1973


Valparaiso University

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Visitors are invited; guides are available. Appointments should be made
by writing to Director of Admissions, Valparaiso University, Valparaiso,
Indiana 46383, or by calling the Admissions Office of the University. The
University number is (219) 462-5111.

For your convenience this bulletin is indexed on page 253.
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VALPARAISO UNIVERSITY BULLETIN 1973


CATALOG FOR ACADEMIC YEAR 1972-1973

Entered as second class matter at the Post Office, Valparaiso, Ind., 46383, under act of August 12, 1912. Published eight times yearly in July, August, September, November, January, March, April, and May. Published by Valparaiso University Assoc., Inc. Volume XLVII July 1, 1973 Number 1
The General Catalog Number of the Valparaiso University Bulletin is published every other year to provide a comprehensive picture of the University. In alternate years an Announcements Number is published to provide information regarding major changes in calendar, staff, program, and policies.

In addition, separate catalogs are issued relative to the School of Law, the Graduate Division, and the Summer Session.

Note: The material contained in this Bulletin is for information only and does not constitute a contract between the student and the University. The University and its various units reserve the right to revise policies, amend rules, alter regulations, and change financial charges at any time in accordance with the best interests of the institution.
UNIVERSITY CALENDAR FOR 1973-1974

For the College of Arts and Sciences, the College of Business Administration, the College of Engineering, and the College of Nursing.

1973

MINI SUMMER SESSION
(May 21 - June 14)

SUMMER SESSION

June 18, Monday, 7:30 A.M.; 1:00 P.M. Instruction begins. Late registration.
July 4, Wednesday. No classes.
August 8, Wednesday. Summer Session closes 5:00 P.M.

FALL SEMESTER

August 25, Saturday, 8:00 A.M. Orientation week for freshmen begins.
August 28, Tuesday, 8:00 A.M. Registration for upperclassmen.
August 29, Wednesday, 8:00 A.M. Registration for freshmen and transfer students.
August 30, Thursday, 8:00 A.M. Instruction begins.
August 30 - October 17. Dates for first half short courses.
September 5, Wednesday, 5:00 P.M. Deadline for adding first half short courses.
September 7, Friday, 5:00 P.M. Deadline for adding regular courses.
September 19, Wednesday, 5:00 P.M. Deadline for withdrawing from first half short courses with grade of W.
October 11 - October 17. Adjustment period for adding second half short courses (and arranging course intensification).
October 18 - December 14. Dates for second half short courses.
October 20, Saturday. Homecoming Day.
October 31, Wednesday, 5:00 P.M. Deadline for withdrawing from regular courses with grade of W.
November 1, Thursday. Last day to file application of candidacy for the bachelor's degree to be conferred in May or August 1974.
November 7, Wednesday, 5:00 P.M. Deadline for withdrawing from second half short courses with grade of W.
November 16, Friday, 10:00 P.M. Thanksgiving recess begins.
November 26, Monday, 8:00 A.M. Thanksgiving recess ends.
December 14, Friday, 6:30 P.M. Instruction ends.
December 17, Monday, 8:00 A.M. Final examinations begin.
December 21, Friday, 6:30 P.M. Final examinations end. Semester ends.
December 22, Saturday, 5:00 P.M. Deadline for all grades.

1974

SPRING SEMESTER

January 7, Monday. Orientation for new students.
January 8, Tuesday, 8:00 A.M. Registration for upperclassmen.
January 9, Wednesday, 8:00 A.M. Registration for all freshmen and transfer students.
January 10, Thursday, 8:00 A.M. Instruction begins.
January 10 - February 27. Dates for first half short courses.
January 16, Wednesday, 5:00 P.M. Deadline for adding first half short courses.
January 18, Friday, 5:00 P.M. Deadline for adding regular courses.
January 30, Wednesday, 5:00 P.M. Deadline for withdrawing from first half short courses with grade of W.
February 21 - February 27. Adjustment period for adding second half short courses (and arranging course intensification).
February 28 - May 7. Dates for second half short courses.
March 13, Wednesday, 5:00 P.M. Deadline for withdrawing from regular courses with grade of W.
March 15, Friday, 6:30 P.M. Spring recess begins.
April 1, Monday, 8:00 A.M. Spring recess ends.
April 3, Wednesday, 5:00 P.M. Deadline for withdrawing from second half short courses with grade of W.
April 12, Friday. Vacation day.
April 26, Friday, 6:30 P.M. Spring Festival.
April 27, Saturday. Spring Festival.
May 1, Wednesday. Last day to file application of candidacy for the bachelor's degree to be conferred in December 1974.
May 7, Tuesday, 10:00 P.M. Instruction ends.
May 8, Reading day.
May 9, Thursday, 8:00 A.M. Final examinations begin.
May 14, Tuesday, 6:30 P.M. Final examinations end. Semester ends.
May 15, Wednesday, Noon. Deadline for grades for all candidates for all degrees.
May 17, Friday, 5:00 P.M. Deadline for all grades.
May 19, Sunday. 100th Annual Commencement.

Certain other dates are observed annually by the University with special convocations or special religious services: The Festival of the Reformation, Veterans Day, Lincoln's Birthday, Washington's Birthday, Ash Wednesday, and The Festival of the Ascension.

UNIVERSITY CALENDAR FOR 1974-1975

For the College of Arts and Sciences, the College of Business Administration, the College of Engineering, and the College of Nursing.

1974

MINI SUMMER SESSION
(May 20-June 13)

SUMMER SESSION

June 17, Monday, 7:30 A.M.; 1:00 P.M. Instruction begins. Late registration.
July 4 and 5, Thursday and Friday. No classes.
August 7, Wednesday. Summer Session closes 5:00 P.M.

FALL SEMESTER

August 24, Saturday, 8:00 A.M. Orientation week for freshmen begins.
August 27, Tuesday, 8:00 A.M. Registration for upperclassmen.
August 28, Wednesday, 8:00 A.M. Registration for freshmen and transfer students.
August 29, Thursday, 8:00 A.M. Instruction begins.
September 4, Wednesday, 5:00 P.M. Deadline for adding first half short courses.
September 6, Friday, 5:00 P.M. Deadline for adding regular courses.
September 18, Wednesday, 5:00 P.M. Deadline for withdrawing from first half short courses with grade of W.
October 10 - October 16. Adjustment period for adding second half short courses (and arranging course intensification).
October 12, Saturday. Homecoming Day.
October 17 - December 13. Dates for second half short courses.
October 30, Wednesday, 5:00 P.M. Deadline for withdrawing from regular courses with grade of W.
November 1, Friday. Last day to file application of candidacy for the bachelor's degree to be conferred in May or August 1975.
November 6, Wednesday, 5:00 P.M. Deadline for withdrawing from second half short courses with grade of W.
November 22, Friday, 10:00 P.M. Thanksgiving recess begins.
December 2, Monday, 8:00 A.M. Thanksgiving recess ends.
December 13, Friday, 6:30 P.M. Instruction ends.
December 16, Monday, 8:00 A.M. Final examinations begin.
December 20, Friday, 6:30 P.M. Final examinations end. Semester ends.
December 21, Saturday, 5:00 P.M. Deadline for all grades.
1975
SPRING SEMESTER

January 6, Monday. Orientation for new students.
January 7, Tuesday, 8:00 A.M. Registration for upperclassmen.
January 8, Wednesday, 8:00 A.M. Registration for all freshmen and transfer students.
January 9, Thursday, 8:00 A.M. Instruction begins.
January 15, Wednesday, 5:00 P.M. Deadline for adding first half short courses.
January 17, Friday, 5:00 P.M. Deadline for adding regular courses.
January 29, Wednesday, 5:00 P.M. Deadline for withdrawing from first half short courses with grade of W.

February 20 - February 26. Adjustment period for adding second half short courses (and arranging course intensification).
February 27 - May 6. Dates for second half short courses.
March 12, Wednesday, 5:00 P.M. Deadline for withdrawing from regular courses with grade of W.
March 14, Friday, 6:30 P.M. Spring recess begins.
March 31, Monday, 8:00 A.M. Spring recess ends.
April 2, Wednesday, 5:00 P.M. Deadline for withdrawing from second half short courses with grade of W.
April 25, Friday, 6:30 P.M. Spring Festival.
April 26, Saturday. Spring Festival.
May 1, Thursday. Last day to file application of candidacy for the bachelor's degree to be conferred in December 1975.
May 6, Tuesday, 6:30 P.M. Instruction ends.
May 7. Reading day.
May 8, Thursday, 8:00 A.M. Final examinations begin.
May 13, Tuesday, 6:30 P.M. Final examinations end. Semester ends.
May 14, Wednesday, Noon. Deadline for grades for all candidates for all degrees.
May 16, Friday, 5:00 P.M. Deadline for all grades.
May 18, Sunday. 101st Annual Commencement.

Certain other dates are observed annually by the University with special convocations or special religious services: The Festival of the Reformation, Veterans Day, Lincoln’s Birthday, Washington’s Birthday, Ash Wednesday, and The Festival of the Ascension.
GENERAL INFORMATION

VALPARAISO UNIVERSITY

Valparaiso University is a medium sized, private, church-related, coeducational university which includes seven units: the College of Arts and Sciences, Christ College, the College of Business Administration, the College of Engineering, the College of Nursing, the School of Law, and the Graduate Division. In addition, cooperative nursing programs are offered in Cleveland and St. Louis. The University has a total student enrollment of over 4,600, a full-time on-campus enrollment of over 3,900, and a faculty which numbers over 250. The educational program utilizes a plant of over 70 instructional and residential buildings, located on a campus of 303 acres and comprising property valued at over $30,000,000.

As the nation's largest Lutheran-affiliated institution of higher education, Valparaiso University is large enough to provide a broad range of academic programs and collegiate experiences; yet, in its seven units, it is oriented to small classes and individual guidance. Through its commitment to academic excellence, Valparaiso is truly a university; yet, by its rootage in Christian heritage, it shares the message of the church.

OBJECTIVES

Valparaiso University aspires to serve the growth of whole men and women. As thought, feeling, and expression are always involved in human action, an educational philosophy or program which neglects any of these factors must in some degree be inadequate. In common with other institutions of higher learning, Valparaiso University is concerned with the preservation and application of the accumulated knowledge of mankind. As a church-related institution, the University sees knowledge of the Christian tradition as essential to the educated man; for this reason it places emphasis on the religious heritage of mankind, particularly on the Christian heritage as grasped by the Lutheran Church, which constitutes the largest body of Protestant Christians in the world.

HISTORICAL BACKGROUND

Valparaiso University's history has three distinct phases. Valparaiso Male and Female Academy was founded in 1859 as one of the first coeducational institutions in our land.

After reverses caused by the Civil War, classes were suspended in 1869, but the institution was revived by Henry Baker Brown as the Northern Indiana Normal School and Business Institute in 1873. "Mr. Brown's School," a flourishing private, proprietary institution, was renamed Valparaiso College in 1900 and rechartered as Valparaiso University in 1907.

A new chapter in the history of the University was begun in the summer of 1925, when the University was purchased by the Lutheran University Association. This Association, an Indiana corporation composed of men and women affiliated with the Lutheran Church-Missouri Synod, now owns and controls the University.

The oldest current unit of the University is the College of Arts and Sciences, dating back to the founding of the institution in 1859. The School
of Law was founded in 1879 as the Northern Indiana Law School and became part of the University in 1905. The reorganized College of Engineering dates back to 1949. Graduate Division offerings first appeared in 1963. The Department of Business and Economics became the College of Business Administration in 1964. In 1966, the honors program of the University was reorganized into Christ College, a separate honors unit in the institutional structure. The newest school is the College of Nursing, inaugurated in 1968.

LOCATION

Valparaiso, Indiana, the seat of the University, is forty-four miles southeast of Chicago. It is a residential city of twenty thousand inhabitants. Porter County, of which it is the county seat, adjoins the industrial communities of the Calumet District. The community is served by Greyhound and Trailways Bus Lines. Commuter service is available from the local airport to the major airports in Chicago.

The location of Valparaiso offers many advantages. Students of physical geography and biology profit by the fact that the city is situated on the crest of the Valparaiso Terminal Moraine and that it is within a few miles of the Indiana Dunes, Lake Michigan, and the marshes of the Kankakee River region. Students of the sciences, both physical and social, and of commercial studies find the nearness of the great Calumet Industrial District and of Chicago a great advantage. Field trips and inspection trips form a regular part of the course of study in several departments.

Since Chicago can be reached in approximately an hour by car or railroad, many students also take advantage of the cultural opportunities offered by the great libraries, museums, art galleries, and concert halls of that city.

Students interested in outdoor life find the small lakes nearby and Lake Michigan, which is only twelve miles away, a great advantage.

ACCREDITATION

Valparaiso University is fully accredited by the North Central Association of Colleges and Secondary Schools for the offering of bachelor's and master's degrees. The undergraduate and graduate programs for the preparation of teachers are approved by both the Indiana State Department of Public Instruction and the National Council for Accreditation of Teacher Education. Valparaiso's offerings are further accredited by the National Association of Schools of Music and approved by the American Association of University Women. The University is a member of the American Association of Colleges for Teacher Education, the American Council on Education, the Association of American Colleges, the Council on Social Work Education, and the Lutheran Education Association.

The School of Law is a member of the Association of American Law Schools and is approved by the American Bar Association.

The College of Engineering is fully accredited in all its degree programs by the Engineers' Council for Professional Development, and is an institutional member of the American Society for Engineering Education. The College of Engineering has a local chapter of Tau Beta Pi, the national engineering honorary fraternity, on the campus.
The College of Nursing is accredited by the Indiana State Board of Nurses' Registration and Nursing Education and is an agency member of the National League for Nursing and its Council of Baccalaureate and Higher Degree Programs.

"IN THY LIGHT WE SEE LIGHT"

Valparaiso University's emphasis on the cultivation of man's spiritual nature is summarized in its motto: "In thy light we see light."

The ministry of Word and Sacraments centers in the Chapel of the Resurrection, which is pictured on the cover of this Bulletin. A pastoral ministry is carried on also in the residence halls.

The team ministry includes the Dean of the Chapel, who is also Preacher to the University; the President of the University, the Chancellor of the University, and members of the faculty and student body. The core staff is composed of persons with particular responsibility for theology, worship, counseling ministry, residential ministry, and the arts. Three choirs, several instrumental groups and many other students and faculty members participate in preparing and conducting a variety of services. The University community has Morning Prayer daily, Monday through Friday, during the academic year. This is the time for members of the University to identify themselves as a Christian community committed to learning and growth toward the service of Christ and men. On Sunday, Matins and Holy Communion are held, and Vespers are conducted every evening of the week.

FACULTY

The 250-member faculty of the University represents a rich variety of graduate study and personal experience in a broad range of fields. The student-faculty ratio is comparatively low. While the University includes a Graduate Division, the graduate students are not used for teaching undergraduate courses. With few exceptions, the teaching program is carried out by full-time faculty members. The basic emphasis at Valparaiso is thus on quality teaching. However, faculty members are encouraged to do research in their respective fields to develop further teaching competence.

STUDENT CONDUCT

When a student enrolls at Valparaiso University, he thereby accepts the rules, regulations, and procedures as found in the University Catalog and the Student Handbook. Conformity to the traditions and regulations of the University is expected. The University reserves the right to suspend or dismiss any student at any time when, in the judgment of its authorities, that action is deemed to be in the best interests of the institution. Such a decision will normally be made only by the President of the University on the recommendation of the Campus Judiciary Board.

THE HONOR SYSTEM

The student-initiated Honor System has a 25-year history at Valparaiso University and is a strong distinguishing characteristic of the institution. It is in every way consistent with the highest principles of Christian ethics.
and morality. In sanctioning the Honor System, the University presumes that students are able and willing to accept the duties and responsibilities of honorable conduct for the sake of the Valparaiso University community. Before he can be admitted to the University, every entering student must sign a statement declaring his willingness to adhere to the Honor System.

Under the Honor System all written examinations, of any length, are taken in an atmosphere free from the surveillance of a proctor. Every student has the responsibility to keep academic work free of dishonesty, that is, to neither give nor receive unauthorized aid. Non-toleration of the use of unauthorized aid is a further responsibility which is inherent in the Honor System. Each student must report to the Honor Council any violation of the System of which he becomes aware. The student is usually asked to sign a pledge on work done for academic credit to the effect that no unauthorized aid was given, received, or tolerated.

The Honor Council is an educational, preventive, remedial, and judicial body with the duty of maintaining the Honor System in the academic community. The Council hears alleged Honor Code violations and then makes a recommendation to the President of the University regarding guilt or innocence and any penalty. The Council is composed of students who are chosen by the incumbent members subject to the approval of the President of the University.

The faculty reserves the right to abrogate the Honor System at any time.
STUDENT PERSONNEL PROGRAM

The student personnel program, which is under the supervision of the Vice-President for Student Affairs, coordinates the various services provided by the University for student welfare and development. It is designed to assist each student in attaining the highest possible level of achievement in academic, personal, social, and vocational situations. A complete personnel record of each student is kept in the office of the Vice-President for Student Affairs.

UNIVERSITY COUNSELING SERVICES

Academic Counseling

Shortly after his initial registration, each student is assigned to an adviser who confers with the student and serves as friend, confidant, and counselor. In these conferences, an effort is made: (1) to acquaint each student with the offerings, activities, and regulations of the University; (2) to assist him in self-analysis; (3) to assist him in making intelligent academic and vocational choices on the basis of such analysis; (4) to provide guidance for the attainment of these goals.

Chapel Counseling Center

Under the direction of the Dean of the Chapel a pastoral counselor is available every evening each week in the chapel. Here students may consult a counselor on any personal or theological concern.

University Counseling Center

The professional psychologists here offer individual and group counseling and psychological testing for all full-time students who desire it. The Director supervises the Open Loft, a drug education service, and coordinates all the counseling services on campus. A consulting psychiatrist is available through the Director or through the University Health Center.
The Chapel and University Counseling Centers function as administratively independent offices. Their records are kept separate and confidential and are available to others only on the written request of the counselee.

**PLACEMENT SERVICE**

The Office of Placement and Career Counseling offers assistance to Valparaiso graduates in securing employment and offers counseling to all students who may need assistance in making vocational choices.

As a member of National College Placement Associations, the University has close contact with a wide variety of businesses, industries, and government agencies throughout the country. Each year, a large number of companies and agencies send representatives to the campus in order to interview seniors.

