <b>Third Quarter</b>   |   |
| Ch 101 Gen. Chem.       | 5 | Ch 102 Gen. Chem.     | 5 | En 175 Literature      | 5 |
| En 101 Composition      | 5 | En 102 Composition    | 5 | PI 251 Phil. of Man    | 5 |
| Sc 100 Intro. Sociology | 5 | PI 201 Phil. of Being | 5 | Sc 105 Mod. Soc. Prob. | 5 |
| Th 113 Theology         | 2 | Th 133 Theology       | 2 | Th 233 Theology        | 2 |

#### SOPHOMORE YEAR

|                        |   |                                   |   |                                 |    |
|------------------------|---|-----------------------------------|---|---------------------------------|----|
| <b>First Quarter</b>   |   | <b>Second Quarter</b>             |   | <b>Third Quarter</b>            |    |
| BI 132 Anatomy         | 5 | BI 133 Physiology                 | 5 | N 290 Intro. to Nurs.           | 12 |
| HE 225 Nutrition       | 5 | BI 220 Microbiology               | 5 | Psy 322 Psy. to Grw. & Develop. | 3  |
| N 100 Orient. to Nurs. | 0 | PI 321 Special Ethics             | 2 | Th 333 Theology                 | 2  |
| PI 301 General Ethics  | 5 | Psy 310 Men. Hyg. & Pers. Adjust. | 5 |                                 |    |
| Th 313 Theology        | 2 |                                   |   |                                 |    |

Courses in Providence Hospital Clinical Unit and Cooperating Teaching Agencies  
(Eight Quarters)

#### JUNIOR YEAR

|  |    |                                    |   |
|--|----|------------------------------------|---|
| N 300 Medical and Surgical Nursing I   | 12 | N 310 Maternal and Child Health I  | 9 |
| N 301 Medical and Surgical Nursing II  | 12 | N 311 Maternal and Child Health II | 9 |
| N 302 Medical and Surgical Nursing III | 5  | N 316 History of Nursing           | 2 |
| N 303 Medical and Surgical Nursing IV  | 5  | Th 213, 413, 433 Theology          | 6 |

### SENIOR YEAR

|         |   |    |         |  |     |
|---------|---|----|---------|--|-----|
| N 401   | Psychiatric Nursing                               | 10 | *N 405  | Public Health Nursing                    | 3   |
| *N 402, | 403 Tuberculosis Nursing                          | 5  | *N 406  | Public Health Nursing Practice           | 5   |
| N 420   | Professional Development                          | 3  | *PH 423 | Public Health Organizations and Services | 3   |
| N 421   | Principles of Management in Comprehensive Nursing | 10 |         |  |     |
|         |   |    | Total   |  | 201 |

## GENERAL NURSING PROGRAM

### for the REGISTERED NURSE

The General Program is planned to meet the needs of the registered nurse who wishes to complete the requirements for the degree *Bachelor of Science in Nursing*. Its immediate objectives are to strengthen an already existing foundation and to enrich and supplement the student's personal and professional growth. It prepares her for beginning positions including Public Health.

#### Requirements for Admission:

1. Graduation from an approved School of Nursing.
2. Current registration as a graduate nurse in one or more states.
3. Sound physical health evidenced by a physician's report showing a complete examination within six months before entrance.
4. Records and credentials completed and on file before an evaluation can be given.
5. Graduate Nurse Qualifying Examinations are to be taken prior to or immediately after entrance into the school so that areas of strength and weakness may be noted.

The diploma program will be evaluated, and the amount of credit allowed on the basis of the results of the Graduate Nurse Qualifying Examination, basic preparation in nursing, work experience, and other pertinent factors.

Applications for the Graduate Nurse Qualifying Examination may be obtained from the office of the Dean of the School of Nursing at Seattle University. The card should be completed and returned with an \$8 fee to the National League for Nursing, 2 Park Avenue, New York 16, New York.

Students are urged to have a current Washington driver's license and to have access to a car for public health nursing. Placement in field experience is dependent upon this factor during some quarters.

### GENERAL PROGRAM COURSES

| Subject                              | Credit | Subject  | Credit |
|--------------------------------------|--------|--|--------|
| BI 222 Science                       | 10     | HE 225 Nutrition                                   | 5      |
| PI 201 Communicable Disease          | 3      | (requirement or satisfactory score on pre-test)    |        |
| PI 201 Philosophy of Being           | 5      | Hs 101 or 102 History                              | 5      |
| PI 251 Philosophy of Man             | 5      | N 320 Trends in Nursing                            | 2      |
| PI 301 General Ethics                | 5      | N 421 Prin. of Management in Comprehensive Nursing | 10     |
| PI 321 Special Ethics                | 2      | N 430 Principles of Teaching                       | 3      |
| Psy 310 Mental Hygiene               | 5      | N 435 Public Health Organization and Programs      | 3      |
| Psy 322 Human Growth and Development | 3      | *N 405 Public Health Nursing                       | 3      |
| Psy 427 The Counseling Interview     | 5      | *N 406 Public Health Nursing Practice              | 5      |
| Sc 100 Introductory Sociology        | 5      | *N 428 Prin. & Org. of Pub. Health Nursing         | 5      |
| Sc 105 Social Problems               | 5      | *N 459 Current Literature in Nursing               | 2      |
| Sc 475 Introduction to Social Work   | 5      | Theology   | 16     |
| En 101, 102 Composition              | 10     |  |        |
| En 164 or 175 Literature             | 5      |  |        |
| <b>Suggested Electives:</b>          |        |  |        |
| Personnel Management                 |        |  |        |
| Business Law                         |        |  |        |
| Educational Psychology               |        |  |        |
| Tests and Measurements               |        |  |        |
| Audio-Visual Aids                    |        |  |        |
|                                      |        | Total needed for Graduation                        | 196    |

\*Taken at University of Washington with transfer credit.

# COLLEGE OF SISTER FORMATION

(INSTITUTIONAL BRANCH)

SISTER JUDITH, F.C.S.P., PH.D., *Dean*

The College of Sister Formation was inaugurated at Seattle University in the fall of 1957. Negotiations regarding the cooperation of Seattle University with religious communities in teaching a special curriculum for their young sisters were begun in the summer of 1956 during the national curriculum workshop which was held in Everett, Washington, from June 1 to August 30, 1956, under the sponsorship of the Sister Formation Conferences. The purpose of the workshop was the planning of a special liberal arts curriculum for the education of young sisters during the period of their religious formation.

The study was financed by a grant from the Ford Foundation, one of the conditions of the grant being that the proposed curriculum as described in the *Report of the Everett Curriculum Workshop* be taught in two collegiate centers as a demonstration to religious communities of the possibilities of such a curriculum. The two colleges selected to serve as demonstration centers were Seattle University, cooperating with the Sisters of Providence, the Sisters of St. Joseph of Newark, and other communities, and the College of St. Teresa, Winona, Minnesota.

Seattle University agreed to provide the staff and facilities for teaching the curriculum until Providence Heights College near Pine Lake is completed and a faculty of sisters, now in doctoral studies, is ready to staff it.

## CURRICULUM

The courses in the basic curriculum lead to the degree of Bachelor of Arts. On completion of the program all students have a major concentration in social science. Electives may be taken to complete other majors according to individual needs. Students who elect to take courses other than those in the basic curriculum follow the courses listed in the general catalog.

### SISTER FORMATION CURRICULUM, SEATTLE UNIVERSITY 1958-1960

| Fall Quarter              | Winter Quarter            | Spring Quarter            | Summer Quarter        |
|---------------------------|---------------------------|---------------------------|-----------------------|
|                           |                           |                           | Art Fund., 104 3      |
|                           |                           |                           | Music Fund., 124 3    |
| <b>FRESHMAN YEAR</b>      |                           |                           |                       |
| Gen. Biology, 100 4       | Human Biology, 141 4      | Human Biology, 142 4      | Plant Biology, 145 3  |
| Communion, 121a 2         | Communion, 121b 2         | Communion, 121c 2         | Communion 121d 2      |
| Phil. of Being, 131a 3    | Phil. of Being, 131b 3    | Phil. of Man, 143 4       | Gen. Psych, 190 5     |
| Liturgy, 101 2            | Liturgy, 102 2            | Dogmatic Th., 285 2       |                       |
| <b>CANONICAL YEAR</b>     |                           |                           |                       |
| Intro. to Scrip., 268 2   | Four Gospels, 271 2       | Four Gospels, 272 2       | Elem. French, 121- 10 |
| Dogmatic Th., 281 3       | Dogmatic Th., 282 3       | Dogmatic Th., 283 3       | 122                   |
| Christ. Art & Mus., 201 2 | Christ. Art & Mus., 202 2 | Christ. Art & Mus., 203 2 | (Beginning July 21)   |
| <b>SOPHOMORE YEAR</b>     |                           |                           |                       |
| World Cult., 201 4        | World Cult., 202 4        | World Cult., 203 4        | Church Hist., 370 3   |
| Eng. Comp. II, 122 5      | World Lit., 260 4         | English Lit. I, 264 4     | Eng. Lit. II, 265 4   |
| Gen. Ethics, 261 4        | Spec. Ethics, 262 4       | Intro. Soc. 200 4         | Social Econ., 250 4   |
| Acts & Ep'les, 341 1      | Acts & Ep'les, 342 1      | Acts & Ep'les, 343 1      |                       |

### JUNIOR YEAR

|                    |     |                    |     |                    |     |                      |   |
|--------------------|-----|--------------------|-----|--------------------|-----|----------------------|---|
| Physical Sci., 301 | 4   | Physical Sci., 302 | 4   | Physical Sci., 303 | 4   | Psych. of Adjust.,   | 4 |
| Mod. Math., 301    | 3   | Mod. Math., 302    | 3   | Mod. Math., 303    | 3   | 370                  |   |
| Dev. Psych., 314   | 4   | Pol. Sci., 325     | 4   | U.S. History, 344  | 5   | Phil. of Pure Act,   | 4 |
| Moral Theol., 361  | 1   | Moral Theol., 362  | 1   | Moral Theol., 363  | 1   | 320                  |   |
| Electives          | 3-5 | Electives          | 3-5 | Electives          | 2-4 | Hist. of 20th Cent., | 4 |
|                    |     |                    |     |                    |     | 360                  |   |

### SENIOR YEAR

|                      |   |                     |     |                     |     |                         |    |
|----------------------|---|---------------------|-----|---------------------|-----|-------------------------|----|
| Soc. Geog., 410      | 4 | Nat'l Issues, 415   | 4   | Inter'l Issues, 420 | 4   | PROFES. QUARTER         |    |
| Epistemology, 404    | 3 | American Lit., 400  | 4   | Soc. Psych., 435    | 4   | For Teachers            |    |
| Psych. of Learning,  | 4 | Found. of Ed., 441  | 4   | Found. of Ed., 442  | 4   | Ed 490 Curric. &        |    |
| 417                  |   | Spirit. Theol., 452 | 1   | Spirit. Theol., 453 | 1   | Stud. Teach.            | 18 |
| Sur. of Phil. Sys.,  | 4 | Electives           | 3-5 | Electives           | 3-5 | For Other Professions   |    |
| 453                  |   |                     |     |                     |     | Differentiated special- |    |
| Spirit., Theol., 451 | 1 |                     |     |                     |     | ized work               |    |

## THE GRADUATE SCHOOL

REV. JOHN E. GURR, S.J., *Dean*

REV. ROBERT J. CARMODY, S.J., REV. JOSEPH P. DONOVAN, S.J., REV. LEO A. SCHMID, S.J., MR. HERBERT D. REAS, DR. DAVID A. DOWNES.

### INTRODUCTION

Graduate studies directed toward the master's degree were first inaugurated at Seattle University in 1901 and were offered in a division of its College of Arts and Sciences. In 1935 graduate courses became an integral part of the University's Teaching Education program. In 1958, a tentative program of graduate work in Engineering for Evening Division students was approved. The Graduate School now is a separate school of the University with three divisions: Arts and Sciences, Education, and Engineering.

Administration of the Graduate School lies with the Dean of the Graduate School and the Graduate Council appointed by the President and directly responsible to him and the Board of Trustees. The Graduate School is subject, however, to the general Academic administration of the Academic Council. All programs in Seattle University beyond the bachelor's degree or the first professional degree are under the academic administration of the Graduate School.

The Dean of the Graduate School and his Council establish and maintain requirements for degrees according to the recommendations of the Graduate Committee of each school of the University. The component schools and various departments provide courses of instruction for graduate students, direct their studies, conduct examinations, maintain requirements and make recommendations. Academic transactions involving admission, registration and awarding of degrees are supervised by the University's Registrar. Actual admission to graduate study is granted through the Dean of the Graduate School in consultation with the dean of the particular school and the appropriate department head involved in the counseling of the applicant.

Graduate School programs are not merely *more* courses in undergraduate study; they involve courses advancing by gradation into greater complexity and profundity. The content of graduate courses is of a more advanced nature, the requirements in terms of bibliography, quantity and quality of thinking and writing are



higher, and the degree of initiative, the organizing ability and originality expected is greater. Only a limited number of undergraduate courses may be accepted for credit. Graduate students should not consider the mere literal fulfillment of requirements as conferring the right upon them to continued registration. Academic advancement and eligibility for degrees are contingent also upon recommendation and approval of the Graduate Council.

### CLASSIFICATION OF STUDENTS

Basically there are only two classes of students in the Graduate School: (1) those who intend to pursue the degree and who therefore wish to become candidates. These are termed Classified students. (2) Those who are qualified to enroll in graduate courses but do not intend to apply for the master's degree. These are termed Unclassified.

Classified graduate students may be either *applicants* who have been admitted to the Graduate School but not to candidacy, or *candidates* who have completed 20 quarter hours of an approved program of studies with no grade less than 'B' in their major area.

Unclassified graduate students may be either (1) *credential candidates* who intend to qualify for initial or further accreditation as teachers in the public or private schools. These would include students with a degree but with unfulfilled undergraduate requirements in Education who wish to become candidates for certification. (2) *Special students* are those who wish to take work beyond the requirements of the bachelor's degree.

While unclassified students are not held to the specific requirements of a particular graduate program, they must, however, follow the required admission procedures and perform satisfactory work in the courses for which they enroll. Ordinarily no credit earned by a special student will count toward a degree.

Graduate students at the discretion of the Graduate Council may be admitted on a probationary status in cases where they are unable to meet the conditions for full admission. Students previously admitted to full standing in the Graduate School may be reduced to a probationary status for unsatisfactory work. All students on probation will be required to do notably satisfactory work or be dropped from their graduate program.

The degrees conferred by the University are:

#### *Arts and Sciences—*

1. The Master of Arts for specialized work in a departmental major.
2. The Master of Science for specialized work in a departmental major.

#### *Education—*

3. The Master of Arts in Education.
4. The Master of Education.
5. The Master of Science in Education.

### *Engineering—*

6. The Master of Science in Electrical Engineering (Evening Division).
7. The Master of Science in Mechanical Engineering (Evening Division).

### **ADMISSION TO THE DEGREE PROGRAM**

Admission to the Degree Program is granted to applicants who have received the bachelor's degree from an approved college or professional school, and whose scholarship records and credentials indicate ability to pursue graduate work of a high caliber.

An undergraduate major and an undergraduate minor or their fair equivalents are required in the same departments or areas from which the student selects his graduate work.

### **ADMISSION PROCEDURE**

Correspondence concerning admission should be addressed to the Dean of the Graduate School. Application for admission should be submitted as early as possible before the opening of the term in which the student wishes to begin his work.

Prospective students must file with the Dean of the Graduate School the following:

1. An official application form properly filled in. This form may be secured from the Registrar's Office.
2. *Two* official transcripts of academic credits, to be sent directly from *each* institution attended. The transcripts should include the high school record.

A student is not regarded as a duly qualified Graduate Student until he has received a letter of acceptance from the Dean of the Graduate School.

### **ADMISSION TO CANDIDACY**

Admission to candidacy for the master's degree is granted after the student has completed twenty (20) quarter hours of his approved program of studies with no grade less than "B" in his major area.

### **REQUIREMENTS FOR MASTER'S DEGREE**

1. Each candidate shall complete forty-five (45) quarter hours of course work at Seattle University beyond that required for a bachelor's degree and a thesis for which 10 hours are granted if a thesis is required. This work must be of distinctly advanced character but, with the approval of the department and the Graduate Council, fifteen (15) credits may be earned in courses numbered 300 to 499, if the subjects be suitable to the student's program. A maximum of ten (10) quarter hours may be transferred from another institution if they are earned with a grade of A or B and approved by the Council.

2. Distribution of course work will be according to a program recommended by the department and approved by the Dean of the Graduate School.

3. The work done in undergraduate courses for graduate credit must have at least a B grade. Graduate courses, numbered over 400, must have at least a C grade. All the work done toward a master's degree must have a B grade.

4. Every candidate for a master's degree must take a comprehensive examination embracing both the major and minor fields of study. This examination shall be written and/or oral at the judgment of the department and the approval of the Graduate Council. The examination in the minor field will cover the more significant phases of the particular subjects taken. This matter may be based on a list of readings assigned by the department.

5. The student is required to complete a thesis on a topic approved by both his major department and the Graduate Council. For this work 10 quarter hours of credit are granted. The thesis is not necessarily a work of original research but it must, however, demonstrate the candidate's ability to collect facts, interpret them in critical manner and organize and express them in an original, lucid way.

- a. The topic of the thesis is to be approved by the student's mentor and filed with the Graduate School when thirty (30) quarter hours of the graduate program have been completed.
- b. Two copies of the approved thesis are to be filed in the Office of the Dean two weeks before the date of graduation.
- c. An oral examination on the content of the thesis, cognate literature and available source material is held before a board appointed by the Graduate Council.

6. The course work for the master's degree must be completed within five (5) years (6 consecutive Summer Sessions) after the candidate has been accepted for graduate studies. The comprehensive examination, the thesis and the thesis examination must be completed within one (1) year after the course of studies is finished.

7. Each candidate for a degree will give evidence of a reading knowledge of a foreign language specified by the head of the department concerned before one half of the required graduate credits for the degree are completed.

8. Each candidate for a degree is required to make application for it on the form supplied by the Graduate School office. This form, filled out, should be returned to the office not late than April 15, preceding the June in which the degree is expected.

9. The Graduate Council alone has the power to recommend a candidate to the Executive Board for a master's degree.

10. All candidates for degrees must be present at the Commencement Exercises to receive their diplomas.

# EVENING DIVISION

## ORIGIN AND PURPOSE

The first evening course offered by Seattle University was given in 1907 at the request of former students seeking special classes in Philosophy. From that time until the close of World War II, a limited variety of courses was offered. Since 1946, Seattle University has continuously expanded its evening program in an effort to serve the educational and spiritual needs of the people and industries of this area. The Evening Division offers to ambitious and capable students whose employment or other responsibilities limit them to part-time study an opportunity to obtain a liberal education and to receive technical training in their chosen fields.

## ADMINISTRATION AND PROGRAMS

Major and minor concentrations in English, History, Political Science and Sociology are offered toward the *Bachelor of Arts* degree and the *Bachelor of Commercial Science* degree may be taken in Accounting or General Commerce. The *Bachelor of Science* or *Master of Science* degree may be received in Electrical or Mechanical Engineering. In Education, courses leading to bachelors' and masters' degrees are regularly offered together with other courses designed for the general cultural growth of teachers and teacher certification. All course work directed toward the degree carries residence credit and the instructors and courses are under the academic supervision of appropriate department heads and deans. Entrance requirements, matriculation and registration procedures are similar to those required of full-time students. Classes are conducted on a varying schedule between 4:00 p.m. and 10:00 p.m., Monday through Friday, during the Fall, Winter, Spring and Summer terms. A list of classes to be offered may be obtained through the Evening Division Office at the beginning of each quarter.

## GUIDANCE AND COUNSELING

Each student receives guidance throughout the school year from counselors appointed by his department or school and any student may obtain spiritual assistance from the University's Student Chaplain or any of the Jesuit faculty at any time.

## ADULT EDUCATION

To satisfy the community demand for general cultural development not directly associated with useful or vocational goals, a program of adult education courses is offered. Details of those being offered may be found in the Evening Division's quarterly bulletin.

For further information on the Evening Division, call or write the EVENING DIVISION, SEATTLE UNIVERSITY, SEATTLE 22, WASHINGTON. EA 3-9400.

# ***DESCRIPTION OF COURSES***

# DESCRIPTION OF COURSES

Lower division courses, numbered 100-299, are elementary and background courses. They are open to freshmen and sophomores who have the necessary preparation.

Upper division courses, numbered 300-499, are advanced subjects which are not ordinarily open to freshmen and sophomores.

Courses numbered 500 and above are open only to graduate students.

## ART

REV. HAYDEN A. VACHON, S.J., *Adviser*

Undergraduate Minor: 25 hours.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Art 101</b>    | <b>INTRODUCTION TO ART.</b> A course leading to the knowledge and comprehension of art in all of its manifestations. Slide lectures. Recommended for all Arts and Sciences majors and those in the professional schools. Fall, Winter.....        | 5                   |
| <b>Art 111</b>    | <b>HISTORY OF ART.</b> A survey of the arts and crafts of the Mediterranean basin and the Middle East from earliest times to the end of the 13th century; Pagan and Christian influences. Fall, alternate years.....                              | 3                   |
| <b>Art 112</b>    | <b>HISTORY OF ART.</b> A continuation of Art 111. The arts and crafts of Europe and contributing cultures from the 13th century through the 17th; the Renaissance and the birth of modern ideas. Winter, alternate years.....                     | 3                   |
| <b>Art 113</b>    | <b>HISTORY OF ART.</b> A continuation of Art 112. The arts and crafts of Europe and the Western Hemisphere from the 17th into the 20th century; trends and tendencies; the contemporary scene. Spring, alternate years.....                       | 3                   |
| <b>Art 121</b>    | <b>DRAWING.</b> Studies of line and value in the delineation of form; training in awareness and perception; tools and materials. Fall .....   | 2                   |
| <b>Art 122</b>    | <b>DRAWING.</b> Problems in simple structure; one-, two-, and three-point perspective; the measuring point system; the refinement of methods and techniques. Prerequisite: Art 121. Winter .....  | 2                   |
| <b>Art 123</b>    | <b>DRAWING.</b> Problems in complex structure; introduction to figure drawing; essential relationships of organic forms; head studies. (Art 341, <b>WATERCOLOR PAINTING</b> , may be taken instead of Art 123). Prerequisite: Art 122. Spring.... | 2                   |
| <b>Art 131</b>    | <b>DESIGN.</b> Studies in organization; primary concepts in the analysis of structure; problems in two-dimensional design. Introduction to color theory. Fall.....  | 2                   |
| <b>Art 132</b>    | <b>DESIGN.</b> Analysis of natural design; historical movements; introduction to lettering and typography; three-dimensional design. Prerequisite: Art 131. Winter.....   | 2                   |
| <b>Art 133</b>    | <b>DESIGN.</b> Studies in two and three dimensional design. Basic problems of form. Advertising and/or fine art. Prerequisite: Art 132. Spring .....  | 2                   |

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|----------------|--|---|
| <b>Art 140</b> | <b>EVERYDAY ART.</b> Elements and principles of design and their application to everyday life; creative color composition; interior and fashion design. Required of all Home Economics majors. Fall .....  | 5 |
| <b>Art 311</b> | <b>HISTORY OF ART.</b> A survey of the arts and crafts of the Mediterranean basin and the Middle East from earliest times to the end of the 13th century; Pagan and Christian influences. For area majors in Humanities, only. Fall, alternate years .....     | 3 |
| <b>Art 312</b> | <b>HISTORY OF ART.</b> A continuation of Art 311. The arts and crafts of Europe and contributing cultures from the 13th century through the 17th; Renaissance and the birth of modern ideas. For area majors in Humanities only. Winter, alternate years ..... | 3 |
| <b>Art 313</b> | <b>HISTORY OF ART.</b> A continuation of Art 312. The arts and crafts of Europe and the Western Hemisphere from the 17th to the 20th century; trends and tendencies; the contemporary scene. For area majors in Humanities only. Spring, alternate years ..... | 3 |
| <b>Art 321</b> | <b>ADVANCED DRAWING AND ILLUSTRATION.</b> Portraiture; studies in anatomy of head and hands. Prerequisite: Art 123. Fall .....   | 2 |
| <b>Art 322</b> | <b>ADVANCED DRAWING AND ILLUSTRATION.</b> Advanced figure structure and problems of design; the traditional approach and modern adaptations. Draped figure. Prerequisite: Art 321. Winter.....   | 2 |
| <b>Art 323</b> | <b>ADVANCED DRAWING AND ILLUSTRATION.</b> Special problems in group composition; painting and design toward the development of a creative and personalized expression. Prerequisite: Art 322. Spring.....  | 2 |
| <b>Art 331</b> | <b>LETTERING AND DESIGN.</b> Typography and an analysis of the classical styles; lettering in black and white; the layout. Prerequisite: Art 133. Fall.....  | 3 |
| <b>Art 332</b> | <b>LETTERING AND DESIGN.</b> Lettering and layout; uses of photographs and spot illustrations; color. Prerequisite: Art 331. Winter .....  | 3 |
| <b>Art 333</b> | <b>LETTERING AND DESIGN.</b> Lettering and co-ordinated design and illustration; the relation of fine art to modern commercial art; practical problems. Prerequisite: Art 332. Spring .....  | 3 |
| <b>Art 334</b> | <b>PRINTMAKING.</b> The principles of printmaking in relation to arts and crafts; design and representation; serigraphy or silk screen. Prerequisite: Art 133. Fall, every third year....  | 2 |
| <b>Art 335</b> | <b>PRINTMAKING.</b> A continuation of Art 334. Special problems. Textile design and printing. Prerequisite: Art 334. Winter, every third year.....   | 2 |
| <b>Art 336</b> | <b>PRINTMAKING.</b> A continuation of Art 335. Principles of printmaking and its relation to advertising and/or fine art. Serigraphy, wood block or linoleum. Prerequisite: Art 335. Spring, every third year.....   | 2 |
| <b>Art 341</b> | <b>WATERCOLOR PAINTING.</b> The principles and use of watercolor; still life. Prerequisite: Art 122. Spring.....   | 2 |

|         |  |        |
|---------|--|--------|
| Art 346 | <b>OIL PAINTING.</b> The principles and practices of rendering in oil; composition and still life. Prerequisite: Art 123. ..Fall   | 2      |
| Art 347 | <b>OIL PAINTING.</b> A continuation of Art 346. Complex composition; portraiture; figure drawing. Prerequisite: Art 346. Winter .....  | 2      |
| Art 348 | <b>OIL PAINTING.</b> A continuation of Art 347. Advanced problems in composition; landscape. Prerequisite: Art 347. Spring   | 2      |
| Art 351 | <b>SCULPTURE.</b> Creative modeling toward a realization of the nature of form, and design of content; plaster-casting. Prerequisite: Art 123. Fall, alternate years.....  | 2      |
| Art 352 | <b>SCULPTURE.</b> Architectural; the design of sculptured form in plaster, terra cotta and other plastic media; bas-relief and in the round. Prerequisite: Art 351. Winter, alternate years .....  | 2      |
| Art 353 | <b>SCULPTURE.</b> A continuation of Art 352; introduction of portrait and figure modeling; the armature. Prerequisite: Art 352. Spring, alternate years.....   | 2      |
| Art 401 | <b>HISTORY OF AESTHETICS.</b> Theories of art and beauty; background and development from Plato and Aristotle to Plotinus. Neo-Platonism. Prerequisite: Pl 201. Fall, every third year .....   | 2      |
| Art 402 | <b>HISTORY OF AESTHETICS.</b> Theories of art and beauty from St. Augustine through the Renaissance. Humanism and Scientism. Prerequisite: Pl 201. Winter, every third year....  | 2      |
| Art 403 | <b>HISTORY OF AESTHETICS.</b> Theories of art and beauty; latter phases: Rationalism, Romanticism, and contemporary Positivist Idealism. Materialistic formalism. Prerequisite: Pl 201. Spring, every third year.....  | 2      |
| Art 405 | <b>MEDIEVAL AESTHETICS.</b> The Scholastic theory of beauty in relation to the transcendentals of being; an analysis by causes of the different manifestations of artistic form; the work of art as the product of a human act. Prerequisite: Pl 201. Spring ..... | 2      |
| Art 431 | <b>ADVANCED DESIGN.</b> Introduction to advertising design. Problems in graphic design; advertising layout, production, printing, typography; professional attitudes. Prerequisites: Art 123, 133. Fall, every third year.....                                     | 2      |
| Art 432 | <b>ADVANCED DESIGN.</b> Introduction to interior design. Interiors, furniture, specialized structures; spacial concepts; complex problems in three-dimensional design; drafting, presentations, materials. Prerequisite: Art 431. Winter, every third year.....    | 2      |
| Art 433 | <b>ADVANCED DESIGN.</b> Introduction to fashion design and illustration. The treatment of specialized problems related to Art 431 and Art 432; the draped figure. Prerequisite: Art 432. Spring, every third year.....   | 2      |
| Art 471 | <b>INDEPENDENT STUDY.</b> Advanced work in academic or experimental research under departmental direction and supervision. By arrangement.....   | 2 to 5 |

NB. The department reserves the right to all art work done by students in the fulfillment of course requirements.



## BIOLOGY (BI)

REV. LEO A. SCHMID, S.J., PH.D., *Head*

### DEPARTMENTAL REQUIREMENTS:

Degree in Biology: 45 hours—132, 133, 200, 201, select 25 hours with the direction of the adviser.

Undergraduate Major: 132, 133, 200, 201, select 25 hours of upper division courses.