The Office keeps on file the credentials (personal data and references) of all graduates who register, without any charge.

Browsing racks at the Office contain a wealth of information regarding institutions, companies, and job opportunities.

The Teacher Placement Office gives assistance to beginning and experienced teacher candidates who have completed requirements for certification under the supervision of the Department of Education in Valparaiso University.

**ADVISORY PROGRAM**

Each entering student is assigned to an academic adviser to assist him in selecting a curriculum, meeting University requirements, and making the most of his studies.

In the College of Arts and Sciences, a student who has not declared a major is assigned a general adviser. As soon as a student declares a major, he is assigned to his major department for advising. The major field of study should be chosen by the beginning of the junior year at the latest. Students who are interested in teacher certification should declare that intention at the beginning of the freshman year if they desire to complete their degree and certification requirements in four years. The failure to take courses which anticipate the requirements of some fields of study may lengthen the time needed to complete degree requirements.

Each student must have his schedule signed by his academic adviser at the beginning of each semester before his schedule is filed with the Registrar. Subsequent changes in his schedule must also be signed by the student’s adviser. The signature of an academic adviser simply indicates that the adviser has counseled the student.

**THE LUMEN CHRISTI MEDAL**

The *Lumen Christi* Medal is awarded to a layman for distinguished service to Lutheranism. It is the highest honor Valparaiso University can bestow.

**AWARDS AND PRIZES**

*Lutheran Laymen’s League Scholarship Awards*

Scholarship keys and cash awards are given each year by the Lutheran Laymen’s League to the highest ranking graduating seniors. Of these awards, three are available in the College of Arts and Sciences, three in the College of Business Administration, three in the College of Engineering, three in
the School of Law, three in the College of Nursing, and one for a graduating
senior in the Lutheran Deaconess Program.

**The Sloan Galleries of American Paintings Prizes**
The Sloan Galleries of American Paintings annually award prizes to
students for work done in the various media taught in the Department of
Art. The Committee on the Sloan Fund, which determines the recipient,
reserves the right to retain the works as additions to the Sloan Collection.

**Pi Sigma Alpha Scholarship Award**
An annual award is presented by the Beta Nu Chapter of Pi Sigma Alpha,
national honorary political science organization, to the political science
major who has the highest average in at least 18 credit hours of political
science at the completion of his seventh semester.

**Delta Theta Phi Scholarship Award**
An annual award is presented by Rentner Senate of the Delta Theta Phi
Law Fraternity to the pre-law student who, at the completion of his seventh
semester, has the highest average in all collegiate work taken at Valparaiso
University, provided that he has completed at least four of the seven
academic semesters at Valparaiso University.
Lauretta Kramer Award
A plaque is given by Alpha Phi Omega to the graduating senior major in social work who has contributed most in social service to the campus and who is outstanding in scholarship, achievement, intelligence, and character.

The Walther M. Miller Memorial Prize
The Walther M. Miller Memorial Prize is awarded annually to a graduating student who has majored in German and demonstrated excellence and promise in German studies at Valparaiso University. This prize is awarded in memory of Dr. Walther M. Miller, Distinguished Service Professor of German Language and Literature.

STUDENT ACTIVITIES

The Student Senate is empowered by the Instrument for Internal Governance of the University with executive, legislative, and judicial powers over the student body. It is composed of upper class student representatives and officers elected in the spring and freshman representatives elected in the fall. The Student Senate is to enable students to assume the privileges and responsibilities of self-government. It also coordinates the five standing committees of Publications, Broadcasting, Activities, Residence, and Union Operations.

The Committee on Publications is responsible for policies and regulations of the publications of the Student Senate. These publications include The Torch, the official newspaper of the student body; The Beacon, the University yearbook; The Lighter, a variety magazine; and The Candle, a supplementary guide to undergraduate courses, published at the beginning of each semester.

The Committee on Broadcasting is responsible for the policies and regulations of the campus radio station, WVUR, (89.5 FM).

The Committee on Activities has as its purpose to develop, present and coordinate social, cultural, recreational and educational events and programs which shall broaden student acquaintanceships and improve student life.

The Committee on Residences has responsibility for the policies and procedures regarding residence hall use.

The Committee on Union Operations is responsible for the policies and procedures related to Union Building use.

Academic or Professional Organizations:
American Society of Civil Engineers, American Society of Mechanical Engineers, Student Business Association, Chemistry Club, Engineering Society, Geography Club, Home Economics Club, Institute of Electrical and Electronic Engineers, Phi Mu Alpha—Music men, Physics Society, Pre-Med Society, Psychology Club, Sigma Alpha Iota—Music women, Social Services Club, Sociology Club, Student Education Association, University Players, Varsity Club.

Honorary Societies:
Alpha Lambda Delta—Freshman women, Alpha Pi—Senior men, Alpha Psi Omega—Drama, Aurora—Junior women, Eta Sigma Phi—Classics, Gamma Theta Upsilon—Geography, Junior Men's Honor Guard, Kappa Delta Pi—Education, Mortar Board—Senior women, Phi Alpha Epsilon—Journalism, Pi Sigma Alpha—Political Science,
Sigma Xi—Research, Tau Beta Pi—Engineering, Alpha Epsilon Delta —Pre-Medical and Pre-Dental.

Miscellaneous Organizations:
Gamma Delta, Gold Splash—Swimming, Highlights, Women’s Recreation Association, Young Democrats, International Relations Club, Mental Health Club, Young Republicans, Alpha Phi Omega, Caparange, Young Americans for Freedom.

The Valparaiso Union, on the new campus, is the center of social activity. The Union is the living room of the campus; it is a place to relax, to meet friends, to bring visitors.

Among the many facilities of the Union is the short-order counter, providing meals, snacks, and late evening refreshments. Private dining rooms are available too, for special dinners.

Other facilities are the social and banquet hall and art gallery. There is also a game area with four bowling alleys, tables for billiards, pool, and table tennis.

Offices of the Student Senate and student publications are located in the Union as are the offices of other student organizations.

The meeting rooms in the Union are used by all campus organizations, and many services are offered to various campus groups.

Intercollegiate and Intramural Athletics. The programs of intercollegiate and intramural athletics are integral parts of the total educational program, giving all students opportunities to participate in many kinds of physical activity, and giving those students who have special aptitudes for certain sports many chances to achieve a high level of mastery.

Participation with proper guidance will give the student the chance to develop many sound qualities and attitudes: respect for discipline and rules and constituted authority, valuing of teamwork, capacity to lead and direct, the ability to act effectively under stress, and self-discipline in times of achievement.

The mind and the spirit can best express themselves through a healthy body, and participation in athletic activities can enable a person to attain a wholeness of body, mind, and spirit which is in keeping with the true meaning of the education of the total individual.

For the non-participants—students, faculty, community, supporting constituency, and other friends of the University—the program of intercollegiate athletics serves as a rallying point, providing a common interest through which a common loyalty, a spirit of unity, and high morale can be created and developed on and off campus.

Valparaiso University is a member of the Indiana Intercollegiate Athletic Association, the Indiana Collegiate Conference, and the National Collegiate Athletic Association, and participates in the following college sports—football, basketball, baseball, tennis, golf, track, wrestling, swimming and cross country. The Director of Athletics is responsible to the President of the University in the administration of the program within the framework of policies established by the University Senate on recommendation of its Committee on Intercollegiate Athletics. Academic eligibility rules which govern membership on the various athletic teams are established by the faculty. All men who have won the athletic letter “V” through participation in college athletics make up the Varsity “V” Association.
The University is definitely committed to a thorough and complete program of intramural athletics whose aim is to provide some sort of wholesome and stimulating athletic activity for every student. Many different team and individual activities in which all students are invited to participate are scheduled throughout the academic year. Co-recreational activities are included in this program.

Intramural and intercollegiate programs of sports for women are sponsored by the Women's Physical Education Division. Intramural sports are planned according to the desires of the students. Intercollegiate sports include basketball, field hockey, golf, gymnastics, tennis, synchronized swimming, and volleyball. Every woman student is eligible for both programs contingent upon the academic eligibility standards of the University. The University is a member of the American Recreation Federation of Indiana College Women, the Indiana Women's Intercollegiate Sports Organization, the Midwest Association for Intercollegiate Athletics for Women, and the Association for Intercollegiate Athletics for Women.

The University provides an experienced staff and takes every precaution to avoid injury to all participants in the intercollegiate and intramural programs; however, the University assumes no responsibility for accidents, and students participating in intramural and intercollegiate athletics do so at their own risk.

The University Theatre, under the supervision of the Department of Speech and Drama, provides a means for creative activity in curricular and extracurricular areas. The work in theatre encompasses two objectives. First, it provides a program of cultural enrichment through active participation in plays; students become acquainted with great drama of the past and present, developing a sound critical sense. Second, it gives students practical training in acting and all phases of play production, including experience in various aspects of personnel management and modern advertising.
The University Theatre annually presents four major stage productions, one of which is a musical. Students are thereby given training in specialized forms of acting. These major productions are supplemented by studio and one-act plays which are classroom productions directed by students in play directing and special project courses.

Musical Opportunities: Musical organizations of the Department of Music are open to qualified students from all disciplines. The choral organizations include the University Choir, the Schola Cantorum, the University Choral Society, and the Liturgical Choir. The University Choir and the Schola Cantorum perform the finest in choral literature both sacred and secular. The primary function of the Choral Society is to prepare large works for performance with the University Orchestra. A Chamber Choir provides service music for the Chapel and performs small choral chamber works.

The University-Civic Orchestra and the University Chamber Orchestra appear in several concerts each year in which students, faculty, and guests often appear as soloists. They assist the University Choral Society in the production of large-scale choral works and participate in opera productions. The Concert and Symphonic Bands are dedicated to the performance of the best in band literature. The Marching Crusaders Band and the Pep Band provide music for athletic events, and the Stage Band provides a workshop in jazz literature.

The Opera Workshop is an ensemble class for gifted singers devoted to the study and performance of major operatic works. Chamber music groups are open to students who can qualify by audition. The Collegium Musicum specializes in the performance of works outside the standard choral and instrumental repertoire. A number of instruments are available to students enrolled in the above ensembles.

The department annually sponsors a church music seminar and numerous instrumental and vocal workshops. Tours by the University Band and the University Choir have become annual events. University choirs toured in Europe in 1963, 1965, and 1971.
Students may enroll for applied music lessons upon payment of an applied music fee. Registration for applied music entitles the student to practice room facilities.

Service Opportunities offered by Alpha Phi Omega and a number of other organizations give students opportunity to extend service to the University community. Gamma Delta, affiliated with the national organization of the Lutheran Student Service Commission, sponsors a regular program of fellowship, recreation, and special speakers.

Specially qualified upperclass students are eligible for positions as counselors in the residence halls.

Alpha Phi Omega is a national service fraternity, composed of college men assembled to develop leadership, promote friendship, and render service to the campus, community, and nation. Valparaiso Zeta Gamma Chapter, founded in 1948, maintains an office at 818 Mound Street. Although Alpha Phi Omega is a service fraternity, its program contains many social events. Membership in this, the world's largest fraternity, in no way interferes with membership in a social fraternity. Pledgeship requires no hazing but is instead a period of constructive service.

Fraternities and sororities on this campus are more than simply social clubs. Offering academic challenge, the close friendship of "brothers" and "sisters," athletic competition at the intramural level, opportunities for community service projects, as well as a comfortable social atmosphere, fraternities and sororities add much to the college education of some students. Fraternity and sorority members are actively represented in student leadership, athletics, and professional organizations.

The Dean of Women is the official adviser to the sororities and the Intersorority Council. The Dean of Men is the official adviser to the fraternities and the Interfraternity Council.
SOCIAL ACTIVITIES

The University is operated on the assumption that a sound and interesting social program is an important part of student life. A Director of Cultural and Social Activities acts as general adviser for all social events. Students share in the responsibility for arranging the all-campus social program through the student Committee on Activities. In the various residence halls, there is a well-rounded social program under the supervision of the residence hall directors and their social program committees. Sororities and fraternities have numerous social events. The center of social activities is the Valparaiso Union. Parties, picnics at the Dunes State Park, ski trips, concerts by professional groups, a series of films, and other activities contribute to a well-rounded social program.

LECTURES

*The John Martin Gross and Clara Amanda Gross Memorial Lectures*, established by Mr. and Mrs. Walter H. Gross, are delivered annually by outstanding religious leaders to the entire University community.

*The J. W. Miller Memorial Lectures*, delivered during Reformation Week by prominent religious leaders, were established in memory of Pastor J. W. Miller, who was an important influence in establishing Valparaiso as a Lutheran university.

*The A. J. W. and Elfrieda M. LeBien Endowment Fund for Lectures on Liturgy* provides income for lectures on liturgy and for publication of brochures related to the Chapel.

*University Lectures* on various topics of current interest are presented from time to time at University convocations as an integral part of Valparaiso's educational program.

*The Percy H. Sloan Memorial Lectures in Art*, established as a memorial to Percy H. Sloan, who endowed the Sloan Galleries, are ordinarily presented monthly by prominent artists.
THE SLOAN GALLERIES OF AMERICAN PAINTINGS

The Sloan Galleries of American Paintings and their extensive collection of works by American artists are located in the Henry F. Moellering Memorial Library. The collection and a fund for its maintenance and expansion were gifts to the University from Spencer and Percy H. Sloan in memory of their parents, Junius R. and Sara L. Spencer Sloan. Approximately four hundred paintings in this collection are in constant exhibition in the Galleries and throughout the campus, making a significant contribution to cultural life. In addition, the Galleries maintain a schedule of visiting exhibitions representing various aspects of American art.

UNIVERSITY LIBRARY FACILITIES

The Henry F. Moellering Memorial Library, the general library of the University, contains over 245,000 standard volumes and over 115,000 additional items of government publications, bound periodicals, pamphlets, microfilm reels, and microcards. It receives over 1,100 periodicals and newspapers and is an associate member of the Midwest Periodical Bank. The Library is also a depository for selected publications of the United States government. The book stacks are open to all students, and the reading rooms are air-conditioned. Musical and literary recordings are available in a separate listening room. The University Archives, Instructional Materials Center, and Developmental Reading Laboratory are located on the lower level of the Library.
The Curriculum Library is located in the Education Building, and a special collection of over 75,000 maps is housed with the facilities of the Geography Department in Kroencke Hall. The library of the School of Law is located in Wesemann Hall.

THE CAMPUS

Seventy instructional, residential, and service buildings are located on the 303-acre campus of the University. The buildings and grounds are valued at approximately thirty million dollars.

The 46-acre campus purchased by the Lutheran University Association in 1925 now is known as West Campus. The newer East Campus has been acquired and developed by the University Board of Directors since 1944. Southeast from it across U. S. Highway 30 is the Alumni Campus, a 52-acre tract acquired by the Alumni Association and presented to the University as a Centennial gift in 1959. Eastward across Indiana Highway 49, a 58-acre extension of the East Campus was developed in 1969 with the construction of eight all-purpose intramural fields, a hard surface track, and a varsity baseball facility. Additional physical education, intramural, and intercollegiate athletic facilities are planned here.
MAJOR BUILDINGS

Chapel of the Resurrection—At the center of the University's developing campus and of its activities, is the largest university chapel in North America. Funds received from members of the Lutheran Church—Missouri Synod, alumni of the University, members of the Valparaiso University Guild, and many others made possible the construction of this Chapel seating over 3,000 persons. First used in the fall of 1958, the structure was dedicated September 27, 1959.

The Baptistery, at the foot of the circular staircase leading from the narthex, includes a five and one-half ton font made of a single block of Rockville granite, a paschal candelstand, and a 17-foot hanging sculpture made of torch-fired bronze. The Music Window, crafted in Cologne, Germany, and rising more than 55 feet in the center front of the Chapel, is the gift of Mr. and Mrs. Richard E. Meier. The Chancel Windows, also crafted in Cologne, are gifts of Mr. and Mrs. Alfred C. Munderloh. The Fred and Ella Reddel Memorial Organ has a movable console and 70 ranks, with potential for expansion; among its unique features is a 61-pipe copper Trompeta Real. The pulpit was given by the family of the Rev. Louis G. Nuechterlein as a memorial to his ministry. The altar and altar rail were a gift of Mr. and Mrs. Len C. Heine. The Christus Rex, a symbolic representation of Christ's victory over death, is a memorial to Miss Elizabeth Selle, a former student at the University. The Chapel office, at the west side of the narthex, and the Baptistery were gifts of Mr. and Mrs. A. J. W. LeBien.

The August H. and Ella Louise Brandt Campanile, flanking the Chapel and towering to a height of 143 feet, sounds out the passing hours and the calls to worship with the notes of a 61-bell electronic carillon, a gift of the University Guild.

The Henry F. Moellering Memorial Library—Dedicated on December 6, 1959, the library is a gift of Mrs. Henry F. Moellering of Fort Wayne,
Indiana, and her children. Supplementary funds were provided by the Lilly Endowment, Inc., of Indianapolis and the Kresge Foundation of Detroit. An addition was completed in the fall of 1969. A two-story structure with three stack levels, the original library provides reading space for 500 persons and shelf space for more than 200,000 volumes. The addition provides space for 160 individual study carrels, including several private carrels for graduate students and faculty members engaged in research, and shelf space for 70,000 volumes. The lower level contains stacks, archives, seminar rooms, faculty lounge, instructional materials center, rare books, and an educational laboratory. The main level consists of two large reading rooms, lobby, circulation desk, catalog file, lounge, offices, stacks, receiving room and workroom. The Sloan Galleries of American Paintings are located on the main floor.

*Alumni Hall* is a residence hall for men and women, first occupied in 1966. The room only fee is $300.00 per semester. Women will be housed on the upper floors and men on the lower floors.

*Art-Music Building*, formerly the Engineering Laboratory, was designed, financed, and constructed by students in 1949. It is now remodeled for use by the Departments of Art and Music.

*Baldwin Hall* contains general classrooms and laboratory space for the Department of Psychology.

*Bogarte Hall* contains classrooms and offices for the Department of Speech and Drama.

*Brandt Hall*, a residence hall for 332 men, was first occupied in 1962. The room only fee is $300.00 per semester.

*Christ College* contains the President's office, the office of the Dean of Christ College, faculty offices, classrooms, seminar rooms, lecture-theatre room, and a small dining-meeting room. A gift of an anonymous donor, it was first occupied in 1970.