Related Minor: Select 25 hours with the direction of the adviser.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| BI 110            | <b>GENERAL BIOLOGY.</b> General structure and function of plants and animals. For Arts majors. Three lectures and four laboratory hours per week.....   | 5                   |
| BI 130            | <b>GENERAL HUMAN BIOLOGY.</b> A general survey of the structure and function of the human body with special emphasis on the endocrine glands and reproductive organs. For non-science majors. Three lecture hours and four laboratory hours per week.....   | 5                   |
| BI 131            | <b>SPECIAL HUMAN BIOLOGY.</b> A continuation of BI 130. Special attention given to the central and autonomic divisions of the nervous system, sense organs, cortical areas and nature of nerve impulses as means of understanding the neural basis of human behavior. Three lecture and four laboratory hours per week. Prerequisite: BI 130..... | 5                   |
| BI 132            | <b>GENERAL HUMAN ANATOMY.</b> General survey of the structure and organization of the human body. Three lecture and four laboratory hours per week. For pre-professional students and Biology majors.....   | 5                   |
| BI 133            | <b>GENERAL HUMAN PHYSIOLOGY.</b> The functions of the human body. Three lecture and four laboratory hours per week. Prerequisite: BI 132.....   | 5                   |
| BI 170            | <b>MEDICAL TERMINOLOGY.</b> A course designed to aid students in the formation of scientific words. The study of Latin and Greek roots, suffixes, prefixes and pronunciation. Two lecture hours per week. Recommended for all students in the Biological sciences.....  | 2                   |
| BI 179            | <b>ELEMENTARY PHOTOGRAPHY.</b> The fundamentals of photography, photomicrography and darkroom technique. Two lecture hours and two laboratory hours per week.....   | 3                   |
| BI 200            | <b>ZOOLOGY.</b> Principles of animal classification, structure and physiology as exemplified by invertebrates. Three lecture and four laboratory hours per week. For Pre-Med., Pre-Dent., and Biology majors. Prerequisites: Ch 101, 102.....   | 5                   |
| BI 201            | <b>ZOOLOGY.</b> Continuation of BI 200 as exemplified by vertebrates. Three lecture and four laboratory hours per week. Prerequisite: BI 200.....   | 5                   |
| BI 204            | <b>SURVEY OF ZOOLOGY.</b> General survey course of the animal kingdom with emphasis on parasitic protozoa, helminths and arthropods. Three lecture and four laboratory hours per week. Required of Medical Technicians. Prerequisites: BI 132, 133 .....  | 5                   |

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|--------|---|---|
| BI 220 | <b>MICROBIOLOGY.</b> The study of yeasts, molds, protozoa and bacteria. Three lecture and four laboratory hours per week. For nurses. Prerequisite: Ch 101.....   | 5 |
| BI 221 | <b>BACTERIOLOGY.</b> Fundamental and sanitary bacteriology. Three lecture and four laboratory hours per week. For Med. Tech., Biology majors. Prerequisite: Ch 111.....   | 5 |
| BI 222 | <b>COMMUNICABLE DISEASES.</b> Study of pathogenic organisms, methods of culture and isolation, modes of transmission and practical aspects of disease prevention. For Med. Techs. and Nursing majors. Three lecture hours per week....        | 3 |
| BI 232 | <b>KINESIOLOGY.</b> A study of body mechanics, of the muscular activities of the body. For Physical Education majors and Physical Therapists. Four lecture hours and one hour of quiz-demonstration per week. Prerequisite: BI 130 or 132.... | 5 |
| BI 251 | <b>VERTEBRATE EMBRYOLOGY.</b> Study of selected vertebrate types including the frog and the chick from fertilization to the formation of systems and organs. Three lecture and four laboratory hours per week. Prerequisite: BI 200, 201..... | 5 |
| BI 255 | <b>HISTOLOGY.</b> A general course dealing with the study of animal tissues. Three lecture hours and four laboratory hours per week. Prerequisite: BI 200 or 132.....   | 5 |
| BI 307 | <b>COMPARATIVE ANATOMY.</b> A comparative study of selected types of vertebrates including mammal, bird, dogfish, etc. Three lecture hours and four laboratory hours per week. Prerequisites: BI 200, 201, 251.....                           | 5 |
| BI 308 | <b>COMPARATIVE ANATOMY.</b> Continuation of BI 307. Three lecture hours and four laboratory hours per week. Prerequisite: BI 307.....   | 5 |
| BI 325 | <b>IMMUNOLOGY AND SEROLOGY.</b> Principles of immunity to disease, methods of preparing immune sera and routine laboratory procedures. Three lecture and four laboratory hours per week. Prerequisites: BI 221, 222.....                      | 5 |
| BI 326 | <b>VIRUS AND RICKETTSIAL INFECTIONS.</b> The study of viral and rickettsial infections. Two lecture hours per week. Prerequisites: BI 221, 222.....   | 2 |
| BI 327 | <b>APPLIED BACTERIOLOGY.</b> Preparation of media for laboratory work. Twelve laboratory hours per week.....  | 5 |
| BI 328 | <b>APPLIED BACTERIOLOGY.</b> Continuation of BI 327. Twelve laboratory hours per week.....  | 5 |
| BI 329 | <b>APPLIED BACTERIOLOGY.</b> Continuation of BI 328. Twelve laboratory hours per week.....  | 5 |
| BI 350 | <b>GENETICS.</b> A study of the basic principles of inheritance. Five lecture hours per week.....   | 5 |
| BI 370 | <b>GENERAL SCIENCE.</b> A simple and practical approach to the basic principles of science. Three lecture and four hours of workshop per week. For education majors only.....   | 5 |
| BI 371 | <b>GENERAL SCIENCE.</b> Lectures are identical with BI 370. Invaluable for enriching the cultural background of the non-science students. Three lecture hours per week which are taken in conjunction with BI 370.....                        | 3 |
| BI 375 | <b>MICROTECHNIQUE.</b> The preparation of slides of animal tissue by the paraffin method and techniques of staining procedures. Four laboratory hours per week.....   | 2 |

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|--------|--|---|
| BI 376 | <b>TEXTILE MICROTECHNIQUE.</b> Methods of sectioning and mounting of textile fibers. Four laboratory hours per week. For Home Economics majors.....  | 2 |
| BI 420 | <b>MEDICAL DICTATION.</b> Designed to integrate medical terminology with the study of Gregg shorthand for medical terms. Course includes graded dictation and transcription of medical case histories; specialty reports including surgical, X-Ray, and pathology; general medical statistical matter and medical research papers. Prerequisites: BI 132, 133; CF 122, 118 and permission of the department..... | 3 |
| BI 422 | <b>APPLIED MEDICAL SECRETARIAL PROCEDURES.</b> Designed to provide the student with orientation to and actual practice in various areas of medical secretaryship. Correlated seminar includes duties, procedures, and practices in the doctor's office. Prerequisite: BI 420.....  | 7 |
| BI 451 | <b>VERTEBRATE PHYSIOLOGY.</b> The functions of vertebrate animals. Three lecture and four laboratory hours per week....  | 5 |
| BI 475 | <b>ADVANCED MICROTECHNIQUE.</b> Advanced methods of slide preparation and staining. Includes freezing and celloidin methods .....  | 3 |
| BI 499 | <b>ELEMENTARY RESEARCH.</b> Special work arranged for students desiring investigation of special problems.....   | 5 |
| BI 501 | <b>INVERTEBRATE ZOOLOGY.</b> The classification, morphology and embryology of invertebrate types. Three lecture hours and four laboratory hours per week.....  | 5 |
| BI 504 | <b>PARASITOLOGY.</b> The study of parasitic forms among the invertebrate phyla. Three lecture and four laboratory hours per week.....  | 5 |
| BI 505 | <b>ENTOMOLOGY.</b> The classification, structure and economic importance of insects. Three lecture and four laboratory hours per week.....   | 5 |
| BI 520 | <b>SEMINAR.</b> Assignment of special modern problems in Biology .....   | 2 |
| BI 550 | <b>CYTOLOGY.</b> The structure and behavior of cells and principles of inheritance. Three lecture hours and four laboratory hours per week.....  | 5 |
| BI 560 | <b>GENERAL PHYSIOLOGY.</b> Advanced problems of physiological activity .....   | 5 |
| BI 561 | <b>ENDOCRINOLOGY.</b> The study of structure and functions of endocrine glands. Three lecture and four laboratory hours per week.....  | 5 |
| BI 580 | <b>HISTORY OF BIOLOGY.</b> Study of the most important contributors to advances in Biology. Three lecture hours per week .....   | 3 |
| BI 585 | <b>BIOLOGICAL LITERATURE.</b> Study of important literature in the field of Biology.....   | 2 |
| BI 600 | <b>RESEARCH.</b> Investigations chosen by the student or assigned by the department to fulfill the requirements of the Master's thesis .....   | 5 |
| BI 601 | <b>RESEARCH.</b> Continuation of BI 600.....   | 5 |

## CHEMISTRY (Ch)

REV. ERNEST P. BERTIN, S.J., PH.D., *Head*

### DEPARTMENTAL REQUIREMENTS:

Degree in Chemistry: 70 hours—111, 112 (or 114, 115), 120, 225, 220, 227, 335, 336, 337, (338), 355, 356, 357, 415, 426, 445, 497, 498, 499.

Degree in Natural Science (Undergraduate Major): 40 hours—111, 112 (or 114, 115), 116, 226, 227, 335, 336, 351.

Related Minor: Mt 101, 110, Ph 105, 106, 107.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Ch 101            | <b>GENERAL CHEMISTRY FOR NURSES.</b> A survey of inorganic chemistry treating the basic principles and descriptive material requisite for nursing. Three lecture hours and four laboratory hours per week.....  | 5                   |
| Ch 102            | <b>ORGANIC CHEMISTRY FOR NURSES.</b> A survey of organic and biological chemistry treating the basic principles and descriptive material requisite for nursing. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 101 or equivalent.....   | 5                   |
| Ch 111            | <b>GENERAL INORGANIC CHEMISTRY.</b> For students with no high school Chemistry. Fundamental theories, principles and laws of chemistry; symbols, formulae and equations; valence; oxygen, hydrogen and the halogens. Three lecture hours, one hour quiz and four laboratory hours per week.....   | 5                   |
| Ch 112            | <b>GENERAL INORGANIC CHEMISTRY.</b> A continuation of Ch 111. Ionization and equilibrium; oxidation-reduction; sulfur and nitrogen groups; carbon; colloids; metals and metallurgy. Three lecture hours, one hour quiz and four laboratory hours per week. Prerequisite: Ch 111.....  | 5                   |
| Ch 114            | <b>GENERAL INORGANIC CHEMISTRY.</b> For students with high school chemistry. Covers subjects as in Ch 111. Three lecture hours and four laboratory hours per week.....  | 5                   |
| Ch 115            | <b>GENERAL INORGANIC CHEMISTRY.</b> A continuation of Ch 114, covering the subjects as in Ch 112. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 114....  | 5                   |
| Ch 116            | <b>ELEMENTARY QUALITATIVE ANALYSIS.</b> An introductory analysis course treating the theory of precipitation, the laws of physical and chemical equilibrium, and the methods and general principles of semimicro separation and identification of the common cations. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 112 or Ch 115.....   | 5                   |
| Ch 120            | <b>ELEMENTARY QUALITATIVE ANALYSIS.</b> An introductory analysis course treating the same subjects as Ch 116, but in a more concentrated manner. Two three hour laboratory periods per week including a short lecture. Prerequisite: Ch 112 or Ch 115.....  | 3                   |
| Ch 220            | <b>ELEMENTARY QUANTITATIVE ANALYSIS.</b> A course treating the theory, methods and techniques of gravimetric and volumetric procedures in quantitative analysis, including problems in stoichiometry and in ionic equilibrium. Laboratory work comprises representative gravimetric and volumetric determinations. Two four hour laboratory periods per week including a short lecture. Prerequisite: Ch 120..... | 4                   |

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| <b>Ch 221</b> | <b>SURVEY OF QUANTITATIVE ANALYSIS.</b> A survey course treating the theory, methods and techniques of gravimetric and volumetric procedures in quantitative analysis, with laboratory work consisting of representative gravimetric and volumetric determinations. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 116..... | 5 |
| <b>Ch 225</b> | <b>ADVANCED QUALITATIVE ANALYSIS.</b> An advanced course of qualitative analysis treating in greater detail the subject matter of Ch 116 and treating also the problem of dissolving samples, anion analysis and identification of some of the rarer cations. One lecture hour and four laboratory hours per week. Prerequisite: Ch 116.....          | 3 |
| <b>Ch 227</b> | <b>ADVANCED QUANTITATIVE ANALYSIS.</b> An advanced course treating analyses more difficult than those treated in Ch 220. Laboratory work includes the calibration of burettes and of weights and the complete analysis of limestone. Two lecture hours and six laboratory hours per weeks. Prerequisite: Ch 226.....                                  | 5 |
| <b>Ch 230</b> | <b>ORGANIC CHEMISTRY SURVEY.</b> A survey course treating the various classes of aliphatic and aromatic compounds from the standpoint of synthesis, structure, properties and uses. For Medical Technicians and Home Economics majors. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 112 or 120.....                       | 5 |
| <b>Ch 335</b> | <b>ELEMENTARY ORGANIC CHEMISTRY.</b> An introduction to the structure, functional groups, properties, synthesis, and uses of organic compounds. The laboratory work involves synthesis and observation of the properties of typical organic compounds. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 112 or 115.....       | 5 |
| <b>Ch 336</b> | <b>ELEMENTARY ORGANIC CHEMISTRY.</b> A continuation of Ch 335, including stereochemistry and some specialized topics of biological and industrial interest. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 335....  | 5 |
| <b>Ch 337</b> | <b>ADVANCED ORGANIC CHEMISTRY.</b> More intensive treatment of some topics already covered in Ch 335 and 336, as well as some new reactions. Three lecture hours per week. Prerequisite: 336 .....  | 3 |
| <b>Ch 338</b> | <b>ORGANIC PREPARATIONS.</b> Practical preparative chemistry, involving synthetic work to illustrate reactions studied in Ch 335 and Ch 336. Four laboratory hours per week. Prerequisite: Ch 336.....  | 2 |
| <b>Ch 350</b> | <b>BIOCHEMISTRY.</b> An introductory course treating the compositions of proteins, carbohydrates and fats; the metabolism of these substances; and the composition and function of the body fluids. Three lecture hours and four laboratory hours per week. Prerequisites: Ch 221 and 336 or 230.....   | 5 |
| <b>Ch 351</b> | <b>SURVEY OF PHYSICAL CHEMISTRY.</b> A survey course treating the derivation, interpretation and application of the fundamental laws and theories of chemistry. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 221 or 226.....  | 5 |

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| <b>Ch 355</b> | <b>PHYSICAL AND THEORETICAL CHEMISTRY.</b> A course treating the derivation, mathematical treatment, interpretation and application of the fundamental laws and theories of chemistry, with extensive problem work. The nature of gases, liquids, and solids; physical properties and molecular structure; heat and work; thermochemistry, thermodynamics. Five lecture hours per week. Prerequisites: Ch 226, Mt 231 and 1 year college physics..... | <b>5</b> |
| <b>Ch 356</b> | <b>PHYSICAL AND THEORETICAL CHEMISTRY.</b> A continuation of Ch 355. Nature of solutions, chemical equilibria, heterogeneous equilibria, chemical kinetics. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 355.....   | <b>5</b> |
| <b>Ch 357</b> | <b>PHYSICAL AND THEORETICAL CHEMISTRY.</b> A continuation of Ch 356. Electrical conductance, electromotive force, ionic equilibria, colloids, photochemistry. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 356.....   | <b>5</b> |
| <b>Ch 415</b> | <b>ADVANCED INORGANIC CHEMISTRY.</b> A survey of advanced topics in inorganic chemistry, with particular reference to the contributions of atomic and molecular structural studies. Three lecture hours per week. Prerequisite: Ch 357..  | <b>3</b> |
| <b>Ch 426</b> | <b>INSTRUMENTAL ANALYSIS.</b> Theory and use of photoelectric colorimeter, polarograph, spectrophotometer, refractometer, titrimeter, pH-meter, etc. Prerequisite: Ch 357.....  | <b>3</b> |
| <b>Ch 445</b> | <b>ORGANIC QUALITATIVE ANALYSIS.</b> An introduction to the methods of identification of organic compounds. Laboratory work consists of identification of simple and mixed unknowns by preparation of derivatives. One lecture hour and four laboratory hours per week. Prerequisites: Ch 125, 336....  | <b>3</b> |
| <b>Ch 497</b> | Undergraduate Research I. Investigative work in various fields of Chemistry.....  | <b>2</b> |
| <b>Ch 498</b> | Undergraduate Research II. Continuation of Ch 497.....  | <b>2</b> |
| <b>Ch 499</b> | Undergraduate Research III. Continuation of Ch 498.....   | <b>2</b> |

### COMMERCE AND FINANCE (CF)

PAUL A. VOLPE, A.B., M.A., PH.D., *Dean*

#### DEPARTMENTAL REQUIREMENTS:

Degree in Commerce and Finance: The required subjects are stated in the program of study for this degree.

Degree in Arts and Sciences:

Undergraduate Major: 45 hours—Cf. School of Commerce and Finance, Programs of Study.

### ACCOUNTING

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>CF 130</b>     | <b>PRINCIPLES OF ACCOUNTING I.</b> Introduction to the entire cycle of bookkeeping procedure; accounts and financial statements of a corporation with emphasis on the merchandising business..... | <b>5</b>            |

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|---------------|--|---|
| <b>CF 131</b> | <b>PRINCIPLES OF ACCOUNTING II.</b> Continuation of CF 130; accounting principles and procedures applied to manufacturing, partnership operation, and corporations; manufacturer's practice set. Prerequisite: CF 130.....   | 5 |
| <b>CF 265</b> | <b>PRINCIPLES OF ACCOUNTING III.</b> Continuation of CF 131; principles of accounting for cash, receivables, inventories, and fixed assets; analysis of financial statements; elements of manufacturing cost. Practice set. Prerequisite: CF 131.....                    | 3 |
| <b>CF 280</b> | <b>INTERMEDIATE ACCOUNTING I.</b> Working papers in accounting for manufacturing concerns. Comprehensive study of accounting problems in partnerships and corporations. Prerequisite: CF 265.....  | 5 |
| <b>CF 329</b> | <b>INTERMEDIATE ACCOUNTING II.</b> A comprehensive study of the problems of accounting for current, fixed, and intangible assets, for current and fixed liabilities, and for funds and reserves. Prerequisites: CF 140, 280.....   | 5 |
| <b>CF 330</b> | <b>COST ACCOUNTING.</b> The determination of manufacturing cost under job order, process, and joint cost systems, with an introduction to standard costs. Prerequisite: CF 265.....  | 5 |
| <b>CF 331</b> | <b>AUDITING.</b> Purpose and scope of audits and examinations. Principles and procedures of auditing. Practical application through an illustrative audit case. Prerequisite: CF 329.....  | 5 |
| <b>CF 485</b> | <b>FEDERAL TAX ACCOUNTING.</b> Federal Income Tax in relation to individuals, partnerships and corporations. Preparation of tax returns. Use of tax services and research in tax problems. Prerequisite: CF 265.....   | 5 |
| <b>CF 486</b> | <b>ADVANCED ACCOUNTING AND CPA PROBLEMS I.</b> Partnership dissolution, liquidation by installments, joint ventures, installment sales, consignment sales, source and application of funds. Selected CPA problems and other problems are used. Prerequisite: CF 329..... | 3 |
| <b>CF 487</b> | <b>ADVANCED ACCOUNTING AND CPA PROBLEMS II.</b> Accounting for agencies and branches, accounting for mergers and consolidations, consolidated balance sheet and profit and loss statements. Prerequisite: CF 329.....  | 3 |
| <b>CF 488</b> | <b>ADVANCED ACCOUNTING AND CPA PROBLEMS III.</b> Statement of affairs, receiverships, estates and trusts. Prerequisite: CF 329.....  | 2 |
| <b>CF 489</b> | <b>ADVANCED ACCOUNTING AND CPA PROBLEMS IV.</b> Governmental and institutional accounting. Accounting for municipalities, school districts, hospitals. Prerequisite: CF 329....  | 2 |

## BUSINESS LAW

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|---------------|--|---|
| <b>CF 110</b> | <b>BUSINESS LAW.</b> Covers the first half of the fundamentals of Business Law; general consideration of law; administration of law; bringing an action; contracts; principal and agent; employer and employee, etc. Prerequisites: CF 101 and 102.... | 5 |
| <b>CF 111</b> | <b>BUSINESS LAW.</b> Covers the second half of the fundamentals of Business Law; scales bailments; partnership; corporations; bankruptcy; property; torts; insurance; business; crimes; etc. Prerequisite: CF 110.....                                 | 5 |

## ECONOMICS

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>CF 101</b>     | <b>PRINCIPLES OF ECONOMICS.</b> Covers the first half of the fundamentals of economics; an analysis of the economic system in its historical and socio-political setting; the framework of American economy; theory of value.....   | <b>5</b>            |
| <b>CF 102</b>     | <b>PRINCIPLES OF ECONOMICS.</b> Continuation of CF 101; second half of the fundamentals of economics; the major component areas of economic society; International Trade, Government Finance, Industrial Relations, Risk and Insurance, etc. Prerequisite: CF 101.....  | <b>5</b>            |
| <b>CF 140</b>     | <b>BUSINESS MATHEMATICS.</b> Problems in percentage, ratio, markup, simple interest, compound interest, ordinary annuities, debt amortization, bond valuation, methods of depreciation .....  | <b>2</b>            |
| <b>CF 250</b>     | <b>BUSINESS STATISTICS.</b> Survey of commercial statistics; construction of tables, charts; use of statistical methods; averages; dispersion; sampling; index numbers; time series; correlation. Prerequisite: CF 140.....   | <b>5</b>            |
| <b>CF 310</b>     | <b>PRINCIPLES OF MANAGEMENT.</b> Development of modern management; basic factors in organization and operation; division of responsibility; line and staff organizations; executive leadership and management; business control and procedures; basic management problems. Prerequisites: CF 101, 102, 130, 131, 260.....   | <b>5</b>            |
| <b>CF 450</b>     | <b>PUBLIC FINANCE AND TAXATION.</b> Revenue, expenditure and debt of federal, state and local governments; economic theories on government expenditures; constitutional limitations; taxation as a means of economic reform; the shifting and incidence of taxation; state and federal taxation. Prerequisites: CF 131, 250, 260.....   | <b>5</b>            |
| <b>CF 455</b>     | <b>HISTORY OF ECONOMIC THOUGHT.</b> Survey of the major historical developments in economic thought from ancient to contemporary times; Christian influence on economic thought; Mercantilists and Laissez Fairists, German and Austrian Schools, Marx and the Modern Theories. Prerequisite: A senior course open to seniors only.....   | <b>3</b>            |
| <b>CF 460</b>     | <b>BUSINESS CYCLES.</b> Analysis of the variations in the business activity with emphasis on the business cycle, its course and remedies. A study of seasonal random, trend and its nature, history, causes and remedies. Prerequisite: CF 450.....   | <b>5</b>            |
| <b>CF 470</b>     | <b>GOVERNMENT AND BUSINESS.</b> The role of modern government in business, government ownership and operation and the regulation of private enterprise; the federal and state constitutions; government control, direct and indirect, over transportation, utilities, communications, etc. Prerequisite: CF 460.....  | <b>3</b>            |
| <b>CF 497</b>     | <b>BUSINESS POLICY AND ORGANIZATION.</b> Concerned with the formation of policy and the administration of business enterprise. The method used is the case study. Emphasis is on the intellectual discipline which permits the understanding of a problem, the planning of a program of action and the progression to execution and constant review. Prerequisite: Open to seniors..... | <b>5</b>            |



## FINANCE AND BANKING

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>CF 260</b>     | <b>MONEY AND BANKING.</b> Analysis of the basic principles of money, credit and banking; structure, operation and control of central, commercial and savings banks; public and private banking institutions; monetary and credit policies. Prerequisite: CF 131.....                                      | <b>5</b>            |
| <b>CF 275</b>     | <b>CORPORATION AND BUSINESS FINANCE.</b> Promotion, organization and financing various forms of business; comparison of corporation with other forms of business organizations; legal and social aspects of corporations. Prerequisites: CF 131, 260.....   | <b>5</b>            |
| <b>CF 320</b>     | <b>INVESTMENT AND SECURITY ANALYSIS.</b> Principles of investing and methods of security analysis; understanding of market, investment banking. Prerequisites: CF 131, 140, 250, 260, 275.....  | <b>5</b>            |
| <b>CF 465</b>     | <b>BANKING POLICY AND ADMINISTRATION.</b> Recent developments and practices in the field of money and banking; the powers, problems and policies of monetary authorities; relationship of central, commercial banks and allied financial institutions. Prerequisites: CF 260, 325.....                    | <b>3</b>            |
| <b>CF 466</b>     | <b>CREDITS AND COLLECTIONS.</b> The part played by credit in the production and distribution of commodities; mercantile credit, bank credit and management. The tools used in the solution of credit and collection problems, through the case method. Prerequisites: CF 101, 102, 130, 131, 260, 275.... | <b>3</b>            |

## FOREIGN TRADE

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|---------------|--|----------|
| <b>CF 322</b> | <b>TRANSPORTATION: PRINCIPLES AND PROBLEMS.</b> A survey of transportation: rail, air, sea, pipeline and highway. Includes economics, legislation and general regulation. Prerequisite: CF 102.....  | <b>5</b> |
| <b>CF 324</b> | <b>OCEAN TRANSPORTATION.</b> Carriage of goods by sea. Problems of shippers of cargo and vessel operators on ocean transportation. Factors in rate making. Application of maritime law and marine insurance; cargo and vessel liabilities....                    | <b>5</b> |
| <b>CF 325</b> | <b>INTERNATIONAL TRADE AND FINANCE.</b> Foreign trade practice and theory. Effects of international commissions, tariffs, economics and politics on U. S. Trade. Foreign exchange, transportation, marine insurance, exchange banking. Prerequisite: CF 102..... | <b>5</b> |
| <b>CF 495</b> | <b>FOREIGN TRADE TECHNIQUES.</b> Emphasis on exporting and market development. Documentation of exports for international banking. Commercial practices in transportation, marine insurance, banking. Prerequisite: CF 325.....                                  | <b>3</b> |
| <b>CF 496</b> | <b>FOREIGN TRADE PRACTICE.</b> Emphasis on importing and financing imports. U. S. customs procedure, rate of duties and foreign trade zones. Reciprocal trade, tariffs, treaties and remedies. Prerequisite: CF 495.....   | <b>3</b> |

## INDUSTRIAL RELATIONS AND PERSONNEL MANAGEMENT

| <i>Course No.</i>                | <i>Title and Description</i>   | <i>Credit Hours</i> |
|----------------------------------|--|---------------------|
| <b>CF 305</b>                    | <b>FUNDAMENTALS OF INDUSTRIAL RELATIONS.</b> Survey of the economics and law of industrial relations; effects of industrial relations; effects of industrial changes on labor; hour and wage; employment and unemployment; trade unionism and labor legislation. Prerequisite: CF 102.....   | 5                   |
| <b>CF 335</b>                    | <b>INDUSTRIAL RELATIONS AND THE LAW.</b> Specialized treatment of labor law; historical background to American Labor Law; historical background to American Labor-Management; court decisions, federal and state laws concerning industrial relations. Prerequisite: CF 305.....   | 5                   |
| <b>CF 336</b>                    | <b>THE HISTORY OF INDUSTRIAL RELATIONS.</b> An historical development; economics, organization and law in the United States and corresponding development abroad. Emphasis is on the growth of unionism in the U. S. Prerequisite: CF 335..  | 3                   |
| <b>CF 475</b>                    | <b>PERSONNEL ADMINISTRATION.</b> A study of principles and practices involved in the administration of personnel in industry; included is a study of the technique of appraising applicants and employees, plant welfare plans, collective bargaining and question of wages, hours, health, working condition, grievance, discipline, and women employees. Prerequisite: CF 305..... | 5                   |
| <b>CF 490</b>                    | <b>COLLECTIVE BARGAINING.</b> Bargaining between employers and organized employees in the United States and in countries where such bargaining exists; basic objectives of labor unions, work time wages, working conditions; the formulation of contracts. Prerequisite: CF 336.....  | 3                   |
| <b>INSURANCE AND REAL ESTATE</b> |  |                     |
| <b>CF 290</b>                    | <b>PRINCIPLES OF INSURANCE.</b> (Required of insurance majors.) Examines the theoretical basis of insurance, studies the framework of the industry, looks into the problems of the insurance carrier and examines the entire field and its various available lines from the buyer viewpoint. Includes survey of insurance law and finance. Prerequisite: CF 101, 102 .....           | 5                   |
| <b>CF 340</b>                    | <b>REAL ESTATE AND MORTGAGE BANKING.</b> An introduction to the field of real estate, including financing, operation of a real estate business, legal instruments and procedures, land valuation, brokerage and real estate appraisal.....   | 5                   |
| <b>CF 342</b>                    | <b>PROPERTY INSURANCE.</b> A study of the coverage and uses of the various Property Insurance lines. Includes a detailed study of Fire, Lines related to Fire, Ocean, and Inland Marine, etc.; may include Fidelity and Surety Bonding. Prerequisite: CF 290.....  | 5                   |
| <b>CF 472</b>                    | <b>CASUALTY INSURANCE.</b> A detailed study of the various Casualty lines; includes study of Liability coverages, Automobile, Workmen's Compensation, Power Plant, Credit, etc. Study of laws of negligence, tort, legal liability; and includes examination of financial and accounting practices in Casualty insurance.....  | 5                   |

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|---------------|---|----------|
| <b>CF 473</b> | <b>ACCIDENT AND HEALTH INSURANCE.</b> A study of the nature, uses and scope of modern insurance against the serious hazards of accident and sickness. Includes examination of principal contracts; policy analysis; and detailed study of underwriting, rating, finance, and government regulation. Prerequisite: CF 290..... | <b>3</b> |
| <b>CF 482</b> | <b>LIFE INSURANCE.</b> A study of the Institution of Life Insurance, Life Insurance policies, their content and uses; Life Insurance programing. Area of Life Insurance from the viewpoint of the producer; business uses of Life Insurance. Prerequisite: CF 290.....  | <b>3</b> |

### MARKETING

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>CF 315</b>     | <b>INTRODUCTION TO MARKETING.</b> The place of marketing in the economy, structure of the market, demand, price, cost and competition. Prerequisites: CF 102.....                       | <b>5</b>            |
| <b>CF 327</b>     | <b>MARKET COMMUNICATION (ADVERTISING).</b> Communication function, meaning and use of mass media, how and why people react to communication, functions of advertising personnel .....   | <b>3</b>            |
| <b>CF 363</b>     | <b>PRICE PRACTICES AND POLICIES.</b> Determinants of price, pricing, Robinson-Patman Act, F.T.C., Retail price maintenance, price and non-price competition. Prerequisite: CF 315 ..... | <b>5</b>            |
| <b>CF 430-A</b>   | <b>MARKET RESEARCH.</b> Purpose, methods and techniques of market research and market analysis. (Credit contingent upon completion of 430-B.) Prerequisites: CF 363, 327.....           | <b>3</b>            |
| <b>CF 430-B</b>   | <b>MARKET RESEARCH.</b> Practical application of CF 430-A. Prerequisite: CF 430-A.....  | <b>2</b>            |
| <b>CF 423</b>     | <b>SALES MANAGEMENT.</b> Personal selling, pricing, sales programs, sales administration, advertising. Prerequisite: CF 430-B .....   | <b>2</b>            |
| <b>CF 480</b>     | <b>MERCHANDISING.</b> Product policy, distribution channels, mark-up, mark-down, margins. Prerequisite: CF 423.....   | <b>3</b>            |

### OFFICE MANAGEMENT

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|---------------|--|----------|
| <b>CF 116</b> | <b>BEGINNING GREGG SHORTHAND.</b> Presentation of fundamentals of Gregg shorthand with emphasis on reading and writing fluency.....  | <b>5</b> |
| <b>CF 117</b> | <b>INTERMEDIATE GREGG SHORTHAND.</b> Continuation of CF 116 with emphasis on the development of broader vocabulary. Introduction to transcription, stressing punctuation, spelling, and letter arrangement. Prerequisite: CF 116 or equivalent....                     | <b>5</b> |
| <b>CF 118</b> | <b>ADVANCED GREGG SHORTHAND.</b> Advanced Dictation and transcription emphasizing production of mailable business letters. Continued development of vocabulary and special business terms. Speed of 100 to 120 words a minute. Prerequisite: CF 117 or equivalent..... | <b>5</b> |
| <b>CF 120</b> | <b>TYPEWRITING.</b> Beginning course. Presentation of keyboard stressing proper techniques. Emphasis on typing for personal use including manuscript typing, letter writing, and composition at the machine.....   | <b>3</b> |

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| <b>CF 121</b> | <b>TYPEWRITING.</b> Intermediate course. Comprehensive review of the keyboard stressing the mastery of numbers and special symbols. Intensive speed development. Vocational-use typewriting including business letters, statistical tabulation, rough drafts, and manuscript writing. Prerequisite: CF 120 or equivalent .....  | 3 |
| <b>CF 122</b> | <b>TYPEWRITING.</b> Advanced course. High speed drills. Training in the use of short-cuts, production typing, letter writing, manifold work, and legal typing. Prerequisite: CF 121 or equivalent .....   | 3 |
| <b>CF 215</b> | <b>BUSINESS WRITING.</b> Study of written communications in business; practice in writing effective business letters; methods of gathering, evaluating, and presenting data for business reports; and training in how to dictate. Prerequisite: En 101..  | 3 |
| <b>CF 216</b> | <b>OFFICE MACHINES.</b> Laboratory instruction in the operation of manual and key-driven calculators; manual and electric rotary calculator; and ten-day adding-listing machines.....   | 2 |
| <b>CF 218</b> | <b>OFFICE ORGANIZATION.</b> A study of the organizational structure of the modern business office; the duties and responsibilities of managerial personnel; the work of the secretary, including analysis of the secretarial career, organization of secretarial work, procedures for preparing business reports, handling financial and legal responsibilities, supervision of clerical personnel, preparation and handling of correspondence. Prerequisite: CF 120..... | 3 |