*Dau Hall*, a residence hall, octagonal in shape, for 164 freshman men, was constructed in 1955 as a twin to Kreinheder Hall, to which it is connected by coed dining and commons rooms added in 1964. The room only fee is $300.00 per semester.

*Deaconess Hall*, a dormitory and headquarters for the Lutheran Deaconess Association, was constructed in 1957 with funds from the Lutheran Women's Missionary League and the "Building for Christ" campaign of The Lutheran Church-Missouri Synod. It houses 60 women and includes a chapel, meal facilities, and offices.

*De Motte Hall*’s three upper floors house the College of Business Administration; the ground floor contains a lecture room, laboratory, and an office of the Department of Geography.

*Education Building*, the former elementary school building of Immanuel Lutheran Church, Valparaiso, was purchased and renovated for teacher education purposes in 1968.

*Fraternity row*, consisting of six dormitory residences housing 50 men each, was built in 1969 and made available for use by fraternities.

*Gellersen Engineering-Mathematics Center*, made possible by the gift of William Gellersen, was first occupied in 1968 and contains all offices, classrooms, and laboratories of the College of Engineering and the Department of Mathematics.
Graland Hall, completed in 1956, contains the offices of the Division of Public and Alumni Affairs.

Guild Center of Admissions, a gift of the Valparaiso University Guild occupied in 1965, has facilities for the Director of Admissions, Director of Financial Aid, and a conference room for the University's Board of Directors. A 1969 addition houses the offices of the Dean of Student Services and Placement Director.

Guild Hall, a gift of the Valparaiso University Guild, is a residence hall for women built with Memorial Hall in 1947. The room only fee is $275.00 per semester. The Office of the Vice-President for Administration is in the north wing of the ground floor, and the Office of the Registrar is in the south wing.

Gymnasium, constructed in 1939, contains a gymnasium, offices, team rooms, locker and shower rooms. A major expansion, completed in 1963, includes a six-lane intercollegiate swimming pool, over 2,000 additional gymnasium seats, an auxiliary gymnasium, wrestling room, multipurpose room, additional dressing rooms, and offices.

Health Service Building, adjacent to Scheele Hall, is a former private home renovated to accommodate the offices of the Medical Director and his staff.

Heimlich Hall contains general-purpose classrooms and several studios for the Department of Art. The third floor houses the studio of radio station WVUR.

Heritage Hall contains a small psychology classroom, a large general classroom, student lounge, and administrative and faculty offices.

Kreinheder Hall is a residence hall, octagonal in shape, for 164 freshman women, constructed in 1955 as a twin to Dau Hall, to which it is connected by coed dining and commons rooms which were added in 1964. The room only fee is $300.00 per semester.

Kroencke Hall, completed in 1952, provides classrooms, a small theatre-auditorium, and laboratories for the Department of Speech and Drama, as well as classrooms and offices for the Department of Geography. An addition, in 1956, provides space for classes in stage design, costume design, and make-up, as well as storage for theatre properties and costumes.

Lankenau Hall is a residence hall for 332 women, first occupied in 1964. The room only fee is $300.00 per semester.

LeBien Hall is named for University benefactors, Mr. Alfred J. W. and his wife, Elfrieda M. LeBien. The College of Nursing building is located less than a block from Porter Memorial Hospital, and contains large lecture-demonstration classrooms, a multi-purpose room, seminar rooms, offices, and lounges. It was first occupied in 1970.

Lembke Hall contains an art laboratory and faculty offices.

Loke Home Economics Center, the gift of Mr. and Mrs. Edgar William Loke and other friends, was first occupied in 1968 and contains three large laboratory-classroom areas and six offices.

Richard E. Meier Hall is a one-story brick building, completed in 1968, which has 18 classrooms, a language laboratory, and offices for faculty members.
Memorial Hall, a residence hall for women, was built with Guild Hall in 1947. The room only fee is $275.00 per semester. The Computer Center is located in the north wing on the ground floor.

Moody Laboratory, completed in 1946, houses psychology laboratories.

Music Building, providing practice rooms and offices for the Department of Music, was first occupied in 1972.

Julius and Mary Neils Science Center, a gift of the Neils family, contains offices, laboratories, and research facilities for the Departments of Biology and Chemistry. The first unit was completed in 1967.

Scheele Hall, a five-story residence hall accommodating 328 sorority women and providing sorority-allocated lounges, was first occupied in 1961. The room only fee is $300.00 per semester.

Student Affairs Building, a former residence owned by Immanuel Lutheran Church, was renovated for faculty and administrative offices in 1967. It contains the offices of the Vice-President for Student Affairs and of the Deans of Men and Women.

Valparaiso Union, completed in 1955, contains student offices, lounges, meeting rooms, recreation facilities, a short-order counter, and dining and banquet rooms. The Union, a center of activity for the campus community, is designed to serve as an informal educational agency through its programs and facilities and to provide a rounded and wholesome social, cultural, and recreational program.

Wehrenberg Hall, a four-story, Y-shaped residence hall for 285 men, was first occupied in 1959. The room only fee is $300.00 per semester.

Wesemann Hall, the School of Law building, named for benefactors Mr. and Mrs. Adolph H. Wesemann, contains a classroom wing with two classrooms, a classroom-courtroom, a faculty lounge, and a seminar room; a library wing with stacks for approximately 70,000 volumes, librarian’s office and workroom, eight double carrel alcoves, and eight private study rooms; and an office wing. Wesemann Hall was occupied in 1963.

**EXPENSES***

UNDERGRADUATE AND PROFESSIONAL TUITION

<table>
<thead>
<tr>
<th>College or School</th>
<th>Each Semester</th>
<th>Academic Year (2 semesters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Arts and Sciences—</td>
<td>$1,010.00</td>
<td>$2,020.00**</td>
</tr>
<tr>
<td>College of Business Administration—</td>
<td>1,010.00</td>
<td>2,020.00</td>
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<tr>
<td>College of Engineering—</td>
<td>1,010.00</td>
<td>2,020.00</td>
</tr>
<tr>
<td>College of Nursing—</td>
<td>1,010.00</td>
<td>2,020.00</td>
</tr>
<tr>
<td>School of Law—</td>
<td>1,010.00</td>
<td>2,020.00</td>
</tr>
</tbody>
</table>

*Any day student who registers for a given semester in day and Evening Division classes will be considered to be a day student and will be charged the regular charges applicable to a day student. A day student may not take more than 6 hours in the Evening Division Program.

**Music majors add $40.00 per semester ($80.00 per year). This includes all applied music fees.
The General Fee for each semester amounts to $82.00, composed of a Student Senate Fee of $13.50 and a University Fee of $68.50. The fee is paid by all full-time students registered for at least 10 credit hours per semester. The University fee of $68.50 is used to defray the cost of the following services: The Union mortgage and operation, the athletic program, the Health Center and student hospitalization and travel insurance, the Library and special activities, such as the Band, University Players, and lectures and convocations. The Student Senate Fee of $13.50 is administered, by authorization, as the Student Senate determines.

Laboratory fees are charged in some departments and are listed under the respective courses. All students enrolling for laboratory courses are financially responsible for breakage or damage to equipment. Instructors report such damage to the Business Office and the student or the parent is billed for the cost of repair or replacement.

Applied Music Fees—The University encourages students to continue applied music instruction by charging modest fees for private lessons. Non-music majors will pay a fee of $60.00 per semester for instruction in one private or class lesson in applied music with no additional charge for use of instrument or practice room. Students taking private lessons beyond one applied music subject will pay an additional $30.00 for each subject.

Students taking private music lessons are held responsible for making arrangements with the instructor to complete all lessons during the semester. If the student is unable to complete within the semester the series of lessons for which he was assessed, a report should be made immediately to the chairman of the department by the student.

*Tuition and Fees for Part-time Students

Undergraduate and Professional Programs

Students who register for no more than 9 credit hours are classified as part-time students.

Students who register for from 7 to 9 credit hours pay a tuition charge of $50.00 per credit hour and pay a general fee of $32.00 each semester. This fee does not include the use of the facilities of the health service nor participation in the student insurance plan.

Students who register for no more than 6 credit hours pay a tuition charge of $50.00 per credit hour and pay a general fee of $17.00 each semester. This fee does not include the use of the facilities of the health service, nor participation in the student insurance plan, nor the Union building fee.

Students who initially register as part-time students and subsequently increase their registration load will be charged tuition and fees in accordance with policies which pertain to their revised program.

Auditors pay $50.00 per credit hour equivalent.

Tuition and fees for students enrolled in courses in the Evening Division

*For Selective Service purposes, a full-time student is one who is carrying a minimum of 24 semester credits for the year (two semesters) in the College of Arts and Sciences, College of Business Administration, or the College of Engineering; 22 semester credits in the School of Law.

For Veterans Administration purposes, a full-time undergraduate student is one who is carrying a minimum of 12 semester credits for each semester of the school year (7 semester credits in a summer session).
offered by the University are listed in the separate publication issued by the Director.

**HOUSING REGULATIONS**

*University Regulations* require all freshmen, sophomores, and juniors* to live in University residence halls. Exceptions are made for veterans, those who at the fall registration will be 21 before the next January 1, those living with parents or spouse, and sophomore and junior fraternity men who live in a fraternity house.

*Seniors, Graduate, Law, and Married Students*—Students in these categories, other than married students, may apply to live in University residence halls. Students in all these categories may examine in person in the Housing Office a listing of rooms in private homes, apartments, and homes for sale or rent. Every landlord whose property is listed assures students of no discrimination. Students desiring such accommodations should plan to visit campus at least six weeks prior to the semester of enrollment to inspect the available listings and make arrangements with the individual landlords. These listings are not provided by mail nor over the telephone. The University is not involved in arrangements between students and landlords, except in the event of racial discrimination.

*Application* for University housing is mailed to each new student with the Permit to Enter form. This application and the $50.00 housing deposit should be returned to the Admissions Office as soon as possible (former students returning should mail their deposit to the Business Office). All checks should be made payable to Valparaiso University Association, Inc. A student who occupies a room in a residence hall will have $50.00 credited to his entire account. All returning students for whom the University can provide housing in its own residence halls, and who desire such accommodations for the Fall Semester, are required to make an advance room deposit of $50.00 on or before April 11.

*Assignments* to a residence hall will be made by the Housing Office in the order in which they are received. The University will endeavor but cannot guarantee to assign accommodations according to the preferences indicated by the student.

*Class standing is determined by academic standards.*
Refunds of $25.00 will be given if a written notice of cancellation is received by the Housing Office on or before August 1 for the Fall Semester. No refund will be given after this date. If a student is denied admission or readmission or if the University should be unable to provide housing, the full amount of the deposit will be refunded.

An agreement is entered into by each student assigned University housing which makes it mandatory for him to occupy the residence hall space assigned for both semesters of the school year excluding vacation periods. The student is permitted to move out of the residence hall only if he withdraws from the University or graduates.

Roommate preferences should be listed on the housing application. Freshmen are notified in July of their roommate assignments. The specific room number in the residence hall will be given when the student arrives on campus.

Arrival at the residence hall for new freshmen and new transfer students should coincide with the first day of orientation activities, to be announced later. All students are expected to report immediately to their assigned residence hall when they arrive on campus for specific room assignment. Luggage may be sent a week prior to the opening of the residence halls. Any changes in the residence hall assignment must be submitted in writing and receive permission from the Housing Office. No guest accommodations are available in the residence halls.

All rooms in the University residence halls are provided with the necessary basic furniture. Occupants generally supply their own bedding, pillows, towels, lamps, and throw rugs if desired. Coin operated washers and driers and ironing boards are also provided within each residence hall. Several laundries and dry cleaning establishments are located adjacent to the
campus. Most students use the optional linen service from a local firm at a reasonable rate, which provides fresh linen (sheets, pillowcases, towels, and wash cloths) each week. A blanket rental service is also available from the same source. Draperies are provided. Further information is available from the Housing Office.

The University residence halls are under the care of resident directors. All students residing in University-owned residence halls and houses are financially responsible for damage to rooms and equipment. Residence hall directors report such damage to the Business Office and the student or the parent is billed for the cost of repair or replacement.

The University reserves the right to make changes in residence hall assignments if necessary for the most effective accommodation of the student body.

DINING FACILITIES

The University operates dining facilities for the convenience of its students in the Valparaiso Union and in several residence halls.

Students may pay cash for each meal, may purchase meal coupon books which can be used to pay for snacks or meals, or may purchase a board contract for an entire semester (20 meals per week).

Meal coupon books will be available in $10.00 or $30.00 denominations from the Business Office and the dining rooms. Coupons may be used in any dining facility on campus, including the Valparaiso Union. The contract plan is priced at approximately $265.00 per semester.
ESTIMATE OF EXPENSES

The following table will enable the student to form an estimate of average expenses for one semester:

<table>
<thead>
<tr>
<th>College of Arts and Sciences</th>
<th>Average Cost</th>
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</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$1,010.00</td>
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<tr>
<td>General Fee</td>
<td>82.00</td>
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<tr>
<td>Rent of Room and Board</td>
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<tr>
<td>Lab. Fees, Books, and Supplies</td>
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<tr>
<td>Total</td>
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<table>
<thead>
<tr>
<th>College of Business Administration</th>
<th>Average Cost</th>
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</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$1,010.00</td>
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<tr>
<td>General Fee</td>
<td>82.00</td>
</tr>
<tr>
<td>Rent of Room and Board</td>
<td>565.00</td>
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<td>Lab. Fees, Books, and Supplies</td>
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<tr>
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<thead>
<tr>
<th>College of Engineering</th>
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<tbody>
<tr>
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<tr>
<td>General Fee</td>
<td>82.00</td>
</tr>
<tr>
<td>Rent of Room and Board</td>
<td>565.00</td>
</tr>
<tr>
<td>Lab. Fees, Books, and Supplies</td>
<td>100.00</td>
</tr>
<tr>
<td>Total</td>
<td>$1,757.00</td>
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<table>
<thead>
<tr>
<th>College of Nursing</th>
<th>Average Cost</th>
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</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$1,010.00</td>
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<tr>
<td>General Fee</td>
<td>82.00</td>
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<td>Rent of Room and Board</td>
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<td>Lab. Fees, Books, Supplies, and Insurance</td>
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<tr>
<th>School of Law</th>
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<tbody>
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<td>Tuition</td>
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<tr>
<td>General Fee</td>
<td>82.00</td>
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<tr>
<td>Rent of Room and Board</td>
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</tr>
<tr>
<td>Lab. Fees, Books, and Supplies</td>
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</tr>
<tr>
<td>Total</td>
<td>$1,757.00</td>
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</tbody>
</table>

The expenses for each academic year (two semesters) are approximately twice the above semester figures.

Clothing, travel, incidental expenses, fees for applied music lessons, and special fees** are not included in these estimates.

*Amounts due the University are payable in full at the time of registration for each semester.

Parents are billed approximately three weeks prior to registration with

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*The student is responsible for her own transportation whenever it is necessary for off-campus clinical experience.
**See Special Fees, p. 31.
an invoice containing the estimated charges for the coming semester. Either payment or evidence of participating in an approved education expense payment plan as outlined below must be received in the Business Office a week prior to registration. The minor adjustments in the billing required by additional course fees, for example, are detailed in a statement forwarded to the parents approximately one month after registration. Credits for scholarships, loans, grants, etc., may be deducted in arriving at the balance due prior to registration.

Amounts to be earned through campus employment may not be deducted, since these are paid during the course of the semester directly to the student through our regular payroll procedure.

No degree will be conferred upon and no transcript of credit will be given for a student whose account with the University or the Student Senate has not been settled in full.

EDUCATIONAL EXPENSE PAYMENT PLANS

Parents of Valparaiso University students may select one of the following commercial plans for the payment of educational expenses:
(a) Insured Tuition Payment Plan, which can spread the cost of tuition plus room and board charges over a period of 49 months or as many as 80 months on an extended payment plan.
(b) College Aid Plan. This plan permits the parents to select a schedule which may be more flexible than (a) above.
(c) The Tuition Plan, Inc., provides services similar to (b) above.
(d) Education Funds, Inc., provides a means of paying out of current income where borrowing is not required. A ten-month payment program is available to cover each academic year.

Additional information on these plans can be secured from the Admissions Office, the Director of Financial Aid, or the Business Office of the University.

PAYEE

Drafts, checks, and money orders, should be made payable to the Valparaiso University Association, Inc.

REFUNDS†

In case of formal voluntary withdrawal* only, the tuition fee and room rent in university operated dormitories are refundable as indicated below. Refunds are made until seven weeks after the first official day of classes of a semester. If a student is dismissed, there is no refund due. General, special, and laboratory fees are never refunded.

<table>
<thead>
<tr>
<th>Week of Semester</th>
<th>Tuition</th>
<th>$300.00 Rate</th>
<th>$275.00 Rate</th>
<th>$230.00 Rate</th>
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<td>$210.00</td>
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<td>180.00</td>
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<td>370.00</td>
<td>75.00</td>
<td>75.00</td>
<td>50.00</td>
</tr>
</tbody>
</table>

†Based on the day the application to withdraw is submitted to the Office of the Registrar.
*See p. 55.
Refunds are made to students unless the University is instructed in writing to remit to parents or guardians. Refunds must be claimed in writing within six months of the close of the semester in which the assessments were made.

**SPECIAL FEES**

Application—$10.00. This fee is payable at the time of application for admission to the University. It is not refundable.

Automobile Registration—$10.00.

Matriculation—$5.00. This fee is payable once only, when the student registers in the University.

Graduation—$15.00, payable at the time formal application for a degree is filed.

Developmental Reading Program—$28.00.

Transcript—No charge is made for the first transcript issued. One dollar is required for each additional transcript. No official transcript of a student's record is released until the student has met in full his obligations to the University.

Late Registration—$40.00. This fee becomes effective after the close of the last official day of formal registration. In no case will late registrants be exempted from this fee, unless for valid reasons they have been given written authorization for exemption by the Vice-President for Student Affairs.

**STUDENT SENATE FEE**

The Student Senate fee is collected by the University each semester and is allocated to the Student Senate. This entitles the student to participate in the activities conducted by the Student Senate and its committees. This includes lectures, entertainment, publications, University Radio Station, and other activities sponsored by the Student Senate.

**FINANCIAL AID**

The financial aid program at Valparaiso is intended to provide financial assistance to students who, without such aid, would be unable to attend the University. In selecting the students to receive this assistance, the University places primary emphasis on the student's academic achievement, character, and future promise. Financial aid consists of scholarships, grants, loans, and campus employment which may be offered to a student singly or in various combinations. The family of a student is expected to make a maximum effort to assist him with college expenses. Assistance awarded by Valparaiso should be viewed as supplementary to the effort of the family, and will not exceed the need of the candidate.

In order to assist in achieving these objectives, the University participates actively in the College Scholarship Service of the College Entrance Examination Board. It supports the principles and practices of this organization and requires that the parents of all aid candidates submit the Parents' Confidential Statement of the College Scholarship Service.
TYPES OF AWARDS

SCHOLARSHIPS
Normally a student qualifies academically for a scholarship when he ranks in the upper ten per cent of his graduating class and has reported scores on the Scholastic Aptitude Test of the College Entrance Examination Board which clearly indicate that he should be able to maintain a 3.0 average at Valparaiso. Scholarships vary in size from $100 Honorary Citations to awards of full tuition.

HONORARY CITATIONS
Superior students who qualify for a scholarship but who can assume financial responsibility for their education without financial assistance may receive this non-renewable award. The citation with a stipend of $100 is given at the time of entrance. An applicant is not required to submit the Parents' Confidential Statement.

ACADEMIC GRANTS
Students who need financial assistance and are expected to do better than average academic work may receive an academic grant.

GRANTS-IN-AID
Grants-in-aid are available to students in critical need of financial assistance and who are expected to maintain at least a 2.0 average at Valparaiso.

EDUCATIONAL OPPORTUNITY GRANTS
Provided for in the Higher Educational Act of 1965, Educational Opportunity Grants are awarded to students whose families can assist them to only a limited extent. The size of the grants varies from $200 to $1,000 according to the computed amount of parental contribution from income and assets.

CAMPUS EMPLOYMENT
Students are employed on campus as departmental assistants, library workers, dormitory receptionists, typists, stenographers, maintenance workers, and cafeteria workers. Salaries range from $100 to $400 per academic year at the rate of $1.60 per hour. The College Work-Study Program, created by the Economic Opportunity Act of 1964, funds some of the campus employment.

Assignments will not be made to the detriment of the student's academic success.

LOANS
Valparaiso participates in the well known National Defense Student Loan Program, through which a student may borrow at an interest rate of 3% with repayment of principal and interest deferred until the termination of his full-time college attendance. A student may borrow up to $1,000 per year depending on his need. If the borrower teaches after graduation, the loan will be cancelled at the rate of 10% for each year he teaches, to a maximum of 50%.

A smaller number of student loans are privately administered by the University.

RENEWAL
With the exception of scholarships, which will be in effect as long as the student achieves a 2.8 average on the 4.0 system for the preceding fall and spring semesters, all financial assistance requires a yearly application, including the filing of a Parents' Confidential Statement. Renewal depends
on continued need and the availability of funds. In addition, the minimum academic requirement for an academic grant is 2.4 and for grants-in-aid, 2.0. Academic probation precludes a student from receiving financial assistance.

**METHOD OF APPLICATION**

The following procedure should be followed by any student entering the University for the first time who wishes to apply for financial assistance:

1. File an Application for Admission with the Director of Admissions. No student may be considered for scholarship until his formal application has been approved.

2. Submit a Parents' Confidential Statement to the College Scholarship Service with Valparaiso University being listed as an institution to receive a copy and its analysis. This form may be secured from your high school guidance office or by writing the Office of Financial Aid, Valparaiso University.

   The filing of the PCS should be completed at the time of application for admission or as soon as possible thereafter. The Committee on Financial Aid cannot guarantee aid consideration for those students whose PCS arrives later than April 15.

3. Take the Scholastic Aptitude Test (morning section) of the College Board Examination. These scores are necessary for admission approval as well as for aid consideration.

**SCHOLARSHIPS**

Listed below are the specific scholarships awarded annually by Valparaiso University. The largest portion of the awards available are University Scholarships. Recipients of these specific scholarships are selected from the total group of applicants who have completed the regular application procedure. By completing this application, a candidate may assume that he will automatically be considered for whichever of these restricted awards he is eligible. If additional information is required of him, he will be contacted after he has filed the standard application for financial assistance.

*University Scholarships.* In addition to the specific endowed, donated, and other scholarships listed below, the Board of Directors annually authorizes hundreds of scholarships ranging in value from $100.00 to $1,500.00 a year.

*Honorary Citation.* $100.00 one-time awards—students with no need.

*Aid Association for Lutherans.* Certificate-holding student members.

*Mr. and Mrs. Oliver W. (Emma) Allen.* Preministerial student—$600.00 annually.

*Alpha Phi Delta Sorority*—Upperclass sorority member.

*Anna B. Althans.* Social work major—annual award.

*Reverend Theodore and Vera Andres Scholarship*—annual award.

*Herbert C. Bartelt Scholarship.* Valparaiso University senior student who plans to enter the Lutheran Ministry by way of Concordia Seminary in St. Louis, Missouri or Springfield, Illinois.

*Dr. and Mrs. Henry Frederick Beckman.* Resident of Indianapolis, Indiana—annual award.

*Charlotte Berus Scholarship*—College of Nursing—annual award.
The William F. and Martha Boeger Memorial Scholarship. Varying amounts for needy students.
(Mrs.) Amalie Bokerman. Resident of Pennsylvania—annual award.
John V. Borgerding. Resident of greater Pittsburgh or Pennsylvania—annual award.
Brown Dairy. Resident of Porter County, Indiana—$200.00 annually.
Julius C. Bruechner Scholarship. Any student in need of assistance.
Luella R. and Herbert P. Buettow Scholarship. Worthy student(s) who plans to enter upon a career in the broad service of the Church. The award will be made on the basis of academic ability, character, future promise, and need for financial assistance.
John E. Christen Memorial Scholarship—$600.00 annual scholarship for the School of Law.
City Glass Specialty, Incorporated. Resident of Fort Wayne, Indiana—$1,200.00 annually.
Alpha Gamma Chapter of Delta Kappa Gamma. Senior woman resident of Porter, Jasper, Newton, or Pulaski Counties in Indiana—$125.00 annually.
Sophie Doern Scholarship—annual award.
Reverend and Mrs. P. J. (Myrtle E.) Eickstaedt. Annual award.
Carl and Bertha Eigert Scholarship. Outstanding students. Awards made on the basis of academic ability, character, and need.
Robert Elmore Findling Memorial. Engineering student—$100.00 annually.
First Federal Savings and Loan Association of Valparaiso. Porter County, Indiana resident—$1,000.00 annually.
First National Bank, Valparaiso—Resident of Porter County, Indiana—$1,500.00 annually.
The Henry W. Flemming Scholarship—for qualified students from the Rochester, New York, area, if possible—annual award.
Dr. and Mrs. E. C. Galsterer. Resident of Saginaw, Michigan or Saginaw Valley.
Gast Manufacturing Corporation. Resident of Southwestern Michigan, if possible—majoring in engineering—$1,000.00 annually.
General Motors Corporation. Candidate outstanding in scholarship, character, and leadership—full expenses for four years awarded every other year.
Grace Fund Scholarship. Resident of Cleveland—$250.00 annually.
The Henry C. and Ura E. Guhl. Annual award.
Harvey Scholarship—Pre-osteopathic major, if possible.
Charles G. Hauser. Children of employees of Litchfield Creamery Company, Missouri, or child of Missouri Synod Lutheran pastor at Litchfield—two awards—$250.00 annually.
The Dr. Karl H. Henrichs Scholarships. For Lutheran or other students. The scholarship sponsors are Mr. and Mrs. Henry J. Moellering. The amount and numbers will vary depending on the earnings of the established funds.
Mary Hilgemeier. Preferably a member of Emmaus congregation, Indianapolis, Indiana—$200.00 annually.

*The Clara A. Holeman Scholarships.* Varying amounts for needy students in the fields of chemistry and medicine.

*Oscar Homann.* Residents of Illinois—$300.00 annually.

*Joyce Huegli Memorial Scholarship.* Awarded annually in varying amounts to student in the College of Nursing.

*Indiana Highway Constructors, Inc.* Civil engineering student for residents of the state of Indiana in varying amounts annually.

*Indiana Home Economics Association.* $350.00 scholarship to upper-class student, rotated alphabetically among privately supported institutions that offer degree in home economics.

*Judge and Mrs. F. A. Jaeckel Memorial.* Annual award.

*Richard F. and Martha W. Jeske.* Annual award.

*Edward Jiede, Jr.* Annual award.

*Mr. and Mrs. Emil Jochum.* Scholarships in varying amounts up to full tuition annually for students from Ohio, preferably Cleveland and vicinity.

*Kappa Kappa Kappa.* Senior girl from Valparaiso High School—annual award.

*Mr. and Mrs. Victor Kirsch.* $1,000.00 annually.

*Mrs. H. F. (Erra) Koenemann Award*—for a student in the College of Nursing.

*Koinonia Scholarship.* Junior or senior student in the Lutheran Deaconess Training Program—$300.00 annually.

*The O. P. Kretzmann Scholarship Fund.* Established by the Class of 1970 to honor Dr. O. P. Kretzmann. This scholarship is a four-year award given to student(s) outstanding in scholarship, character, and leadership. Awarded annually in varying amounts.

*William H. Kroeger.* Resident of Akron, Ohio—annual award.

*Frederick William Kroencke Memorial.* Upperclass student.


*Earl F. Landgrebe.* $275.00 annually.

*Mr. and Mrs. Erwin A. Lange.* Major in College of Business Administration or Department of Mathematics—annual award.

*A.J.W. and Elfrieda M. LeBien.* College of Nursing student—$600.00 annually.

*John A. Liechti Scholarship Fund.* Any student in need of assistance.

*Carl F. Lindberg Memorial.* Student in elementary education and student in secondary education—two awards in varying amounts annually.

*Mr. and Mrs. Eric Lippert.* Annual awards.

*Mr. and Mrs. J. A. Long.* Resident of Central Illinois—$200.00 annually.

*Lutheran Brotherhood Life Insurance Society.* Three junior Lutheran students—$500.00 each annually—also Lutheran high school seniors excelling in leadership—nine scholarships—$300.00 each annually.

*Lutheran Colleges Law School.* Students in or graduates of Lutheran colleges and universities throughout the United States—each award full-tuition.

Dr. E. W. Marquardt. Annual award.

May Stone and Sand, Inc. Resident of Fort Wayne, Indiana—$1,500.00 annually.

Charles A. Maynard Memorial. Student majoring in the College of Engineering—$500.00 annually.

Mr. and Mrs. Dirk Meyer. Resident of Pekin, Illinois—annual award.

Henry F. Moellering. Resident of Fort Wayne or Allen County, Indiana—annual award.

Northern Indiana Bank and Trust Company. Resident of Porter County—full tuition annually.

The Nicholas H. and Marguerite Lilly Noyes Endowed Scholarship Fund—authorized by the Board of Directors of Valparaiso University to honor Mr. and Mrs. Noyes, whose generosity makes this scholarship possible. The Noyes Scholars are to be selected on the basis of need, character, personality, and leadership. The number of Noyes Scholars and the amount of scholarship will be determined each year by the University Scholarship Committee.

Dr. and Mrs. Richard Oster. Resident of New Orleans, Louisiana—$1,000.00 annually.

Owens-Corning Fiberglas. Preference to engineering student (s) —$1,500.00.

Mollie V. Page. Member of Bethany Lutheran congregation, Waynesboro, Virginia—annual award.

John Van Alstyne Peller Memorial. Upperclass student in College of Engineering, preferably civil—$200.00 annually.

Porter Memorial Hospital Guild. Residents of Porter County, Indiana who desire to enter the College of Nursing—$2,000.00 annually.

Mr. and Mrs. Carl Rittberger. Resident of Columbus, Lancaster, or Zanesville, Ohio area or from State of Ohio—$750.00 annually.

Frederick C. Roehl. Resident of Wisconsin, preferably the Oconomowoc area—$650.00 annually.

Adele Ruettgers Scholarship Fund. Student in the College of Nursing.

Byron E. Schofield. $5,000.00 to be used as a scholarship fund to aid a needy law student(s).

Frederick C. Schuldt, Jr. Scholarship—College of Nursing annual award.

Carl W. and Caroline D. Seyboldt. Member of Bethlehem Lutheran Church, Ridgewood, New Jersey—$600.00 annually.

Louis and Helen Zahn Shales Scholarship. Awarded annually to a member of the First Lutheran Church, Berkeley and Marlboro Streets, Boston, Massachusetts.

Mr. and Mrs. Hugh O. Sherbert Scholarship. The income from this endowed scholarship, established with a gift of $10,000, is to be awarded to Lutheran students from Minnesota, preferably to graduates from Lutheran high schools.

John F. Sievers Memorial. Major in business or mathematics—$200.00 annually.

The Sigma Tau Gamma Undergraduate Scholarship. Amount and number to vary depending on the earnings of the established fund.
Stanley B. Sink Scholarship. Valparaiso Community student.
Byron Smith Memorial. Resident of Porter County—$600.00 annually.
Margaret Krause Smith. Student from Tennessee, preferably Chattanooga area—$1,000.00 annually.
Bertha A. Staede Memorial. Music major—resident of Minnesota—annual award.
Edward I. P. Staede and Amanda Hall Staede. Annual awards.
J. L. Stendel Family Memorial Scholarships. Available to Michigan students or other students if there are not enough from Michigan requiring assistance. Varying in number depending on the earnings of the fund established.
Frederick A. Stendell and Harry E. Stendell. Annual award.
Arthur Sturm Memorial. Resident of Northern Wisconsin District or State of Wisconsin—$700.00 annually.
Margaretta Sackville Tangerman Scholarship Fund—The income from this scholarship program will be awarded annually to a junior or senior social work major.
Lawrence E. Teich. Chemistry or engineering student—annual award.
Mrs. A. Teske. Resident of Central Illinois—$250.00 annually.
Bertha S. Tietjen Scholarship—resident of California, preferably from the San Francisco area.
Turk Family. Resident of Porter County, Indiana—annual award.
Dr. and Mrs. H. L. Ulbrich. Annual award.
Urschel Laboratories. $500.00 annually.
F. G. Walker. Resident of Cleveland or Cuyahoga County, Ohio—annual award.
Philip Wambsganss Memorial. Resident of Allen County, Indiana—$175.00 annually.
Angus Ward Foreign Service. Expressed intention to serve as career officer in Foreign Service of the United States—full-tuition annually.
Mr. and Mrs. Henry Wehrenberg, Sr. Descendants of Henry W. Wehrenberg, Sr.—One annual award—$1,000.00 maximum.
Wellman's. Resident of Valparaiso, Indiana—$500.00 annually.
Dr. and Mrs. J. Frederic Wenchel Memorial Scholarship. Worthy student—annual award.
Western Electric Company. Major in engineering, preferably electrical engineering—$1,500.00 annually.
Wheatridge Foundation. Candidates for social work in welfare agencies of the Lutheran Church—varying number of awards—full tuition annually.
Zuehlke Scholarship Fund. Assist worthy student(s) in the humanities.
STUDENT LOAN FUNDS

The National Defense Student Loan Program. Valparaiso University is participating in the National Defense Student Loan Program, and has established a fund consisting of contributions from the government and the University. Details may be obtained from the Director of Financial Aid.

The Nursing Student Loan Fund. The Valparaiso University College of Nursing participates in the Nursing Student Loan Program and has established a fund consisting of contributions from the government and the University. Details may be obtained from the Director of Financial Aid.

The Law Enforcement Education Program. Financial Assistance is available to the participants in this program. Application should be made to the Director of the Program on the Valparaiso University campus.

The American Bar Association Fund for Legal Education provides a yearly allotment of funds to be used by students of the School of Law of Valparaiso University. Information pertaining to qualifications for this fund may be obtained from the Dean of the School of Law.

The Donna Francesca-Cesario Chesrow Loan Fund was established for the purpose of making small, short-term loans.

The Phi Alpha Delta Law Fraternity Endowment Fund. Loans from this fund are available to worthy student members of the fraternity who are in need of such loans to complete their law school education. The maximum amount of such loans is $500.00. Terms of the loans, which are prescribed by the national governing board of the fraternity, will be supplied upon request to the Dean of the School of Law.

The Henry George Poncher Foundation was designed to provide a revolving loan fund to be used for making loans to deserving college students who are taking a pre-medical course preparatory to entering medical school and also to students enrolled in medical school studying to become doctors of medicine. Application is to be made on a form available in the office of the Dean of the College of Medicine of the University of Illinois and in the office of Dr. Albert F. Scribner, Valparaiso University. Further information may be secured from these two offices.

The Fred Smoke Student Loan Fund, administered by the Valparaiso University Alumni Association, was established in January, 1965, and provides funds for loans to students who are residents of Porter County, Indiana. Details may be obtained from the Director of Financial Aid.

The Myra K. Tate Student Assistance Trust was established to provide loan benefits to certain students at Valparaiso University. This trust is administered by the Northern Indiana Bank and Trust Company as Trustee. The Trustee will consider applications from Engineering, Law, and Pre-Medical students who are in the last two years of their schooling at the University. Applications are received on recommendation of the Dean of the appropriate college or the Pre-Medical adviser and are processed through the Business Office of the University prior to being forwarded to the Trustee for consideration. Details may be obtained from the appropriate academic deans or the appropriate adviser.

The Valparaiso University Law School Alumni Student Assistance Trust Loans available to law students through this trust are awarded by the
officers of the trust. Information may be obtained from the Dean of the School of Law.

The Valparaiso University College of Nursing Student Assistance Charitable Trust. The Trust is administered by Northern Indiana Bank and Trust Company as Trustee. Application should be made to the Dean of the College of Nursing.

The Nellie Winifred Cheney Overton Memorial Loan Fund. This fund was established by Mr. William J. Overton as a memorial to Mrs. Overton. The income from the fund is available for loans to students from Lake County, Indiana.

The Indiana Federation of Clubs Loan Fund (Lucy D. Putnam Loan Fund and the Porter County Federation of Women's Clubs Loan Fund).

The Mr. and Mrs. August Schoenherr Memorial Loan Fund was established by Mr. and Mrs. Leonard Schoenherr of Ludington, Michigan, as a memorial to his parents.