### EDUCATION (Ed)

HERBERT D. REAS, CAND. ED.D., *Acting Dean*

#### DEPARTMENTAL REQUIREMENTS:

Cf. section on Education in Program of Courses, page 74.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Ed 101</b>     | <b>INTRODUCTION TO EDUCATION.</b> An introductory course in education designed to acquaint future teachers with the purposes, history, and organization of American education, the opportunities, requirements, and problems of the teaching profession.....      | 3                   |
| <b>Ed 201</b>     | <b>STATE MANUAL OF WASHINGTON.</b> A study of the basic laws and organization of education in the State of Washington. Non-lecture. Grade of A or B required for teacher certification .....  | 0                   |
| <b>Ed 202</b>     | <b>HISTORY OF THE PACIFIC NORTHWEST, INCLUDING OREGON AND WASHINGTON.</b> Exploration and settlement; economic and cultural development; growth of government and social institutions; the periods of statehood and the present social and economic problems..... | 3                   |
| <b>Ed 322</b>     | <b>PSYCHOLOGY OF GROWTH AND DEVELOPMENT.</b> The study of maturation and development from infancy through adolescence .....   | 3-5                 |
| <b>Ed 323</b>     | <b>CHILD PSYCHOLOGY.</b> The child from birth to adolescence; various factors of intellectual, emotional, moral and social development. Formation of habits; training in obedience. Dynamics of child behavior. Special problems.....                             | 3                   |

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| Ed 324 | <b>PSYCHOLOGY OF ADOLESCENCE.</b> The child from adolescence to adulthood.....  | 3   |
| Ed 325 | <b>PSYCHOLOGY OF LEARNING.</b> An application of psychological principles of education with special emphasis on the development of the total personality through basic attitudes, powers, skills. Prerequisite: Ed 322.....   | 3-5 |
| Ed 326 | <b>SPEECH CORRECTION.</b> A study of basic principles of speech correction, the analysis of speech problems and appropriate remedial techniques for classroom situations.....   | 3   |
| Ed 327 | <b>DEVELOPMENTAL READING.</b> A course for those interested in assisting the slow reader through a diagnosis of causes of reading difficulties. Emphasis is placed upon the reading needs and instructional problems of children with consideration given to the growth patterns of children..... | 3   |
| Ed 331 | <b>PRINCIPLES OF TEACHING.</b> Study of principles and art of organizing and presenting learning materials, adapted to nature, needs and interests of students. Prerequisite: Ed 325 .....  | 3   |
| Ed 332 | <b>GENERAL SECONDARY METHODS.</b> Study of principles and art of teaching applied to secondary level. Prerequisite: Ed 325 .....  | 3   |
| Ed 333 | <b>DIRECTED OBSERVATION OF TEACHING.</b> Course taken in conjunction with Ed 331. Teaching principles studied in typical situations in the public school system. Prerequisite: Ed 325.....  | 2   |
| Ed 334 | <b>AUDIO-VISUAL METHODS.</b> Demonstration and practice of various types; objectives; integration with total curriculum....   | 2   |
| Ed 335 | <b>KINDERGARTEN PRINCIPLES AND ORGANIZATION.</b> A basic course in the principles, methods and organization of the kindergarten and primary levels of education.....  | 3   |
| Ed 336 | <b>READING METHODS—PRIMARY GRADES.</b> A course which deals with developing an awareness of the processes involved in reading as well as the skills, methods, and techniques necessary for teaching primary children to read.....   | 3   |
| Ed 337 | <b>READING METHODS—INTERMEDIATE GRADES.</b> A study of the various techniques of reading necessary for the performance of learning in the 4th, 5th, and 6th grades, and the methods by which these may be taught.....   | 3   |
| Ed 338 | <b>READING METHODS—JUNIOR AND SENIOR HIGH SCHOOL.</b> An analysis of the major reading problems found in the Junior and Senior High School; study of techniques for the correction of these, and a study of literature available for use at the upper levels.....                                 | 3   |
| Ed 351 | <b>BASIC ARTS AND CRAFTS.</b> A fundamental laboratory course to give experience in artistic expression in the basic art media.....   | 3   |
| Ed 352 | <b>HEALTH AND PE ORIENTATION.</b> An introduction to the theory and practice of the health and physical education program in the public schools.....  | 3   |
| Ed 353 | <b>MUSIC ORIENTATION.</b> Fundamentals of music with emphasis on elementary school needs. Beginning theory, harmony, form keyboard harmony, etc.....  | 3   |

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| Ed 354   | <b>ELEMENTARY WORKSHOP (MUSIC).</b> Background in choral work plus techniques of presentation.....   | 3-5 |
| Ed 370   | <b>GENERAL SCIENCE.</b> A simple and practical application of the basic principles of science. Three lectures and four hours of workshop per week. For Education majors only.....  | 5   |
| Ed 371   | <b>GENERAL SCIENCE.</b> Lectures identical with Ed 370. Invaluable for enriching the cultural background of the non-science student. Three lecture hours per week which are taken in conjunction with Ed 370.....  | 3   |
| Ed 372   | <b>WORLD SURVEY OF GEOGRAPHY.</b> A survey of the world's land forms; climate, soils, economic minerals, plant and animal life and man's relation to his physical environment.....   | 5   |
| Ed 374   | <b>CHILDREN'S LITERATURE.</b> A study of the development and present field of literature for pre-school, primary, and elementary grades. Emphasis placed on books for enrichment and remedial use as well as selections for basic school libraries .....                         | 3   |
| Ed 375   | <b>ADOLESCENT LITERATURE.</b> A study of junior books and analysis of adult books suitable and available for the young adult .....   | 3   |
| Ed 376   | <b>ELEMENTARY ARITHMETIC METHODS.</b> A consideration of methods and procedures which teachers must use to set up, stimulate and guide the learning activities of pupils for an understanding and manipulation of the number of facts to be learned in the first six grades..... | 3   |
| Ed 378   | <b>CHILDREN'S DRAMA.</b> A study of creative dramatic techniques in relation to child study and curriculum enrichment....  | 3   |
| Ed 379   | <b>STORY TELLING.</b> Technique and history of the art of story telling as related to classroom situations.....  | 3   |
| Ed 422   | <b>PSYCHOLOGY OF THE EXCEPTIONAL CHILD.</b> Mental and physical handicaps; defects of vision, hearing, reading, sub-normal intelligence, paralysis; other atypical children; special consideration of the mentally deficient. Prerequisite: Ed 325.....                          | 3-5 |
| Ed 423   | <b>EDUCATION OF THE GIFTED.</b> A study of the curricula for the education of the mentally gifted. An examination and evaluation of present programs. Special consideration of the needs of the children, parents and teachers in this area of education.....                    | 3-5 |
| Ed 425   | <b>GUIDANCE.</b> Basic principles and techniques of guiding students in the discovery of abilities and interests and of adjusting to educational, vocational, and social environment. Prerequisite: Ed 325.....  | 3-5 |
| Ed 427   | <b>THE COUNSELING INTERVIEW.</b> Principles and techniques of clinical counseling; interpretation of cases, interviewing, records and reports, case studies, etc. Prerequisite: Ed 325....   | 5   |
| Ed 430   | <b>SPECIAL METHODS AND MATERIALS.</b> A practical presentation of materials and techniques in the basic subject areas at primary and elementary levels. To be taken in conjunction with cadet teaching. Prerequisite: Ed 331.....  | 2   |
| Ed 430-A | <b>ART METHODS</b> .....   | 2   |

|          |   |      |
|----------|---|------|
| Ed 430-E | LANGUAGE ARTS METHODS.....  | 2    |
| Ed 430-G | MUSIC METHODS.....  | 2    |
| Ed 430-P | PHYSICAL EDUCATION-HEALTH METHODS.....  | 2    |
| Ed 430-S | SOCIAL STUDIES METHODS.....   | 2    |
| Ed 430-R | RELIGION METHODS.....   | 2    |
| Ed 431   | <b>SPECIAL METHODS AND MATERIALS.</b> A practical presentation of materials and techniques in the basic subject areas on the secondary level. To be taken in conjunction with cadet teaching. Prerequisite: Ed 331..... | 2    |
| Ed 431-A | ART METHODS.....  | 2    |
| Ed 431-B | BIOLOGY METHODS.....  | 2    |
| Ed 431-C | PHYSICAL SCIENCE METHODS.....   | 2    |
| Ed 431-D | DRAMA-SPEECH METHODS.....   | 2    |
| Ed 431-E | LANGUAGE ARTS METHODS.....  | 2    |
| Ed 431-F | FOREIGN LANGUAGE METHODS.....   | 2    |
| Ed 431-G | MUSIC METHODS .....   | 2    |
| Ed 431-H | HOME ECONOMICS METHODS.....   | 2    |
| Ed 431-K | COMMERCIAL SECRETARIAL METHODS.....   | 2    |
| Ed 431-M | MATHEMATICS METHODS .....   | 2    |
| Ed 431-P | PHYSICAL EDUCATION-HEALTH METHODS.....  | 2    |
| Ed 431-S | SOCIAL STUDIES METHODS.....   | 2    |
| Ed 431-R | RELIGION METHODS.....   | 2    |
| Ed 432   | <b>ELEMENTARY CADET TEACHING.</b> Consists of one quarter of either full day (10 hrs.) or part day (5 hrs.) supervised teaching experience on the elementary level. Prerequisites: Ed 331, 333.....                     | 5-10 |
| Ed 433   | <b>SECONDARY CADET TEACHING.</b> Consists of one quarter of either full day (10 hrs.) or part day (5 hrs.) supervised teaching experience on the secondary level. Prerequisites: Ed 331, 333.....                       | 5-10 |
| Ed 434   | <b>LABORATORY EXPERIENCE: ELEMENTARY.</b> Directed experience working with children. Special emphasis on individual needs of children.....  | 5    |

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|--------|---|---|
| Ed 435 | <b>LABORATORY EXPERIENCE: SECONDARY.</b> Directed experience working with children. Special emphasis on individual needs of children.....   | 5 |
| Ed 451 | <b>ART WORKSHOP</b> .....   | 2 |
| Ed 452 | <b>METHODS OF TEACHING ART.</b> The techniques of block printing, stenciling, and silkscreening applied to textiles. Recommended for junior and senior high school teachers of art.....   | 2 |
| Ed 453 | <b>CERAMICS.</b> A course covering procedures used in schools, including the coil and slab methods of handling clay. The aesthetic approach to design in clay as an important phase of this course.....   | 3 |
| Ed 471 | <b>GEOGRAPHY OF PACIFIC NORTHWEST.</b> A regional survey emphasizing natural resources, their use and role in urban and rural developments.....   | 3 |
| Ed 472 | <b>WESTERN HEMISPHERE.</b> The natural resources of the Western hemisphere and their effect upon world trade and international relations .....  | 3 |
| Ed 473 | <b>GEOGRAPHY OF ASIA.</b> A survey of countries and regions; their resources, economic activities, settlement patterns and international relations.....   | 5 |
| Ed 474 | <b>GEOGRAPHY OF PACIFIC RIM.</b> Physical geography of the areas bordering the Pacific, trade and international relations..   | 3 |
| Ed 475 | <b>GEOGRAPHY OF NORTH AMERICA.</b> A physical geography of North America with emphasis on the cultural and economic results of resources.....   | 3 |
| Ed 476 | <b>GEOGRAPHY OF SOUTH AMERICA.</b> A physical geography of South America with emphasis on the cultural and economic results of resources.....   | 3 |
| Ed 481 | <b>ELEMENTARY EDUCATION.</b> Same as Ed 482 but on the elementary level. Prerequisite: Ed 432.....  | 3 |
| Ed 482 | <b>SECONDARY EDUCATION.</b> History, nature and growth of the American high school. Its methods, curriculum and administration. A consideration of various high school types and organizations: housing, personnel, curriculum, finance, scheduling, etc. Prerequisite: Ed 433..... | 3 |
| Ed 483 | <b>SUPERVISION OF INSTRUCTION.</b> Principles and techniques of improving instruction through supervisory leadership. Prerequisite: Ed 432 or 433.....  | 3 |
| Ed 491 | <b>TESTS AND MEASUREMENTS.</b> Nature of testing, types of tests, their use in teaching, testing programs, and basic statistical analysis.....  | 5 |
| Ed 492 | <b>STATISTICS.</b> Statistical methods in education; basic measures of central tendency, variability, correlation, graphs, etc.   | 3 |

### Graduate Courses

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| Ed 510            | <b>PHILOSOPHY OF EDUCATION.</b> Nature of philosophy and education; their relationship; modern educational theories; Naturalism, Socialism, Nationalism, Humanism, Idealism, Catholic philosophy of education..... | 5                   |



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|--------|---|-----|
| Ed 511 | <b>HISTORY OF EDUCATION.</b> Study of leading educators, educational theories and educational institutions from the Greeks to the present.....  | 3   |
| Ed 512 | <b>RATIO STUDIORUM.</b> The history and the analysis of the principles and methods of the traditional Jesuit system of education. Prerequisite: Ed 510.....   | 3   |
| Ed 513 | <b>COMPARATIVE EDUCATION.</b> A comparative study of the various national and cultural systems of education. Prerequisite: Ed 510.....  | 5   |
| Ed 514 | <b>READINGS IN EDUCATIONAL CLASSICS: ANCIENT.</b> Prerequisite: Ed 510.....   | 5   |
| Ed 515 | <b>READINGS IN EDUCATIONAL CLASSICS: MODERN.</b> Prerequisite: Ed 510, 514.....   | 5   |
| Ed 520 | <b>PSYCHOLOGICAL ASSESSMENT OF THE INDIVIDUAL.</b> A basic course in tests and measurements, especially designed for the classroom teacher. Construction, administration and interpretation of tests in general usage.....                                    | 5   |
| Ed 521 | <b>MENTAL HYGIENE.</b> Stresses the normal personality. Self knowledge and self management; personal orientation. Various inadequate reactions: early detection, nature and causes. Prevention of mental disorders.....                                       | 5   |
| Ed 522 | <b>ADVANCED EDUCATIONAL PSYCHOLOGY.</b> A more specific and intensive study of some of the basic fields and problems opened up by introductory Educational Psychology. Prerequisite: Ed 325.....  | 5   |
| Ed 523 | <b>SEMINAR IN ADOLESCENT AND CHILD PSYCHOLOGY.</b> Study of special aspects of child and adolescent development. Prerequisite: Ed 322.....  | 5   |
| Ed 524 | <b>CHARACTER EDUCATION.</b> Nature of character; place of school in character development; relation to personality; studies in character development. Prerequisite: Ed 325.....   | 3   |
| Ed 525 | <b>EDUCATIONAL SOCIOLOGY.</b> Sociological analysis of the meaning of education, educational media and educational agencies in the American cultural pattern.....   | 5   |
| Ed 526 | <b>SEMINAR IN GUIDANCE I.</b> Practical development of guidance programs and solution of specific guidance problems; study of various guidance programs in use throughout the country. Prerequisite: Ed 425.....  | 3-5 |
| Ed 527 | <b>SEMINAR IN GUIDANCE II.</b> Continuation of Ed 526.....  | 5   |
| Ed 528 | <b>SEMINAR IN THE COUNSELING INTERVIEW.</b> Review and continuation for advanced students of principles and techniques of clinical counseling; interpretation of cases, interviewing, records and reports; case studies, etc. Prerequisites: Ed 325, 491..... | 5   |
| Ed 530 | <b>PROBLEMS IN EDUCATIONAL METHODS (ELEMENTARY).</b> Graduate study of practical problems in teaching on the elementary level. Prerequisite: Ed 430.....  | 3   |
| Ed 531 | <b>PROBLEMS IN EDUCATIONAL METHODS (SECONDARY).</b> Same as Ed 530 on secondary level. Prerequisite: Ed 431.....  | 3   |
| Ed 532 | <b>WORKSHOP IN EDUCATIONAL METHODS (ELEMENTARY).</b> Practical construction of materials and methods for the improvement of teaching. Prerequisite: Ed. 432.....  | 3-5 |

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| <b>Ed 533</b> | <b>WORKSHOP IN EDUCATIONAL METHODS (SECONDARY).</b> Same as Ed 532 on secondary level. Prerequisite: Ed 433.....  | 3-5 |
| <b>Ed 534</b> | <b>SEMINAR AND WORKSHOP IN IMPROVEMENT OF INSTRUCTION.</b> A practical development and application of principles and techniques from Ed 483.....  | 3   |
| <b>Ed 535</b> | <b>WORKSHOP IN AUDIO-VISUAL AIDS.</b> Adaptation of visual and audio aids to particular problems, programs and school systems. Prerequisite: Ed 334.....  | 3-5 |
| <b>Ed 537</b> | <b>CREATIVE WRITING WORKSHOP.</b> An introduction to the techniques of creative writing with application to the methods of instruction.....   | 5   |
| <b>Ed 538</b> | <b>WRITING FOR PUBLICATION.</b> An advanced course in the preparation and composition of articles for learned and professional journals in education.....   | 5   |
| <b>Ed 540</b> | <b>ELEMENTARY CURRICULUM WORKSHOP.</b> Practical development of curricula on the elementary level.....  | 3   |
| <b>Ed 541</b> | <b>ELEMENTARY CURRICULUM SEMINAR.</b> Further development of principles and fields opened up by Ed 331; special attention given to recent curriculum experiments and programs .....   | 3   |
| <b>Ed 544</b> | <b>SECONDARY CURRICULUM WORKSHOP.</b> Same as Ed 540 on secondary level.....  | 3   |
| <b>Ed 545</b> | <b>SECONDARY CURRICULUM SEMINAR.</b> Same as Ed 541 on secondary level.....   | 3   |
| <b>Ed 570</b> | <b>PRINCIPLES AND PROBLEMS OF BUSINESS EDUCATION.</b> Consideration of the philosophy, principles, and objectives of business education; influence of occupational, economic, and population changes; federal participation in vocational education; research, trends, and issues in business education.. | 3   |
| <b>Ed 571</b> | <b>IMPROVEMENT OF INSTRUCTION IN GREGG SHORTHAND AND TRANSCRIPTION.</b> Study of research and experimentation; comparison and evaluation of teaching methods, materials, and techniques; standards, objectives and trends; psychology of skill development.....   | 3   |
| <b>Ed 572</b> | <b>IMPROVEMENT OF INSTRUCTION IN TYPEWRITING.</b> Objectives and evaluation of methodology of typewriting; effects of psychological and physiological factors on learning; current problems and trends.....   | 3   |
| <b>Ed 573</b> | <b>IMPROVEMENT OF INSTRUCTION IN OFFICE AND CLERICAL PRACTICE.</b> Analysis and study of objectives, content, methods, materials, and achievement standards; plans for organization, grading, and adapting instruction to various levels of pupil ability; laboratory study of new office equipment.....  | 3   |
| <b>Ed 574</b> | <b>IMPROVEMENT OF INSTRUCTION IN BOOKKEEPING AND GENERAL BUSINESS SUBJECTS.</b> The analytical study of motivational devices, methods of approach, and instructional materials; course objectives, units of instruction, and curricular placement; prognosis and evaluation.....                          | 3   |
| <b>Ed 575</b> | <b>WORKSHOP IN BUSINESS EDUCATION.</b> Provides an opportunity for experienced teachers and supervisors to study and analyze problems and trends in curriculum, classroom procedures, courses of study, guidance and counseling, teaching materials, and audio-visual aids.....                           | 2-5 |

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|--------|--|-----|
| Ed 576 | <b>FIELD WORK IN BUSINESS EDUCATION.</b> Internship in business and industry for experienced business education teachers. A course which combines work experience, job analysis, and research with specific curriculum building programs ..... | 3   |
| Ed 577 | <b>SOCIAL SCIENCE WORKSHOP: CONTEMPORARY WORLD PROBLEMS.</b> Designed to aid the classroom teacher in the organization of materials, location and use of resources and in building background information in social studies areas....          | 5   |
| Ed 580 | <b>PUBLIC SCHOOL ADMINISTRATION.</b> A description of general administrative policies and practices in public education..  | 3   |
| Ed 581 | <b>ELEMENTARY SCHOOL ADMINISTRATION.</b> A study of the development of administration of the elementary school, with emphasis on the aspects of public relations, finance, supervision, and curriculum.....                                    | 3   |
| Ed 582 | <b>SECONDARY SCHOOL ADMINISTRATION.</b> A study of the development of administration of the secondary school, with emphasis on the aspects of public relations, finance, supervision, curriculum, and school planning.....                     | 3   |
| Ed 583 | <b>SCHOOL FINANCE.</b> Sources and methods of school support, history of state support; formula of support; budgets.....   | 3   |
| Ed 584 | <b>SCHOOL LAW.</b> Laws of the United States and the states on matters of education.....   | 3   |
| Ed 585 | <b>SCHOOL PLANNING.</b> Description of the procedures and techniques of surveying and planning public schools.....   | 3   |
| Ed 586 | <b>SCHOOL PERSONNEL.</b> Selection, recruitment, employment and retention of instructional, administrative and custodial staff .....   | 3   |
| Ed 587 | <b>PUBLIC RELATIONS.</b> The various publics with which the school administration works; and methods of working with them .....  | 3   |
| Ed 588 | <b>INTERNSHIP.</b> A program of practical experience for the candidates for administrative credentials.....  | 3-5 |
| Ed 591 | <b>METHODS OF EDUCATIONAL RESEARCH.</b> Study of basic techniques of research; reports made on graduate research; required of all candidates for the Master's degree. Prerequisite: Completion of undergraduate major.....                     | 3   |
| Ed 593 | <b>INDIVIDUAL RESEARCH.</b> Designed for candidates for the Master of Education not registered for thesis. Prerequisites: Ed 591, completion of 30 hours graduate studies and permission of adviser.....                                       | 3   |
| Ed 594 | <b>THESIS</b> .....  | 10  |

## HEALTH AND PHYSICAL EDUCATION

JOSEPH T. PAGE, PH.D., CAND., *Head*

### DEPARTMENTAL REQUIREMENTS:

Undergraduate Major: Men Only. A major area of concentration in Health and Physical Education requires a minimum of 41 credit hours, which shall include PE 155, 210, 299, Bl 131, 232, 8 credit hours of methods courses and 6 credit hours of approved health education courses. The remaining credit hours shall be se-

lected from additional upper division courses taken under the guidance of the Director of Health and Physical Education.

**Undergraduate Minor: Men and Women.** A minor area of concentration in Health and Physical Education requires the completion of 21 credit hours, which shall include PE 155, 299, Bl 131 and for men 6 credit hours of Physical Education Methods. Women may substitute approved activity courses in lieu of Methods courses.

**Physical Education Activities:** In addition, 6 practice hours (P. H.) in activities courses carrying no academic credit are required for both the major and minor programs.

**General Information:** Candidates for teaching certificates will complete the required courses in Teacher Education. See School of Education Bulletin for complete information and requirements.

Upon graduation, certified teachers will have, in addition to the above General and Professional education requirements, a total major area of 49 quarter hours, and for the minor 29 quarter hours in Health and Physical Education areas.

**Admission to Physical Education Major:** Admission to the School of Education does not necessarily guarantee that a student will be permitted to pursue the physical education major. Students who are interested in this area are given the opportunity to indicate that interest, if they desire, at the time of admission to the School of Education. At the close of the Winter Quarter of the freshman year, they file a formal statement of this interest with the Director of Health and Physical Education. During the succeeding months their aptitude and promise for the field of physical education will be evaluated. Careful counseling will be offered, designed to interpret the facts and to assist the student to find another area of concentration or to develop in ways requisite for successful teaching and leadership in this field.

Candidates must demonstrate superior physical qualifications, intellectual competency, and desirable personality and character traits before they will be accepted as physical education majors.

#### MAJOR AREA OF CONCENTRATION — MEN

| <i>Course No.</i> | <i>Title and Description</i>                        | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| *PE 155           | First Aid and Safety.....                           | 3                   |
| *PE 210           | Introduction to Health and Physical Education.....  | 3                   |
| *PE 299           | Organization and Administration of P. E.....        | 3                   |
| PE 350            | Special Methods P. E. in Elementary Schools.....    | 3                   |
| PE 390            | Principles and Practices of Physical Education..... | 3                   |
| PE 399            | Corrective Physical Education.....                  | 3                   |
| PE 400            | Class Techniques in Physical Education.....         | 3                   |
| PE 499            | Tests and Measurements in P. E.....                 | 3                   |
| *Bl 131           | General Physiology and Hygiene.....                 | 5                   |
| *Bl 232           | Kinesiology .....                                   | 5                   |
| *PE 121-130       | Physical Education Methods.....                     | 8                   |

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|--|--------|
| PE 121M—Sports Officiating                           |        |
| PE 122M—Teaching Basketball                          |        |
| PE 123M—Teaching Baseball                            |        |
| PE 124M—Teaching Football                            | 2 each |
| PE 125M—Teaching Track and Field                     |        |
| PE 126M—Elementary Aquatics                          |        |
| PE 127M—Teaching Tumbling and Gymnastics             |        |
| PE 128M—Teaching Folk Dancing                        |        |
| * Personal Health Problems.....                      | 3      |
| * Community Health Problems.....                     | 3      |
| Total Credit Hours Required Including Electives..... | 41     |

**MINOR AREA OF CONCENTRATION  
(MEN AND WOMEN)**

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| PE 155            | First Aid and Safety.....  | 3                   |
| PE 299            | Organization and Administration of Physical Education                | 3                   |
| PE 131            | General Physiology and Hygiene.....                                  | 5                   |
|                   | Physical Education Methods (Men).....                                | 6                   |
|                   | Physical Education Activities (Women).....                           | 6                   |
|                   | Elective courses in Health, Physical Education or allied areas ..... | 5                   |
|                   | Total Credit Hours.....  | 21                  |

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>PE 121M</b>    | <b>METHODS: SPORTS OFFICIATING.</b> Rules, interpretations and techniques of officiating. Practice in actual officiating offered. Includes major team sports. Men only.....  | <b>2</b>            |
| <b>PE 122M</b>    | <b>METHODS IN TEACHING BASKETBALL.</b> A comprehensive course, including full coverage of fundamental drills along with patterns of offense and defense employed by many outstanding intercollegiate teams.....              | <b>2</b>            |
| <b>PE 123M</b>    | <b>METHODS IN TEACHING BASEBALL.</b> Techniques in batting and team strategy. Individual fielding and batting styles will be demonstrated with the class progressively developing from the fundamental to advanced work..... | <b>2</b>            |
| <b>PE 124M</b>    | <b>METHODS IN TEACHING FOOTBALL.</b> Rules, systems of play, offensive and defensive strategy. Popular formations and coach's responsibilities.....  | <b>2</b>            |
| <b>PE 125M</b>    | <b>METHODS IN TEACHING TRACK AND FIELD.</b> Basic techniques in the development of track and field skills. Emphasis placed on coaching techniques.....   | <b>2</b>            |
| <b>PE 126M</b>    | <b>METHODS IN TEACHING AQUATICS.</b> Elementary procedures and techniques in teaching swimming and diving. For beginning and intermediate swimmers.....  | <b>2</b>            |
| <b>PE 127M</b>    | <b>METHODS IN TEACHING TUMBLING AND APPARATUS.</b> Procedures and techniques used in teaching basic gymnastic activities. Includes tumbling and apparatus work.....  | <b>2</b>            |
| <b>PE 128M</b>    | <b>METHODS IN TEACHING FOLK DANCING AND RHYTHMS.</b> A survey of and instruction in folk and square dancing. Emphasis on teaching techniques.....  | <b>2</b>            |

\*Required Courses.

|                 |  |           |                 |            |                        |         |          |                 |          |      |            |        |  |  |
|-----------------|--|-----------|-----------------|------------|------------------------|---------|----------|-----------------|----------|------|------------|--------|--|--|
| <b>PE 155</b>   | <b>FIRST AID AND SAFETY.</b> The Standard American Red Cross course leading to both the Standard and Advanced ARC certificates .....   | <b>3</b>  |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 180</b>   | <b>ACTIVITIES (WOMEN)</b> .....  | <b>1*</b> |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 190</b>   | <b>ACTIVITIES (MEN)</b> .....  | <b>1*</b> |                 |            |                        |         |          |                 |          |      |            |        |  |  |
|                 | <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">BADMINTON</td> <td style="width: 50%;">TRACK AND FIELD</td> </tr> <tr> <td>BASKETBALL</td> <td>TUMBLING AND APPARATUS</td> </tr> <tr> <td>BOWLING</td> <td>SOFTBALL</td> </tr> <tr> <td>FOOTBALL, TOUCH</td> <td>SWIMMING</td> </tr> <tr> <td>GOLF</td> <td>VOLLEYBALL</td> </tr> <tr> <td>TENNIS</td> <td></td> </tr> </table> | BADMINTON | TRACK AND FIELD | BASKETBALL | TUMBLING AND APPARATUS | BOWLING | SOFTBALL | FOOTBALL, TOUCH | SWIMMING | GOLF | VOLLEYBALL | TENNIS |  |  |
| BADMINTON       | TRACK AND FIELD  |           |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| BASKETBALL      | TUMBLING AND APPARATUS   |           |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| BOWLING         | SOFTBALL   |           |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| FOOTBALL, TOUCH | SWIMMING   |           |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| GOLF            | VOLLEYBALL   |           |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| TENNIS          |  |           |                 |            |                        |         |          |                 |          |      |            |        |  |  |
|                 | *One practice hour (P.H) credit is given for each activity. Six P.H. credits are required of Physical Education majors and minors. All activity courses are open to all students, regardless of major.   |           |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 210</b>   | <b>INTRODUCTION TO PHYSICAL EDUCATION.</b> Nature of Physical Education, qualifications for success; status of Physical Education today; history; present demands and opportunities .....  | <b>3</b>  |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 299</b>   | <b>ORGANIZATION AND ADMINISTRATION OF P.E.</b> The conduct of Physical Education in the elementary, junior and senior high schools. Includes organization of service, intramural and interscholastic sports programs. Class scheduling procedures, program planning and teaching methods discussed. Prerequisite: PE 152.....  | <b>3</b>  |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 350</b>   | <b>SPECIAL METHODS OF P.E. IN ELEMENTARY SCHOOLS.</b> Physical Education activities for use in elementary schools. Play activities, self-testing stunts, rhythmic and games. Emphasis on teaching technique as well as selection of activity .....   | <b>3</b>  |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 390</b>   | <b>PRINCIPLES AND PRACTICES IN PHYSICAL EDUCATION.</b> An interpretative study and analysis of the principles and practices of Physical Education through their historical development and in their present application and significance....   | <b>3</b>  |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 399</b>   | <b>CORRECTIVE PHYSICAL EDUCATION.</b> Consideration of some common posture, feet and functional deviation from the normal found in school children. Restrictions, extent and procedures in Physical Education for their amelioration or improvement. Prerequisites: Bl 130, 232.....   | <b>3</b>  |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 400</b>   | <b>CLASS TECHNIQUES IN PHYSICAL EDUCATION.</b> Procedures and techniques in organizing and conducting Physical Education classes in secondary schools. Administrative class details including student leader corps, equipment, records, etc. Prerequisite: PE 299.....   | <b>3</b>  |                 |            |                        |         |          |                 |          |      |            |        |  |  |
| <b>PE 499</b>   | <b>TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION.</b> A survey and perspective of available testing procedures in Physical Education. Evaluation of objectives and student achievement through measurement. Elementary statistical methods used in the treatment of data.....   | <b>3</b>  |                 |            |                        |         |          |                 |          |      |            |        |  |  |

## ENGINEERING

EDWARD W. KIMBARK, Sc.D., *Dean*

### DEPARTMENTAL REQUIREMENTS:

Cf. section on Engineering in Program of Courses, page 78.

## CHEMICAL ENGINEERING (ChE)

CASTLE O. REISER, Ph.D., *Head*

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>ChE 240</b>    | <b>CHEMICAL TECHNOLOGY.</b> An introduction to chemical engineering and the process industries. A survey of basic chemical industries is coordinated with plant inspection trips and movies. Quantitative elements of stoichiometry and energy balances are presented in application to the industries studied. Three lecture hours per week. Prerequisite: Ch 220   | <b>3</b>            |
| <b>ChE 341</b>    | <b>STOICHIOMETRY.</b> The applications of fundamental chemical and physical laws to industrial processes. Humidity, vapor pressures, continuous processes, recycling, heat capacity, heats of reaction, phase changes and material and energy balances are treated. Three lecture hours per week. Prerequisite: ChE 240, Mt 232.....   | <b>3</b>            |
| <b>ChE 343</b>    | <b>PHYSICAL METALLURGY.</b> A study of crystal structures and equilibrium phase diagrams as a means of understanding the physical properties of metals and their alloys. The laboratory includes an introduction to metallography. Two lecture hours and four laboratory hours per week. Prerequisites: Ch 112 or 115, ME 114.....   | <b>3</b>            |
| <b>ChE 344</b>    | <b>FUELS AND LUBRICANTS.</b> Theory and calculations of industrial combustion of solid, liquid and gaseous fuels. Heat balances. The effect of temperature on the heat of combustion. Flame temperatures. The applications of nuclear fuels as sources of energy. Theory and choice of lubricants. The laboratory covers selected ASTM tests on the physical properties of fuels and lubricants and calorimetric determination of heating values. Two lecture hours and a four-hour laboratory period per week. Prerequisite: Ch 112 or 115..... | <b>3</b>            |
| <b>ChE 347</b>    | <b>UNIT OPERATIONS I.</b> A study of the chemical engineering unit operations dealing with the principles and applications of heat, mass and momentum transfer. Fluid mechanics and heat transfer are considered in this quarter. Three lecture hours per week. Prerequisite: ChE 341.....   | <b>3</b>            |
| <b>ChE 443</b>    | <b>CHEMICAL ENGINEERING THERMODYNAMICS.</b> The basic principles of thermodynamics and their significance. Methods of determining energies, and the energy relations for ideal and practical conditions. Physical and chemical equilibria. Five lecture hours per week. Prerequisite: Ch 357, ChE 341 .....  | <b>5</b>            |
| <b>ChE 449</b>    | <b>UNIT OPERATIONS II.</b> A continuation of ChE 347 with emphasis on mass transfer operations including distillation, extraction, and absorption. Three lecture hours per week. Prerequisite: ChE 347.....  | <b>3</b>            |
| <b>ChE 450</b>    | <b>CHEMICAL ENGINEERING LABORATORY I.</b> The execution of various experiments assists the student in understanding the theory and applications of the above unit operations. One lecture hour and four laboratory hours per week. Prerequisite or corequisite: ChE 449.....   | <b>2</b>            |
| <b>ChE 451</b>    | <b>UNIT OPERATIONS III.</b> A continuation of ChE 449 with emphasis on the preparation and handling of process materials. Three lecture hours per week. Prerequisite: ChE 449.....   | <b>3</b>            |

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| <b>ChE 452</b> | <b>CHEMICAL ENGINEERING LABORATORY II.</b> Laboratory investigations emphasizing the design and operation of process equipment. Student initiative in the formulation of experimental methods is required. One lecture hour and four laboratory hours per week. Prerequisite: ChE 450; corequisite: ChE 451.....  | 2   |
| <b>ChE 453</b> | <b>CHEMICAL ENGINEERING ECONOMICS AND DESIGN.</b> The conversion of basic theory to design application. Economic selection for minimum cost and/or maximum output. Elements of corporation finance. Patents. Term project: an economic survey of an approved plant to determine the financial feasibility of its construction. Three lecture hours per week. Prerequisite: ChE 449..... | 3   |
| <b>ChE 454</b> | <b>PLANT DESIGN.</b> The application and integration of all courses in the design of chemical process plants. Instrumentation and operational factors are considered. Four lectures and one three-hour computation period per week. Prerequisite: ChE 453.....  | 5   |
| <b>ChE 455</b> | <b>ADVANCED CHEMICAL ENGINEERING CALCULATIONS.</b> A mathematical analysis of chemical process principles including the interpretation of data, reaction and transfer rates, mathematical formulations and solutions. Five lecture hours per week. Prerequisites: Mt. 341, ChE 443, 451, 453.....   | 5   |
| <b>ChE 456</b> | <b>SEMINAR.</b> Exercises in the sources and use of chemical engineering literature. Student preparation and delivery of reports on approved technical topics. An abstract of each talk is filed in advance. One meeting per week. Corequisite: ChE 449 or permission.....  | 1   |
| <b>ChE 467</b> | <b>ELEMENTS OF NUCLEAR ENGINEERING.</b> A study of nuclear reactions and their applications. The design and control of nuclear reactors, shielding, fuels, and fuel and waste processing. An elective course for engineers with senior standing or special permission. Five lecture hours per week.   | 5   |
| <b>ChE 477</b> | <b>CHEMICAL PROCESS INDUSTRIES.</b> A study of selected chemical industries and the application of chemical process principles to their design and operation. Three to five lecture hours per week. Prerequisite: Senior standing.....  | 3-5 |
| <b>ChE 499</b> | <b>THESIS.</b> An assigned chemical engineering problem is investigated first in the literature, then in the laboratory, and the result is incorporated into the thesis. Independent thought is stressed. Prerequisite: Senior standing.....  | 1-5 |
| <b>ChE 511</b> | <b>NUCLEAR ENGINEERING I.</b> Nuclear fission reactors used for research and power production. Characteristics of nuclear radiations and their effects, neutron chain reactions, and radiation shielding. Three lecture hours per week. Prerequisite: B.S. degree in Engineering or Physical Sciences, or consent of instructor.....  | 3   |
| <b>ChE 512</b> | <b>NUCLEAR ENGINEERING II.</b> A continuation of ChE 511. Reactor design, with emphasis on principles of fluid flow, heat transfer, materials of construction, radiation damage, fuel preparation, and waste disposal. Three lecture hours per week. Prerequisite: ChE 511 or equivalent.....   | 3   |



## CIVIL ENGINEERING (CE)

EDWARD J. BALDINGER, M.S., *Head*

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| CE 101            | <b>ENGINEERING PROBLEMS.</b> Training in methods of attacking, analyzing and solving engineering problems. Deals principally with problems in dynamics, elementary mechanics, statics, and graphics. Three lecture hours per week. Prerequisite: Mt 110.....   | 3                   |
| CE 103            | <b>PLANE SURVEYING.</b> An introduction to surveying instruments and their use. Theory and methods of chaining, leveling and traversing, office computations, and methods of plotting controls. Two lecture hours and four laboratory hours per week. Prerequisite: Mt 110.....  | 3                   |
| CE 201            | <b>ADVANCED SURVEYING.</b> U.S. public land system, rural and urban surveying, theory of errors and adjustment. Precise leveling and triangulation, meridian, latitude and time determination. Three lecture hours and four laboratory hours per week. Prerequisite: ChE 103.....  | 4                   |
| CE 202            | <b>ROUTE SURVEYING.</b> Theory of circular horizontal curves, transition curves and vertical curves, calculation of earthwork and mass diagram. Application to highways and railroads. Three lecture hours and four laboratory hours per week. Prerequisite: CE 103.....   | 4                   |
| CE 271            | <b>MECHANICS I, STATICS.</b> The principles of statics, including the study of equilibrium of forces in trusses, frames and beams; distributed forces, friction and virtual work. Five lecture hours per week. Prerequisite: Mt 131, Ph 200, ME 112 .....  | 5                   |
| CE 300            | <b>MECHANICS II, DYNAMICS.</b> The principles of kinematics and kinetics, including relationship between force, mass and acceleration in all types of motion; work and energy, impulse and momentum, periodic motion. Five lecture hours per week. Prerequisite: CE 271, Mt 341 (concurrently).....  | 5                   |
| CE 301            | <b>STRENGTH OF MATERIALS I.</b> Simple tension, compression and shear stress as applied to thin-walled cylinders, simple machine parts, and riveted joints. A correlation of load, moment, stress, and deflection conditions in beams as used for purposes of design. The determination of stresses in shafting due to simple twist and the combined action of twisting and axial loads. Three lecture hours and four laboratory hours per week. Prerequisite: CE 271..... | 4                   |
| CE 302            | <b>STRENGTH OF MATERIALS II.</b> Continuation of CE 301. Application of column formulas, continuous beams, Mohr's circle, advanced problems. Three lecture hours and four laboratory hours per week. Prerequisite: CE 301.....   | 4                   |
| CE 304            | <b>STRUCTURAL ANALYSIS.</b> Lectures and design laboratory treating statically determinate structures such as roofs and bridges. The work includes a consideration of loads, reactions, moments, and stresses. Algebraic and graphic methods are used. Four lecture hours per week. Prerequisite: CE 301.....  | 4                   |
| CE 308            | <b>STRUCTURAL DESIGN.</b> The design of a wide variety of types of structures in steel and wood. Structural details. Five lecture hours per week. Prerequisite: CE 302, CE 304....   | 5                   |

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| <b>CE 365</b> | <b>SOIL MECHANICS.</b> A study of soil as a structural material. Physical properties, bearing capacity, and current theories of stress distribution of different types of soil. Compaction and behavior under short and long duration loading. Three lecture hours and four laboratory hours per week. Prerequisite: CE 302.....  | 4 |
| <b>CE 385</b> | <b>GEOLOGY.</b> An elementary study of the material structure and internal condition of the earth and of the physical and chemical processes at work upon and within it. Three lecture hours per week. Prerequisites: Ch 112 or 115, junior standing .....  | 3 |
| <b>CE 400</b> | <b>ENGINEERING ECONOMY.</b> A study of the elements of immediate and long-term economy of design and maintenance. Interest rates, present worth, and prospective return on investment. Depreciation and replacement studies. Three lecture hours per week. Prerequisite: junior standing.....   | 3 |
| <b>CE 401</b> | <b>ESTIMATES, CONTRACTS AND SPECIFICATIONS.</b> The elements of estimating. Types and elements of contracts. Specifications for material and construction. Three lecture hours per week .....   | 3 |
| <b>CE 403</b> | <b>FLUID MECHANICS.</b> Hydrostatics and hydrokinetics of water. Fluid pressure on dams, gates, and retaining walls; the flow of water through orifices, tubes, pipes, and open channels; turbines and pumps. Four lecture hours and four laboratory hours per week. Prerequisites: Mt 232, CE 300....  | 5 |
| <b>CE 404</b> | <b>HYDRAULIC APPLICATION.</b> Pipeline and open-channel analysis, penstock design. Basic hydrology and hydrometric techniques, backwater analysis. Spillway design. Surge and water hammer analysis. Three lecture hours per week. Prerequisite: CE 403.....  | 3 |
| <b>CE 460</b> | <b>HIGHWAY AND AIRPORT DESIGN.</b> Design, construction and maintenance of roads and pavements; alignment, grade, and drainage of roads. Gravel, stone, concrete-block, and sheet asphalt types of pavement. Airport site selection, drainage, field layout, soil stabilization, flexible and rigid type pavements, lighting, and buildings. Five lecture hours per week. Prerequisites: CE 206, 365..... | 5 |
| <b>CE 461</b> | <b>REINFORCED CONCRETE I.</b> The design of simply reinforced concrete beams, slabs, columns, and footings. Design of concrete mixes, together with methods of estimating volumes and cost of reinforced concrete structures. Three lecture hours and four laboratory hours per week. Prerequisites: CE 302, 304.....   | 4 |
| <b>CE 462</b> | <b>REINFORCED CONCRETE II.</b> Design of concrete and masonry structures including foundations, dams, bridge piers, and buildings. Three lecture hours and four laboratory hours per week. Prerequisite: CE 461.....  | 4 |
| <b>CE 464</b> | <b>SANITARY ENGINEERING.</b> Sewage treatment. Composition and properties, dilution, screening and sedimentation, septicization, contact bed trickling filter, activated sludge. Design of purification and disposal plants and principles of sewer construction. Three lecture hours per week. Prerequisite: CE 403.....   | 3 |

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| <b>CE 465</b> | <b>HYDROLOGY AND WATER SUPPLY.</b> A study of rainfall and stream flow in relation to water power. Characteristics of the various types of hydraulic machines. Also a study of water requirements of municipal systems including quantity and quality of source as well as distribution methods. Two lecture hours and four laboratory hours per week. Prerequisite: CE 464..... | <b>3</b> |
| <b>CE 466</b> | <b>STATICALLY INDETERMINATE STRUCTURES.</b> A study of slope and deflection of beams and trusses by elastic-weight and work-energy methods. Variable-section beams, rings, and elastic arches. Slope-deflection and moment-distribution methods of solution. Four lecture hours per week. Prerequisite: CE 406.....  | <b>4</b> |
| <b>CE 498</b> | <b>SEMINAR.</b> Each student is required to prepare a technical paper and to present it orally to the class. Prerequisite: senior standing in Civil Engineering.....   | <b>2</b> |
| <b>CE 499</b> | <b>THESIS.</b> A senior problem in analysis or design at the level of undergraduate research. Prerequisite: senior standing.....   | <b>2</b> |

### **ELECTRICAL ENGINEERING (EE)**

DONALD K. REYNOLDS, PH.D., *Head*

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>EE 226</b>     | <b>FUNDAMENTALS OF ELECTRICAL ENGINEERING.</b> A thorough study for electrical engineers of direct-current circuit relations, network theorems, basic electrical measurements, and the properties of electric and magnetic fields. Three lecture and four laboratory hours per week. Prerequisite: Ph 201, Mt 231.....  | <b>4</b>            |
| <b>EE 313</b>     | <b>ELEMENTS OF ELECTRICAL ENGINEERING I.</b> A survey course covering the theory and application of direct and alternating-current circuits, vacuum tubes, semiconductor devices, and electrical measurements, for chemical, civil, and mechanical engineers. Three lecture and four laboratory hours per week. Prerequisite: Ph 201, Mt. 231, 341 (concurrently) ..... | <b>4</b>            |
| <b>EE 314</b>     | <b>ELEMENTS OF ELECTRICAL ENGINEERING II.</b> A survey course covering polyphase circuits, direct- and alternating-current machinery, control devices, and feedback control, for chemical, civil and mechanical engineers. Three lecture and four laboratory hours per week. Prerequisite: EE 313, Mt 341.....  | <b>4</b>            |
| <b>EE 330</b>     | <b>ALTERNATING-CURRENT CIRCUITS I.</b> A thorough course on single-phase series, parallel, and complex circuits, using complex algebra and polar forms; a-c. power; application of network theorems; coupled circuits. Three lecture and four laboratory hours per week. Prerequisites: EE 226, Mt. 231, 341 (concurrently) .....                                       | <b>4</b>            |
| <b>EE 331</b>     | <b>ALTERNATING-CURRENT CIRCUITS II.</b> A continuation of EE 330. Balanced polyphase circuits, symmetrical components, Fourier analysis of nonsinusoidal wave forms. Three lecture and four laboratory hours per week. Prerequisites: EE 330, Mt 232.....   | <b>4</b>            |

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| EE 332 | <b>TRANSFORMERS:</b> A basic study of reactor and transformer theory. Power transformers for single and polyphase applications; audio-frequency transformers and other types of transformers for electronic application; magnetic amplifiers. Three lecture hours and four laboratory hours per week. Prerequisite: EE 331.....  | 4 |
| EE 333 | <b>ELECTRONICS I.</b> Introduction to electron tubes, basic amplifier principles. Small-signal, class-A amplifiers including: resistance-capacitance-coupled, impedance-capacitance-coupled, compensated broad-band, cathode-follower, anode-follower, direct-coupled, and difference amplifiers. Feedback in amplifiers. Three lecture and four laboratory hours per week. Prerequisites: EE 330, Mt 232..... | 4 |
| EE 334 | <b>ELECTRONICS II.</b> A study of nonlinear electronic circuits including: rectifiers, rectifier filters, voltage regulators, relaxation circuits, saw-tooth generators, electronic instruments, and electronic computing circuits. Three lecture hours per week. Prerequisites: EE 331, EE 333.....   | 3 |
| EE 336 | <b>COMMUNICATIONS I.</b> Steady-state solution for voltage, current and impedance on both lossless and lossy lines, calculation of transmission-line constants, artificial lines. Two lecture hours per week. Prerequisites: EE 315, 330, Mt 232....   | 2 |
| EE 337 | <b>COMMUNICATIONS II.</b> Telephone lines, high-frequency lines, Smith chart and impedance chart, transient solution for voltage and current on a lossless line, introduction to filters. Two lecture and four laboratory hours per week. Prerequisite: EE 336.....  | 3 |
| EE 480 | <b>DIRECT-CURRENT MACHINERY.</b> A study of the theory of d-c. machines; commutation, windings, armature e.m.f., voltage and speed regulation of dynamos, three-wire generators, balancers, boosters, and motor control. Three lecture and four laboratory hours per week. Prerequisite: EE 332.....   | 4 |
| EE 481 | <b>ALTERNATING-CURRENT MACHINERY I.</b> A study of synchronous generators and motors. Three lecture and four laboratory hours per week. Prerequisites: EE 332, EE 480....  | 4 |
| EE 482 | <b>ALTERNATING-CURRENT MACHINERY II.</b> A study of polyphase and single-phase induction motors, synchronous converters, and power rectifiers of dry and mercury-arc types. Three lecture and four laboratory hours per week. Prerequisite: EE 481.....  | 4 |
| EE 483 | <b>RADIO I.</b> A study of electronic circuits used in communications work. Transformer-coupled audio amplifiers, untuned power amplifiers, tuned potential amplifiers, tuned power amplifiers, oscillators, amplitude modulation and demodulation. Three lecture and four laboratory hours per week. Prerequisite: EE 334.....  | 4 |
| EE 484 | <b>RADIO II.</b> Frequency modulation and detection. Receivers and transmitters, noise considerations. Transistor theory. Introduction to television and radar. Two lecture hours per week. Prerequisite: EE 483.....  | 2 |
| EE 486 | <b>TRANSIENTS.</b> A thorough study of electrical transients in circuits with lumped constants. Solutions are derived by classical and Laplace transform methods. Three lecture and four laboratory hours per week. Prerequisites: Mt 341, EE 331.....   | 4 |

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| <b>EE 488</b> | <b>POWER SYSTEM ANALYSIS I.</b> Transmission-line parameters, ABCD constants, circle diagram, symmetrical components, fault conditions of power systems, representation of power systems. Four lecture hours per week. Prerequisite: EE 481 (concurrently).....  | <b>4</b> |
| <b>EE 489</b> | <b>POWER SYSTEM ANALYSIS II.</b> A continuation of EE 488. Sequence components of power systems, alternator impedances, introduction to power system stability. Three lecture and four laboratory hours per week. Prerequisite: EE 488....   | <b>4</b> |
| <b>EE 490</b> | <b>FIELD THEORY I.</b> Introduction to vector analysis, static electric and magnetic fields, solutions to static field problems, derivations of Maxwell's equations, boundary conditions, potentials used with varying charges and currents. Three lecture hours per week. Prerequisites: EE 315, EE 337 .....                                   | <b>3</b> |
| <b>EE 491</b> | <b>FIELD THEORY II.</b> The derivation of circuit concepts from field equations, skin effect, capacitance, inductance, propagation and reflection of electromagnetic waves, guided electromagnetic waves, and characteristics of wave guides and transmission lines. Three lecture and four laboratory hours per week. Prerequisite: EE 490..... | <b>4</b> |
| <b>EE 492</b> | <b>FIELD THEORY III.</b> Resonant cavities, microwave networks, antennas, and radiation. Three lecture and four laboratory hours per week. Prerequisite: EE 491.....   | <b>4</b> |
| <b>EE 496</b> | <b>SERVOMECHANISMS.</b> Analysis and design of closed-loop automatic control systems with emphasis on transient response. Three lecture hours per week. Prerequisites: EE 334, EE 481, EE 486.....   | <b>3</b> |
| <b>EE 497</b> | <b>ELECTRICAL DESIGN.</b> A survey of an application of many of the fundamental elements of electrical design: heat transfer, insulating materials, magnet coils, permanent-magnet applications, reactors, transformers, etc. Three lecture hours per week. Prerequisite: senior standing.....   | <b>3</b> |
| <b>EE 498</b> | <b>SEMINAR.</b> Each student is required to prepare a technical paper and to present it orally to the class. Prerequisite: senior standing in Electrical Engineering.....  | <b>2</b> |
| <b>EE 499</b> | <b>THESIS</b> .....  | <b>2</b> |

### MECHANICAL ENGINEERING (ME)

HARRY MAJORS, JR., M.S., *Head*

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>ME 111</b>     | <b>ENGINEERING DRAWING I.</b> Lettering; use and care of instruments; orthographic, isometric, and oblique projection; technical sketching; screw threads; sectioning, dimensioning and tracing. Four laboratory hours per week. Prerequisite: None ..... | <b>2</b>            |
| <b>ME 112</b>     | <b>ENGINEERING DRAWING II.</b> A continuation of ME 111. Four laboratory hours per week. Prerequisite: ME 111.....  | <b>2</b>            |
| <b>ME 113</b>     | <b>DESCRIPTIVE GEOMETRY.</b> The theory of projection and its application to engineering problems. Four hours per week (lecture and laboratory). Prerequisite: ME 112.....  | <b>2</b>            |
| <b>ME 114</b>     | <b>MACHINE SHOP I.</b> A study of processing of industrial metals on lathes. Four laboratory hours per week. Prerequisite: None.....  | <b>1</b>            |

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| <b>ME 116</b> | <b>MACHINE SHOP II.</b> Processing of industrial metals on milling machines, shapers, and grinders. Four laboratory hours per week. Prerequisite: ME 114.....   | <b>1</b> |
| <b>ME 321</b> | <b>ENGINEERING THERMODYNAMICS I.</b> An introduction to the fundamentals of thermodynamics. Three lecture hours per week. Prerequisites: Mt 231, Ph 202.....  | <b>3</b> |
| <b>ME 322</b> | <b>ENGINEERING THERMODYNAMICS II.</b> A continuation of ME 321. Three lecture hours per week. Prerequisite: ME 321 .....  | <b>3</b> |
| <b>ME 324</b> | <b>MECHANICAL ENGINEERING LABORATORY.</b> A study of engineering instruments and laboratory procedures. Three lecture hours and four laboratory hours per week. Prerequisite: ME 322 .....  | <b>4</b> |
| <b>ME 361</b> | <b>MECHANISMS.</b> The study of kinematics of machines: velocity and acceleration analysis of the four-bar mechanism, cams, rollers, gears, and trains. Three lecture hours per week. Prerequisite: SE 300.....                               | <b>3</b> |
| <b>ME 370</b> | <b>PRODUCTION PROCESSES.</b> A study of the processes for casting, machining, and fabricating engineering materials, particularly in relation to product design. Two lecture and four laboratory hours per week. Prerequisite: ME 116.....    | <b>3</b> |
| <b>ME 371</b> | <b>MACHINE DESIGN I.</b> Advanced Strength of Materials and the application of strength of materials to the design of machine elements. Four lecture hours per week. Prerequisite: CE 302, ME 361.....  | <b>3</b> |
| <b>ME 425</b> | <b>STEAM POWER PLANTS.</b> Steam and study of steam power plant elements. Three lecture and four laboratory hours per week. Prerequisites: ME 324, ChE 344.....   | <b>4</b> |
| <b>ME 426</b> | <b>STEAM AND GAS TURBINES.</b> The design and study of the elements of steam and gas turbines. Three lecture and four laboratory hours per week. Prerequisite: ME 425.....  | <b>4</b> |
| <b>ME 427</b> | <b>INTERNAL COMBUSTION ENGINES.</b> A study of internal combustion engines. Three lecture and four laboratory hours per week. Prerequisite: ME 324.....   | <b>4</b> |
| <b>ME 428</b> | <b>FERROUS METALS.</b> A study of the chemical and physical properties of ferrous metals, particularly in relation to processing and product design. Two lecture and four laboratory hours per week. Prerequisite: ChE 343.....               | <b>3</b> |
| <b>ME 429</b> | <b>NONFERROUS METALS.</b> A study of chemical and physical properties of nonferrous metals, particularly in relation to processing and product design. Two lecture and four laboratory hours per week. Prerequisite: ME 428.....              | <b>3</b> |
| <b>ME 472</b> | <b>MACHINE DESIGN II.</b> The application of Strength of Materials and Mechanisms to the design of springs, saws, belts, clutches, brakes, and other related machine elements. Four lecture hours per week. Prerequisite: ME 371.....         | <b>3</b> |
| <b>ME 473</b> | <b>MACHINE DESIGN III.</b> The application of Strength of Materials and Mechanisms to the design of welded and riveted connections, journal roller, and ball bearings, and spur gears. Four lecture hours per week. Prerequisite: ME 472..... | <b>3</b> |

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| ME 474 | <b>MACHINE DESIGN IV.</b> The application of Strength of Materials and Mechanisms to the design of bevel, helical, and worm gearing; belt, chain, and rope drives; thick cylinders; flanges; and other machine elements. Four lecture hours per week. Prerequisite: ME 473..... | 2 |
| ME 475 | <b>REFRIGERATION.</b> The theory and operation of various types of compressors, evaporators, condensers, and automatic controls used in commercial refrigeration systems. Two lecture and four laboratory hours per week. Prerequisites: ME 322, CE 403 .....                   | 3 |
| ME 476 | <b>HEATING AND VENTILATION.</b> A study of various systems of heating and ventilating. Three lecture and four laboratory hours per week. Prerequisites: ME 322, CE 403.....   | 4 |
| ME 498 | <b>SEMINAR.</b> Each student is required to prepare a technical paper and to present it orally to the class. Prerequisite: senior standing in Mechanical Engineering.....   | 2 |
| ME 499 | <b>THESIS</b> .....   | 2 |

### ENGLISH (En)

REV. ROBERT J. CARMODY, S.J., PH.D., *Head*  
 RICHARD HICKEY, PH.D., *Assistant Head*

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Major: 45 hours—Composition 101, 102: required 164, 165, 105 or 107, or 175, 303, 307, 335 or 336, and 15 additional hours of courses numbered above 300, prerequisite.

Related Minor: to be selected from Groups I or II or Mt. in Group III. (Cf. curriculum in section on General Information).

Undergraduate Minor: 25 hours—Composition 101, 102: required 164, 165 and 15 hours in courses numbered over 300, prerequisite.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| En 101            | <b>COMPOSITION.</b> General review of the elements of language and the mechanics of writing. Training in the correct and effective use of the English language. A thorough study of exposition on informal levels.....            | 5                   |
| En 102            | <b>COMPOSITION.</b> A continuation of En 101. Study and practice in formal exposition and collegiate reports, together with a treatment of the remaining forms of prose; discourse, description, narration and argumentation..... | 5                   |
| En 105            | <b>INTRODUCTION TO POETRY.</b> A general introduction to the study of poetry with special emphasis on appreciation, form and technique.....   | 5                   |
| En 107            | <b>INTRODUCTION TO FICTION</b> .....  | 5                   |
| En 164            | <b>LITERARY BACKGROUNDS.</b> Survey course in English literature by an historical approach from Beowulf and other Anglo-Saxon material to Wordsworth and the Romantic Movement .....  | 5                   |
| En 165            | <b>LITERARY BACKGROUNDS.</b> Continuation of En 164. From Wordsworth and the Romantic Movement to the present day....   | 5                   |
| En 175            | <b>INTRODUCTION TO LITERATURE.</b> A technical approach to literary forms. A study of conventions and artistic techniques in the novel, short story, drama and poetry.....  | 5                   |

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| En 180 | <b>VOCABULARY BUILDING.</b> A practical course in vocabulary building. Emphasis on etymology, Latin and Greek roots, prefixes and suffixes.....   | 3 |
| En 181 | <b>VOCABULARY BUILDING.</b> A condensed treatment of the matter of En 180.....  | 2 |
| En 280 | <b>AMERICAN LITERATURE.</b> A survey course of Early American Literature to the Transcendentalists.....   | 5 |
| En 281 | <b>AMERICAN LITERATURE.</b> A continuation of En 280. From the Transcendentalists to the present day.....   | 5 |
| En 282 | <b>AMERICAN LITERATURE.</b> A survey course of the entire field of American Literature (credit may not be obtained for En 282 if either En 280 or En 281 has been passed by the student, and vice versa).....   | 5 |
| En 295 | <b>SHAKESPEARE.</b> Great plays: tragedies, comedies, histories (for non-Literature majors).....  | 5 |
| En 301 | <b>WORLD LITERATURE.</b> A reading course in the masterpieces of literature in Western culture, particularly the classics of Greek, Roman and Italian literature.....   | 5 |
| En 302 | <b>WORLD LITERATURE.</b> A continuation of En 301 with emphasis on French, German and Spanish literature.....   | 5 |
| En 303 | <b>LITERARY CRITICISM.</b> An historical study of the theories of the great critics.....  | 5 |
| En 305 | <b>CREATIVE WRITING.</b> A study of and guided practice in the various forms and techniques of creative expression.....   | 5 |
| En 306 | <b>CREATIVE WRITING.</b> A continuation of En 201.....  | 5 |
| En 307 | <b>HISTORY OF THE ENGLISH LANGUAGE.</b> A study of the historical development of modern English and vocabulary, syntax, morphology, pronunciation, spelling and semantics....                                   | 5 |
| En 312 | <b>MIDDLE ENGLISH.</b> A study of the language, versification, forms and background of Chaucer's Canterbury Tales.....  | 5 |
| En 323 | <b>RENAISSANCE LITERATURE.</b> A study of Spenser's poetry..  | 5 |
| En 327 | <b>RENAISSANCE LITERATURE.</b> A study of non-Shakespearean dramas between 1550 and 1642.....   | 5 |
| En 335 | <b>SHAKESPEARE.</b> Comedies and histories.....   | 5 |
| En 336 | <b>SHAKESPEARE.</b> Tragedies.....  | 5 |
| En 340 | <b>MILTON.</b> A study of the poetry and prose of Milton.....   | 5 |
| En 343 | <b>SEVENTEENTH CENTURY LITERATURE.</b> A study of the major works of the writers of the period.....   | 5 |
| En 380 | <b>AMERICAN LITERATURE.</b> An advanced course in Early American Literature to the Transcendentalists.....  | 5 |
| En 381 | <b>AMERICAN LITERATURE.</b> A continuation of 380. From the Transcendentalists to the present day.....  | 5 |
| En 382 | <b>AMERICAN LITERATURE.</b> An advanced course in the entire field of American Literature (credit may not be obtained for En 382 if either En 380 or En 381 has been passed by the student and vice versa)..... | 5 |



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| En 410 | <b>EIGHTEENTH CENTURY LITERATURE.</b> A study of the major works of the writers of the period.....   | 5 |
| En 420 | <b>EARLY NINETEENTH CENTURY.</b> A study of the poetry and prose of the Romantic Movement.....   | 5 |
| En 430 | <b>VICTORIAN POETRY AND PROSE.</b> A survey of the literature of the period.....   | 5 |
| En 435 | <b>TENNYSON AND BROWNING</b> .....   | 5 |
| En 437 | <b>CATHOLIC LITERARY REVIVAL.</b> A study of the Catholic Literary Renaissance with emphasis on Newman, Hopkins and Francis Thompson.....                              | 5 |
| En 450 | <b>CONTEMPORARY LITERATURE.</b> A survey of the contemporary literature of the English language.....   | 5 |
| En 470 | <b>MODERN DRAMA.</b> A study of the backgrounds and trends of the contemporary stage.....  | 5 |
| En 472 | <b>HISTORY OF THE AMERICAN THEATER.</b> An historical survey of the development of the American theater, with emphasis on those elements most strikingly American..... | 5 |

#### Graduate Courses

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| En 500            | <b>METHODOLOGY.</b> An introduction to graduate studies.....                  | 3                   |
| En 503            | <b>HISTORY OF THE THEORY OF CRITICISM</b> .....                               | 5                   |
| En 507            | <b>HISTORY OF THE ENGLISH LANGUAGE</b> .....                                  | 5                   |
| En 512            | <b>MIDDLE ENGLISH.</b> Chaucer's Canterbury Tales.....                        | 5                   |
| En 513            | <b>MIDDLE ENGLISH.</b> Chaucer's other works.....                             | 5                   |
| En 523            | <b>SPENSER</b> .....  | 5                   |
| En 527            | <b>RENAISSANCE DRAMA.</b> Non-Shakespearean Drama from 1550 to 1642.....      | 5                   |
| En 535            | <b>SHAKESPEARE.</b> Comedies and Histories.....                               | 5                   |
| En 536            | <b>SHAKESPEARE.</b> Tragedies .....   | 5                   |
| En 540            | <b>MILTON.</b> Poetry and Prose.....  | 5                   |
| En 543            | <b>SEVENTEENTH CENTURY LITERATURE.</b> Works other than Milton's .....        | 5                   |
| En 550            | <b>EIGHTEENTH CENTURY LITERATURE.</b> The poetry and drama of the age.....    | 5                   |
| En 551            | <b>EIGHTEENTH CENTURY LITERATURE.</b> The prose of the age .....              | 5                   |
| En 560            | <b>ROMANTIC MOVEMENT.</b> The Pre-Romantics and Wordsworth and Coleridge..... | 5                   |
| En 561            | <b>ROMANTIC MOVEMENT.</b> The later Romantics.....                            | 5                   |

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| En 570 | VICTORIAN LITERATURE. The early Victorians.....                    | 5  |
| En 575 | TENNYSON AND BROWNING.....   | 5  |
| En 577 | CATHOLIC LITERARY REVIVAL.....                                     | 5  |
| En 580 | AMERICAN LITERATURE. Poe, Hawthorne, Melville.....                 | 5  |
| En 581 | AMERICAN LITERATURE. Emerson, Thoreau, Whitman....                 | 5  |
| En 582 | AMERICAN LITERATURE. Twain, Howells, Garland, Dick-<br>inson ..... | 5  |
| En 590 | ENGLISH NOVEL. The History of its Development.....                 | 5  |
| En 604 | RESEARCH .....   | 10 |

### HISTORY AND POLITICS

REV. JOSEPH P. DONOVAN, S.J., PH.D., *Head*

#### HISTORY (Hs)

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Major: 45 hours—101, 102, 131 and 30 hours of upper division work selected under advice.