The Henry Strong Educational Foundation provides funds for loans to qualified upperclassmen under twenty-five years of age.

The Semester on the United Nations Loan Fund. This was established by the Valparaiso branch of the American Association of University Women for women students eligible to participate in the United Nations Semester at Drew University. Terms are similar to those of the Washington Semester Program Loan.

The Valparaiso University Association Loan Fund. A University Loan Fund has been established to help students who cannot qualify for a scholarship but who must have financial assistance or those with scholarships who need more help. Details may be obtained from the Director of Financial Aid.

In addition to funds provided by special appropriation of the Board of Directors, friends of the University who strongly believe in the principle of lending their resources to students in need have contributed to the University Loan Fund. These contributors are: M. E. Dinsmore Memorial, Frank B. Estell, Oscar Homann, Glenn Krabec, Aaron H. Kruse, The Lutheran Ladies Seminary, Anna and Bertha Meyer, Robert Miller Laboratory, Albert and Anna Raether Memorial, Mr. and Mrs. Henry J. Schneider, Mr. Werner Schroeder, Trinity Tool Company.

The Washington Semester Program Loan Fund. Only students fully accepted for the Washington Semester Program at the American University are eligible. Loans up to one hundred dollars are given; the student is expected to repay the loan plus a donation to the principal of the fund of twenty-five per cent within five years after leaving the University.

The Janette G. Wesemann Student Loan Fund was established for the purpose of making loans primarily to qualified pre-law and law students, preferably from the State of Illinois, who are in need of financial assistance to continue their education. Loans from this fund are available to students who are making satisfactory progress toward a degree.

The Betty Rose Wulf Memorial Loan Fund was established by her parents, Mr. and Mrs. Walter H. Wulf, to be used by students preparing for church work, such as deaconess training or students preparing for other church work.
REPAYMENT TERMS

For: The Overton, Indiana Federation of Clubs, Schoenherr, Henry Strong, VUA, and Wesemann Loans: No interest accrues while the borrower is enrolled full time at Valparaiso University; three per cent interest begins when he leaves. A four year repayment schedule is called for by the terms of the promissory note.

REHABILITATION GRANTS

Under the provision of Public Law 565, the Federal Government and the State of Indiana jointly provide funds for scholarship grants-in-aid to students who have a physical or mental impairment which constitutes a vocational handicap. The State Vocational Rehabilitation Division is responsible for the determination of the grants. At Valparaiso University the Registrar's Office accepts referrals for applications. The grants pay tuition and some fees.

THE VALPARAISO UNIVERSITY FEDERAL CREDIT UNION

The Valparaiso University Federal Credit Union is an organization whose membership is open to all students, members of the faculty, and employees of the University. Its purpose is to promote thrift and to provide a source of credit for its members. To become a member, one must subscribe for at least one five-dollar ($5.00) share of stock. The purchase of one share of stock entitles one to all the rights and privileges of full membership. Interest on loans is charged at the rate of three-quarters per cent (3 1/2% = 9% A.P.R.) to one per cent (1% = 12% A.P.R.) per month on the unpaid balance. This association is governed by a board of directors elected by the membership and is supervised by The National Credit Union Administration of the United States Government. All accounts up to $20,000.00 are insured by the National Credit Union Administration.

SUMMER AND EVENING PROGRAMS

THE SUMMER SESSION

The Summer Session of Valparaiso University, an integral part of the University, serves directly the cultural, vocational, and professional needs of teachers in service, persons interested in specific courses (with or without college credit), students who wish to accelerate their academic progress, or new students who desire to begin academic work on the college level.

Students enrolled full time in the Summer Session normally earn eight semester hours of credit. These credits have the same value as those earned during the regular year and are transferable.

During the summer of 1963 Valparaiso University began a program leading to the degree Master of Arts in Liberal Studies. This program provides a particularly challenging opportunity for pastors and other professional workers in the church who wish to strengthen their preparation and secure breadth of background in academic areas. It also provides for the
needs of both elementary and secondary classroom teachers who wish to work toward advanced certificates. They will be able to adjust their programs within the fields of concentration and the electives so as to strengthen their subject matter competence and, if they desire, also to add to their professional training in education.

The regular Summer Session on the undergraduate and graduate levels, begins on Monday, June 18, and terminates on Wednesday, August 8. Courses on the undergraduate level will be offered in the following subject matter areas: Accounting, Art, Biology, Economics, Education, English, Finance, Foreign Language, Geography, History, Management, Mathematics, Music, Philosophy, Physical Education, Physics, Political Science, Psychology, Social Work, Sociology, Speech and Drama, and Theology.

Courses on the graduate level will be offered in Art, Economics, Education, English, Geography, History, Music, Political Science, Psychology, Sociology, Speech and Drama, and Theology.

A Mini Summer Session of three and one-half weeks will be offered from May 21 to June 14 in 1973. This short term session is designed primarily for our resident students.

The combination of the Mini and the regular Summer Sessions permits students to earn almost a semester of credits during the summer months.

Summer Educational Tours include (1) European Art Study Tour for six semester hours of credit, June 19 to August 2, and (2) Mexican Study Tour for three semester hours of credit, August 7 to August 21, 1973.

For further information write to: Director of Summer Session.

SUMMER SESSION FEES
June 18 to August 8, 1973

Matriculation ........................................... $ 5.00
Tuition per credit hour ................................... 30.00
General Fee ................................................... 15.00
Private Music Lessons (Organ, Piano, Voice, String, etc.) ......
15 30-minute lessons ........................................ 40.00
8 30-minute lessons ......................................... 20.00

THE EVENING DIVISION

The Evening Division of Valparaiso University, combining the services of the former extension and adult education program, was organized in the Spring of 1963 to make the educational offerings of all colleges and departments available to the residents of the greater Valparaiso community, as well as to the full-time students on our campus.

In our community reside many people—teachers, office workers, technicians, and others—who desire to continue their college education for self-improvement or to complete requirements for a degree or for teacher certification. Most of these people are engaged in activities that do not permit them to attend classes during the day. Valparaiso University extends its facilities to this group of students through its evening courses which are
the same in content, objectives, and credit value as corresponding day courses, and are taught by regular college instructors.

The Evening Division also includes non-credit or adult education courses for people who are not interested in qualifying as candidates for any degree or for teacher certification but who wish to explore some field of special interest under the guidance of qualified instructors. Valparaiso University welcomes them into its Evening Division as special students, provided they are graduates of high schools and are qualified to carry successfully the courses of their choice. Every effort will also be made to meet the needs of industrial and business groups where special courses are desired.

**ADMISSION TO THE EVENING DIVISION**

1. Students who have not matriculated in the undergraduate or graduate program and who have never attended Valparaiso University must apply for admission as special students to the Director of the Evening Division at least one week prior to the official registration date.

2. Students admitted to the Evening Division who for some reason interrupted their program must apply for re-admission to the Director of the Evening Division.

3. Students who plan to complete requirements for a degree from Valparaiso University and students who plan to complete only the requirements for teacher certification must file applications for admission with the Director of Admissions of the University.

**REGISTRATION IN THE EVENING DIVISION**

1. Matriculated campus undergraduate students register for Evening Division courses on the regular registration form at the time of official registration for day courses. Such students may register in the Evening Division for up to six semester hours, provided that their total course load in evening and day courses does not exceed the maximum load permitted according to the catalog. Any day student who registers for a given semester in day and Evening Division classes will be considered to be a day student and will be charged the regular charges applicable to a day student.

2. Students admitted to the graduate program register on the regular registration form at a time designated for registration in the Evening Division.

3. Evening Division students other than regular undergraduate and graduate students and adult education students register on the regular registration form at a time designated for registration in the Evening Division.

4. The regular time schedule lists all courses offered by all departments and colleges of the University in numerical order with evening courses prefixed by "Ev."

For further information write to: Director of the Evening Division.

**THE GRADUATE DIVISION**

The University, in offering graduate programs, is seeking to fulfill an objective set by the Lutheran University Association when it acquired the
plant in 1925: to make the institution a Christian center of advanced study. The University desires through these programs to broaden its educational service to its constituency and to the community as a whole. There are elements of uniqueness in these programs, both in breadth and depth, which make them unusual in American higher education.

The program of graduate studies was initiated by Valparaiso University in the Summer Session of 1963. It has continued through late afternoon and evening courses during subsequent academic years. At present the plan is to offer graduate courses in this pattern of Summer Sessions and evening courses.

The graduate programs are under the general supervision of the President and the Faculty of the University. The policies of the Graduate Division are determined by the Graduate Council, and the programs and regulations as defined by the Council are administered by the Director of the Graduate Division.

ADMISSION REQUIREMENTS

An applicant to the Graduate Division must be a graduate of an accredited college or university with a standing of at least 2.5 \((C=2.00)\) in all work attempted.* Official transcripts of all undergraduate and previous graduate work and a completed form for admission (available from the office of the Director) must be forwarded to the Director of the Graduate Division for evaluation. The transcripts and other application materials become part of the records of the Graduate Division, Valparaiso University, and are not returnable.

The Director will assign an adviser according to the selected area of academic concentration once the student is admitted to the Graduate Division. Those students who are also working toward qualifying for teaching certificates will be assigned an adviser in the Department of Education in addition to their academic adviser.

ADMISSION TO CANDIDACY

Admission to candidacy is a separate step from admission to the graduate program, and requires separate approval by the Graduate Council. To become a candidate for a degree, a student must have completed at least six semester hours at Valparaiso University with a standing of at least 2.8 \((B=3.00)\). Application for candidacy should be filed before the student has completed half of his graduate work. The student must file a tentative program of study which has been approved by his academic adviser. Forms for this purpose are available through the office of the Director of Graduate Division.

*Seniors wishing admission to the Graduate Division: A senior in Valparaiso University who has a standing of at least 3.00 in all his work and a standing of at least 3.00 in all the work taken in his major field, and who needs not more than six semester hours of credit to meet the requirements for his baccalaureate degree, may be granted provisional admission to the graduate program. A student who has been granted such admission will be permitted to enroll for not more than six semester hours of courses designated for graduate credit and not more than a total of twelve semester hours during a semester; or for not more than three semester hours of courses designated for graduate credit and not more than a total of six semester hours during a Summer Session. Courses taken for graduate credit may not be counted toward fulfilling the requirements for a baccalaureate degree.
PROGRAM FOR MASTER OF ARTS IN LIBERAL STUDIES

The program leading to the degree of Master of Arts in Liberal Studies is broad in scope, offering opportunities for study in several fields. Two basic two-hour courses in The Western Tradition, which are required of all students, provide an integrating core. Also, the student is required to present ten hours of work in one subject matter field other than education. The remaining hours in the thirty hour program are electives, selected by the student after conference with his adviser(s). A maximum of ten of these elective hours may be in professional education.

In addition, the program provides for the needs of both elementary and secondary classroom teachers who wish to work toward advanced certificates. The student will be able to adjust his program within the field of concentration and the electives so as to strengthen his subject matter competence and, if he desires, to add to his professional training in education.

The M.A.L.S. program provides a particularly challenging opportunity for professional workers who wish to strengthen their preparation and secure breadth of background in academic areas.

Requirements For The Degree—Master of Arts in Liberal Studies

To be eligible for the Master of Arts in Liberal Studies, a student must complete at least thirty semester hours, distributed as follows:

1. A core of 14 semester hours consisting of:
   A. 10 semester hours in one subject-matter field (other than education), 7 semester hours of which must be taken at Valparaiso University, and
   B. 4 semester hours in the courses entitled The Western Tradition I and The Western Tradition II.

2. 16 semester hours of electives (of which 10 semester hours may be in education).

At least 5 of the 10 semester hours required in the one subject-matter field and at least 15 of the 30 semester hours presented for the degree must be in courses numbered 300 or higher. These courses must be taken at Valparaiso University.

PROGRAM FOR MASTER OF EDUCATION

This program, authorized for the first time as of the school year 1972-1973, is used by elementary teachers in professionalizing their certificates. The Master of Education degree program is open only to certified elementary teachers or persons with a planned program for achieving certification. To be eligible for this degree (M.Ed.), students must complete at least 33 semester credits, distributed as follows:

Requirements for the Degree—Master of Education

Professional Education ......................... 12 semester credits
(a minimum of six hours of 300 courses at Valparaiso University)
Psychological Foundations of Education ............ 3 semester credits
(Education 310, Psychology 277, 280, 303 or 315)
Subject-matter Field(s) other than education........ 12 semester credits
(a minimum of six hours of 300 courses at Valparaiso University)
Electives ............................................. 6 semester credits
Total minimum requirement ......................... 33 semester credits
(Minimum 300 courses at Valparaiso University) .... 15 semester credits

REGULATIONS OF THE GRADUATE DIVISION FOR
THE DEGREES M.A.L.S. AND M.Ed.

No thesis is required, but a term paper is a regular part of graduate courses.

Students must maintain a grade point average of 2.8 (B=3.00) in all graduate work undertaken at Valparaiso University. Graduate credit may be received for grades of 2.00 and above, but not more than six semester hours of 2.00 or 2.50 work may be counted toward the degree. All grades received at Valparaiso University are counted in computing a student’s grade-point average.

Repetition of Courses for Credit—Unless a course may be repeated for credit, only the credits, grade, and grade points received the last time a course is taken by a student shall be used in determining credit for graduation and the cumulative grade-point average(s). A grade of W shall be excluded from this policy.

Not more than fifteen semester hours of work for graduate credit may be carried in any one semester, nor more than eight semester hours of credit in any Summer Session. All work for the master’s degree must be completed within a period of five calendar years from the date of the student’s initial enrollment in the program.

Not more than six semester credits earned in institutes may be counted toward the degree.

If a student receives a grade of Incomplete in any course that grade must be removed by the beginning of the official examination period of the next succeeding semester or it will automatically become a zero (0). The student’s deadline for submitting the outstanding work to the instructor shall be one full week prior to that date.

Only in exceptional cases, such as prolonged or serious illness, will the Graduate Council permit a student to withdraw from a course without a grade of zero (0) after the end of the seventh week of the semester or after the third week of a Summer Session.

INDEPENDENT STUDY

With the permission of the chairman of the department concerned and of the Graduate Council, a student may earn up to three of the thirty semester hours required for the degree by means of an independent-study project resulting in a paper. No student may apply for permission to under-
take an independent-study project until he has satisfactorily completed at least twelve semester hours of his approved Master’s Degree program.

A student’s first independent-study project will be recorded as course number 390 (cr. 1-3) of the department concerned. His second will be recorded as course number 391 (cr. 1-2), and his third as course number 392 (cr. 1).

No student may register for an independent-study project during the final Summer Session of his program and no student should expect to start and complete an independent-study project in one Summer Session.

TRANSFER CREDITS

A maximum of six semester hours of transfer credit from another accredited institution will be accepted for the degree, and no transfer course presented with a grade of less than B (3.00) will be considered. These credits must have been earned not more than ten years before the student is admitted to the graduate program. All requests for transfer must be in writing and will be evaluated by the Director of the Graduate Division.

APPLICATION FOR GRADUATION

To receive the Master’s Degree from Valparaiso University, a student must make formal application to the Director of Graduate Division within the first week of the term in which he expects to be graduated. He must give evidence that he has fulfilled all requirements for the degree and receive the approval of the Graduate Council. No student who has not made application for candidacy (see page 43) will be eligible for the degree.

CERTIFICATES FOR TEACHING

To prepare persons for teachers’ certificates, Valparaiso University adapts the graduate programs, after reviewing the candidates’ prior preparation, to the student’s individual needs.

Each candidate for the Indiana Secondary School Certificate, Professional, must earn at least eight semester hours of graduate credit in each subject field he desires to professionalize.

Persons seeking the Indiana General Elementary Certificate, Professional, must devote at least fifty per cent of their work to a combination of courses in education and subject content directly related to elementary school teaching. These courses, nine or ten in education, five or six in related course work, are to be selected with the advice of the education adviser, and are to be approved by him.

All students working toward a teaching certificate must consult the Chairman of the Department of Education, as well as their academic advisers, in planning their programs.

Elementary teachers using the Master of Arts in Liberal Studies to professionalize a teaching certificate will be required to complete 12 semester hours in professional education (a minimum of 6 hours of 300 courses) and 3 semester hours of related coursework. (Since a maximum of 10 hours of education may be used toward a Master of Arts in Liberal
Studies, this requirement, in effect, raises the total hours required for elementary teachers to 34 hours.

Secondary teachers using the Master of Arts in Liberal Studies to professionalize a teaching certificate will be required to complete 6 semester hours in professional education (a minimum of 3 hours of 300 courses at Valparaiso University).

**GRADUATE COURSES**

Details about graduate courses will be found under the respective departments of the College of Arts and Sciences and of the College of Business Administration. All courses numbered 200 and above are open only to those students who have been officially admitted to the Graduate Division.

**FEES**

- **Application fee** ........................................ $10.00
  
  This fee is to accompany the application for admission form. It is payable only once, upon initial application. It is not refundable.

- **Matriculation fee** ........................................ $ 5.00
  
  This fee is payable only once, when the student enrolls in his first course at Valparaiso University.

- **Graduation fee** ........................................... $15.00
  
  This fee should accompany the application for graduation.

Tuition* and dormitory fees are indicated in University bulletins covering Summer Session, evening offerings, and the regular academic year.

*If, for any reason, a graduate student registers in undergraduate courses, he will be charged the regular undergraduate charges for such courses.
Graduate Scholarship In English Literature

The Vera L. Sieb Scholarship in Literature was established by Floyd W. Sieb as a memorial to his sister, whose name the scholarship bears.

The purpose of the scholarship is to make it possible for a promising student to devote his entire time during the academic year following his graduation from Valparaiso University to graduate study with a concentration in English literature at that University.

A holder of the scholarship may not engage in any paid employment during the term of the scholarship.

The scholarship grant will be paid in two installments; one half will be paid at the beginning of the fall semester of the holder’s first graduate year and the other half at the beginning of the spring semester of that year.

The scholarship will be awarded annually to a Valparaiso University senior majoring in English upon the recommendation of the professorial staff of the Department of English. The recommendation must be accompanied by a detailed statement of purpose written by the student being recommended.

For further information write to: Director of Graduate Division.

AID FOR CHURCH WORKERS

The Valparaiso University Graduate Program offers the following aid to Church Workers:

1. To the faculty of each high school or junior college operated by The Lutheran Church-Missouri Synod is granted one full tuition scholarship. The candidate must be recommended by the principal.