Related Minor: To be selected from the Humanities or Social Science groups.

Undergraduate Minor: 25 hours—101, 102, and 15 hours of upper division work.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Hs 101            | <b>HISTORY OF WESTERN CIVILIZATION TO 1648.</b> A survey of the political, social, economic and cultural history of our civilization from antiquity through the formation of European states to 1648.....   | 5                   |
| Hs 102            | <b>HISTORY OF WESTERN CIVILIZATION FROM 1648 TO THE PRESENT.</b> Continuation of Hs 101. The History of Europe, and world problems of the 20th century.....   | 5                   |
| Hs 131            | <b>TOPICAL HISTORY OF THE UNITED STATES.</b> Discovery, exploration and settlement; struggle for North America; formation of the United States; political, social, economic and cultural development; Inter-American and International relations .....                              | 5                   |
| Hs 251            | <b>COLONIAL AND REPUBLICAN HISPANIC AMERICA.</b> Establishment of Spanish and Portuguese colonies; problems; revolt from mother countries and founding of republics; growth in 19th and 20th centuries; internal developments, foreign relations and place in the modern world..... | 5                   |
| Hs 301            | <b>THE ANCIENT WORLD TO 476.</b> The ancient empires of the Near and Middle East; Aegean civilization; Hellenistic age; the Roman Empire and its collapse. Prerequisite: Hs 101.....  | 5                   |
| Hs 303            | <b>EARLY MEDIEVAL WORLD TO 1198.</b> Development of Christianity, Germanic kingdoms, Byzantine Empire, Mohammedan Empire and European States; Feudalism; early Crusades; 12th century Renaissance. Prerequisite: Hs 101.....  | 5                   |

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| Hs 305 | <b>EUROPE, 1198 TO 1303.</b> Political, social, economic institutions and cultural achievements of the 13th century. Prerequisite: Hs 101.....  | 5 |
| Hs 307 | <b>EUROPE, 1303 TO 1517.</b> Decline of papal power; Hundred Year's War; Ottoman Turks; commercial revolution; Humanism and early Renaissance. Prerequisite: Hs 101.....  | 5 |
| Hs 309 | <b>EUROPE, 1517 TO 1763.</b> Protestant Revolt and Catholic Reformation; National Absolute States and Dynastic rivalries; Age of Louis XIV; Colonial empires. Prerequisite: Hs 102.....   | 5 |
| Hs 311 | <b>EUROPE, 1763 TO 1848.</b> The Enlightenment; Agricultural and Industrial Revolutions; French Revolution and Napoleonic Era; Reaction, Liberalism and Socialism. Prerequisite: Hs 102.....  | 5 |
| Hs 313 | <b>EUROPE, 1848 TO 1918.</b> Revolution of 1848; Second French Empire; Unification of Italy and Germany; Age of Materialism; Nationalism; Imperialism and Balance of Power Alliances; First World War. Prerequisite: Hs 102.....  | 5 |
| Hs 315 | <b>EUROPE, 1918 TO THE PRESENT.</b> Peace Settlement; Depression; Communism; Totalitarianism; World War II; East-West Conflict. Prerequisite: Hs 102.....   | 5 |
| Hs 317 | <b>HISTORY OF ENGLAND.</b> Political, social, economic and cultural development from Celtic times to the present. Emphasis on the evolution of democratic institutions, and backgrounds of literature. Prerequisites: Hs 101 and 102.....   | 5 |
| Hs 325 | <b>CHURCH HISTORY.</b> The organization and growth of the Catholic Church. Relation to the political and social history. The cultural contributions to Western Civilization. Prerequisites: Hs 101.....   | 3 |
| Hs 331 | <b>ENGLISH COLONIES TO 1789.</b> Discovery, settlement and colonial wars; reorganization and reform; founding of a new nation. Prerequisite: Hs 131.....  | 5 |
| Hs 333 | <b>THE UNITED STATES, 1789 TO 1865.</b> National growth; sectional cross currents; Jacksonian Democracy; Slavery and expansion; Civil War. Prerequisite: Hs 131.....  | 5 |
| Hs 335 | <b>THE UNITED STATES, 1865 TO 1914.</b> Reconstruction, economic revolution; western and urban growth; business and politics; America's colonial Empire; the Progressive Movement. Prerequisite: Hs 131.....  | 5 |
| Hs 337 | <b>THE UNITED STATES, 1914 TO THE PRESENT.</b> Wilson and the New Freedom; World War I; return to normalcy; Depression and the New Deal; World War II; East-West conflict. Prerequisite: Hs 131.....  | 5 |
| Hs 339 | <b>WESTERN UNITED STATES.</b> Advance of the Frontier and its influence on American life and institutions. Prerequisite: Hs 131.....  | 5 |
| Hs 351 | <b>HISTORY OF MEXICO.</b> Formation of the Mexican people; pre-Columbian period; Spanish conquest; Viceroyalty of New Spain; institutions and economic life; revolution; independence; Nineteenth Century Mexico; Social Revolution; emergence and significance of modern Mexico. Prerequisite: Hs 251..... | 5 |
| Hs 353 | <b>HISTORY OF BRAZIL.</b> Portuguese colonization; separation; Brazilian Empire; Republican Revolution; present internal situation and place as a world power. Prerequisite: Hs. 251....  | 5 |

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| <b>Hs 355</b> | <b>HISTORY OF ARGENTINA AND CHILE.</b> Colonial period and independence; constitutional and economic crises in Chile; epoch of Peron in Argentina; present conditions. Prerequisite: Hs 251 .....   | 5 |
| <b>Hs 357</b> | <b>HISTORY OF CENTRAL AMERICA AND THE CARIBBEAN.</b> Exploration, colonization, colonial status and separation from Spain; Nineteenth Century problems; the Islands of the Caribbean as Spanish colonies and modern republics. Prerequisite: Hs 251 ..... | 5 |
| <b>Hs 401</b> | <b>HISTORIOGRAPHY.</b> Philosophies and interpretations of History. Prerequisites: Hs 101, 102, 131 and 15 hours of upper division work .....   | 2 |
| <b>Hs 499</b> | <b>INVESTIGATION OF SPECIAL TOPICS.</b> Supervised research work. Open to Senior History Majors with approval of the Head of the Department.....  | 5 |

### POLITICS (PIs)

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Major: 40 hours—150, 160 and 30 hours upper division work selected under advice.

Related Minor: To be selected from the Humanities or Social Science groups.

Undergraduate Minor: 25 hour—150, 160 and 15 hours upper division work selected under advice.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>PIs 150</b>    | <b>SURVEY OF POLITICS.</b> A study of the basic concepts especially in law, liberty and authority with special emphasis on the divergent schools of thought and the philosophical consequences of each position.....  | 5                   |
| <b>PIs 160</b>    | <b>AMERICAN NATIONAL GOVERNMENT.</b> A study of the structure, general functions and interrelations of the executive, legislative and judicial branches of the national government .....  | 5                   |
| <b>PIs 202</b>    | <b>HISTORY OF AMERICAN POLITICAL THOUGHT.</b> A study of the origin, character and development of the basic ideas of American political traditions with emphasis on Puritanism, Revolutionary Thought, Federalism, Jeffersonianism, Jacksonianism, Intellectual Democracy, Slavery, Progressivism, Modern Day Pragmatism and Social Utilitarianism..... | 5                   |
| <b>PIs 211</b>    | <b>U. S. CONSTITUTION.</b> The historical development of this unique document; the philosophy it embodies and its meaning today through a study of precedents and ruling cases. Prerequisite: PIs 160.....  | 5                   |
| <b>PIs 214</b>    | <b>COMPARATIVE MODERN GOVERNMENTS.</b> An examination and analysis of selected major foreign powers. Emphasis on constitutional principles, governmental forms, practices and problems.....   | 5                   |

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| Pls 220 | <b>PUBLIC ADMINISTRATION.</b> A study of the art of administration, the problems of organization, management, personnel, intergovernmental relationships, the line and staff functions, fiscal management and administrative law. Recommended: Pls 211 .....   | 5 |
| Pls 224 | <b>HISTORY OF POLITICAL PARTIES AND ELECTIONS IN THE UNITED STATES.</b> A study of the historical origin and development of our present political parties, the role of political parties, party organization and leadership; pressure groups and political parties. Recommended: Pls 160.....  | 5 |
| Pls 330 | <b>STATE AND LOCAL GOVERNMENT.</b> An examination of national-state relations, interstate relations, state constitutions, state executive, legislative and judicial organization, state relations with local units, and state and local services. Prerequisite: Pls 160.....   | 5 |
| Pls 349 | <b>INTERNATIONAL RELATIONS.</b> An analysis of the dynamic forces in international relations; power, nationalism, sovereignty, colonialism, imperialism. An investigation into the nature of war, its causes, results; the various theories of peace, and a comparative study of the League of Nations and the United Nations.....   | 5 |
| Pls 385 | <b>INTERNATIONAL LAW AND ORGANIZATIONS.</b> An introduction to the history of international law and organizations, theories and problems of international law, specific problems of international organization: veto, membership, regionalism, international administration, international economic and social agencies, and alternatives to present day international organizations. Prerequisite: Pls 349..... | 5 |
| Pls 390 | <b>UNITED STATES DIPLOMATIC HISTORY AND FOREIGN POLICY.</b> An examination of the history of American foreign policy; its constitutional framework; its formulation; implementation and effectiveness; the idea of national interest as a criterion for American foreign policy; the United States as a leader of the free world. Recommended Pls 349.....   | 5 |
| Pls 399 | <b>HISTORY OF POLITICAL PHILOSOPHY.</b> A critical examination of the political theories of Plato and Aristotle, the Thomistic tradition, Machiavelli, Hobbes, Locke, Rousseau, Hume, liberalism, conservatism, and totalitarianism. Prerequisite: Pls 150.....  | 5 |

### HOME ECONOMICS (HE)

EUNICE M. MARTIN, M.A., *Head*

#### DEPARTMENTAL REQUIREMENTS:

Professional Degree: 40 hours—select with direction of adviser.

Related Minor: 25 hours in Home Economics with direction of adviser of department.

Undergraduate Minor: Select 25 hours with the direction of the adviser.

Non-Professional Degree: 45 hours—select with direction of adviser.

Related Minor: 25 hours—select from Social Science or Natural Science.

Undergraduate Minor: Select 25 hours with direction of adviser.

Teaching in Home Economics Major: 40 hours—select with direction of adviser.

Related Minors: 25 hours in Home Economics; Education courses to fulfill state requirements.

Undergraduate Minor: Select 25 hours with the direction of adviser.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>HE 108</b>     | <b>PERSONAL AND SOCIAL LIVING.</b> Survey of social and cultural factors underlying wholesome personal development. Three lecture hours per week. Fall.....   | 3                   |
| <b>HE 110</b>     | <b>FAMILY FOODS.</b> Basic theory of food selection and preparation related to the family situation, considering efficient use of equipment and time. Three lecture hours and four laboratory hours per week. Fall, Winter.....   | 5                   |
| <b>HE 111</b>     | <b>FOOD PREPARATION.</b> Planning, purchasing, preparing, and serving family meals. Food preparation. Consideration of nutrition, economy, time and energy. Three lecture hours and four laboratory hours per week. Prerequisite: HE 110. Winter .....  | 5                   |
| <b>HE 140</b>     | <b>EVERYDAY ART.</b> Elements and principles of design and their application to everyday life; creative color composition; interior and fashion design. Three lecture hours and four laboratory hours per week. Fall.....   | 5                   |
| <b>HE 150</b>     | <b>PERSONAL AND FAMILY FINANCES.</b> The use of resources to further individual and family objectives; current accounts, long term financial planning, and consumer problems. Five lecture hours per week. Spring.....  | 5                   |
| <b>HE 160</b>     | <b>CLOTHING SELECTION AND CONSTRUCTION.</b> Consideration of good taste, quality, health, beauty and finances in selection of clothing. Pattern alteration, fitting and sewing techniques. Cotton or linen dress. Three lecture hours and four laboratory hours per week. Fall, Spring.....                                     | 5                   |
| <b>HE 161</b>     | <b>CLOTHING DESIGN BY FLAT PATTERN.</b> Designing and pattern making by the flat pattern method. Original design tested in muslin and produced in wool. Preparation of pressing equipment. Three lecture hours and four laboratory hours per week. Prerequisite: HE 160. Winter.....  | 5                   |
| <b>HE 190</b>     | <b>CHOOSING THE HOME.</b> Personal and family values in relation to design, materials, function, and cost of the home. Three lecture hours per week. Winter.....  | 3                   |
| <b>HE 195</b>     | <b>FURNISHING THE HOME.</b> Contribution to family living by selection and arrangement of household furnishings. Esthetic, functional, and economic consideration of table appointments, accessories, furniture, fabrics, floor coverings, window and wall treatments, and lighting. Three lecture hours per week. Spring ..... | 3                   |

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| <b>HE 220</b> | <b>NUTRITION.</b> The relation of food to health: variation in food requirements; dietary planning; nutritive retention in preparation of foods. Five lecture hours per week. Prerequisite: Ch 102 and Bl 133. Fall.....  | 5 |
| <b>HE 225</b> | <b>NUTRITION FOR NURSES.</b> The relation of food nutrients to health and individual needs. Fundamentals and practice in food preparation, meal planning and service. Three lecture hours and four laboratory hours per week. Prerequisite: Ch 102 and Bl 133. Fall.....  | 5 |
| <b>HE 260</b> | <b>CLOTHING DESIGN BY DRAPING.</b> Construction of dress form. Designing and pattern making by the draping method. Dress of original design produced in rayon or silk. Three lecture hours and four laboratory hours per week. Prerequisite: HE 161. Spring.....  | 5 |
| <b>HE 270</b> | <b>DRESS AND HOUSEHOLD TEXTILES.</b> Quality, cost, and identification of fabrics in relation to fiber, yarn, construction, and finish. Historical and marketing aspects. Physical and chemical testing. Four lecture hours and two laboratory hours per week. Winter.....  | 5 |
| <b>HE 310</b> | <b>ADVANCED FOODS.</b> Chemical and physical bases of food preparation through experimentation. Three lecture hours and four laboratory hours per week. Prerequisites: HE 111 and Ch 102. Spring, alternate years.....  | 5 |
| <b>HE 315</b> | <b>DEMONSTRATION TECHNIQUES.</b> Practice in lecture-demonstration: food preparation, home appliances and equipment. One lecture hour and four laboratory hours per week. Prerequisite: HE 111. Spring, alternate years.....  | 3 |
| <b>HE 320</b> | <b>ADVANCED NUTRITION.</b> The chemistry of foods and nutrition with emphasis on the relation of nutrition to the functioning of the body systems. Three lecture hours per week. Prerequisite: HE 220. Winter, alternate years.....   | 3 |
| <b>HE 330</b> | <b>HOME ECONOMICS METHODS.</b> Organization of subject matter and materials, and techniques in presentation of Home Economics. Majors in Home Economics Education must register for HE 331 during same quarter. Two lecture hours per week. Prerequisites: Ed 325, 331 and HE courses approved by the department. Winter..... | 2 |
| <b>HE 331</b> | <b>HOME ECONOMICS METHODS.</b> Additional phases of Home Economics not considered in HE 330. Majors in Home Economics Education must register for HE 330 during same quarter. Two lecture hours per week. Prerequisites: Ed 321, 331, and HE courses approved by the department. Winter                                       | 2 |
| <b>HE 360</b> | <b>TAILORING.</b> Principles and techniques in suit and coat construction. Three lecture hours and four laboratory hours per week: Prerequisite: HE 270 and Ch 102. Fall.....   | 5 |
| <b>HE 370</b> | <b>ADVANCED TEXTILES.</b> Recent developments of fibers and fabrics; soaps and detergents; legislative aspects. Physical and chemical testing. Student must register for HE 376 during same quarter. Two lecture hours and two laboratory hours per week. Prerequisite: HE 270 and Ch 102. Fall.....                          | 3 |
| <b>HE 376</b> | <b>TEXTILE MICROTECHNIQUE.</b> Methods of sectioning and mounting of textile fibers. Four laboratory hours per week. Prerequisite: HE 270 and Ch 102. Fall.....   | 2 |

## JOURNALISM (Jr)

REV. FRANCIS J. GREENE, S.J., M.A., *Adviser*

### DEPARTMENTAL REQUIREMENTS:

See Departmental requirements under English for major sequence of courses.

Undergraduate Minor: 25 hours—200, 210, 250 required: Advertising sequence 200, 250, 460, CF 327, Art 131, 331, 333.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Jr 200            | <b>FUNDAMENTALS OF JOURNALISM.</b> A study of the nature of media of mass communication. Definition of the field and analysis of basic types of writing.....  | 3                   |
| Jr 210            | <b>ELEMENTARY NEWSWRITING.</b> Practice in writing the news story. Study of lead and story elements. Prerequisites: En 101, 102 .....   | 5                   |
| Jr 220            | <b>HISTORY OF JOURNALISM.</b> A study of the origins and growth of the American Press from Colonial to modern times..   | 5                   |
| Jr 250            | <b>EDITING AND COPYREADING.</b> Application of the principles of editing, copyreading, headline writing, makeup and use of pictures and illustrations. Prerequisites: Jr 200, 210.....  | 5                   |
| Jr 310            | <b>ADVANCED NEWSWRITING.</b> Backgrounds and interpretations of the news. Practice writing in specialized fields. Writing the editorial. Prerequisites: Jr. 200, 210.....   | 5                   |
| Jr 345            | <b>LAW OF THE PRESS.</b> Constitutional guarantees and restrictions on freedom of information, with a study of significant cases. Statutes governing libel, copyright, privacy and postal regulations .....   | 3                   |
| Jr 350            | <b>NEWSPAPER FEATURES.</b> Writing of feature material for newspapers and other media. Study of types and markets. Prerequisites: Jr 200, 210, 310.....   | 5                   |
| Jr 410            | <b>ARTICLE WRITING.</b> Study of non-fiction techniques and markets. Practice in research and writing of material for specialized media. Prerequisites: Jr 200, 210, 350.....   | 3                   |
| Jr 430            | <b>CRITICAL WRITING.</b> A reading and discussion course with practice writing of newspaper style reviews of books, motion pictures, radio, television and theatrical entertainments. Prerequisites: Jr 200, 210, 310.....  | 3                   |
| Jr 460            | <b>PUBLICITY AND PUBLIC RELATIONS.</b> Techniques of writing publicity material. Public Relations problems, policies and procedures. Writing and editing house organs. Prerequisites: Jr. 200, 210, 310.....  | 5                   |
| Jr 465            | <b>SCHOOL PUBLICATIONS.</b> A course for advisers of student newspapers, yearbooks and literary publications in colleges and high schools. Principles, purpose and scope of student publications. Study of production problems. Prerequisites: Permission of adviser..... | 3                   |
| Jr 470            | <b>PUBLICATIONS' WORKSHOP.</b> Analysis of individual student publications. Practice in writing and editing high school and college publications.....   | 3                   |



## LANGUAGES

REV. EDWARD S. FLAJOLE, S.J., Ph.D., *Head*

### DEPARTMENTAL REQUIREMENTS:

Degree Requirements: The Bachelor of Arts Classical Degree requires in addition to modern language the completion of fifteen (15) quarter hours in Latin in courses above Latin 101 and 102.

In the Bachelor of Arts Classical and Bachelor of Arts Non-Classical Programs the completion of four courses in the same modern language is required of every candidate for a degree.

In other programs three courses in the same modern language are required. One unit of high school study of modern language is computed as equivalent to one course in college study of a language. Four full courses of modern language (including high school units) are prerequisite to study of advanced (300-499) courses.

See page 57. Introduction to Programs of Study under Curricula Requirements, College of Arts and Sciences, for possible waiver examination in the language requirements.

### FRENCH (Fr)

REV. FRANCIS A. LOGAN, S.J., *Adviser*

### DEPARTMENTAL REQUIREMENTS:

Undergraduate Minor: 25 hours in addition to French 101 and 102—at least 10 hours in courses 280 or beyond.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Fr 101            | <b>ELEMENTARY FRENCH.</b> Pronunciation, grammar, easy readings. No prerequisites.....            | 5                   |
| Fr 102            | <b>ELEMENTARY FRENCH.</b> Grammar, conversation, contes. Prerequisite: Fr 101.....                | 5                   |
| Fr 153            | <b>INTERMEDIATE FRENCH.</b> Short stories, conversation. Prerequisite: Fr 101.....                | 5                   |
| Fr 203            | <b>INTERMEDIATE FRENCH.</b> More advanced work in grammar and readings. Prerequisite: Fr 153..... | 5                   |
| Fr 280            | <b>PHONETICS.</b> A practical course in pronunciation. Prerequisite: Fr 203.....                  | 2                   |
| Fr 300            | <b>CONVERSATIONAL FRENCH.</b> Prerequisite: Fr 203.....   | 2                   |
| Fr 310            | <b>INTRODUCTION TO MOLIÈRE.</b> Prerequisite: Fr 203.....   | 3                   |
| Fr 335            | <b>LYRIC POETRY BEFORE 1900.</b> Prerequisite: usually Fr 310                                     | 3                   |
| Fr 340            | <b>ADVANCED GRAMMAR AND COMPOSITION.</b> Prerequisite: Fr. 203 .....                              | 2                   |
| Fr 350            | <b>MODERN LYRIC POETRY.</b> Prerequisite: Same as for Fr. 335                                     | 3                   |

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| Fr 360 | LITERATURE OF 17TH CENTURY. Readings from the classics. Prerequisite: Fr 203.....              | 3 |
| Fr 390 | LITERATURE OF THE 19TH CENTURY. Prerequisite: Same as for Fr 335.....                          | 3 |
| Fr 400 | HISTORY OF THE FRENCH LANGUAGE. Prerequisite: Some knowledge of Latin and at least Fr 203..... | 3 |

### GERMAN (Gr)

REV. EDWARD S. FLAJOLE, S.J., PH.D., *Adviser*

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Minor: 25 hours in addition to German 101 and 102—at least 10 hours in courses No. 275 or beyond.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Gr 101            | ELEMENTARY GERMAN. Pronunciation, grammar, easy readings. No prerequisite.....  | 5                   |
| Gr 102            | ELEMENTARY GERMAN. Grammar, conversation, graded readings. Prerequisite: Gr 101.....  | 5                   |
| Gr 153            | INTERMEDIATE GERMAN. Introduction to Novellen, composition, conversation. Prerequisite: Gr 102.....   | 5                   |
| Gr 203            | INTERMEDIATE GERMAN. More advanced readings in Novellen and other prose selections. Prerequisite: Gr 153....  | 5                   |
| Gr 220            | ADVANCED CHEMICAL AND TECHNICAL GERMAN. Readings in Beilstein, Vanino and others. Prerequisite: Gr 153....  | 3                   |
| Gr 250            | ADVANCED GRAMMAR AND COMPOSITION. Prerequisite: Gr 203 .....  | 2                   |
| Gr 260            | ADVANCED GERMAN CONVERSATION. Prerequisite: Gr 203 .....  | 2                   |
| Gr 265            | GERMAN CLASSICS IN TRANSLATION. No prerequisite: This course will not be counted toward a Minor in German....   | 3                   |
| Gr 275            | INTRODUCTION TO LESSING. Study of two dramas. Prerequisite: Gr 203.....   | 3                   |
| Gr 301            | INTRODUCTION TO SCHILLER. Study of two dramas. Prerequisite: Gr 203.....  | 3                   |
| Gr 320            | INTRODUCTION TO GOETHE. Dramas, Lyrics. Prerequisite: Gr 203 .....  | 3                   |
| Gr 330            | PRELIMINARY SURVEY OF GERMAN LITERATURE. Study of the various periods and literary movements together with examination of typical selections. Prerequisite: Usually four (4) courses beyond Gr 103..... | 2                   |
| Gr 340            | GERMAN LYRIC POETRY BEFORE 1850. Prerequisite: Usually Gr 320.....  | 3                   |
| Gr 350            | MODERN LYRIC POETRY. After 1850. Prerequisite: Same as for Gr 340.....  | 3                   |
| Gr 370            | HISTORY OF THE GERMAN LANGUAGE. Prerequisite: Some knowledge of Latin and at least Gr 203.....  | 3                   |

## GREEK (Gk)\*

REV. JOHN A. FITTERER, S.J., M.A., S.T.L., *Adviser*

### DEPARTMENTAL REQUIREMENTS:

Undergraduate Minor: 25 hours—at least 10 hours in upper division work.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Gk 101            | <b>ELEMENTARY GREEK.</b> A beginner's course in Greek grammar and syntax.....   | 5                   |
| Gk 102            | <b>NEW TESTAMENT.</b> Selected readings with a thorough review of grammar and exercises based on the text read. Prerequisite: Gk 101.....           | 5                   |
| Gk 153            | <b>HOMER.</b> Selected portions of the Iliad or Odyssey; Homeric Dialect; prosody; outline of Greek epic poetry.....                                | 5                   |
| Gk 240            | <b>DEMOSTHENES.</b> Two selected orations; history of the development of Greek oratory.....   | 3-2                 |
| Gk 250            | <b>PLATO.</b> The Apology and one other Dialogue; survey of contemporary Greek history.....   | 3-2                 |
| Gk 302            | <b>THE GREEK FATHERS:</b> Readings from some of the early Church Fathers with a view to their philosophical and theological content .....           | 3-2                 |
| Gk 350            | <b>ARISTOTLE.</b> The Poetics of Aristotle and his principles of literary criticism. Readings, discussions, and the writing of original essays..... | 3-2                 |
| Gk 380            | <b>HERODOTUS.</b> Selections from Book I, VII, VIII, and IX; lectures on Greek historians and historical sources.....                               | 3-2                 |
| Gk 440            | <b>SOPHOCLES, AESCHYLUS.</b> One complete drama from each author, with a study of the development of the Greek Drama..                              | 3-2                 |
| Gk 450            | <b>EURIPIDES AND ARISTOPHANES.</b> A study of the Medea of Euripides and the Frogs or the Clouds of Aristophanes.....                               | 3-2                 |

\*Temporarily suspended.

## ITALIAN (It)\*

REV. EDWARD S. FLAJOLE, S.J., PH.D., *Adviser*

### DEPARTMENTAL REQUIREMENTS:

This program at present cannot be used as an undergraduate minor but can fulfill the language requirements of the various programs of study.

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| It 100            | <b>ITALIAN CONVERSATION.</b> Designed for students with an elementary knowledge of Italian. Stresses conversation, composition and grammar. Readings from Italian literature. Prerequisite: some knowledge of Italian..... | 3                   |
| It 101            | <b>ELEMENTARY ITALIAN.</b> Phonetics, orthography, morphology, reading, practice in conversation.....  | 5                   |
| It 102            | <b>ELEMENTARY ITALIAN.</b> Conversation, grammar, more advanced readings. Prerequisite: It 101.....  | 5                   |

\*At present only in Evening Division.

|               |  |          |
|---------------|--|----------|
| <b>It 153</b> | <b>INTERMEDIATE ITALIAN.</b> Conversation, grammar, review, graded readings. Prerequisite: It 102.....   | <b>5</b> |
| <b>It 203</b> | <b>INTERMEDIATE ITALIAN.</b> More advanced readings and conversation. Prerequisite: It 153.....  | <b>5</b> |
| <b>It 310</b> | <b>INTRODUCTION TO DANTE.</b> Dante as the most outstanding figure of Italian literature. <i>La Divina Comedia</i> : its literary value, its structure, its historical significance..... | <b>5</b> |

### LATIN (Lt)

REV. JOHN A. FITTERER, S.J., M.A., S.T.L., *Adviser*

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Major: 45 hours—Lt 101, 102, 300, 301, 302, and 15 hours of upper division work.

Related Minor: To be selected from Groups I or II or Mt in Group III, cf. curriculum in section on General Information.

Undergraduate Minor: 25 hours—Lt 101, 270, 280 and 10 hours in upper division work.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Lt 101</b>     | <b>ELEMENTARY LATIN.</b> An intensive study of grammar and syntax with selected readings for those beginning the study of Latin .....   | <b>5</b>            |
| <b>Lt 102</b>     | <b>LATIN SYNTAX.</b> Syntax continued in Latin Prose Composition. Prerequisite: Lt 101.....   | <b>5</b>            |
| <b>Lt 153</b>     | <b>CICERO.</b> Orations against Cataline and Pro Milone with a review of syntax, practice in Latin prose composition, and discussion and analysis of Cicero's argument and style. Prerequisite: Lt 102..... | <b>5</b>            |
| <b>Lt 270</b>     | <b>LIVY.</b> Books XXI and XXII are read for a study of Livy's style in contrast with that of the Ciceronian period. Discussion of Livy's reliability as an historian.....                                  | <b>5</b>            |
| <b>Lt 280</b>     | <b>HORACE.</b> A general introduction to the works of this poet, with selected readings from his Sermons, Epistles, Odes, Epodes and Carmina.....   | <b>5</b>            |
| <b>Lt 300</b>     | <b>SURVEY OR LATIN LITERATURE I.</b> Andronicus, Naevius, Ennius, Cato, Plautus, Terence, Lucretius.....  | <b>3</b>            |
| <b>Lt 301</b>     | <b>SURVEY OF LATIN LITERATURE II.</b> Catullus, Horace, Cicero, Caesar, Phaedrus, Seneca.....   | <b>3</b>            |
| <b>Lt 302</b>     | <b>SURVEY OF LATIN LITERATURE III.</b> Martial, Tacitus, Pliny, Juvenal, Suetonius, Gaius.....  | <b>3</b>            |
| <b>Lt 340</b>     | <b>VERGIL.</b> A study of pastoral and didactic poetry. Eclogues, Georgics, and other early works of Vergil.....  | <b>3-2</b>          |
| <b>Lt 350</b>     | <b>TACITUS.</b> A special study of Tacitus as an historian and stylist with readings from the <i>Agricola</i> .....   | <b>3-2</b>          |
| <b>Lt 420</b>     | <b>SENECA.</b> Political and social life under the Caesars. Stoicism and Christianity. <i>Epistulae Morales</i> and selections from the <i>Moral Essays of Seneca</i> .....                                 | <b>5</b>            |

- Lt 440 **ROMAN ORATORY.** The excellence of Roman Oratory as illustrated in Cicero's Pro Milone, De Oratore; Quintilian's Institutio Oratoria; St. Augustine's De Doctrina Christiana.... 3-2
- Lt 480 **INTRODUCTION TO A STUDY OF THE LATIN FATHERS.** Selections from Tertullian, Cyrian, Lactantius, Minucius, Felix, Jerome, Ambrose, Augustine, Gregory, and Bernard.... 3-2
- Lt 499 **INDEPENDENT STUDY** ..... 3
- Lt 201, 202, 253 **SUMMER.** Latin Institute for Pre-Seminarians and future Latin teachers.  
An intensive course in Latin fundamentals and the art of speaking simple Latin for those who have had very little Latin or have forgotten their high school Latin, and for those who are beginning to teach Latin and need the immediate preparation which this Institute will give. Five days a week—three hours daily through the summer session..... 15

### RUSSIAN (Ru)\*

REV. EDWARD S. FLAJOLE, S.J., PH.D., *Adviser*

#### DEPARTMENTAL REQUIREMENTS:

This program at present cannot be used as an undergraduate minor but can fulfill the language requirements of the various programs of study.

| Course No. | Title and Description   | Credit Hours |
|------------|---|--------------|
| Ru 101     | <b>ELEMENTARY RUSSIAN.</b> Pronunciation, grammar, easy readings. No prerequisites.....                               | 5            |
| Ru 102     | <b>ELEMENTARY RUSSIAN.</b> Grammar, conversation, graded readings. Prerequisite: Ru 101.....                          | 5            |
| Ru 153     | <b>INTERMEDIATE RUSSIAN.</b> Short stories, composition, graded readings. Prerequisite: Ru 102.....                   | 5            |
| Ru 203     | <b>INTERMEDIATE RUSSIAN.</b> More advanced work in grammar and readings. Scientific Russian. Prerequisite: Ru 153.... | 5            |

\*At present only in the Evening Division.

### SPANISH (Sp)

CLARENCE L. ABELLO, M.A. CAND., *Adviser*

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Minor: 25 hours in addition to Spanish 101 and 102, and at least 10 hours in courses No. 250 or beyond.

| Course No. | Title and Description   | Credit Hours |
|------------|---|--------------|
| Sp 101     | <b>ELEMENTARY SPANISH.</b> Pronunciation, grammar, easy readings .....  | 5            |
| Sp 102     | <b>ELEMENTARY SPANISH.</b> Conversation, grammar, more advanced readings. Prerequisite: Sp 101.....   | 5            |
| Sp 153     | <b>INTERMEDIATE SPANISH.</b> Conversation, grammar, review, graded readings. Prerequisite: Sp 102.....  | 5            |
| Sp 203     | <b>INTERMEDIATE SPANISH.</b> More advanced readings and conversation. Prerequisite: Sp 153.....   | 5            |
| Sp 240     | <b>CONVERSATIONAL SPANISH.</b> Effective use of knowledge acquired in earlier courses applied to the practice of the spoken language. Prerequisite: Sp 203..... | 2            |

|        |  |   |
|--------|--|---|
| Sp 250 | <b>ADVANCED SPANISH COMPOSITION.</b> Prerequisite: Sp 203  | 2 |
| Sp 265 | <b>COMMERCIAL SPANISH.</b> Designed to familiarize the student with Spanish business correspondence. Prerequisite: Sp 203..... | 3 |
| Sp 301 | <b>NOVEL OF THE NINETEENTH CENTURY.</b> Prerequisite: Sp 203 .....   | 3 |
| Sp 320 | <b>THE MYSTIC POETRY OF SPAIN.</b> Prerequisite: Usually Sp 250 .....  | 2 |
| Sp 330 | <b>THE LYRIC POETRY OF THE SIXTEENTH CENTURY.</b> Prerequisite: Usually Sp 250.....  | 3 |
| Sp 340 | <b>THE NOVEL OF THE GOLDEN AGE.</b> Prerequisite: Usually Sp 301 .....   | 3 |
| Sp 350 | <b>THE DRAMA OF THE GOLDEN AGE.</b> Prerequisite: Sp 301 or beyond .....   | 3 |
| Sp 400 | <b>HISTORY OF THE SPANISH LANGUAGE.</b> Prerequisite: Some knowledge of Latin and Sp 203.....                                  | 3 |

### MATHEMATICS (Mt)

THEODORE S. CHIHARA, PH.D., *Acting Head*

Forty-five (45) quarter-hours of credit in Upper Division mathematics courses, including Mt 341, 411, 412, 431, 432, 433 and at least one course in geometry, will constitute a major in mathematics. Students majoring in mathematics will also be required to earn fifteen (15) hours of upper division credit in some minor field related to or offering applications for mathematics (such as physics, chemistry, engineering, education, biology, economics or philosophy). Students majoring in mathematics will be required to maintain their over-all grade-point averages, their grade-point averages in mathematics and also in their minor subject at 2.5 or better.

All students enrolling for the first time in a mathematics course at the University may be required to take one or more proficiency examinations to determine, in the light of their current state of preparation, which course will be of maximum benefit to them.

No student will be permitted to enroll in any mathematics course without the listed prerequisites unless he receives specific permission to do so from the instructor in the course.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Mt 10             | <b>BASIC ALGEBRA.</b> Concepts, terminology and notation of elementary algebra; drill in the fundamental operations of algebra. Prerequisite: None. Fall.....   | 0                   |
| Mt 20             | <b>BASIC GEOMETRY.</b> Plane geometry; basic concepts and formulas of solid geometry. Prerequisite: Mt 10. Winter.....  | 0                   |
| Mt 101            | <b>INTERMEDIATE ALGEBRA.</b> Review of the fundamental operations of algebra, laws of exponents, linear and quadratic equations, complex numbers, the concept of function, graphical representation, systems of equations. Prerequisite: Mt 20. Fall, Winter, Spring..... | 5                   |

|               |  |   |
|---------------|--|---|
| <b>Mt 110</b> | <b>PLANE TRIGONOMETRY.</b> Angular measure, the trigonometric functions, use of trigonometric tables, interpolation, basic trigonometric laws and relationships, solution of triangle problems, logarithms, trigonometric equations, inverse trigonometric functions. Prerequisite: Mt 101. Fall, Winter, Spring .....   | 5 |
| <b>Mt 111</b> | <b>COLLEGE ALGEBRA.</b> Ratio, proportion and variation, inequalities, arithmetic and geometric progressions, the principle of inductive proof, the binomial theorem, complex numbers and De Moivre's theorem, solution of cubic and quartic equations, approximate solution of algebraic and other equations, systems of equations, determinants, compound interest, annuities, permutations and combinations, probability. Prerequisite: Mt 110. Fall, Winter, Spring.....   | 5 |
| <b>Mt 131</b> | <b>ELEMENTARY ANALYSIS I.</b> Basic concepts of analytic geometry, functions and graphs, limits and continuity, elementary differentiation, geometric applications, rates, anti-differentiation, the definite integral and applications. Prerequisite: Mt 111. Fall, Winter, Spring.....   | 5 |
| <b>Mt 132</b> | <b>ELEMENTARY ANALYSIS II.</b> Further applications of the calculus, further topics in analytic geometry, polar coordinates; the transcendental functions, their derivatives and integrals. Prerequisite: Mt 131. Fall, Winter, Spring.....  | 5 |
| <b>Mt 231</b> | <b>ELEMENTARY ANALYSIS III.</b> Special techniques of integration, plane curves, solid analytic geometry, vectors and their application to curves and surfaces, partial differentiation and applications. Prerequisite: Mt 132. Fall, Winter, Spring .....   | 5 |
| <b>Mt 232</b> | <b>ELEMENTARY ANALYSIS IV.</b> Multiple integration and its applications, infinite series, power series, Fourier series, functions of a complex variable, introduction to elementary differential equations. Prerequisite: Mt 231. Fall, Winter, Spring .....  | 5 |
| <b>Mt 341</b> | <b>ELEMENTARY DIFFERENTIAL EQUATIONS.</b> Ordinary differential equations, their solution and application, first order, linear with constant coefficients; special equations of higher order and degree; singular solutions and envelopes; series solutions of linear equations. Prerequisite: Mt 232. Fall, Winter, Spring.....   | 5 |
| <b>Mt 351</b> | <b>PROBABILITY.</b> Basic concepts and theorems in probability theory; the binomial, Poisson, normal and other fundamental probability distributions; moments, limit theorems. Prerequisite: Mt. 232. Winter, odd years.....   | 5 |
| <b>Mt 371</b> | <b>ELECTRONIC DIGITAL COMPUTERS I.</b> Fundamentals of the theory of high speed computers and their application to scientific, commercial and industrial data processing. Binary arithmetic and coding, logical design, numerical techniques. The stored program, programming a problem, advanced programming techniques. Machine components and data storage devices, reliability, machine operation. Lectures, films, demonstration and literature from manufacturers of computers and components. Prerequisite: Mt 232 or permission of instructor. Fall, Winter, Spring..... | 2 |

|        |  |   |
|--------|--|---|
| Mt 411 | <b>INTRODUCTION TO MODERN ALGEBRA.</b> The number systems; elementary theory of groups, rings, ideals, integral domains and fields; polynomials. Prerequisite: Mt 231. Fall, even years .....  | 5 |
| Mt 412 | <b>MATRIX AND DETERMINANT THEORY.</b> Vector spaces, linear transformations, general properties of and operations with matrices, linear dependence, canonical forms, solution of systems of equations, properties of determinants. Prerequisite: Mt. 411. Winter, odd years.....   | 5 |
| Mt 413 | <b>THEORY OF EQUATIONS.</b> Complex numbers, number fields, polynomials, integral rational equations and their roots, exact solution of equations of degree 4 and less, approximate solutions of equations, solution of systems of equations, resultants, eliminants and discriminants, symmetric functions. Prerequisite: Mt. 231. Spring, odd years..... | 5 |
| Mt 421 | <b>SURVEY OF GEOMETRY I.</b> Analytic geometry of three dimensions, foundations of geometry, synthetic projective geometry, analytic projective geometry. Prerequisite: Mt 232. Fall, even years.....  | 5 |
| Mt 422 | <b>SURVEY OF GEOMETRY II.</b> Affine geometry, Euclidean geometry, evolution of geometry, non-Euclidean geometry, elements of topology. Prerequisite: Mt 421. Winter, odd years .....  | 5 |
| Mt 431 | <b>ADVANCED CALCULUS I.</b> The real number system, functions of a single variable, limits and continuity, differentiation, mean value theorem and extensions, Taylor's formula, functions of several variables, techniques and theorems of partial differentiation. Prerequisite: Mt 232. Fall, odd years .....   | 5 |
| Mt 432 | <b>ADVANCED CALCULUS II.</b> Implicit function theorems, transformations, vector algebra and calculus, multiple integration, curves and surfaces, line and surface integrals, Green's theorem, Stokes' theorem, applications. Prerequisite: Mt 431. Winter, even years.....  | 5 |
| Mt 433 | <b>ADVANCED CALCULUS III.</b> Point set theory, theory of Riemann integration, infinite series, power series, improper integrals, complex functions, Fourier series and integrals. Prerequisite: Mt 432. Spring, even years.....   | 5 |
| Mt 441 | <b>INTERMEDIATE DIFFERENTIAL EQUATIONS.</b> Existence theorems, linear equations of second order, the adjoint, Riccati equations, series solutions, equations of Fuchs type, the hypergeometric equation, some classical equations, applications. Prerequisite: Mt 341. On demand.....   | 5 |
| Mt 461 | <b>ADVANCED ENGINEERING MATHEMATICS I (INTRODUCTION TO THEORY OF COMPLEX FUNCTIONS).</b> Complex numbers, analyticity, elementary analytic functions, mapping, integration, series, residues, analytic continuation, Riemann surfaces. Prerequisite: Mt 341 or 433. Fall.....  | 3 |
| Mt 462 | <b>ADVANCED ENGINEERING MATHEMATICS II.</b> Determinants and matrices, Jacobians, special functions and integrals, Stirling's formula, elliptic integrals, special topics in the theory of linear differential equations (Green's function, method of Frobenius, the equations of Bessel, Legendre and Hermite). Prerequisite: Mt 461. Winter.....         | 3 |



|                         |  |                |
|-------------------------|--|----------------|
| <b>Mt 463</b>           | <b>ADVANCED ENGINEERING MATHEMATICS III.</b> Fourier series and integrals, correlation function, orthogonal functions, Laplace transform, elements of probability theory, random variables, probability distributions, stochastic processes. Prerequisite: Mt 462. Spring..... | <b>3</b>       |
| <b>Mt 481</b>           | <b>ELEMENTARY TOPOLOGY.</b> Set theory, point sets on the real line, topological spaces, metric spaces, arcs and curves. Prerequisite: Mt 232 and one upper division course or permission of the instructor. Spring, odd years.....  | <b>5</b>       |
| <b>Mt 491</b>           | <b>SPECIAL TOPICS IN MATHEMATICS.</b> Directed reading and/or lectures on various topics at the advanced undergraduate level. Prerequisite: Mt 232 and permission of instructor.....   | <b>1-5</b>     |
|                         | * * *  |                |
|                         | Courses in other departments acceptable toward a major or minor in mathematics:  |                |
| <b>Ph 310, 311, 485</b> | (See descriptions under Physics.) Prerequisite: Mt 231. F all, Winter, Spring .....  | <b>5, 5, 5</b> |

### MILITARY SCIENCE AND TACTICS (MS)

LT. COL. MICHAEL J. DOLAN, M.A., *Head*

#### DEPARTMENTAL REQUIREMENTS:

Credit for courses is granted, as specified under the courses below. No final credit is given until all six elementary courses or all six advanced courses are completed.

Credits earned in the Military Science courses may be used to fill degree requirements in all Departments.

#### MS I—1st Year Basic

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>MS 101</b>     | Organization of the Army and ROTC: Individual Weapons and Marksmanship; Leadership, Drill, and Command. Two one-hour lectures and one drill period (one hour and 20 minutes) per week. Fall..... | <b>2</b>            |
| <b>MS 102</b>     | Individual Weapons and Marksmanship; American Military History; Leadership, Drill, and Command. Two one-hour lectures and one drill period (one hour and 20 minutes) per week. Winter .....      | <b>2</b>            |
| <b>MS 103</b>     | American Military History; Leadership, Drill, and Command. Two one-hour lectures and one drill period (one hour and 20 minutes) per week. Spring.....  | <b>2</b>            |
| <b>MS 104</b>     | ROTC Band. One-hour rehearsal per week. Fall.....  | <b>1</b>            |
| <b>MS 105</b>     | ROTC Band. One-hour rehearsal per week. Winter.....  | <b>1</b>            |
| <b>MS 106</b>     | ROTC Band. One-hour rehearsal per week. Spring.....  | <b>1</b>            |

#### MS II—2nd Year Basic

|               |  |          |
|---------------|--|----------|
| <b>MS 201</b> | Map and Aerial Photograph Reading; Leadership, Drill, and Command. Two one-hour lectures and one drill period (one hour and 20 minutes) per week. Fall.....      | <b>2</b> |
| <b>MS 202</b> | Role of the Army in National Defense; Leadership, Drill, and Command. Two one-hour lectures and one drill period (one hour and 20 minutes) per week. Winter..... | <b>2</b> |

|               |   |   |
|---------------|---|---|
| <b>MS 203</b> | Crew Served Weapons; Leadership, Drill, and Command. Two one-hour lectures and one drill period (one hour and 20 minutes) per week. Spring..... | 2 |
| <b>MS 204</b> | ROTC Band. One hour rehearsal per week. Fall.....   | 1 |
| <b>MS 205</b> | ROTC Band. One hour rehearsal per week. Winter.....   | 1 |
| <b>MS 206</b> | ROTC Band. One hour rehearsal per week. Spring.....   | 1 |

### **MS III—1st Year Advanced**

|               |   |   |
|---------------|---|---|
| <b>MS 301</b> | Leadership; Military Teaching Methods; Organization Functions and Missions of the Branches of the Army; Leadership, Drill, and Command. Four one-hour lectures and one drill period (one hour and 20 minutes) per week. Fall..... | 3 |
| <b>MS 302</b> | Organization, Functions and Missions of the Branches of the Army; Small Unit Tactics; Leadership, Drill, and Command. Four one-hour lectures and one drill period (one hour and 20 minutes) per week. Winter.....                 | 3 |
| <b>MS 303</b> | Small Unit Tactics and Communications; Pre-Camp Orientation; Leadership, Drill, and Command. Four one-hour lectures and one drill (one hour and 20 minutes) per week. Spring .....  | 3 |
| <b>MS 304</b> | R.O.T.C. Summer Camp, Fort Lewis, Washington (6 weeks)....  | 3 |

### **MS IV—2nd Year Advanced**

|               |   |   |
|---------------|---|---|
| <b>MS 401</b> | Operations; Leadership, Drill, and Command. Four one-hour lectures and one drill period (one hour and 20 minutes) per week. Fall .....  | 3 |
| <b>MS 402</b> | Operations: Logistics; Military Administration; Leadership, Drill, and Command. Four one-hour lectures and one drill period (one hour and 20 minutes) per week. Winter.....                 | 3 |
| <b>MS 403</b> | Military Administration; Military Justice; Service Orientation; Leadership, Drill and Command. Four one-hour lectures and one drill period (one hour and 20 minutes) per week. Spring ..... | 3 |

### **MUSIC (Mu)**

REV. DANIEL J. REIDY, S.J., PH.D., *Faculty Adviser*  
WALTER AKLIN, *Head*

#### **DEPARTMENTAL REQUIREMENTS:**

Courses are offered in the theory of music and the practice, both vocal and instrumental, either toward a degree in music or as cultural electives in a regular academic degree. It is recommended that every student take at least one course in music appreciation.

| <i>Course No.</i>       | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------------|---|---------------------|
| <b>Mu 101, 102, 103</b> | <b>ELEMENTARY VOCAL OR INSTRUMENTAL MUSIC.</b> Private lessons. One or two individual half-hour lessons per week .....  | <b>2-3</b>          |
| <b>Mu 104</b>           | <b>INTRODUCTORY SIGHT-SINGING.</b> A study of all rhythmic varieties and singular meters; diatonic and chromatic step-wise progression and scales and key signatures with the help of written, oral, and keyboard drills and single voice dictation | <b>2</b>            |

|                             |   |            |
|-----------------------------|---|------------|
| <b>Mu 106, 107,<br/>108</b> | <b>ELEMENTARY VOCAL OR INSTRUMENTAL MUSIC.</b> Pre-requisite: Mu 103 or equivalent.....   | <b>2-3</b> |
| <b>Mu 114</b>               | <b>MUSIC FUNDAMENTALS.</b> Rudiments of Music with emphasis on elementary school needs. Beginning theory, harmony, form, keyboard harmony, etc. Required of all Education students .....              | <b>3</b>   |
| <b>Mu 115</b>               | <b>MUSIC FUNDAMENTALS.</b> For music majors. Intensive course in ear training, music dictation, transposition and melody writing .....  | <b>5</b>   |
| <b>Mu 116</b>               | <b>INTRODUCTORY HARMONY.</b> Four-part writing with the use of principal triads and inversions. Secondary seventh chords and inversions and modulations. Prerequisite: Mu 115 .....                   | <b>5</b>   |
| <b>Mu 117</b>               | <b>INTERMEDIATE HARMONY.</b> Using dominant ninth chords and inversions, diminished seventh chords and inversions, secondary seventh chords and inversions and modulations. Prerequisite: Mu 116..... | <b>5</b>   |
| <b>Mu 127, 128,<br/>129</b> | <b>UNIVERSITY CONCERT BAND.</b> Open to all qualified students. One double period weekly and concerts.....  | <b>1</b>   |
| <b>Mu 131, 132,<br/>133</b> | <b>UNIVERSITY ORCHESTRA.</b> Required of all instrumental majors. Open to all qualified students. Two double periods weekly and concerts.....   | <b>2</b>   |
| <b>Mu 138</b>               | <b>CHORAL METHODS.</b> Methods and materials for teaching vocal music in grades and high school.....  | <b>2</b>   |
| <b>Mu 139</b>               | <b>CHORAL LITERATURE.</b> Examination and study of current vocal literature suitable for grades and high school.....  | <b>2</b>   |
| <b>Mu 140</b>               | <b>TECHNIQUE OF CHORAL CONDUCTING.</b> Practical experience in directing choral groups. Two hours per week.....   | <b>2</b>   |
| <b>Mu 143, 144,<br/>145</b> | <b>UNIVERSITY CHORUS.</b> Open to all qualified students. Study and rendition of operatic, classical and semi-classical music .....   | <b>1</b>   |
| <b>Mu 148, 149,<br/>150</b> | <b>VOCAL OR INSTRUMENTAL MUSIC.</b> First year for voice or instrumental majors.....  | <b>2-3</b> |
| <b>Mu 160, 161,<br/>162</b> | <b>CLASS INSTRUCTION IN VOICE.</b> For Music Education students. Group study of voice. Teaching methods and fundamentals. One hour per week. Special fee of \$10.00.....                              | <b>2</b>   |
| <b>Mu 182, 183,<br/>184</b> | <b>UNIVERSITY CHORALE</b> .....   | <b>1</b>   |
| <b>Mu 190</b>               | <b>UNIVERSITY OPERA GUILD.</b> Open to all talented singers. Study and production.....  | <b>1</b>   |
| <b>Mu 195</b>               | <b>MUSIC APPRECIATION.</b> To acquire a familiar knowledge of good music, featuring radio and television music.....   | <b>2</b>   |
| <b>Mu 227, 228,<br/>229</b> | <b>UNIVERSITY CONCERT BAND.</b> One double period weekly..  | <b>1</b>   |
| <b>Mu 231, 232,<br/>233</b> | <b>UNIVERSITY ORCHESTRA.</b> Required of all instrumental majors. Two double periods weekly and concerts.....   | <b>2</b>   |
| <b>Mu 243, 244,<br/>245</b> | <b>UNIVERSITY CHORUS.</b> Study and rendition of operatic, classical and semi-classical music.....  | <b>1</b>   |

|                             |   |            |
|-----------------------------|---|------------|
| <b>Mu 248, 249,<br/>250</b> | <b>VOCAL OR INSTRUMENTAL MUSIC.</b> Second year for voice or instrumental majors.....   | <b>2-3</b> |
| <b>Mu 258</b>               | <b>INSTRUMENTAL METHODS.</b> Group study of the basic technique on the various brass instruments. Two hours weekly....  | <b>2</b>   |
| <b>Mu 259</b>               | <b>INSTRUMENTAL METHODS.</b> Group study of the basic technique on the various woodwind instruments. Two hours per week .....   | <b>2</b>   |
| <b>Mu 260</b>               | <b>INSTRUMENTAL METHODS.</b> Group study of the basic technique on the violin, cello and string bass. Two hours per week .....  | <b>2</b>   |
| <b>Mu 268, 269,<br/>270</b> | <b>VOCAL TECHNIQUES AND SIGHT READING.</b> A course in voice production. Also learning to read music at sight and distinguishing intervals and chords.....  | <b>2</b>   |
| <b>Mu 282, 283,<br/>284</b> | <b>UNIVERSITY CHORALE</b> .....   | <b>1</b>   |
| <b>Mu 290</b>               | <b>UNIVERSITY OPERA GUILD.</b> Study and Production of operatic works.....  | <b>1</b>   |
| <b>Mu 301</b>               | <b>ADVANCED HARMONY.</b> Chromatic harmony and modulations, altered chords, suspensions, melodic figuration, figured chords, etc.....   | <b>3</b>   |
| <b>Mu 302</b>               | <b>COUNTERPOINT.</b> Study of two and three part counterpoint in all five species. Prerequisite: Mu 301.....  | <b>3</b>   |
| <b>Mu 303</b>               | <b>MUSICAL FORMS.</b> Complete analysis of the song form, rondo form, sonata form, imitation invention, canon and fugue. Exercises in composition. Prerequisite: Mu 301.....  | <b>3</b>   |
| <b>Mu 313</b>               | <b>ELEMENTARY SCHOOL MUSIC.</b> Application of educational principles to the teaching of music in the first six grades.....   | <b>2</b>   |
| <b>Mu 314</b>               | <b>TEACHING AND SUPERVISION OF MUSIC IN THE JUNIOR HIGH SCHOOL</b> .....  | <b>2</b>   |
| <b>Mu 315</b>               | <b>TEACHING AND SUPERVISION OF MUSIC IN THE SENIOR HIGH SCHOOL</b> .....  | <b>2</b>   |
| <b>Mu 317</b>               | <b>ELEMENTARY COMPOSITION AND ARRANGING.</b> Original work and arrangements for combination of voices and instruments .....   | <b>5</b>   |
| <b>Mu 325</b>               | <b>VOICE PRODUCTION.</b> Methods of voice development and training of choral groups in grade and high schools.....  | <b>3</b>   |
| <b>Mu 327, 328,<br/>329</b> | <b>UNIVERSITY CONCERT BAND</b> .....  | <b>1</b>   |
| <b>Mu 331, 332,<br/>333</b> | <b>UNIVERSITY ORCHESTRA</b> .....   | <b>1</b>   |
| <b>Mu 343, 344,<br/>345</b> | <b>UNIVERSITY CHORUS</b> .....  | <b>1</b>   |
| <b>Mu 348, 349,<br/>350</b> | <b>VOCAL OR INSTRUMENTAL MUSIC.</b> Third year for voice or instrumental majors.....  | <b>2-3</b> |
| <b>Mu 359</b>               | <b>CHAMBER MUSIC.</b> Literature. A practical course in the literature, performance and analysis of chamber music.....  | <b>2</b>   |
| <b>Mu 372</b>               | <b>INTRODUCTION TO MUSIC LITERATURE AND HISTORY.</b> Study of style and historical background of standard and concert repertoire, with emphasis on current programs. Covers preclassical and classical periods (Palestrina, Bach, Mozart, etc.) ..... | <b>3</b>   |

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| <b>Mu 373</b>           | <b>MUSIC LITERATURE AND HISTORY.</b> Romantic period (Schumann, Chopin, Liszt, Tschalkowsky, etc.).....  | <b>3</b>   |
| <b>Mu 374</b>           | <b>MUSIC LITERATURE AND HISTORY.</b> Impressionism and modernism. (Debussy, Ravel, Richard Strauss, etc.).....   | <b>3</b>   |
| <b>Mu 375</b>           | <b>STUDY OF GREAT OPERAS.</b> Classical period. (Gluck, Mozart, Beethoven).....  | <b>2</b>   |
| <b>Mu 376</b>           | <b>STUDY OF GREAT OPERAS.</b> Romantic period. (Music dramas by Wagner and operas by Verdi, Bizet, Puccini, etc.).....                                       | <b>2</b>   |
| <b>Mu 377</b>           | <b>STUDY OF THE GREAT OPERAS.</b> Impressionistic and modernistic. (Debussy, Richard Strauss, Gershwin, etc.).....   | <b>2</b>   |
| <b>Mu 378</b>           | <b>OPERA SURVEY.</b> A brief course in the history and development of opera.....   | <b>2</b>   |
| <b>Mu 382, 383, 384</b> | <b>UNIVERSITY CHORALE</b> .....  | <b>1</b>   |
| <b>Mu 390</b>           | <b>UNIVERSITY OPERA GUILD.</b> Study and production of operatic works.....   | <b>1</b>   |
| <b>Mu 427, 428, 429</b> | <b>UNIVERSITY CONCERT BAND</b> .....   | <b>1</b>   |
| <b>Mu 431, 432, 433</b> | <b>UNIVERSITY ORCHESTRA</b> .....  | <b>1</b>   |
| <b>Mu 443, 444, 445</b> | <b>UNIVERSITY CHORUS</b> .....   | <b>1</b>   |
| <b>Mu 448, 449, 450</b> | <b>VOCAL OR INSTRUMENTAL MUSIC.</b> Fourth Year for voice or instrumental majors.....  | <b>2-3</b> |
| <b>Mu 452</b>           | <b>BAND AND ORCHESTRA LITERATURE.</b> For school bands and orchestras .....  | <b>2</b>   |
| <b>Mu 453</b>           | <b>TECHNIQUE OF INSTRUMENTAL CONDUCTING.</b> Practical experience in directing orchestral and band groups in grades and high school. Two hours per week..... | <b>2</b>   |
| <b>Mu 454</b>           | <b>ORCHESTRATION.</b> Principles of orchestral composition.....  | <b>5</b>   |
| <b>Mu 455</b>           | <b>STUDY OF THE GREAT CONCERTOS.</b> Including piano, violin, cello, and clarinet.....   | <b>3</b>   |
| <b>Mu 457</b>           | <b>SONG AND CHORAL LITERATURE.</b> Appreciation and history .....  | <b>3</b>   |
| <b>Mu 458</b>           | <b>TONE POEMS OF BERLIOZ, LISZT, AND STRAUSS</b> .....   | <b>3</b>   |
| <b>Mu 459</b>           | <b>LATE MUSIC DRAMAS OF WAGNER</b> .....   | <b>2</b>   |
| <b>Mu 460</b>           | <b>ANALYSIS OF COMPOSITION AND SCORE READING</b> .....   | <b>2</b>   |
| <b>Mu 461</b>           | <b>THE SYMPHONY AND ITS COMPOSERS.</b> Study and analysis of symphonies. Comparison of composer's styles, instrumentation and orchestration.....             | <b>3</b>   |
| <b>Mu 467</b>           | <b>FREE COMPOSITION.</b> Writing in the smaller forms for voice and instruments.....   | <b>5</b>   |

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|-------------------------|--|------------|
| <b>Mu 468</b>           | <b>PIANO PEDAGOGY.</b> Methods and materials of piano pedagogy, and practice teaching..... | <b>2-3</b> |
| <b>Mu 478</b>           | <b>CADET TEACHING</b> .....  | <b>15</b>  |
| <b>Mu 479</b>           | <b>RECITAL.</b> For Bachelor of Music students.....  | <b>2</b>   |
| <b>Mu 482, 483, 484</b> | <b>UNIVERSITY CHORALE</b> .....  | <b>1</b>   |
| <b>Mu 490</b>           | <b>UNIVERSITY OPERA GUILD</b> .....  | <b>1</b>   |
| <b>Mu 497</b>           | <b>ADVANCED COMPOSITION.</b> Original writing in the larger forms .....                    | <b>5</b>   |

### NURSING (N)

SISTER M. RUTH, O.P., M.Ed., *Acting Dean*

#### DEPARTMENTAL REQUIREMENTS:

Cf. section on Nursing in Program of Courses, page 81.