2. A teacher in a parochial elementary school operated by The Lutheran Church-Missouri Synod will be granted a half tuition scholarship.

3. Any clergyman in the full time service of the Lutheran church will be granted a half tuition scholarship.

Candidates for these scholarships must apply for them on a form provided by the Director of Graduate Division. They must also apply, at each registration period, for a continuance of the scholarship aid, to the Director of Financial Aid. They must have been admitted into the graduate program.

ADMINISTRATIVE PROCEDURE

GENERAL REQUIREMENTS FOR ADMISSION

Seeking an academically strong, yet diversified student body, Valparaiso University admits those candidates who demonstrate potential for success in rigorous academic work. Qualified applicants are admitted without re-
gard to race, sex, creed, color, or national origin. The credentials of each applicant are individually evaluated, with consideration given to academic record, test scores, character, personality, and motivation for college studies.

The University requires that all candidates for admission to the freshman class take the Scholastic Aptitude Test of the College Entrance Examination Board. To be admitted, an applicant should normally be a graduate of an approved secondary school or possess a state high school equivalency certificate. Graduates of non-approved secondary schools and veterans who may not have completed requirements for high school graduation may be granted admission, if their scores on the required entrance examination clearly demonstrate their aptitude for college level studies. Exceptionally well-qualified students will be admitted prior to graduation if their candidacy is endorsed both by their high school officials and their parents.

Applications may be filed at any time, but preferably well in advance of the semester in which admission is desired. Each application must be accompanied by an Application Fee of $10.00, which is non-refundable. No other fee is required by the University at the time of application. All applications for admission to the undergraduate programs of Valparaiso University should be made to the Director of Admissions.

College of Arts and Sciences

Since Valparaiso's curriculum offers flexibility and attention to individual talents and needs, no one specific high school program is required of all applicants. Students planning to attend Valparaiso University should take the strongest possible college-preparatory program available to them. Within these guidelines, individual selections of specific courses are best made by the student and his high school counselor.

Students planning their high school curricula must include a minimum of three units in English, and are urged to include two units in mathematics (algebra, geometry), two units in social studies, two units in laboratory sciences, and two units in a foreign language.

College of Business Administration

The requirements for admission to the College of Business Administration are essentially the same as those of the College of Arts and Sciences.

College of Engineering

Applicants to the College of Engineering should follow a strong college preparatory program with emphasis on mathematics and science. Candidates should submit a minimum of three and one-half years of mathematics, including $1\frac{1}{2}$ units of algebra, 1 unit of geometry, $\frac{1}{2}$ unit of trigonometry (business, general, or shop mathematics may not be counted), and one year of either chemistry or physics with regular laboratory work. These requirements are minimum: applicants are encouraged to take four years of formal mathematics and both chemistry and physics.

College of Nursing

The requirements for admission to the College of Nursing are essentially the same as those of the College of Arts and Sciences. It is recommended that the student have a year of both biology and chemistry. If available, a
second year of biology will better prepare the student for the nursing curriculum.

Christ College

Students are admitted to Christ College only by invitation of the Faculty Committee on Christ College and hold concurrent admission to the College of Arts and Sciences, or the College of Business Administration, or the College of Nursing, or the College of Engineering.

School of Law
See pages 216-217.

Graduate Division
See page 43.

Special Student Status

An undergraduate applicant who is not admitted as a regularly classified student (working toward a baccalaureate degree) may be admitted as a special student. Credits received may be subject to revision should the student in the future become a candidate for a degree. This status is not available to a student dismissed from the University for academic or other reasons.

For regulations regarding admission as a special student in the School of Law, see page 217.

**ADVANCED STANDING BY TRANSFER**

The University welcomes transfer students from junior colleges, community colleges, and other accredited institutions of higher education. A transfer student is defined as a student who has matriculated at another college or university before enrolling at Valparaiso University. Students seeking regular admission as transfers to Valparaiso University must apply for admission through the Director of Admissions at least three weeks prior to the official registration days of the session for which they are applying and must present evidence of honorable dismissal from the institution last attended. A transfer student will not be given a Permit to Enter from the Director of Admissions until official transcript(s), a completed medical report, and other required credentials are on file in the Admissions Office. In some cases, the Director of Admissions may require a personal interview before admission is approved. After the applicant's record has been evaluated, he will be notified regarding the courses which are found acceptable for transfer. Courses with grades of "D" will be accepted as credit for graduation provided a grade-point average of 2.00 (C) or better is attained on work completed at any one institution, and which has not previously been evaluated.

Credits earned more than fifteen years ago will be accepted toward graduation requirements on a provisional basis, subject to validation by first year’s work (30 semester hours) completed in residence with a 2.00 average. The University reserves the right to reject any applicant for admission by transfer whose academic record is unsatisfactory.

Credits earned in secretarial studies are not applicable toward any degree granted by Valparaiso University. Also, credits earned in Developmental Reading are treated in the same manner as secretarial studies.
Advanced standing is the record of courses and credits accepted by Valparaiso University from another institution. Students who enter with advanced standing because of credits transferred from another school must earn at Valparaiso University as many quality points as semester hours attempted in order to be eligible for a degree.

Transfer students should become familiar with the sections on housing (page 26), financial aid (page 31), residence requirement (page 61), and graduation (page 59).

The following applies to the use of advanced standing in meeting degree requirements within the College of Arts and Sciences:

A. General Education. A Statement of Equivalence is prepared by the Dean of the College of Arts and Sciences in regard to the general education requirements for the Bachelor of Arts degree. The following special rules apply:

1. Religion. A transfer student may apply a maximum of 6 credits in religion from his advanced standing to the religion requirement. Otherwise, a transfer student with more than 45 credits but less than 75 credits of advanced standing need complete two courses (6 credits) of religion at Valparaiso University. A transfer student with 75 credits or more of advanced standing need complete one course (3 credits) of religion at Valparaiso University.

2. General Studies. This one course requirement must be fulfilled at Valparaiso University.

B. Concentration Requirements. Statements of equivalence for academic majors or professional block schedules are prepared by the departments concerned.

Advanced Standing by Examination

The University offers three basic means for students to receive advanced placement and/or credit. These include:

1. The Advanced Placement Program of the CEEB—AP.

Applicants for admission, who take one or more of the Advanced Placement Examinations in May, will receive credit toward a degree for scores of "5" (High Honor) or "4" (Honor). A score of "3" (Good) will be referred to the department chairman concerned for evaluation and recommendation for credit or placement.

2. The College Level Examination Program of the CEEB—CLEP.

The CLEP program provides an opportunity to gain college credit for those individuals who, through experience, independent study, or enriched high school courses, have attained college-level knowledge of a particular field. It is not recommended that these examinations be taken only on the basis of normal high school courses. Information and test center locations can be obtained from College Entrance Examination Board, Box 592, Princeton, N. J. 08540.


During the orientation period which precedes each semester, placement tests are offered to incoming students (freshmen and transfers) in the
areas listed below. These tests provide an opportunity for students to attain advanced placement, receive credit (as described below), or to meet certain general education requirements.

Currently advanced placement and credit are awarded in biology, chemistry, foreign languages and mathematics, as explained in the catalog sections dealing with those departments.

On the basis of sufficiently high scores, students may bypass introductory courses in American History and Western World History and take advanced courses instead. While no course credit is awarded, credit is given toward meeting general education requirements.

GENERAL REQUIREMENTS FOR READMISSION OF FORMER STUDENTS TO UNDERGRADUATE AND PROFESSIONAL PROGRAMS

A student who has fully matriculated at Valparaiso University and who, for some reason (except those students who are enrolled in the Youth-Leadership Training Program and the Deaconess Training Program—these students usually spend one year in in-service training) has interrupted his studies must apply for readmission to the University through the Readmissions Committee. The request for readmission is to be sent to the Registrar.

Applications for readmission must be made at least three weeks prior to the registration date of the term in which the student wishes to enroll. Applications will not be accepted after this date.

A student being readmitted must present the necessary information such as records of attendance and grades at other colleges, and a new medical examination report, if he has been out of school for more than one school year, before action will be taken on his request to be readmitted.

The case of each student applying for readmission will be presented to the Readmissions Committee. The student will be notified by the Registrar of the Committee’s decision.

REGISTRATION

All students are expected to register on the official registration days of each semester as listed in the University Calendar.

RESPONSIBILITY ASSUMED BY REGISTRATION—By registering, the student subscribes to the terms and conditions, financial and otherwise, which have been set forth in these announcements.

COURSE PREREQUISITES—Students will be held responsible for meeting the prerequisites of all courses for which they enroll. In unusual cases, the Educational Processes Policy Committee may waive certain prerequisites upon formal petition by the students concerned.

CHANGE OF PROGRAM—At the beginning of each semester or session, changes of enrollment may be made in accordance with the dates found in the official University calendar as noted on pages 3, 4, and 5, with the signature of the student’s adviser and the written approval of the department chairman involved. There is no adjustment in the tuition and general fees after the deadline for adding regular courses of a semester.
Thereafter, students will be permitted to withdraw from a course with a grade of W in accordance with the published dates as noted in the official University calendar. Cases which involve special circumstances, such as serious or prolonged illness, will be handled by the dean of the student's college, by means of a petition.

Changes in enrollment concerning second half short courses or the course in the intensification program may be made in accordance with the official University calendar.

Application for changes in enrollment must be made by the student on proper forms and filed at the Office of the Registrar.

**ADMISSION TO COURSES ON A SATISFACTORY/UNSATISFACTORY BASIS—**

Certain courses normally result in S/U grades, as noted in the catalog course descriptions. An undergraduate student may take, in addition to any such course or courses, one course, normally numerically graded, each semester on a Satisfactory/Unsatisfactory basis, subject to the following conditions:
a. Such courses must not be selected from:
   1. the student's major field;
   2. the required courses for any professional degree or pre-professional program, except for liberal arts electives or other courses approved by the dean of the student's college;

b. Such registration must be signed by the student's adviser;

c. Decision to elect a course on such a basis is to be made at the time of registration (drop/add period) and may not be changed subsequently.

A student in the College of Arts and Sciences who has not declared a major may also elect to participate, subject to the conditions given above, except that such courses may not be selected from the division of his declared preference.

Admission to the Course Intensification Plan—A student may propose a special project for earning one extra credit in one liberal arts course in which he is enrolled in a given semester. This opportunity is part of the University's Course Intensification Plan. The following regulations pertain to this option for a student:

1. The course must be a liberal arts course.
2. The course must be offered in the time schedule for 3 or more credits.
3. The initiative and responsibility for developing a satisfactory proposal is expected to lie with the student.
4. The proposal is subject to the approval of the instructor of the course.
5. Approved proposals must be filed in the Office of the Registrar during the period specified in the academic calendar.

Admission to Courses as an Auditor—A classified student may register in a course as an auditor only with the permission of his adviser and the chairman of the department concerned. An auditor may not be admitted to the final examination and is never granted credit for the course audited. No additional fee is charged when the student pays full tuition.

A mature student, not regularly enrolled at the University, who desires to take courses without credit may enroll as an auditor upon receiving the approval of the instructors concerned and the dean of the college. Payment of an auditor's fee is required.

Transfer to Another Program—If a student transfers from one major or program of studies to another, all requirements of the new specialization must be met. Such a transfer will subject credits previously earned to a re-evaluation. In certain cases the change of program may result in some loss of credit. Therefore, such transfers may not be made without the written approval of the advisers and deans concerned. Necessary forms may be obtained from the Registrar.

Credit Hours—A credit represents one hour of recitation or lecture, or two or more hours of laboratory a week for one semester. If time outside of the laboratory is required to prepare laboratory notes, two hours may be equivalent to one hour of class work. Drawing, shopwork, and other courses demanding no outside preparation require a minimum of three hours for one credit. For the exact number of hours see the respective courses.
MAXIMUM AND MINIMUM REGISTRATION—The normal maximum registration for a full program for students in the College of Arts and Sciences is 17 semester credits. For students in certain professional programs, the authorized maximum registration is given in the following table.

NUMBER OF CREDIT HOURS WITHOUT PETITION:

**College of Arts and Sciences:**
- In all departments except as required in special authorized curricula (e.g., the B.M.E. program) and for students preparing for licenses in elementary- and secondary-school teaching ................................................................. Maximum, 17 Credits
- Students preparing for licenses in elementary- and secondary-school teaching ................................................................. Maximum, 18 Credits

**College of Business Administration** .................................................. Maximum, 17 Credits

**College of Engineering**, except as required in certain block schedules ................................................................. Maximum, 20 Credits

**College of Nursing** ................................................................. Maximum, 17 Credits

**School of Law** ................................................................. Maximum, 16 Credits

Students who maintained a standing of three (3.00) during the previous semester may register for extra work, provided their formal petitions for such work are granted by the Educational Processes Policy Committee. Freshmen will not be allowed to carry extra work during the first semester.

The minimum registration for a full-time student is 10 semester credits.

WITHDRAWAL FROM THE UNIVERSITY—A student who wishes to withdraw from the University for the remainder of a semester or session should apply to the Business Office for a permit to withdraw. Upon return of the permit properly signed to the Office of the Registrar, the Registrar will authorize the return of such fees as are refundable. In every case the parent or guardian is notified of the withdrawal by the Vice-President for Student Affairs. If a student withdraws after the seventh week of a semester, he is ordinarily not granted readmission for the following semester, unless unusual circumstances such as severe illness caused the withdrawal.

The term “honorable dismissal” refers to conduct and character only, not to class standing and grades. It will not be granted unless the student's conduct and character are such as would entitle him to continue in the University.

A student who withdraws from the University without authorization is not entitled to refunds of any kind and the instructor of each subject in which the student is enrolled is required to report a final grade of zero (0) to the Registrar.

ADVANCED STANDING

Any resident student who has taken academic course work at any other accredited educational institution must request the Registrar of that institution to send an official transcript to the University’s Office of the Registrar, where an evaluation will be made for possible acceptance of
transfer credits. Courses with grades of "D" will be accepted for graduation, provided a grade-point average of 2.00 or better is attained on work completed at any one institution, and which has not previously been evaluated.

EXAMINATIONS

The regular written examinations of the University are held at the close of each semester. Each examination is usually limited to two or three hours.

In addition to the regular prescribed examination, written tests are given from time to time, at the discretion of the instructor.

The semester examinations are conducted according to a published schedule.

All examinations in courses of less than 3 credits will be conducted during regularly scheduled class periods. Deviations from this policy for final examinations must be approved by the dean of the college.

The policy concerning the use of a final examination in a course will be determined by the professional college or the Arts and Sciences' department which offers the course.

SPECIAL EXAMINATIONS—Special examinations are given only to students who for adequate reasons have not been able to be present at regular examinations or written tests. The privilege of special examination is granted by the adviser on recommendation of the instructor. Formal requests for special examinations must be obtained from the Office of the Registrar. In no case may a student remove a grade of zero (0) by special examination. The subject must be repeated for credit.

SCHOLASTIC PROBATION

In the College of Arts and Sciences, the College of Business Administration, the College of Engineering, and the College of Nursing, a student will be placed on scholastic probation (1) if in either of his first two semesters, taken anywhere, his grade-point average falls below 1.65; (2) if in any semester beyond the second, taken anywhere, his grade-point average falls below 1.75; or, (3) if his cumulative grade-point average falls below the minimum cumulative grade-point average indicated in the following table:

<table>
<thead>
<tr>
<th>NUMBER OF CREDIT HOURS PREVIOUSLY UNDERTAKEN</th>
<th>MINIMUM CUMULATIVE GRADE-POINT AVERAGE REQUIRED*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Program</td>
<td>Business</td>
</tr>
<tr>
<td>1-17</td>
<td>1-15</td>
</tr>
<tr>
<td>18-35</td>
<td>16-30</td>
</tr>
<tr>
<td>36-up</td>
<td>31-46</td>
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<td>47-62</td>
<td>49-64</td>
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<tr>
<td>63-78</td>
<td>65-80</td>
</tr>
<tr>
<td>79-up</td>
<td>81-up</td>
</tr>
</tbody>
</table>

*For exceptions, see page 60.
**Associate Program.
The number of credit hours previously undertaken includes all credit hours undertaken by the student at Valparaiso University or elsewhere for which the student has received a grade other than W. The student's cumulative grade-point average is based upon all credit hours undertaken at Valparaiso University for which the student has received a grade other than S, U, W, and I. In cases of students who have transferred work from one school or college to another within the University, only those credit hours and quality points transferred to apply toward the new degree will be counted in computing the cumulative grade-point average.

A student will be removed from scholastic probation when his cumulative grade-point average is equal to or above that required in the above table.

Scholastic probation is intended to serve as a warning to the student that he may be denied the privilege of continuing his studies at the University unless he succeeds in improving the quality of his academic work to the satisfaction of the faculty during the next semester.

For regulations concerning scholastic probation in the School of Law see page 220 of this bulletin.

ABSENCE FROM CLASS

The following regulation concerning absence from class has been adopted by the Faculty:

Every student is expected to attend every one of his classes unless his absence has been approved by the instructor concerned or by the appropriate dean.

Absence from class is primarily a matter between the student and the instructor of the class. It is the student's responsibility to discuss with his instructor the reason for his absence and to learn what make-up work may be required.

†MARKING SYSTEM AND QUALITY POINTS

As of September 1, 1973, results of work will be recorded in the Registrar's Office as follows:

A. Excellent; recorded as a grade of four (4); valued at four (4) quality points per credit.
B. Good; recorded as a grade of three (3); valued at three (3) quality points per credit.
C. Satisfactory; recorded as a grade of two (2); valued at two (2) quality points per credit.
D. Less than satisfactory; indicates some deficiency but gives credit for graduation; recorded as a grade of one (1); valued at one (1) quality point per credit.
F. Failure; does not give credit for graduation; recorded as a grade of zero (0); valued at zero (0) quality points.

Note: Intermediate grades of 3.5, 2.5, 1.5, and .5 may be recorded. These have a value of 3.5, 2.5, 1.5, and .5 quality points, respectively. All give credit for graduation, but a student who receives a grade of .5 is advised not to enroll in other courses for which the given course is a prerequisite.