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>N 100</b>      | <b>ORIENTATION TO NURSING.</b> Orientation to the professional nursing program. Prerequisite: None.....  | <b>0</b>            |
| <b>N 290</b>      | <b>FUNDAMENTALS OF NURSING.</b> Fundamental principles of elementary nursing and practice of basic techniques of bedside nursing in the hospital. Orientation to the profession of nursing, background in community nursing, and correlation of basic principles of pharmacology. Prerequisites: five quarters in required courses on campus.....  | <b>12</b>           |
| <b>N 300</b>      | <b>MEDICAL AND SURGICAL NURSING I.</b> Study of the causes, symptoms, treatment, and nursing care of medical and surgical conditions of the gastro-intestinal, cardiovascular, and gynecological systems, and of the eye, with concurrent practice in comprehensive nursing care. Integration of diet therapy, pharmacology, public health, and communicable disease nursing throughout theory and practice. Prerequisite: N 290.. | <b>12</b>           |
| <b>N 301</b>      | <b>MEDICAL AND SURGICAL NURSING II.</b> Continuation of N 300. Includes conditions of the ear, nose, and throat, and the respiratory, integumentary, genitourinary, and endocrine systems. Prerequisite: N 300.....  | <b>12</b>           |
| <b>N 302</b>      | <b>MEDICAL AND SURGICAL NURSING III.</b> Continuation of N 301. Includes conditions of the musculoskeletal and nervous systems. Prerequisite: N 290.....   | <b>5</b>            |
| <b>N 303</b>      | <b>MEDICAL AND SURGICAL NURSING IV.</b> Theory and practice in the principles of aseptic technique with emphasis on total patient care. Prerequisite: N 290.....   | <b>5</b>            |
| <b>N 310</b>      | <b>MATERNAL AND CHILD HEALTH I.</b> Study of childbirth, and maternal and infant care with concurrent comprehensive nursing practice emphasizing health teaching and total family care. Integration of diet therapy, pharmacology, public health, and communicable disease nursing. Prerequisite: N 290 .....  | <b>9</b>            |

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|---------------|---|----|
| <b>N 311</b>  | <b>MATERNAL AND CHILD HEALTH II.</b> Study of the child in health and disease with concurrent practice in comprehensive nursing care and observation. Integration of diet therapy, pharmacology, public health and communicable disease nursing with emphasis on total family care. Prerequisite: N 290..   | 9  |
| <b>N 316</b>  | <b>HISTORY OF NURSING.</b> Study of the history of nursing and the development of social and health movements. Background for understanding present trends in nursing. Prerequisite: None .....   | 2  |
| <b>N 320</b>  | <b>TRENDS IN NURSING.</b> A study of modern trends which have brought about changes in nursing, and the relationship of these changes to the individual nurse, the community and the profession. Includes a study of the activities and programs within nursing which are necessitated by the modern concept of nursing. For General Program students only..  | 2  |
| <b>N 401</b>  | <b>PSYCHIATRIC NURSING.</b> Study of mental disorders, principles of mental hygiene, and comprehensive nursing care of mentally ill patients. Prerequisite: N 301.....  | 10 |
| <b>*N 402</b> | <b>PRINCIPLES OF TUBERCULOSIS NURSING CARE.</b> Use of special therapies; rehabilitation; prevention and control; public health and social aspects. Lectures and demonstrations....   | 2  |
| <b>*N 403</b> | <b>TUBERCULOSIS NURSING PRACTICE.</b> Supervised experience in developing principles for solving selected problems in care of tuberculosis patients. Six weeks of clinical practice in the medical and surgical treatment of tuberculosis, with planned rotation through the departments in a tuberculosis sanatorium, including use of community agencies and clinics. One-hour ward clinic, one-hour nursing conference, and thirty hours of hospital practice weekly, with nursing projects and staff conferences..... | 3  |
| <b>N 420</b>  | <b>PROFESSIONAL DEVELOPMENT.</b> Study of the responsibilities and opportunities for service and professional role of the graduate nurse; preparation for the practice of professional nursing. Emphasis on continued personal and professional growth. Prerequisite: Senior status.....  | 3  |
| <b>N 421</b>  | <b>PRINCIPLES OF MANAGEMENT IN COMPREHENSIVE NURSING.</b> Study of the concepts of administration and principles of supervision as related to clinical nursing with emphasis on the nurse's role in providing comprehensive patient care within the total administrative pattern. Selected learning experiences in which principles can be practiced or observed .....  | 10 |
| <b>N 430</b>  | <b>PRINCIPLES OF TEACHING.</b> Application of the philosophy of general education to nursing education. Includes basic factors in learning situations, principles in planning learning activities with emphasis on patient teaching and In-service Education programs. For General Program students or with permission .....  | 3  |
| <b>N 435</b>  | <b>PUBLIC HEALTH ORGANIZATIONS AND PROGRAMS.</b> Study of public health administration and programs; local, state, federal and international. General Program students only .....   | 3  |

## BLOCK IN PUBLIC HEALTH NURSING

By Transfer Credit from the University of Washington

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>*N 405</b>     | <b>PUBLIC HEALTH NURSING.</b> Presentation and analysis of family and community health problems and current programs related to special fields of public health nursing. Selected nursing techniques for solving family health problems and implementing dynamics of personality and utilization of self in the development of a good working relationship with patients and co-workers. Case discussion and group and individual conferences. To be taken concurrently with N 406.....  | 3                   |
| <b>*N 406</b>     | <b>PUBLIC HEALTH NURSING PRACTICE.</b> Experience in generalized public health nursing with an opportunity to apply basic principles and skills as a family health consultant and health teacher. Includes morbidity; maternal, infant, and child care; mental hygiene; and nutrition. Experience in homes and clinics, health conferences in schools, and health classes, as well as conferences with professional workers in related community agencies; participation in community health planning. Family case assignment. Two hour weekly conference..... | 5                   |
| <b>*N 428</b>     | <b>PRINCIPLES AND ORGANIZATION OF PUBLIC HEALTH NURSING.</b> Analysis of principles of public health nursing; organization and administration of public health nursing in local, state, and national administration of public health nursing in local, state, and national health agencies; and study of the responsibilities of public health nursing in community programs for health and social welfare and in health guidance of individuals and families.....   | 5                   |
| <b>*P.H. 412</b>  | <b>PUBLIC HEALTH ORGANIZATIONS AND SERVICES.</b> Study of local, national, and international public health services. Prerequisites: 302, 402 or permission.....  | 3                   |
| <b>*N 459</b>     | <b>CURRENT LITERATURE IN NURSING.</b> Reading and discussion of current literature in nursing, including a survey of background material. Emphasis is on generally accepted concepts and on those which are developmental or experimental. To be taken concurrently with N 405 and 406. General Program students only.....   | 2                   |

*\*(Quoted from: Bulletin—University of Washington School of Nursing 1956-1958)*

### PHILOSOPHY (PI)

REV. LOUIS T. O'CALLAGHAN, S.J., Ph.D., *Head*

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Major: 43 hours—181, 201, 251, 281, 301, 321, 351, 401, 420, 421, 422.

Related Minor: to be selected from Groups I, II, III (Cf. curriculum under section on General Administration).

Undergraduate Minor: 26 hours—181, 201, 251, 281, 301, 321, 351.

Comprehensive examination in philosophy: all candidates for a degree are subject to this requirement.



| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| PI 181            | <b>INTRODUCTION TO LOGIC.</b> A theoretical and practical treatment of the traditional laws of thought; terms; propositions; reasoning and the various forms of the syllogism; fallacies in reasoning; inductive reasoning. Prerequisite: En 101, 102.....  | 3                   |
| PI 201            | <b>PHILOSOPHY OF BEING.</b> The meaning and nature of reality; the analogy of being; the problem of change; the intrinsic principles of being and change; theorems of potency and act; agent and final causes; the Cause of limited being; the transcendentals and predicaments. Prerequisite: PI 181....                       | 5                   |
| PI 251            | <b>PHILOSOPHY OF MAN.</b> Organic, sensory, and rational operations as evidence of the nature of man's operative powers, habits and essential soul-matter composition. Perception, appetites, emotion, intellect, and free choice. Spirituality, immortality and origin of the human soul. Prerequisites: PI 181, 201.....      | 5                   |
| PI 281            | <b>PHILOSOPHY OF PURE ACT.</b> The arguments for Pure Act; the ontological argument of St. Anselm, Descartes, Leibnitz, and its rejection by St. Thomas, Scotus, and Kant; the "Quinque Viae." The analogical knowledge of Pure Act, its nature, attributes and operations. The problem of evil. Prerequisites: PI 181-251..... | 3                   |
| PI 301            | <b>GENERAL ETHICS.</b> The general theory of moral behavior; ethics as a science; the end of man; the nature and norm of objective morality; law, sanction, conscience; the virtues; right and duty; contracts, property; communism and socialism. Prerequisites: PI 181-281.....   | 5                   |
| PI 321            | <b>SPECIAL ETHICS.</b> The application of general ethical theory to the specific acts of man as an individual and as a member of society; man's duties; the nature of society and the family; the origin, nature and functions of the state; international society; law. Prerequisites: PI 181-301.....                         | 2                   |
| PI 351            | <b>EPISTEMOLOGY.</b> A systematic and critical study of the foundations and nature of truth and certitude in human knowledge, both on the sensory and intellectual level. Scepticism; the nature of universal ideas; idealism; empiricism; Kantianism; moderate realism. Prerequisites: PI 181-281.....                         | 3                   |
| PI 399            | <b>HISTORY OF POLITICAL PHILOSOPHY.</b> A critical examination of the political theories of Plato and Aristotle; the Thomistic tradition; Machiavelli, Hobbes, Locke, Rousseau, Hume, Bentham, liberalism, and modern totalitarianism. Same as Pls 399. Prerequisites: PI 181-321; Pls 150.....                                 | 5                   |
| PI 401            | <b>PHILOSOPHY OF NATURE.</b> An examination of some of the important problems of the philosophy of physical science, with an analysis of truth, certitude, cause, time, space; the relation between philosophical and scientific knowledge; theories of the constitution of material reality. Prerequisites: PI 181-351.....    | 2                   |
| PI 405            | <b>MEDIEVAL AESTHETICS.</b> The scholastic theory of beauty in relation to the transcendentals of being; an analysis by causes of the different manifestations of artistic form; the work of art as the product of a human act. Same as Art. 405. Prerequisites: PI 181-351.....  | 2                   |

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| <b>PI 420</b> | <b>HISTORY OF ANCIENT PHILOSOPHY.</b> A survey of the rise of philosophical systems from the presocratic era through Plato, Aristotle, and the Stoics to the philosophy of Plotinus. Selections from these philosophers are read in translation. Prerequisites: PI 181-321.....   | 5  |
| <b>PI 421</b> | <b>HISTORY OF MEDIEVAL PHILOSOPHY.</b> A survey of the development of philosophical thought from St. Augustine through the origins, development and decline of scholasticism. Special emphasis is placed on the thirteenth century synthesis. Selections from these authors are read in translation. Prerequisites: PI 181-321.....                           | 5  |
| <b>PI 422</b> | <b>HISTORY OF MODERN PHILOSOPHY.</b> A survey of the principal systems of modern thought from Descartes through continental rationalism and English empiricism to German idealism and modern positivism. Readings are assigned from the classic works of this era. Prerequisites: PI 181-321.....   | 5  |
| <b>PI 423</b> | <b>HISTORY OF CONTEMPORARY PHILOSOPHY.</b> A survey of the leading schools of philosophy from the last half of the nineteenth century to the present. Attention is directed toward contemporary instrumentalism, phenomenology, existentialism, and modern Thomism. Readings are assigned from the works of the various thinkers. Prerequisites: PI 181-321.. | 5  |
| <b>PI 440</b> | <b>PHILOSOPHICAL PROBLEMS IN PSYCHOLOGY.</b> The mind-body relation; history, theories, recent developments, pertinent empirical evidence. Laboratory experimental data on intellect and free choice. Related problems. Same as Psy 440. Prerequisites: Psy 100; PI 251.....  | 5  |
| <b>PI 450</b> | <b>SYMBOLIC LOGIC.</b> A brief introduction to modern symbolic or mathematical logic. Propositional functions and propositional calculus; descriptions; classes and the calculus of classes; the logical contradictions. Relationship between symbolic and classical logic. Of interest to philosophy and mathematics majors. Prerequisites: PI 181-351.....  | 5  |
| <b>PI 491</b> | <b>SPECIAL STUDIES IN PHILOSOPHY.</b> The subject matter and credit are established by arrangement. Prerequisites: PI 181-351 and senior standing.....  | .. |
| <b>PI 492</b> | <b>SPECIAL STUDIES IN PHILOSOPHY.</b> The subject matter and credit are established by arrangement. Prerequisites: PI 181-351 and senior standing.....  | .. |

### PHYSICAL EDUCATION (PE)

Cf. School of Education, page 111.

### PHYSICS (Ph)

REV. JAMES J. COWGILL, S.J., PH.D., *Head*

#### DEPARTMENTAL REQUIREMENTS:

Degree in Physics: 200, 201, 202, 310, 311, 320, 350, 351, 360, 361, 370, 410, 430, 431, 480, 485 or suitable substitutions.

Degree in Natural Science (Undergraduate Major): 200, 201, 202 and 25 hours selected among upper division courses.

Minor in Physics: -105, 106, 107, 260, 261, 390 or suitable substitutions.

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>Ph 100</b>     | <b>GENERAL PHYSICS: MECHANICS, HEAT, ELECTRICITY.</b> The three basic sciences. The scientific method, force, energy, atomic theory, wave theory, static and current electricity. This course is intended for non-science students who desire a non-technical survey of classical and modern physics. Emphasis is also placed on the philosophical and cultural aspects of this science. Four hours of lecture, one credit hour of laboratory per week. Prerequisite: Mt 10..... | 5                   |
| <b>Ph 101</b>     | <b>GENERAL PHYSICS: ELECTRICITY (con't.), SOUND LIGHT AND RADIATION.</b> Electromagnetism, X-rays, isotopes, radioactivity, quantum theory of light and of matter, nuclear energy, nuclear transformations, and certain philosophical questions. Continuation of Ph 100. Prerequisite: Ph 100.....   | 5                   |
| <b>Ph 105</b>     | <b>GENERAL PHYSICS: MECHANICS AND SOUND.</b> Uniform motion, accelerated motion, force, rotational motion, energy, statics, harmonic motion, mechanics of gases. Required of all pre-medics. Three lecture hours, one hour quiz, one four-hour laboratory each week. Prerequisites: Mt 101, Mt 110....   | 5                   |
| <b>Ph 106</b>     | <b>GENERAL PHYSICS: ELECTRICITY AND MAGNETISM.</b> Electric charge, magnetism, current and resistance, electric cells, electro-magnetism, inductance and capacitance, alternating currents, thermoelectricity and elementary theory of electronics. Continuation of Ph 105. Prerequisite: Ph 105....   | 5                   |
| <b>Ph 107</b>     | <b>GENERAL PHYSICS: HEAT AND LIGHT.</b> Nature of heat, heat and gases, mechanical equivalent of heat, source and velocity of light, reflection and refraction, dispersion and color, lenses, optical instruments, interference and diffraction, polarized light, radiation and atomic structure. Continuation of Ph 106. Prerequisite: Ph 106.....  | 5                   |
| <b>Ph 200</b>     | <b>ENGINEERING PHYSICS: MECHANICS AND SOUND.</b> Vectors, uniform motion, linear and angular acceleration, force, rotational motion, mechanical energy, statics, harmonic motion, elasticity and momentum, impact, liquids at rest, liquids in motion, mechanics of gases, wave motion, sound production, sound reception and control. Three hours lecture, one hour quiz and one four-hour laboratory period each week. Prerequisites: CE 101, Mt 131.....                      | 5                   |
| <b>Ph 201</b>     | <b>ENGINEERING PHYSICS: ELECTRICITY AND MAGNETISM.</b> Electric charge, magnetism, current and resistance, electric cells, electromagnetism, inductance and capacitance, alternating currents, thermoelectricity and thermionics. Continuation of Ph 200. Prerequisite: Ph 200.....  | 5                   |
| <b>Ph 202</b>     | <b>ENGINEERING PHYSICS: HEAT AND LIGHT.</b> Effects of heat, calorimetry and change of state, thermal behavior of gases, work and heat, transfer of heat. Sources and velocity of light, reflection and refraction of light, dispersion, spectra and color, lenses, optical instruments, interference and diffraction, polarized light, radiation and atomic structure. Continuation of Ph 201. Prerequisite: Ph 201.....  | 5                   |
| <b>Ph 260</b>     | <b>MODERN PHYSICS.</b> Foundations of atomic theory, fundamental particles; nature of radiant energy; X-rays; atomic structure and spectra; wave theory of matter; radioactivity; cosmic rays. For pre-medics and science students. Five hours lecture per week. Prerequisite: Ph 107.....   | 5                   |

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| <b>Ph 261</b> | <b>MODERN PHYSICS LABORATORY.</b> No lecture. One four hour laboratory a week. Prerequisite: Ph 260.....  | 2 |
| <b>Ph 310</b> | <b>MECHANICS (INTERMEDIATE PHYSICS).</b> Distance, position and vectors; vector equations of lines and surfaces in space; scalar and cross products; the scalar and vector triple products; forces, couples and moments; motion of a particle, of a rigid body; particle dynamics and rigid body dynamics. Free use is made of the calculus. Five hours of lecture a week. Prerequisites: Ph 202, Mt 232.....   | 5 |
| <b>Ph 311</b> | <b>MECHANICS (INTERMEDIATE PHYSICS).</b> A continuation of Ph 310. Work and kinetic energy; potential energy and virtual work; impulse and momentum; mechanical vibration in one dimension; motion in a conservative force field; deformable bodies in equilibrium; mechanics of an ideal fluid; gradient velocity fields; curl, Stokes theorem, divergence, divergence theorem, equation of Euler; wave motion in one dimension; Kinetic theory. Prerequisite: Ph 310..... | 5 |
| <b>Ph 320</b> | <b>THERMODYNAMICS.</b> Equations of state; first and second laws of thermodynamics; transfer of heat; entropy and thermodynamic functions; applications of thermodynamics to pure substances, to engines, to gas reactions, to heterogenous systems; physics of very low temperatures. For Physics majors and students majoring in electrical and civil engineering. Prerequisite: Ph 202.....  | 5 |
| <b>Ph 330</b> | <b>ELECTRONICS.</b> The theory and characteristics of vacuum tubes, amplifying, triggering and pulse shaping circuits. Three hours of lecture per week and four hour laboratory period per week. Equivalent engineering courses may be substituted. Prerequisite: Ph 160, Mt 232.....   | 3 |
| <b>Ph 350</b> | <b>OPTICS.</b> Topics from geometrical optics; light as a wave motion; interference of light. Two hours of lecture per week and one four hour laboratory period per week. Prerequisites: Ph 202, Mt 231.....  | 3 |
| <b>Ph 351</b> | <b>OPTICS. (Con't.).</b> Fraunhofer diffraction; the diffraction grating; Fresnel diffraction; sources of light and their spectra; absorption and scattering; dispersion; polarization; interference of polarized light; reflection; magneto-optics and electro-optics. Four hours of lecture per week and one four-hour laboratory period per week. Prerequisite: Ph 350.....  | 5 |
| <b>Ph 360</b> | <b>MODERN PHYSICS I.</b> Chemical foundations of atomic theory; fundamental particles; assemblies of particles; atoms and nuclei; wave-particle experiments; introductory quantum mechanics; special theory of relativity; atomic structure and spectra. For physics majors and students of electrical engineering. Prerequisite: Ph 202.....   | 4 |
| <b>Ph 361</b> | <b>MODERN PHYSICS II.</b> Structure of molecules; binding and energy bands in solids; electrical, thermal and magnetic properties of solids; imperfections in solids; semiconductors; physical electronics; radioactivity and applied nuclear physics. Prerequisite: Ph 360.....  | 4 |
| <b>Ph 370</b> | <b>NUCLEAR PHYSICS.</b> Accelerators, precision instruments and techniques; nuclear forces and structure; nuclear reactions; nuclear fission and chain reaction; ionization chamber instruments; Geiger-Muller counters; radiation measurement technique; electrometers and electroscopes; nuclear emulsions. Four hours of lecture per week and one four hour laboratory per week. Prerequisite: Ph 261.....   | 5 |

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| <b>Ph 390</b> | <b>SPECIAL QUESTIONS OF MODERN PHYSICS WITH PHILOSOPHICAL IMPLICATIONS.</b> Three hours of lecture per week. Prerequisite: Ph 260 or permission.....   | <b>3</b>   |
| <b>Ph 410</b> | <b>STATISTICAL MECHANICS.</b> The partition function, Bose-Einstein Statistics; the partition function of Monatomic and Diatomic gases; conditions of equilibrium for a diatomic gas, a saturated vapor, and for alternative modifications of a solid; classical mechanics and its use of phase space; interaction between particles; Fermi-Dirac statistics. Three hours of lecture per week. Prerequisite: Ph 320.....   | <b>3</b>   |
| <b>Ph 430</b> | <b>ELECTRICITY AND MAGNETISM.</b> An intermediate course in electricity and magnetism. Conductors and dielectrics; d.c. circuits; induced emf and magnetic flux properties of capacitors and inductors; a.c. circuit problems; conduction in gases. Four hours of lecture per week and one five-hour laboratory period per week. Equivalent engineering courses may be substituted. Prerequisites: Ph 201, Mt 341.....   | <b>5</b>   |
| <b>Ph 431</b> | <b>ELECTRICITY AND MAGNETISM.</b> A continuation of Ph 430. Electrostatics; electric potential; properties of dielectrics and capacitors; electromagnetic effects; Ampere's and Faraday's laws; magnetic properties of matter; ferromagnetism; transformers; and electromagnetic waves. Four hours of lecture per week and one five-hour laboratory per week. Equivalent engineering courses may be substituted. Prerequisite: Ph 430                                    | <b>5</b>   |
| <b>Ph 480</b> | <b>MECHANICS.</b> Introduction to theoretical physics. The Linear oscillator; motion in two and three dimensions; Lagrange's and Hamilton's equations; coupled systems and normal coordinates. Five hours of lecture per week. Prerequisite: Ph 311 .....  | <b>5</b>   |
| <b>Ph 485</b> | <b>INTRODUCTION TO MATHEMATICAL PHYSICS.</b> Matrix algebra, adjoint, inverse, symmetric and antisymmetric matrices; Hamilton-Cayley theorem; linear vector functions; dyadics; eigenvectors; normal form; nonion form; symmetric dyadics; complete and incomplete dyadics; reciprocal bases; fundamentals of orthogonal functions—Gram Schmidt orthogonalization process; expansion in orthonormal functions. Five hours of lecture per week. Prerequisite: Ph 311..... | <b>5</b>   |
| <b>Ph 499</b> | <b>RESEARCH PROJECT</b> .....  | <b>2-5</b> |

### PSYCHOLOGY (Psy)

REV. JAMES E. ROYCE, S.J., PH.D., *Head*

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Major: A major in Psychology requires the completion of forty (40) quarter hours which shall include Psy 100, 201, 310, 380, 401, and 402 and at least ten (10) quarter hours of additional upper division courses taken under the direction of the head of the Department. Psychology majors may choose any minor, but are advised to take Biology, Philosophy, or Sociology.

Required Science: Human Anatomy and Physiology, and College Algebra, or their equivalents.

Undergraduate Minor: A minor in Psychology requires completion of twenty-five (25) quarter hours which shall include Psy 100 and twenty (20) quarter hours taken under the direction of the head of the Department.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Psy 100</b>    | <b>INTRODUCTORY PSYCHOLOGY.</b> A general introduction to the data of scientific psychology including its nature, scope and method; constitutional, environmental and personal factors that influence psychological behavior; details of the human organism; human activity and adjustment..... | 5                   |
| <b>Psy 101</b>    | <b>PSYCHOLOGY.</b> For students of nursing and medical technology only. A broad survey of the nature and functions of man designed to orient the professional person in her dealings with people.....   | 5                   |
| <b>Psy 201</b>    | <b>STATISTICS I.</b> Basic principles and methods for compiling and interpreting data statistically. Graphs, frequency distribution, sampling, correlation. Same as Sc 201.....   | 3                   |
| <b>Psy 202</b>    | <b>STATISTICS II.</b> Continuation of Psy 201. Sampling, regression and correlation, analysis of variance, Chi square and enumeration statistics .....  | 2                   |
| <b>Psy 301</b>    | <b>CONTEMPORARY SCHOOLS OF PSYCHOLOGY.</b> Survey and discussion of structuralism, functionalism, behaviorism, Gestalt, Freudianism, operationalism, field theory. Recent dynamic and holistic trends, and modern scholastic psychology. Prerequisites: Psy 100, Pl 251.....                    | 5                   |
| <b>Psy 310</b>    | <b>MENTAL HYGIENE AND PERSONAL ADJUSTMENT.</b> Stresses the normal personality. Self knowledge and self management; personal orientation. Various inadequate reactions; early detection, nature and causes. Prevention of mental disorders. Prerequisite: Psy 100 or 101.....                   | 5                   |
| <b>Psy 315</b>    | <b>ABNORMAL PSYCHOLOGY.</b> The concept of normality. A survey of the facts of abnormal mental life. Hypnosis, sleep, dreams, psychic phenomena, ESP, amentia, psychosomatics. Abnormalities of specific functions; theories of etiology. Prerequisite: Psy 100.....                            | 5                   |
| <b>Psy 322</b>    | <b>PSYCHOLOGY OF GROWTH AND DEVELOPMENT.</b> Development from infancy; formative aspects of childhood; puberty; characteristics and special problems of adolescents. Emotional maturation. Same as Ed 322. Prerequisites: Psy 100 or 101, and Bl 130.....                                       | 3-5                 |
| <b>Psy 323</b>    | <b>CHILD PSYCHOLOGY.</b> The child from birth to adolescence: various factors of intellectual, emotional, moral, and social development. Formation of habits. Dynamics of child behavior. Special problems. Same as Ed 323. Prerequisites: Psy 100 or 101, or equivalent.....                   | 3-5                 |
| <b>Psy 324</b>    | <b>PSYCHOLOGY OF ADOLESCENCE.</b> Physical, motivational, social, moral and intellectual aspects of the transition from childhood to adulthood. Problems of puberty, socialization, emotional and intellectual maturity. Same as Ed 324. Prerequisites: Psy 100 or 101, or equivalent.....      | 3-5                 |

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| Psy 330 | <b>PHYSIOLOGICAL PSYCHOLOGY.</b> An elementary course in the relations between mental processes and their bodily basis. Cerebrospinal and autonomic nervous systems: sense organs; endocrine glands; temperament and physique. Problem of the brain and higher thought processes. Prerequisites: Psy 100, Bl 130, 131..... | 5   |
| Psy 340 | <b>SOCIAL PSYCHOLOGY.</b> Personality in society; human conflict; mass behavior. Same as Sc 340. Prerequisites: Psy 100, Sc 100 .....  | 5   |
| Psy 345 | <b>PERSONALITY IN SOCIETY AND CULTURE.</b> An investigation into the influences of social structure, interpersonal relations and culture in the shaping of personalities in different societies and various social settings within our society. Same as Sc 345.....  | 5   |
| Psy 360 | <b>APPLIED PSYCHOLOGY.</b> Applications of psychology in medicine, law, business, and industry. Psychometrics. Vocational selection. Human efficiency, fatigue, motivation, individual differences, propaganda. Prerequisite: Psy 100....  | 5   |
| Psy 380 | <b>PSYCHOMETRICS.</b> Principles of psychological measurement. Nature, uses, and limitations of psychological testing. Reliability, validity. Prerequisite: Psy 201.....   | 3   |
| Psy 381 | <b>PSYCHOLOGICAL TESTS.</b> A survey of commonly used tests. Aim, content, administration, scoring and interpretation.....   | 3   |
| Psy 401 | <b>EXPERIMENTAL LABORATORY PSYCHOLOGY I.</b> Nature and interpretation of experimentation, psychophysical methods; sensory and perceptual processes. Three lecture hours and four laboratory hours per week. For all Psychology majors. Prerequisites: Psy 100, 201.....   | 5   |
| Psy 402 | <b>EXPERIMENTAL LABORATORY PSYCHOLOGY II.</b> Continuation of Psy 401. Emphasis on learning. Attention, imagination, motivation, and the higher thought processes. Prerequisite: Psy 401.....  | 5   |
| Psy 410 | <b>THEORIES OF PERSONALITY.</b> An advanced study of dynamics, with an introductory survey of recent developments in personality theory. Prerequisite: Psy 310 or equivalent....   | 5   |
| Psy 422 | <b>PSYCHOLOGY OF THE EXCEPTIONAL CHILD.</b> Mental and physical handicaps: defects of vision, hearing, reading, subnormal intelligence, paralysis; other atypical children; special consideration of the mentally deficient and very bright. Same as Ed 422. Prerequisite: Psy 322 or 323.....                             | 5   |
| Psy 425 | <b>GUIDANCE.</b> Practical application of the principles of psychological measurement and adjustment to guidance work, especially academic and vocational. Same as Ed 425. Prerequisites: Psy 380 and 310 or equivalent.....   | 5   |
| Psy 426 | <b>VOCATIONAL AND OCCUPATIONAL PSYCHOLOGY.</b> Evaluation of individual differences in intelligence, aptitudes, interests, needs and training; information and opportunities as determinants of occupational selection; vocational guidance and adjustment. Pre-Psy 100.....   | 3-5 |
| Psy 427 | <b>THE COUNSELING INTERVIEW.</b> Basic principles and techniques of the interview and counseling processes. Special emphasis on counselor-client relationships. Same as Ed 427. Prerequisite: Psy 310 or 322.....  | 5   |

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|----------------|---|------------|
| <b>Psy 440</b> | <b>PHILOSOPHICAL PROBLEMS IN PSYCHOLOGY.</b> The mind-body relation: history, theories, recent developments, pertinent empirical evidence. Laboratory experimental data on intellect and free choice. Related problems. Same as Pl 440. Prerequisites: Psy 100 and Pl 251.....  | <b>5</b>   |
| <b>Psy 460</b> | <b>GROUP DYNAMICS.</b> Principles and techniques of leadership in group discussion. Prerequisite: Psy 310 or equivalent.....  | <b>3-5</b> |
| <b>Psy 465</b> | <b>INDUSTRIAL PSYCHOLOGY.</b> Advanced study of applied psychology in personnel work. Job analysis; employment interviews, tests, and counseling; employee-management relationships. Prerequisite: Psy 360.....   | <b>5</b>   |
| <b>Psy 490</b> | <b>SYMPOSIUM ON ALCOHOLISM.</b> Sixteen guest lecturers, including psychiatrists and other physicians, psychologists, social workers, police and legal experts, research investigators, and a representative of Alcoholics Anonymous, supplemented by six sound films and class discussions. Psychological, educational, industrial, psychiatric, therapeutic, and rehabilitation aspects of the problem of alcoholism. Prerequisites: Junior or Senior standing in Psychology, Sociology, Pre-medicine, or Nursing, or special permission..... | <b>3</b>   |
| <b>Psy 497</b> | <b>INDIVIDUAL RESEARCH.</b> Prerequisites: Senior standing in Psychology, and permission.....   | <b>3-5</b> |
| <b>Psy 499</b> | <b>SEMINAR.</b> Prerequisites: Two courses in Psychology, and permission .....  | <b>3</b>   |

### **SOCIOLOGY (Sc)**

REV. JAMES P. GOODWIN, S.J., M.A., *Head*

#### **DEPARTMENTAL REQUIREMENTS:**

Undergraduate major: 45 quarter hours are needed for the major; of these Sc 100, 105, 201, and 390 are required of all Sociology majors.

Undergraduate minor: 25 quarter hours are needed for the minor of these, Sc 100 and 105 are required.