†For the School of Law, see page 218.
I. Incomplete. The grade I (Incomplete) may, at the discretion of the instructor, be given to a student whose completed work in a course indicates the probability of his passing the course but who has failed to complete a segment of the assigned work of the course because of circumstances beyond his control. An I (Incomplete) received in one semester or summer session must be removed by the beginning of the official examination period of the next succeeding semester or it will automatically become a zero (0). The student's deadline for submitting the outstanding work to the instructor shall be one full week prior to that date.

W. An authorized withdrawal. (See Change of Program). This mark carries no credit.

Any student withdrawing from a subject without first securing the official permission of his adviser will receive a grade of zero (0) in that subject for the semester.

Only in exceptional cases, such as prolonged or serious illness, will the Educational Processes Policy Committee permit a student to withdraw from a course without a grade of zero (0) after the deadline for withdrawing from a course with the grade of W.

S. Satisfactory; meets course objectives. Hours with grade of S count toward graduation but are not counted in computing the student’s standing. All regular work of the course is required of students electing the S/U registration. It is assumed that work should be of a quality which is comparable to a grade of 1.50 or better to warrant the grade of S.

U. Unsatisfactory; does not meet course objectives. Hours with grade of U do not count toward graduation and are not counted in computing the student’s standing.

Grades of S and U are used in certain courses which are so designated in the course descriptions contained in the University Bulletin. (See page 53 for further use). They may be used in other courses only in exceptional cases when approved by the dean of the respective college and the Vice-President for Academic Affairs.

*DEFINITION OF THE STANDING OF A STUDENT—A student’s standing is determined by the ratio of his total number of quality points to his total number of hours attempted in all his work at Valparaiso University. Thus, a student who makes an average mark of 2.00 throughout a course of 124 semester hours will have 248 quality points, 124 credits, and a standing of two (2.00). An average mark of 3.00 will give the student 372 quality points, 124 credits, and a standing of three (3.00). When a semester’s work is to be considered “standing” is understood to be the ratio of the number of quality points gained to the number of credits scheduled.

SEMESTER REPORTS—Reports are sent to parents and guardians of students in the University at the end of each semester.

CLASSIFICATION

CLASSIFICATION OF STUDENTS—In the College of Arts and Sciences, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 56 semester credits and 112 quality points to be classified as a junior; 88 semester credits and 176 quality points to be classified as a senior.

*For exceptions, see page 60.
In the College of Business Administration, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 56 semester credits and 112 quality points to be classified as a junior; 88 semester credits and 176 quality points to be classified as a senior.

In the College of Engineering, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 60 semester credits and 120 quality points to be classified as a junior; 94 semester credits and 188 quality points to be classified as a senior.

In the College of Nursing, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 56 semester credits and 112 quality points to be classified as a junior; 88 semester credits and 176 quality points to be classified as a senior.

A student in the School of Law shall have completed 30 hours to be classified as a second year student and 60 hours to be classified as a third year student.

**Classification of Courses**—The courses offered by the University are classified as (a) lower division courses, numbered 1-99; (b) upper division courses, numbered 100-199; and (c) graduate courses, numbered 200-399.

**Graduation**

**Responsibility of Student**—Every candidate for a degree is personally responsible for meeting all requirements for graduation. No University official can relieve him of this responsibility.

A student in the undergraduate program may fulfill requirements for graduation under any catalog during his years of attendance, beginning with the year he first entered the University, provided there is no absence of five or more years* between periods of attendance.

A student who returns to the University after an absence of five or more years* may no longer be a candidate for a degree on the basis of the catalog requirements covered by his previous years of attendance, but must fulfill for graduation all the requirements and provisions beginning with the catalog of the year in which he re-enters the University. In addition, credits earned at Valparaiso University more than fifteen years ago are subject to re-evaluation and shall not be accepted toward graduation requirements unless approved by the appropriate Faculty or University Senate Standing Committee.

No student will be given two degrees at the same Commencement from the same college. In order to receive a second degree, a student must earn at least thirty semester credits and sixty quality points in excess of the total number of semester credits required for the first degree and must, in addition, fulfill all the specific course requirements for the second degree.

Students in the graduate program should refer to page 42 for specific information.

**Degrees**—Upon the recommendation of the Faculty of the College of Arts and Sciences, the University confers the degrees of Associate in Science, Bachelor of Arts, Bachelor of Science, Bachelor of Science in Fine Arts, Bachelor of Science in Home Economics, Bachelor of Science in Physical Education, Bachelor of Science in Education, Bachelor of Music, and Bachelor of Music Education. Upon the recommendation of the

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*Three or more years in the School of Law.
Faculty of the College of Business Administration, the University confers the degree of Bachelor of Science in Business Administration. Upon the recommendation of the Faculty of the College of Engineering, the University confers the degrees of Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, and Bachelor of Science in Mechanical Engineering. Upon the recommendation of the Faculty of the College of Nursing, the University confers the degree of Bachelor of Science in Nursing. Upon the recommendation of the Faculty of the School of Law, the University confers the degree of Juris Doctor. Upon the recommendation of the Graduate Council and the Graduate Faculty, the University confers the degrees of Master of Arts in Liberal Studies and Master of Education. All work toward a degree must be completed to the satisfaction of the Faculty recommending the degree. In all cases, the student is responsible for meeting the requirements for graduation.

CREDIT AND QUALITY POINT REQUIREMENTS—Candidates for graduation with the associate's degree or the bachelor's degree must have a standing of two (2.00) in all their work at Valparaiso University. In addition, candidates for the bachelor's degree must have a standing of two (2.00) in their major field, or fields, based upon their work at Valparaiso University. Also, candidates for the associate degree must have a standing of two (2.00) in all their science courses at Valparaiso University. In the computation of these standings grades of one (1.00) and zero (0) are included. Candidates for the master's degree, see page 44. Candidates for the J. D. degree, see page 221.

Repetition of Courses for Credit—Unless a course may be repeated for credit, only the credits, grade, and grade points received the last time a course is taken by a student shall be used in determining credit for graduation and the cumulative grade-point average(s). A grade of W shall be excluded from this policy.

The minimum number of credits required for graduation varies with curricula chosen, as shown in the following summary:

<table>
<thead>
<tr>
<th>Degrees</th>
<th>Credits Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate in Science</td>
<td>60</td>
</tr>
<tr>
<td>Bachelor of Arts (except in combined curricula)</td>
<td>124</td>
</tr>
<tr>
<td>Bachelor of Music</td>
<td>128-134</td>
</tr>
<tr>
<td>Bachelor of Music Education</td>
<td>134-138</td>
</tr>
<tr>
<td>Bachelor of Science (except in combined curricula)</td>
<td>124</td>
</tr>
<tr>
<td>Bachelor of Science in Education</td>
<td>124</td>
</tr>
<tr>
<td>Bachelor of Science in Fine Arts</td>
<td>124</td>
</tr>
<tr>
<td>Bachelor of Science in Home Economics</td>
<td>124</td>
</tr>
<tr>
<td>Bachelor of Science in Physical Education</td>
<td>124</td>
</tr>
<tr>
<td>Bachelor of Science in Business Administration</td>
<td>124</td>
</tr>
<tr>
<td>Bachelor of Science in Civil Engineering</td>
<td>136</td>
</tr>
<tr>
<td>Bachelor of Science in Electrical Engineering</td>
<td>136</td>
</tr>
<tr>
<td>Bachelor of Science in Mechanical Engineering</td>
<td>136</td>
</tr>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>124</td>
</tr>
<tr>
<td>Juris Doctor</td>
<td>90</td>
</tr>
<tr>
<td>Master of Arts in Liberal Studies</td>
<td>30</td>
</tr>
<tr>
<td>Master of Education</td>
<td>33</td>
</tr>
</tbody>
</table>
RESIDENCE REQUIREMENTS—Irrespective of other degree requirements, candidates for all bachelor's degrees must meet the following requirements in residence at Valparaiso University: 1) at least half (with a minimum of 15 credits) the number of credit hours required for the first major; 2) at least 3 credits in religion; 3) at least 3 credits in General Studies where required (Colleges of Arts and Sciences and Business Administration); and 4) at least 30 of the last 40 credits presented for the degree. Candidates for the J.D. degree, see page 221. Candidates for the master's degree, see page 44.

Ordinarily, credit is not given for correspondence courses taken during a student's residence at the University. Any exception to this policy must have the approval of a student's adviser, his dean, and the Committee on Academic and Professional Standards.

APPLICATION FOR DEGREES—A student who wishes to receive his degree at the end of a Fall Semester must make formal application for his degree on a form provided for this purpose by the registrar's office not later than the preceding May 1st. A student who wishes to receive his degree at the end of a Spring Semester or a Summer Session, must make formal application for his degree on a form provided for this purpose by the registrar's office not later than the preceding November 1st.

A Summer Session student not enrolled in the previous academic year who expects to receive his degree at the end of a Summer Session must make application for a degree at the beginning of that Summer Session.

PRESENCE AT COMMENCEMENT—A candidate for graduation at the end of the spring term must be present at commencement in order to receive his degree. Degrees are not conferred in absentia, except on special permission from the President.

A student who completes his work toward a degree at the end of a Fall Semester or of a Summer Session may be granted his degree at that time.

BACHELOR'S DEGREES WITH DISTINCTION—1. Graduation "With High Distinction." A student who has been in attendance at Valparaiso University at least three years and who has maintained a standing of 3.60 in his work at this institution will be graduated "With High Distinction." A student who has been in attendance for only two years must maintain a standing of 3.80 to be eligible for this honor.

2. Graduation "With Distinction." A student who has been in attendance at least three years and who has maintained a standing of 3.40 in his work at Valparaiso University will be graduated "With Distinction." A student who has been in attendance for only two years must maintain a standing of 3.60 to be eligible for this honor.

3. For the professional degree (J.D.), see page 221.

The number of years completed in this institution is determined by the number of semester hours earned and not by the time spent in residence.

HONORS IN SCHOLARSHIP

An undergraduate student (freshman, sophomore, junior, senior) who achieves a standing of 3.50* in any semester will be awarded honors, pro-

*For the School of Law, refer to page 219.
vided that he received no grades of I or U at the official end of the semester concerned, and that he was registered for at least 14 hours of work for that semester in the College of Arts and Sciences (12 hours in the Washington Semester Program or the Semester on the United Nations or the Overseas Study Programs), for at least 15 hours in the College of Engineering, for at least 14 hours in the College of Business Administration, or for at least 14 hours in the College of Nursing.

Graduating senior honors are announced at Commencement and are based on the work of the last two semesters.

TRANSCRIPTS OF ACADEMIC RECORDS

In order to keep the student’s academic record confidential, official transcripts are normally released only upon his written request. However, the University Registrar may make exceptions when, in his judgment, it is in the best interest of the student or former student.

THE COLLEGE OF ARTS AND SCIENCES

Associate Professor H. Peters (Acting Dean); Assistant Professor Kohlhoff (Assistant Dean)

OBJECTIVES OF THE COLLEGE

A. GENERAL EDUCATION PROGRAM

The College of Arts and Sciences offers courses which are designed to provide an intellectual foundation and context for the University’s undergraduate programs.

Some of the courses, such as those in writing, mathematics, and foreign languages are studied as valuable in themselves in addition to their being important in their application to other fields.
Courses in the natural sciences acquaint the student with some of the methods and results of man's efforts to understand and shape his natural environment as well as himself, understood as part of nature. In the courses offered by the social sciences, students inquire into the problems connected with individuals and social groups living together in the peculiar conditions of the modern world. The division of the humanities deals with man's values and perspectives as they are expressed in his intellectual and artistic works. Especially important in this division is the sequence of courses in theology in which the religious dimension of human life is examined. Emphasis is given to a study of the Christian tradition which has shaped much of our cultural heritage and still today lays claim to the loyalties of many men. By requiring a variety of courses in these major branches of learning, the general education program gives the student many occasions in which he may discover his interests and competencies. Thus informed he may make an intelligent choice of a field of concentration. By specifying that general education work continues into the student's junior and senior years, the College affirms the ideal that specialization should always be accompanied by a widening circle of learning in order that the student may see and understand the world whole, as much as possible.

B. THE FIELDS OF CONCENTRATION

The College of Arts and Sciences provides advanced work in a number of fields of study, including several professional programs. It is the objective of the College to provide each of its students with a field of concentration which will introduce him to the basic information, theory, and methodology of a discipline. Such specialization complements the breadth of the general education program, but at the same time can provide the background for graduate work, professional school, teacher certification, and many types of employment.

DEGREES AND DEGREE REQUIREMENTS OF THE COLLEGE OF ARTS AND SCIENCES

INTRODUCTION

The College of Arts and Sciences of Valparaiso University grants the following degrees: Associate in Science, Bachelor of Arts, Bachelor of Music, Bachelor of Music Education, Bachelor of Science, Bachelor of Science in Education, Bachelor of Science in Fine Arts, Bachelor of Science in Home Economics, Bachelor of Science in Physical Education. In each case the degree requirements consist of general education requirements, concentration requirements (including an academic major), plus sufficient elective credits to achieve the total credit requirement.

A detailed description of requirements is given in the section on the Bachelor of Arts degree (pages 65-67). For those degrees which are similar to the Bachelor of Arts degree, only deviations from the requirements of the Bachelor of Arts degree are given. The following table is a summary for the varied emphases of the requirements for all degrees in the College:
<table>
<thead>
<tr>
<th>Type of Requirement</th>
<th>Credits Required by Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td>3</td>
</tr>
<tr>
<td>Language and Communications</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>0</td>
</tr>
<tr>
<td>Speech</td>
<td>0</td>
</tr>
<tr>
<td>Humanities and Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Literary Studies</td>
<td>0</td>
</tr>
<tr>
<td>History or Philosophy</td>
<td>0</td>
</tr>
<tr>
<td>Literature or Fine Arts</td>
<td>0</td>
</tr>
<tr>
<td>Behavioral and Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences and Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>General Studies**</td>
<td>0</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
</tr>
</tbody>
</table>

Sub-total for General Education 18 57 43 58 53-57 79 49 51-52 49

Concentration 26 40 70-91 76-80 40 32 40 40 40

Electives 16 27 0-15 0 27-31 13 35 32-33 35

Total 60 124 128-134 134-138 124 124 124 124 124

**Restrictions on the Use of Credits for Degrees in The College of Arts and Sciences**

A student may apply only four credits in Physical Education courses numbered below 10 toward a degree in the College of Arts and Sciences, except for students majoring in Physical Education. Non-music majors are limited to 16 credits in applied music, of which no more than four may be in ensemble music. For further clarification regarding applied music and ensemble, see page 142.

A student may not apply more than 12 credits collectively from the professional colleges of the University toward a degree in the College of Arts and Sciences subject to the following exceptions:

1. Courses in Economics are excluded from this restriction.
2. For a student majoring in Economics, courses in Quantitative Analysis are excluded from this restriction.
3. For a student in the Home Economics — Merchandising Program, courses in the College of Business Administration are excluded.
4. For a student selecting a special minor in Business Administration in lieu of a second major, courses in Business Administration are excluded.

**Note:** A student who transfers from one of these professional colleges into the College of Arts and Sciences may elect to apply credits within the restrictions listed above.

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*For the Bachelor of Science in Education and the Bachelor of Music Education degrees, this tabulation assumes that the general studies course will be taken in the social science area. Otherwise the social science requirement must be increased by 3 credits. Application of the general studies course to another area in some cases will result in a reduction by three credits in that area.

**This requirement is waived for Christ College students.
REGULATIONS CONCERNING GENERAL EDUCATION REQUIREMENTS
1. A student may not use any course to meet more than one general education requirement.
2. Only courses of at least three credits may be used in meeting general education requirements (excluding the requirement in physical education), except in specific cases where authorized.
3. A student may not use a course to meet both a general education requirement and the plan of study option of the concentration requirement.
4. Not more than one course in a student’s major field may be used in partial fulfillment of each one of the seven basic categories of the general education requirements, with the following exceptions:
   a. A student majoring in the Department of Foreign Languages may use two courses in his major to fulfill the Foreign Language requirement if he fulfills the Literature and Fine Arts requirement with a course outside his major.
   b. A student majoring in Physical Education may use two courses in his major to fulfill the Physical Education requirement.
   c. A student majoring in Religion may use three courses in his major to fulfill the Religion requirement.
NOTE: This restriction is also waived in the case of a student who successfully completes English 65 to fulfill the Literature and Fine Arts requirement, but whose initial declaration of an English major occurs after his enrollment in English 65.

REQUIREMENTS FOR THE ASSOCIATE IN SCIENCE DEGREE
A. General Education Requirements:
   One course in each of the following:
   1. Religion (3 credits).
   2. English 5, Exposition and Argument (4 credits), or its equivalent.
   3. Humanities and Fine Arts (3 credits).
   4. Behavioral and Social Sciences (3 credits).
   5. Physical Education (1 credit).
   For further information on these categories see pages 66 and 67 concerning The General Education Requirements of the Bachelor of Arts degree.
B. Concentration Requirements:
   A student must complete at least 30 credits in The Natural Sciences and Mathematics. (Students preparing for admission to one of the allied health fields should develop an appropriate program of study with the Health Science Coordinator.)
C. Other Requirements.
   1. A student must complete at least 60 credits.
   2. The following work must be completed in residence at Valparaiso University:
      a. The last 30 credits toward the degree.
      b. At least 15 credits in the Natural Sciences and Mathematics.
      c. The General Education requirement in Religion.
3. The student must earn a cumulative grade-point average of 2.00 on all work in residence and on courses in the Natural Sciences and Mathematics taken in residence.