Courses numbered 300 and 400 may be taken by non-majors provided Sc 100 has been completed first. These courses may also be taken by majors who have completed only Sc 100, provided they have the approval of their adviser.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Sc 100</b>     | <b>INTRODUCTORY SOCIOLOGY.</b> Analysis of the family and other primary communities, the secondary communities (class or caste and the ethnic group), religion, property, and associations. The course will indicate some of the basic functional relations between these institutional structures and groups ..... | <b>5</b>            |
| <b>Sc 103</b>     | <b>GENERAL ANTHROPOLOGY.</b> Cultural groupings of modern man, including family and kinship, social classes, political organization, associations, language, economics, religion and art .....  | <b>5</b>            |
| <b>Sc 105</b>     | <b>MODERN SOCIAL PROBLEMS.</b> Presentation of the concepts of social organization and disorganization and their application to modern problems of family, interracial relations, crime, and interpersonal conflicts. Prerequisite: Sc 100.....   | <b>5</b>            |



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| Sc 108 | <b>PERSONAL AND SOCIAL LIVING.</b> Survey of social, societal, and cultural factors underlying wholesome personal development .....  | 3 |
| Sc 201 | <b>ELEMENTARY SOCIAL STATISTICS.</b> A course stressing descriptive statistics, correlations and analysis of variance.....   | 3 |
| Sc 202 | <b>SOCIAL STATISTICS II.</b> Continuation of Sc 201. Sampling, regression and correlation, analysis of variance, Chi square and enumeration statistics.....  | 2 |
| Sc 243 | <b>SOCIOLOGY OF MARRIAGE.</b> Analysis of the typical aspects of adjustment in courtship and marriage.....   | 5 |
| Sc 256 | <b>CRIMINOLOGY.</b> Description of the extent and kinds of crime; analysis of the factors of crime in their personal and social framework; review of modern corrective and preventive measures .....   | 5 |
| Sc 259 | <b>JUVENILE DELINQUENCY.</b> Study of the individual and gang delinquent; analysis of the personal and social factors of delinquency; review of modern corrective and preventive measures .....  | 5 |
| Sc 260 | <b>SOCIOLOGY OF THE FAMILY.</b> Analysis of the nature of the family, its structure and functions, its numerical composition; review of selected familial problems in the American social system.....  | 5 |
| Sc 262 | <b>SOCIOLOGY OF CHILD DEVELOPMENT.</b> Sociological analysis of the maturation of the child. Study of the child in his family setting; family process and structures; interaction between parent and child, child and siblings, child and peers; family cultures and child; the child in different class and status structures; problem families and non-familial groups; changing status of childhood in the United States..... | 5 |
| Sc 266 | <b>INTERRACIAL RELATIONS.</b> Concept of race and ethnic group; analysis of the factors in interracial and inter-ethnic tensions; examination of the programs advocated for reducing tension and producing solidarity.....   | 5 |
| Sc 270 | <b>INDIANS OF THE AMERICAS.</b> Study of American Indians before the arrival of the Whites. Includes their economy, family organization, political organization, religion, art folklore and their adaptation to conditions of modern life.....   | 5 |
| Sc 280 | <b>THE URBAN COMMUNITY.</b> Examination of the theories of population distribution; analysis of the patterns of distribution in urban and rural areas; study of trends in migration; consideration of the problems associated with population growth and with urban industrial development. A review of contemporary community studies.....  | 5 |
| Sc 292 | <b>ANTHROPOLOGY APPLIED TO MODERN LIFE.</b> Practical application of anthropology to business and industry, government, and medicine.....  | 5 |
| Sc 301 | <b>SOCIAL MOVEMENT.</b> A description and analysis of recent and contemporary social movements other than those covered in Sc 390. An attempt will be made to discover the recurrent features in social movements. (Not taught every year)....   | 5 |
| Sc 305 | <b>SOCIAL INSTITUTIONS OF CHINA AND JAPAN.....</b>   | 5 |

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| Sc 306 | <b>SOCIAL STRUCTURE OF THE UNITED STATES.</b> Analysis of the total social and cultural system of contemporary United States, with a stress on the institutions of family, class, occupational structure, structure of political authority, and religion. Contrast of the contemporary scene with that of an earlier historical period.....  | 5 |
| Sc 307 | <b>SOCIAL INSTITUTIONS OF ENGLAND, FRANCE, GERMANY</b> .....   | 5 |
| Sc 310 | <b>PRIMITIVE CULTURES AND THE MODERN WORLD.</b> A comparison of primitive cultures and our present day city culture with a view to understanding the changes taking place in our life today. The folk concept of Robert Redfield will be used as the basis for analysis. (Not taught every year) .....   | 5 |
| Sc 340 | <b>SOCIAL PSYCHOLOGY.</b> Analysis of the social factors which affect the psychological development of the human being. Prerequisite: Sc 100, Psy 100.....   | 5 |
| Sc 345 | <b>PERSONALITY IN SOCIETY AND CULTURE.</b> Study of the social and cultural processes that underlie the individual's pattern of behavior.....  | 5 |
| Sc 363 | <b>POPULATION.</b> Analysis of population trends, problems and policies. (Not taught every year).....  | 5 |
| Sc 380 | <b>METHODS OF SOCIOLOGICAL RESEARCH</b> .....  | 5 |
| Sc 390 | <b>SOCIO-ECONOMIC PROBLEMS AND REFORMS.</b> Description of the socio-economic problem of production and distribution; an investigation of such social reform movements as Communism, Nazism, Liberalism and of Catholic principles of socio-economic reform .....  | 5 |
| Sc 395 | <b>CHRISTIAN SOCIAL PHILOSOPHY.</b> A statement and analysis of the main principles of the Christian philosophy of man, society, and the relation between the Church and State. The teachings of leading Christian social philosophers are examined. The historical effects of Christian social principles are considered.....   | 5 |
| Sc 467 | <b>EDUCATIONAL SOCIOLOGY.</b> Sociological analysis of the meaning of education, educational media, and educational agencies in the American cultural pattern.....   | 5 |
| Sc 468 | <b>APPLIED EDUCATIONAL SOCIOLOGY.</b> Some principles of educational sociology applied to the teaching of Christian values and to the formation of the Christian character. A study of the principles involved in the actual working out of the Confraternity program: discussion clubs, parent-educator groups, home visitors, lay teachers, helpers, school year and vocation school plans, high school religion, the apostolate of good will..... | 2 |
| Sc 475 | <b>INTRODUCTION TO SOCIAL WORK.</b> A clarification of the difference between social science and social work; a description of the various fields of social work with occasional lectures by those active in different fields; some general notions of the nature of case work.....  | 5 |
| Sc 491 | <b>INDUSTRIAL SOCIOLOGY.</b> Study of the industrial enterprise as a social system and the psycho-social aspects of the individual's position in the industrial organization. (Not taught every year).....   | 5 |

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| Sc 494 | <b>HISTORY OF SOCIOLOGICAL THOUGHT.</b> An historical survey and evaluation of selected leading figures in the rise and development of sociology as an independent discipline. Sociological thought is traced from Comte, through the social Darwinists and the analytical sociologists of Europe, to major contemporary thinkers. American sociology is viewed from its beginning to its present status..... | 5 |
| Sc 497 | <b>INDIVIDUAL RESEARCH</b> .....  | 5 |

### SPEECH (Sph)

REV. JAMES A. GILMORE, S.J., PH.D., *Head*

#### DEPARTMENTAL REQUIREMENTS:

Undergraduate Minor: 25 hours.

Recommended: Major in English, History, Politics, Sociology.

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| Sph 140           | <b>SPEECH ESSENTIALS.</b> A systematic and realistic study of (1) the various types of speeches and their scope; (2) the personality of the speaker and his adjustment to his audience; (3) the physiology of the speech organ; (4) a particular stress on the dependence of effective speech on the proper development of ideas.....  | 5                   |
| Sph 150           | <b>DRAMA.</b> Introduction to the problems of drama, reproduction. Selecting the play, rehearsing, directing, designing, lighting, financing, and the planning of future productions. Emphasis is given penthouse, or circus, productions. The intent is that the student should have a theoretical knowledge of theatrical production and a partially practical one due to the production book which will be compiled during the course ..... | 5                   |
| Sph 160           | <b>DISCUSSION AND DEBATE.</b> Training in debate with practical demonstration by the varsity team followed by participation of the class. Discussion, open forum, and the conducting of conferences, with a thorough knowledge of formal and informal discussion and debate.....   | 5                   |
| Sph 170           | <b>INTRODUCTION TO INTERPRETIVE READING.</b> Designed to introduce the fundamentals of oral interpretation. A consideration of the problems encountered by the reader in prose, poetry, and drama. Prerequisite: Sph 140.....  | 5                   |
| Sph 240           | <b>RADIO SPEECH.</b> An introduction to radio as a profession. Consideration of the structure, nature, and problems of broadcasting. As an industry, its place in education and its influence on the public. Prerequisite: Sph 140.....  | 5                   |
| Sph 270           | <b>ADVANCED INTERPRETATIVE READING.</b> More specific application of the fundamentals to different types of literature. Methods of analysis to aid the reader in analyzing and appreciating literature. Prerequisites: Sph 140, 170.....   | 5                   |
| Sph 280           | <b>ADVANCED PUBLIC SPEAKING.</b> Choice and organization of material, oral styles, and delivery. Emphasis on the performance of the various speech types by the student.....   | 3                   |
| Sph 290           | <b>TECHNIQUES OF RADIO SPEECH AND PRODUCTION.</b> Basic microphone techniques, reading of scripts, announcing, interviews, student setup, script writing, and program production..   | 2                   |

## THEOLOGY (Th)

REV. FRANCIS J. LINDEKUGEL, S.J., S.T.L., *Head*

### DEPARTMENTAL REQUIREMENTS:

Catholic students are required to take two courses in Theology each year. The following sequence of courses is required for all degrees except those in the School of Engineering. Freshmen: Th 113 and 133 for Catholic students who have had Catholic high school religion; Th 107 and 133 for Catholic students who have not had any Catholic high school religion; non-Catholic students substitute Th 100 for these requirements and free electives in their sophomore, junior and senior years. However, Th 107, 113, 133 or 213 may be substituted for Th 100. Sophomore: Th 213 and 233 for Catholic students. Th 464 may be substituted for Th 233. Junior: Th 313 and 333 for Catholic students. Senior: Th 413 and 433 for Catholic students.

Theology courses must be taken in the order prescribed; no Theology courses may be taken concurrently.

The Theology requirements for Engineering students are as follows:

Catholic students—Freshmen: Th 113 or 133. Sophomores: Th 213 or 233. Junior and Senior students may complete their Theology requirements by registering for any three of the following courses—313, 333, 413, 433. These courses need not be taken in sequence.

Non-Catholic students may fulfill the Theology requirements by taking any one of the following courses: Th 100, 107, 113, 133, 213.

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Th 100            | <b>FOUNDATIONS OF NATURAL RELIGION.</b> Man's relationship to God and the Fundamental duties that flow from this relationship; Christ, the Author of Christianity, as revealed in the Four Gospels..... | 2                   |
| Th 107            | <b>INQUIRY FORUM.</b> The meaning of Catholicism; the essential truths, Laws and Worship of the Catholic Church.....  | 2                   |
| Th 113            | <b>THE LIFE OF CHRIST.</b> The historical background and content of the Four Gospels; Christ as Prophet and King.....   | 2                   |
| Th 133            | <b>APOLOGETICS.</b> A study of the reasons why men can and should believe with Divine Faith in the Divine origin of Christianity and the Holy Roman Catholic Church. Prerequisite: Th 107 or 113.....   | 2                   |
| Th 213            | <b>MORAL THEOLOGY.</b> The Commandments and Precepts of the Church; the Moral and Theological Virtues. Prerequisite: Th 133.....  | 2                   |
| Th 233            | <b>MARRIAGE GUIDANCE.</b> The Sacrament of Marriage; Preparation for marriage; rights and duties of husband and wife; problems in married life. Prerequisite: Th 133.....                               | 2                   |
| Th 313            | <b>DOGMATIC THEOLOGY, PART I.</b> The meaning of Catholic Faith; the Holy Trinity, Creation, Elevation and Fall of man. Prerequisite: Th 233.....   | 2                   |

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| Th 333 | <b>DOGMATIC THEOLOGY, PART II.</b> The Incarnation and Redemption; Grace, Actual and Sanctifying. Prerequisite: Th 313 .....  | 2 |
| Th 413 | <b>THE SACRAMENTS.</b> Baptism, Confirmation, Penance, Extreme Unction; the Four Last Things. Prerequisite: Th 233..  | 2 |
| Th 433 | <b>THE HOLY EUCHARIST AS SACRIFICE AND SACRAMENT.</b> Doctrine, Liturgical and Ascetical aspects of the Eucharist. Prerequisite: Th 233.....  | 2 |
| Th 444 | <b>THE LAY APOSTOLATE.</b> The place and the mission of the Laity in the Church; the soul of the Lay Apostolate, the Apostolic Virtues of the Laity; the individual and organized works of the Lay Apostolate, areas of Catholic Action—the Home, the Parish, the School, the Professions, Social and Economic Life ..... | 2 |
| Th 464 | <b>MARIOLOGY.</b> A study of the Foundation Truths of true devotion to Mary; Her Divine and Spiritual Maternity; Her fullness of Grace, Her Immaculate Conception, Perpetual Virginity, and Assumption; the practices of true devotion to Mary. Prerequisite: Th 133.....   | 2 |
| Th 474 | <b>ASCETICAL THEOLOGY.</b> A study of Christian Perfection, its nature and obligation; the general and particular means of striving for Christian Perfection; the Three Ways, Purgative, Illuminative, and Unitive. Prerequisite: Th 133.....   | 2 |
| Th 484 | <b>DOGMATIC AND SCRIPTURAL FOUNDATION FOR CATECHISTS.</b> A study of the dogmatic foundation for the teaching of the Apostle's Creed and the seven Sacraments; cases and problems relating to the Commandments of God and the Church .....  | 2 |
| Th 494 | <b>THE OLD TESTAMENT.</b> A study of the content of the Old Testament; the Prophecies, types and Figures of Christ.....   | 2 |
| Th 497 | <b>SPECIAL STUDIES IN THEOLOGY.</b> The subject matter and credit are established by arrangement.   |   |
| Th 498 | <b>SPECIAL STUDIES IN THEOLOGY.</b> The subject matter and credit are established by arrangement.   |   |

# DESCRIPTION OF COURSES FOR SISTER FORMATION CURRICULUM

## BIOLOGY

(At Mount St. Vincent's during interim period.)

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>BI 100</b>     | <b>GENERAL BIOLOGY.</b> Biological foundations; origin, classification, and organization of living things; structure and fundamental physiological processes of invertebrates; classification of the animal kingdom. Three lectures and four laboratory hours per week. Fall.....   | 5                   |
| <b>BI 141</b>     | <b>GENERAL HUMAN BIOLOGY.</b> Structural and functional foundations; organizational plan; anatomy and physiology of the skeletal, muscular, nervous, circulatory, digestive, respiratory, excretory, endocrine, and reproductive systems. Two lectures, two laboratory hours per week. Prerequisite: BI 100. Winter ..... | 3                   |
| <b>BI 142</b>     | <b>GENERAL HUMAN BIOLOGY.</b> Continuation of the above. Prerequisite: BI 141. Spring.....  | 3                   |
| <b>BI 155</b>     | <b>GENERAL PLANT BIOLOGY.</b> General structure and function of plants. Prerequisite: BI 100. Summer.....   | 3                   |

Note: Students who elect to do further work in biology follow courses listed in the general catalog.

## EDUCATION

The professional courses needed to prepare the student for teaching are offered at the end of the four-year program and are built on a foundation of liberal education including a major concentration in the social sciences and psychology. Besides the major in social science, each student will also begin a sound individualized major, the amount taken depending upon the subject, the ability of the student, and the level on which she will teach. A fifth year of post-degree work follows a teaching internship of one year during which time additional professional courses and individualized majors and electives are completed according to a program planned around individual needs.

Since much of the content sometimes taught in professional education courses has been relocated to the parent sciences in this program, the basic professional requirements have been developed in two sequences. The first, Foundations of Education, represents the culminating point of the sister's preparation in educational theory on the undergraduate level and serves as a basis for the Curriculum and Directed Teaching sequence. Foundations of Education is interdisciplinary in approach since it presupposes a background in supporting fields. Curriculum and Directed Teaching is an integrated approach to the final preparation for the teaching internship.

## COURSE DESCRIPTIONS

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>Ed 441</b>     | <b>FOUNDATIONS OF EDUCATION I.</b> This sequence is designed to give to the student data and insights from the theoretical disciplines basic to the teaching and learning process. Part I. The Learner: the learner and the school; aims and values in education; the learning process; differential characteristics of pupils; evaluation of the learning process. Winter ..... | 4-5                 |
| <b>Ed 442</b>     | <b>FOUNDATIONS OF EDUCATION II.</b> The school and the teacher: functions and responsibilities; characteristics of the American pluralistic system of education; the school in its cultural setting. Summer.....   | 4-5                 |
| <b>Ed 490</b>     | <b>CURRICULUM AND DIRECTED TEACHING.</b> A study of curriculum and methods; observation; gradual induction into teaching in grades above third (specialization for primary and secondary teaching later). Prerequisites: Ed 441-442. Spring..  | 18                  |

### HEALTH AND PHYSICAL EDUCATION

Courses carrying no credit.

Required non-credit courses in body mechanics, folk dancing, seasonal sports, plays and games. Correlation of health principles with human biology.

### ENGLISH

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>En 121</b>     | <b>ENGLISH COMPOSITION.</b> Practice in the effective use of the English language. Informal exposition. Fall, Summer....   | 5                   |
| <b>En 122</b>     | <b>ENGLISH COMPOSITION.</b> Continuation of En 121. Formal exposition; the term paper and collegiate reports. Fall.....  | 5                   |
| <b>En 260</b>     | <b>WORLD LITERATURE.</b> A reading course in non-English masterpieces of literature in translation, particularly the classics of Greek, Roman, and Italian literature. Winter..... | 4                   |
| <b>En 264</b>     | <b>BACKGROUNDS OF ENGLISH LITERATURE I.</b> A reading course in English literature from Beowulf to Wordsworth. Spring .....  | 4                   |
| <b>En 265</b>     | <b>BACKGROUNDS OF ENGLISH LITERATURE II.</b> Continuation of English 264. From Wordsworth to the present. Summer....   | 4                   |
| <b>En 400</b>     | <b>AMERICAN LITERATURE.</b> A reading course in American literature from early American to the present. Winter.....  | 4                   |

### FINE ARTS

(At Mount St. Vincent's during interim period.)

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>FA 104</b>     | <b>ART FUNDAMENTALS.</b> Study of art principles and their application; principles of color and design; experience with art forms and materials. Summer.....   | 3                   |
| <b>FA 124</b>     | <b>MUSIC FUNDAMENTALS.</b> Beginning theory, harmony, form, sight singing. Summer.....   | 3                   |
| <b>FA 201</b>     | <b>CHRISTIAN ART AND MUSIC.</b> A study of representative examples of sacred art in relation to the art of the period, using the historical approach. Formal study of Gregorian chant as the sung prayer of the Church; study of other sacred music. Fall..... | 2                   |

|               |   |   |
|---------------|---|---|
| <b>FA 202</b> | <b>CHRISTIAN ART AND MUSIC.</b> Continuation of FA 201.<br>Winter ..... | 2 |
| <b>FA 203</b> | <b>CHRISTIAN ART AND MUSIC.</b> Continuation of FA 202.<br>Spring ..... | 2 |

### HISTORY

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Hs 201</b>     | <b>WORLD CULTURES.</b> The history of Western Europe within the context of world cultures. Fall.....  | 4                   |
| <b>Hs 202</b>     | <b>WORLD CULTURES.</b> Continuation of Hs 201: Winter.....  | 4                   |
| <b>Hs 203</b>     | <b>WORLD CULTURES.</b> Continuation of Hs 202. Spring.....  | 4                   |
| <b>Hs 315</b>     | <b>HISTORY OF THE CHURCH.</b> The organization and growth of the Church against the background of political and social history. Cultural contributions of the Church to civilization. Prerequisite: Hs 201. Summer..... | 4                   |
| <b>Hs 323</b>     | <b>HISTORY OF THE UNITED STATES.</b> Discovery, exploration, and settlement; political, social, economic, and cultural development. Spring .....  | 5                   |
| <b>Hs 390</b>     | <b>HISTORY OF THE TWENTIETH CENTURY.</b> A study of political, social, economic, religious, and technological developments in the contemporary world. Summer.....   | 4                   |

### POLITICS

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Pls 325</b>    | <b>POLITICAL THEORY.</b> Basic concepts in law, liberty, and authority; philosophical approach to political theory; role of the state; organization of political power; structure of government; the international community. Winter..... | 4                   |
| <b>Pls 415</b>    | <b>NATIONAL ISSUES.</b> Interdisciplinary approach to national problems: political, social, economic, cultural. Winter.....   | 4                   |
| <b>Pls 420</b>    | <b>INTERNATIONAL ISSUES.</b> Interdisciplinary approach to political, social, and economic problems on the international level. Spring .....  | 4                   |

### LANGUAGE

(At Mount St. Vincent's during interim period.)

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>Fr 121</b>     | <b>ELEMENTARY FRENCH.</b> Conversation, grammar, easy reading and writing. Summer, Fall.....                 | 5                   |
| <b>Fr 122</b>     | <b>ELEMENTARY FRENCH.</b> Conversation, reading, writing, grammar. Prerequisite: Fr 121. Summer, Winter..... | 5                   |
| <b>Fr 201</b>     | <b>INTERMEDIATE FRENCH.</b> Short stories, conversation, writing. Prerequisite: Fr 122. Summer, Fall.....    | 4                   |
| <b>Fr 202</b>     | <b>INTERMEDIATE FRENCH.</b> Composition, conversation, reading. Prerequisite: Fr 201. Summer, Winter.....    | 4                   |

### MATHEMATICS

| <i>Course No.</i> | <i>Title and Description</i>   | <i>Credit Hours</i> |
|-------------------|--|---------------------|
| <b>Mt 301</b>     | <b>MODERN MATHEMATICS I.</b> A study of the basic concepts and deductive methods in mathematics with emphasis on the postulational approach. Topics to be considered will be selected from (1) euclidean, non-euclidean, and finite geometries; (2) natural, rational, real, and complex number systems; and (3) theory of groups, rings, and fields. Prerequisite: Mt 10 and Mt 20 (or equivalent). Fall..... | 4                   |



|               |  |   |
|---------------|--|---|
| <b>Mt 302</b> | <b>MODERN MATHEMATICS II.</b> Topics selected from (1) theory of sets, boolean algebra, and symbolic logic; and (2) discrete and normal probability. Prerequisite: Mt. 301. Winter..   | 4 |
| <b>Mt 303</b> | <b>MODERN MATHEMATICS III.</b> Topics selected from (1) analytic geometry; (2) elementary functions; and (3) concepts of limit, differentiation, and integration from calculus. The sequence will be taught with the objective of (1) creating an understanding and appreciation of mathematics as an important branch of knowledge and (2) exhibiting the relation between mathematics and the other disciplines. Prerequisite: Mt 302. Spring..... | 4 |

## NURSING

Students preparing to enter the program of nursing will follow the basic Sister Formation curriculum, selecting professional electives. They will take Introduction to Nursing during the spring quarter of their senior year and continue in the clinical unit at Providence Hospital according to the School of Nursing program. They will receive the degree of Bachelor of Arts on the completion of their liberal arts program, and the degree of Bachelor of Science in Nursing on the completion of the nursing program.

## PHILOSOPHY

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>PI 121</b>     | <b>INTRODUCTORY LOGIC.</b> A study of the laws of thought; basic concepts, deductive and inductive reasoning. Fall.....   | 3                   |
| <b>PI 132</b>     | <b>PHILOSOPHY OF BEING.</b> Meaning and nature of reality; the analogy of being; the problem of change; the intrinsic principles of being and change; theorems of potency and act; agent and final causes; the cause of limited being; transcendentals and predicaments. Prerequisite: PI 121. Winter....                               | 5                   |
| <b>PI 143</b>     | <b>PHILOSOPHY OF MAN.</b> Organic, sensory, and rational operations as evidence of the nature of man's operative powers, habits, and essential soul-matter composition. Perception, appetites, emotion, intellect, and free choice. Spirituality, immortality, and origin of the human soul. Prerequisites: PI 121 and 132. Spring..... | 5                   |
| <b>PI 261</b>     | <b>GENERAL ETHICS.</b> The general theory of moral behavior; ethics as a science; the end of man; nature and norm of objective morality, law, sanction, conscience; the virtues; right and duty; contracts, property; communism and socialism. Prerequisites: PI 121, 132. Fall.....  | 4                   |
| <b>PI 262</b>     | <b>SPECIAL ETHICS.</b> The application of general theory to the specific acts of man as an individual and as a member of society; man's duties; nature of society and the family; origin, nature and functions of the state; international society; law. Prerequisites: 261. Winter.....  | 4                   |
| <b>PI 320</b>     | <b>PHILOSOPHY OF PURE ACT.</b> The demonstration of God's existence and the metaphysics of Pure Act; analogical knowledge of God's nature; the divine attributes; God's fore knowledge and free will; divine action in the universe; Providence and the problem of evil. Prerequisite: PI 143. Summer.....                              | 4                   |

|               |  |   |
|---------------|--|---|
| <b>PI 404</b> | <b>EPISTEMOLOGY.</b> A systematic and critical study of the foundations and nature of truth and certitude in human knowledge, both on the sensory and intellectual level. Scepticism; nature of universal ideas; idealism; empiricism; Kantianism; moderate realism. Prerequisite: PI 320. Fall..... | 3 |
| <b>PI 453</b> | <b>SURVEY OF PHILOSOPHICAL SYSTEMS.</b> A study of various systems of philosophy to contemporary schools of thought. Prerequisite: PI 320. Summer.....   | 4 |

### PHYSICAL SCIENCE

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>PhS 301</b>    | <b>PHYSICAL SCIENCE.</b> An integrated course in physics, chemistry, geology, and astronomy, with the major emphasis on physics and chemistry. Study of fundamental concepts and theories; methodology; atomic theory; fundamental chemistry; Newton's laws of motion; energy; electromagnetic radiation; origin and development of the solar system; age of the earth. Fall..... | 4                   |
| <b>PhS 302</b>    | <b>PHYSICAL SCIENCE.</b> Continuation of Ph 301. Winter.....  | 4                   |
| <b>PhS 303</b>    | <b>PHYSICAL SCIENCE.</b> Continuation of Ph 302. Spring.....  | 4                   |

### PSYCHOLOGY

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Psy 190</b>    | <b>GENERAL PSYCHOLOGY.</b> A general introduction to the data of scientific psychology including its nature, scope, and method; constitutional, environmental, and personal factors that influence psychological behavior; details of the human organism; human activity and adjustment. Summer.... | 5                   |
| <b>Psy 314</b>    | <b>DEVELOPMENTAL PSYCHOLOGY.</b> Development from infancy; formative aspects of childhood; puberty; characteristics and special problems of adolescents. Emotional maturation; will training. Prerequisites: Psy 190 and Bl 142. Fall..   | 4                   |
| <b>Psy 370</b>    | <b>PSYCHOLOGY OF ADJUSTMENT.</b> Study of the normal personality; self knowledge and self management; personal orientation. Various inadequate reactions, early detection, nature, and causes. Prevention of mental disorders. Prerequisite: Psy 190. Summer.....                                   | 4                   |
| <b>Psy 417</b>    | <b>PSYCHOLOGY OF LEARNING.</b> A study of motivation, learning, individual differences, intelligence, evaluation of learning, statistical concepts. Fall.....   | 4                   |
| <b>Psy 435</b>    | <b>SOCIAL PSYCHOLOGY.</b> Personality in society; human conflict; mass behavior; techniques of group dynamics. Prerequisites: Psy 190 and Sc 200. Summer.....   | 4                   |

### SOCIOLOGY

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| <b>Sc 200</b>     | <b>INTRODUCTORY SOCIOLOGY.</b> Analysis of the family and other primary communities; the secondary communities (class or caste and the ethnic group); religion, property, and associations. The course will indicate some of the basic functional relations between these institutional structures and groups. Spring ..... | 4                   |
| <b>Sc 250</b>     | <b>SOCIAL ECONOMICS.</b> Social significance of basic principles of economics. Summer.....  | 4                   |
| <b>Sc 410</b>     | <b>SOCIAL GEOGRAPHY.</b> A study of peoples in the several world regions: their culture, economic organization, and political situation; contemporary problems. Fall.....   | 4                   |

## THEOLOGY

| <i>Course No.</i> | <i>Title and Description</i>  | <i>Credit Hours</i> |
|-------------------|---|---------------------|
| Th 101            | <b>THE SACRED LITURGY.</b> The concept of social worship; a study of the encyclicals <i>Mystici Corporis</i> and <i>Mediator Dei</i> ; the Liturgical Year. Fall.....   | 2                   |
| Th 102            | <b>THE SACRED LITURGY.</b> The liturgical life and the Holy Eucharist as sacrifice and sacrament. Winter.....   | 2                   |
| Th 268            | <b>INTRODUCTION TO SCRIPTURE.</b> Inspiration, canon, principles of interpretation; the Psalms, the Messianic Prophecies. Fall .....  | 2                   |
| Th 271            | <b>THE FOUR GOSPELS.</b> The Jewish world at the time of Christ; the content of each of the four gospels; the study of the life of Christ as an organic whole. Winter.....  | 2                   |
| Th 272            | <b>THE FOUR GOSPELS.</b> Continuation of Th 271. Spring.....  | 2                   |
| Th 281            | <b>DOGMATIC THEOLOGY.</b> Analysis of the act of faith; God, One and Three; creation, elevation and fall of man. Fall.....  | 3                   |
| Th 282            | <b>DOGMATIC THEOLOGY.</b> The Incarnation and Redemption; grace, actual and sanctifying. Winter.....  | 3                   |
| Th 283            | <b>SACRAMENTAL THEOLOGY.</b> The Sacramental System; Baptism, Confirmation, Penance, Extreme Unction, Holy Orders, and Matrimony; the Four Last Things. Spring.....   | 3                   |
| Th 285            | <b>MARIOLOGY.</b> The Divine and Spiritual Maternity of Mary; Her Immaculate Conception, Perpetual Virginity and Assumption; the nature and practice of devotion to Mary. Spring .....  | 2                   |
| Th 341            | <b>THE ACTS AND THE EPISTLES.</b> A study of the Epistles in their historical context of the Acts of the Apostles. Fall....   | 1                   |
| Th 342            | <b>THE ACT AND THE EPISTLES.</b> Continuation of Th 341. Winter .....   | 1                   |
| Th 343            | <b>THE ACTS AND THE EPISTLES.</b> Continuation of Th 341. Spring .....  | 1                   |
| Th 361            | <b>MORAL THEOLOGY.</b> General principles of moral theology. Fall .....   | 1                   |
| Th 362            | <b>MORAL THEOLOGY.</b> The theological virtues. Winter.....   | 1                   |
| Th 363            | <b>MORAL THEOLOGY.</b> The moral virtues. Spring.....   | 1                   |
| Th 451            | <b>SPIRITUAL THEOLOGY.</b> Relationship of the spiritual life to a knowledge of the truths of faith. The nature and perfection of the spiritual life; opportunities in the religious life for attaining Christian perfection. Fall..... | 1                   |
| Th 452            | <b>SPIRITUAL THEOLOGY.</b> The interior and exterior means of attaining Christian perfection. Winter.....   | 1                   |
| Th 453            | <b>SPIRITUAL THEOLOGY.</b> The Gifts of the Holy Spirit and their role in the life of religious. Spring.....  | 1                   |
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# FORM OF BEQUEST

## FOR GENERAL USE

I hereby give and bequeath to the Board of Trustees of Seattle University, Inc., a Washington corporation located in King County, and to their successors forever, for the use of the said institution in fulfillment of its general corporate purpose.....

.....  
(State the amount, or describe the properties or securities constituting the bequest.)

## FOR SPECIFIC USE

I hereby give and bequeath to the Board of Trustees of Seattle University, Inc., a Washington corporation located in King County, and to their successors forever, in trust, the sum of.....

.....  
(State the amount, or describe the properties or securities constituting the bequest.)  
as an endowment, to be known as the (*name to be remembered*) Endow-

ment Fund, the same to be invested and the income used for.....

.....  
(Indicate the particular use of the income, and the interest or phase of the work of the University which it is desired to assist.)

Remembrance may be of the donor's choice. Purposes commonly selected are:

**Unrestricted grants\***  
**Faculty chairs**  
**Scholarships**

**Student Loan Fund**  
**Buildings**  
**Equipment**

**Faculty salary**  
**Faculty improvement**

*\*Unrestricted grants provide the greatest benefit to the University because they can be applied to the areas of greatest need.*

The President of Seattle University will be happy to assist benefactors in deriving maximum personal satisfaction from their gift or bequest. Further information may be obtained from: Office of the President, Seattle University, Seattle 22, Washington.

# The American Jesuit Educational Association

## Colleges and Universities in the United States

### Conducted by the Society of Jesus

|                   |   |
|-------------------|---|
| ALABAMA           | Spring Hill College (Mobile)  |
| CALIFORNIA        | Loyola University (Los Angeles)<br>University of San Francisco<br>University of Santa Clara |
| COLORADO          | Regis College (Denver)  |
| CONNECTICUT       | Fairfield University  |
| ILLINOIS          | Loyola University (Chicago)   |
| LOUISIANA         | Loyola University (New Orleans)   |
| MARYLAND          | Loyola College (Baltimore)  |
| MASSACHUSETTS     | Boston College (Chestnut Hill)<br>Holy Cross College (Worcester)                            |
| MICHIGAN          | University of Detroit   |
| MISSOURI          | Rockhurst College (Kansas City)<br>St. Louis University                                     |
| NEBRASKA          | The Creighton University (Omaha)  |
| NEW JERSEY        | St. Peter's College (Jersey City)   |
| NEW YORK          | Canisius College (Buffalo)<br>Fordham University (New York)<br>Le Moyne College (Syracuse)  |
| OHIO              | John Carroll University (Cleveland)<br>Xavier University (Cincinnati)                       |
| PENNSYLVANIA      | St. Joseph's College (Philadelphia)<br>University of Scranton                               |
| WASHINGTON        | Gonzaga University (Spokane)<br>Seattle University  |
| WASHINGTON, D. C. | Georgetown University   |
| W. VIRGINIA       | Wheeling College  |
| WISCONSIN         | Marquette University (Milwaukee)  |