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE

A. General Education Requirements:
   1. Religion. Three courses (9 credits) in the Department of Theology.
   2. Language and Communications. At least 12 credits including the following:
      a. English. One course (4 credits) in Exposition and Argument.
      b. Foreign Language. Course #20 in a foreign language in which the student has no more than one year of high school credit, or Course #30 in any foreign language. (A student with more than one year of high school credit in a foreign language may not earn college credit in a First Semester course at Valparaiso University.)
   3. Humanities and Fine Arts. At least 10 credits including the following:
      a. English. One course (4 credits) in Literary Studies.
      b. Literature or Fine Arts. One course (3 credits). (Only courses of a historical-critical nature may be selected from the fine arts. See page 70 for further details concerning suitable courses in English, Foreign Languages, Art, Music, and Speech and Drama.)
      c. History or Philosophy. One course (3 credits) selected from either department.
   4. Behavioral and Social Sciences. Three courses (9 credits) from at least two of the following fields: Economics, Geography, History*, Political Science, Psychology*, and Sociology.
   5. Natural Sciences and Mathematics. Three courses (12 credits) from at least two of the following fields: Biology, Chemistry, Mathematics, Physical Geography**, Physics, and Psychology (with laboratory).
   ***6. General Studies. One upper-class liberal arts course (3 credits) of an integrative nature from outside the student's major field. The following courses may be used to fulfill this requirement: Division, Department, or Section and Number

| Art (127) | Spanish (100) |
| Biology (153) | Geography (126) |
| English (180) | History (184, 185) |
| Foreign Languages | Home Economics (115) |
| French (100) | Music (120) |
| German (100) | Philosophy (110, 112, 114) |
| Greek (100) | Physical Education (115) |
| Latin (100) | Political Science (193) |
| Russian (100) | Psychology (160) |

*A student may not apply more than one course in History and one in Psychology toward this requirement.
**Courses in Physical Geography are listed under the Department of Geography.
***This requirement must be fulfilled at Valparaiso. It is waived for Christ College students.
Sociology (184)  Humanities (100—109)
Theology (160)  Social Science (100—109)
Fine Arts (100—109)  Science (100—109)

7. Physical Education. Two single credit courses (2 credits). See page 64 for specific requirements.

B. Concentration Requirements:

1. A student must complete a minimum academic major. The following major fields which are offered by departments may be applied to the Bachelor of Arts degree: Art, Biology, Chemistry, Classics, Economics, English, French, Geography, Geology, German, Greek, History, Latin, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Religion, Social Work, Sociology, Spanish, and Speech and Drama.

Of these Classics, French, German, Greek, Latin, and Spanish are offered by the Department of Foreign Languages; Geology is offered through a special program of the Department of Geography; and the remainder are offered by the departments of the same name. In addition certain interdisciplinary programs are listed on pages 79 and 80. No more than 48 credits in any one field may be included in the 124 total credits required for graduation.

2. A student must develop his concentration studies by one of the following options:

a. He may complete an individual plan of study of at least 40 credits (but not more than 45 credits) which are not used to fulfill General Education requirements. The plan of study normally includes all work in the major field (except those credits used for General Education) plus appropriate related courses. The plan of study must be approved by the major adviser prior to the time at which the student files for his degree.

b. He may complete a second academic major. This major may be selected from the list in paragraph 1 above. In addition Home Economics or Physical Education may be selected. See page 165 for details concerning a second major offered by the Department of Theology for students interested in voluntary service in the church. See pages 79 and 80 for details concerning the Interdisciplinary Metropolitan Studies Program which offers a second major as well as other interdisciplinary programs.

c. He may complete a Special Minor in Business Administration. See page 81 for details of this program.

Requirements for the Bachelor of Music Degree

The College of Arts and Sciences offers a special curriculum leading to the degree of Bachelor of Music. The requirements for this degree are given in the announcements of the Department of Music on page 137 of this bulletin.
REQUIREMENTS FOR THE BACHELOR OF MUSIC EDUCATION DEGREE
The College of Arts and Sciences offers a special curriculum leading to the degree of Bachelor of Music Education. The requirements for this degree are given in the announcements of the Department of Music on page 137 of this bulletin.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE
The requirements for the Bachelor of Science degree are identical with those of the Bachelor of Arts degree (See pages 66 and 67) except for the following:
1. The Foreign Language Requirement. A student must earn credit for a second semester course in a foreign language.
2. The Natural Science and Mathematics Requirement. A student must include at least one course (4 credits each) from each of the following groupings:
   a. Mathematics 36 (or its equivalent).
   b. Chemistry or Physics.
   c. Biology, Physical Geography, or Psychology (with laboratory).
3. Concentration Requirements. A student must include one science major of at least 32 credits and a plan of study; or one science major of at least 32 credits and a non-science major; or two minimum science majors. The following academic majors may be used: Biology, Chemistry, Geology, Mathematics, Physics, Psychology. (Of these, Geology is offered in a special program of the Department of Geography. The others are offered by the departments of the same name.)

REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN EDUCATION DEGREE
The College of Arts and Sciences offers a special curriculum in elementary education which leads to the degree of Bachelor of Science in Education. This curriculum is intended for students planning to become teachers in elementary schools. The requirements for this degree are given in the announcement of the Department of Education on page 99 of this bulletin.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN FINE ARTS DEGREE
The requirements for the Bachelor of Science in Fine Arts degree are identical with those of the Bachelor of Arts degree (See pages 66 and 67) except for the following:
1. The Foreign Language Requirement. Work in a foreign language is optional.
2. The Concentration Requirements.
   a. The student must complete a major in Art consisting of at least 40 credits and including Art 196.
   b. The student may earn more than 48 credits in the Department of Art provided that he earns at least 62 credits (of the minimum total of 124 credits) in other departments.
   c. The student must receive approval by the Department of Art of a portfolio presentation by the beginning of the Junior year in order to be eligible for this degree.
Note: A student completing a major of at least 40 credits will be considered as completing the plan of study option.
The requirements for the Bachelor of Science in Home Economics degree are identical with those of the Bachelor of Arts degree (See pages 66 and 67) except for the following:

1. The Foreign Language Requirement. Work in a foreign language is optional.

2. The Concentration Requirements. The academic major must be in Home Economics. See page 128 for specific requirements of this major.

3. The Speech Requirements in the Language and Communications Area.

The requirements for the Bachelor of Science in Physical Education degree are identical with those of the Bachelor of Arts degree (See pages 66 and 67) except for the following:

1. The Foreign Language Requirement. Work in a foreign language is optional.

2. The Concentration Requirements. The academic major must be in Physical Education. See page 145 for specific requirements of this major.

THE LIBERAL ARTS AREAS

INTRODUCTION

Although certain departments in the College of Arts and Sciences are engaged largely in professional and pre-professional programs, the majority of departments are actively engaged in the liberal arts section of the college. These departments are sometimes called the liberal arts departments and each is listed under one or more of the liberal arts divisions which are described below.

The general studies requirement of the general education program concerns upper-class courses which are offered by one or more of the liberal arts departments.

Under the course intensification plan a liberal arts department may schedule a special lecture, discussion, or laboratory section of a course in which each student who registers is assigned additional work for which an extra credit is earned. Enrollment is handled by normal registration procedures.

For purposes of organizing the curriculum, the liberal arts are classified into the Division of Humanities and Fine Arts, the Division of Behavioral and Social Sciences, and the Division of Natural Sciences and Mathematics. This pattern is included in the statement of general education requirements for the Bachelor of Arts degree. Furthermore, it is useful as a basis for interdepartmental cooperation in offering courses and in academic advising (see page 11 on the Advising Program). Further details concerning each of these divisions are given in the classifications which follow.
THE DIVISION OF THE HUMANITIES AND FINE ARTS

The Departments of Art, English, Foreign Languages, History, Music, Philosophy, Speech and Drama, and Theology constitute the Division of Humanities and Fine Arts of the College.

Divisional advisers who are selected from these departments are assigned to those undeclared freshman and sophomore students who indicate a preference for this area of the liberal arts.

All students interested in this area should consider the following guidelines for strengthening their programs beyond minimum requirements:

1. An advanced course in a foreign language is recommended. A student who is planning to do graduate work should consult his department for further guidance concerning a foreign language.
2. One year of Western Civilization or a year of History of Philosophy is recommended.
3. A course in literature or fine arts outside the student's major field is recommended.
4. A course in non-Western studies is recommended.
5. A senior integrative course or seminar is recommended in partial fulfillment of concentration requirements.

Students should consult with their advisers concerning priorities in developing schedules.

The following types of courses are applicable to the Literature or Fine Arts requirement:

1. An intermediate (#65) or advanced literature course in the Department of English.
2. An advanced literature course in one of the foreign languages or a course in literature in translation (#50 or Greek 51) taught by the Department of Foreign Languages.
3. One of the following historical-critical courses in the fine arts:
   - Art: 111, 114, 115, 116, 117, 120
   - Music: 1, 7 and 8 (together), 103, 104
   - Speech and Drama: 104, 105, 185, 186

The following courses are offered by this division in fulfillment of the general studies requirement of the general education program.

Fine Arts 100-109 GENERAL STUDIES IN FINE ARTS. Cr. 3. An integrative lecture topic or studio experience is presented. Prerequisite: junior or senior standing.

Humanities 100-109 GENERAL STUDIES IN HUMANITIES. Cr. 3. An integrative topic is presented. Prerequisite: junior or senior standing.

In addition, the following courses offered by departments in the Division may be used in fulfillment of the General Studies requirement:

Art 127, ART APPRECIATION
English 180, GENERAL STUDIES IN ENGLISH
Foreign Languages (courses taught in English)
French 100, STUDIES IN FRENCH CIVILIZATION
German 100, STUDIES IN GERMAN CIVILIZATION
Greek 100, STUDIES IN GREEK CIVILIZATION
Latin 100, STUDIES IN ROMAN CIVILIZATION

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Russian 100, STUDIES IN RUSSIAN CIVILIZATION
Spanish 100, STUDIES IN HISPANIC CIVILIZATION
History 184, THE WESTERN EXPERIENCE
185, THE AMERICAN EXPERIENCE
Music 120, MUSIC IN HISTORY
Philosophy 110, PHILOSOPHY OF SCIENCE
112, PHILOSOPHY OF RELIGION
114, PHILOSOPHY OF HISTORY
Theology 160, THE AMERICAN RELIGIOUS EXPERIENCE
See the listings of individual departments for further details.

THE DIVISION OF THE BEHAVIORAL AND SOCIAL SCIENCES

The Departments of Economics, Geography, History, Political Science, Psychology, and Sociology constitute the Behavioral and Social Sciences Area of the College. General advisers who are selected from these departments are assigned to those undeclared freshman and sophomore students who indicate a preference for this area of the liberal arts.

A freshman student who plans to major in a social science may have to postpone either mathematics or a foreign language for his program. He should give priority to mathematics. Students interested in graduate study should consult their major departments for further guidance concerning foreign language work.

All students majoring in this area should consider the following guidelines for strengthening their programs beyond minimum requirements:

1. A course dealing with social ethics is recommended in partial fulfillment of the religion requirement.
2. A year of Western Civilization or History of Philosophy is recommended.
3. A course in mathematics and one in statistics is recommended.
4. A course in non-Western studies is recommended.
5. A senior integrative course or seminar is recommended in partial fulfillment of the concentration requirements.

A student with a major in Economics, Geography, History, Political Science, or Sociology may complete a second major under the Interdisciplinary Metropolitan Studies Program. See page 80 for further details concerning this program.

The following courses are offered by this liberal arts area in fulfillment of the general studies requirement of the general education program.

Social Science 100-109 GENERAL STUDIES IN SOCIAL SCIENCE. Cr. 3. An integrative topic is presented. Prerequisite: junior or senior standing.

The following courses are offered by this liberal arts area in support of major programs in the social sciences:

Social Science 150-159 INTEGRATIVE TOPICS IN THE SOCIAL SCIENCES. Cr. 3. Offered as a course or seminar in which a topic or problem of an integrative nature is considered. Open to seniors who are majoring in a social science.
In addition, the following courses offered by departments in the Division may be used in fulfillment of the General Studies requirement:

- Economics 173, COMPARATIVE ECONOMIC SYSTEMS
- Geography 126, THE GEOGRAPHY OF CONTEMPORARY WORLD ISSUES
- History 184, THE WESTERN EXPERIENCE
- 185, THE AMERICAN EXPERIENCE
- Political Science 193, GENERAL STUDIES IN POLITICAL SCIENCE
- Psychology 160, CURRENT PROBLEMS IN THE BEHAVIORAL SCIENCES
- Sociology 184, GENERAL STUDIES IN SOCIOLOGY

See the listings of individual departments for further details.

THE DIVISION OF THE NATURAL SCIENCES AND MATHEMATICS

The Departments of Biology, Chemistry, Mathematics, Physics, and Psychology constitute the Natural Science Division of the College. The Department of Geography offers work in physical geography which is applicable to the natural science general education requirement and offers a major in geology available through a cooperative program with Indiana University — Northwest Campus. (See page 84 for details). Divisional advisers who are selected from these departments are assigned to those undeclared freshman and sophomore students who indicate a preference for this division.

A freshman student who plans to major in a science may have to postpone either mathematics or a foreign language for his program. He should give priority to mathematics. It is recommended that all students interested in this area fulfill the foreign language requirement with either French, German or Russian. A student interested in graduate study should consult his department for further information on language work.

Since a major in this area may be applied toward either the Bachelor of Science or the Bachelor of Arts degree, students should note the differences in requirements for these degrees as given on page 68.

Finally, a senior integrative science course or seminar is recommended in partial fulfillment of concentration requirements.

The requirements for the Associate in Science degree are given on page 64. This degree is particularly designed for students who need or desire at least two years of college credit as preparation for admission to a professional program in the allied health fields. Such students are assigned to the Health Science Coordinator for academic advising and other assistance. See page 65 for further details.

The following courses are offered by this liberal arts area in fulfillment of the general studies requirement of the general education program:

Science 100-109 GENERAL STUDIES IN SCIENCE. Cr. 3. An integrative topic is presented. Prerequisite: junior or senior standing.

In addition, Biology 153, HUMAN ENVIRONMENTAL BIOLOGY, and Psychology 160, CURRENT PROBLEMS IN THE BEHAVIORAL SCIENCES are courses offered by departments in this division which may be used in fulfillment of the General Studies requirement. See the listings of these departments for further details.
The following courses are offered by this area in support of major programs in the natural sciences and mathematics:

Science 150-159 INTEGRATIVE TOPICS IN SCIENCE. Cr. 3. Offered as a course or seminar in which a topic or problem of an integrative nature is considered. Open to senior majors in science or mathematics.

THE PROFESSIONAL AND PRE-PROFESSIONAL AREAS

The College of Arts and Sciences offers degrees especially designed for elementary teaching, the teaching of music, the performance of music, work in art, work in home economics, and work in physical education. In addition, students may earn a major in social work for the Bachelor of Arts degree and prepare for secondary teaching under a variety of majors for the Bachelor of Arts and Bachelor of Science degrees. Finally, The Deaconess Program, the pre-legal program, and the pre-medical arts program are special programs which a student may complete while majoring in a liberal arts area.

Students interested in any of these professional or pre-professional areas should declare the appropriate major before entering the sophomore year.

TEACHER-EDUCATION PROGRAM

Valparaiso University prepares applicants for the following types of teaching certificates:

1. General Elementary Teacher Certificate
   Optional endorsements available in:
   a. Emotionally Disturbed
   b. Special Subjects

2. Secondary Teacher Certificates in the subject matter fields of:
   a. Arts and Crafts—Area Major, Major, Minor.
   b. Biology—Major, Minor.
   c. Chemistry—Major, Minor.
   d. English—Major, Minor.
   e. Journalism—Minor.
   f. German—Major, Minor.
   g. French—Major, Minor.
   h. Spanish—Major, Minor.
   i. Latin—Major, Minor.
   j. General Home Economics—Major, Minor.
   k. Mathematics—Major, Minor.
   l. Music—Area Major, Major (Vocal or Instrumental), Minor (Vocal or Instrumental).
   m. Physical Education—Minor.
   n. Physical Education and Health—Area Major, Major.
   o. Physics—Major, Minor.
   p. Psychology—Minor.
   q. Social Studies—Area Major, Major, Minor.
   r. Speech—Major, Minor.
   s. General Science—Minor.
The Teacher-Education Program is under the general direction of the Teacher-Education Committee. Eligibility for admission to the program is determined by the Committee.

**PREPARATION FOR THE MEDICAL ARTS**

Students may prepare for entrance into medical, dental, veterinary, medical technology, or para-medical schools by entering one of the pre-medical arts programs of the University. Students in these programs must have their schedules approved at the beginning of each semester by an assigned special adviser. Advising in the medical arts is handled by pre-medical advisers or a Health Science Coordinator, depending on the student's choice of field.

In some fields such as medicine, dentistry, and veterinary medicine completion of a bachelor's degree is often advantageous before entering the professional program. However, if three years or less of college work are needed for entrance into a professional program, a student may earn a bachelor's degree through the University's Combined Liberal Arts-Medical Arts program. This involves three years of work at Valparaiso University and one year's work at an approved professional school. (See the next section of this catalog for details.) This program is often used by students in medical technology. (The University has formal affiliations with the Schools of Medical Technology at St. Mary Mercy and Methodist Hospitals, Gary, Indiana, Lutheran Medical Center, Cleveland, Chicago Wesley Memorial Hospital, and Fort Wayne Lutheran Hospital.)

Students wanting to enter allied health fields which require two years or less of college preparation may want to earn the Associate in Science degree at Valparaiso University which requires two years of college credit. (See page 65 for requirements of this degree). Further information about allied health fields may be obtained from the University's Health Science Coordinator.

**THE COMBINED LIBERAL ARTS-MEDICAL ARTS PROGRAM**

A student may complete the degree of Bachelor of Arts or of Bachelor of Science from Valparaiso University by completing three years of study at the University and completing an additional year's work at an approved school of medicine, dentistry, veterinary medicine, medical technology, optometry, podiatry, physical therapy, or occupational therapy.

Specifically, the student who elects one of these programs must meet the following requirements:

1. He must spend his junior year in residence at Valparaiso University.
2. He must meet all general education requirements for the Bachelor of Arts or of the Bachelor of Science degree with the exception that one course in religion and the general studies requirement are waived.
3. He must complete an academic major. For the Bachelor of Science degree this major must be in one of the science fields.
4. He must offer at least 93 semester credits of college work.
5. He must make application for graduation sixty days prior to the date of graduation and present to the Registrar an official transcript of an additional year's satisfactory work at an approved professional school.
COMBINED LIBERAL ARTS-ENGINEERING PROGRAM

A student may earn in five years (ten semesters) both the Bachelor of Arts degree and one of the Bachelor of Science degrees in Engineering. He may earn the two degrees by completing one of the engineering curricula and completing the general education requirements of the College of Arts and Sciences as well as the major requirement of that college. This will require him to earn 166 credit hours and to have a standing of at least two (2.00) in all his work. Students electing such a program must have their schedules approved by both the Dean of the College of Arts and Sciences and the Dean of the College of Engineering at the beginning of each semester. Sample or representative curricula for such programs may be obtained upon application to the Dean of the College of Engineering.

PREPARATION FOR THE STUDY OF LAW

According to the consensus of legal educators, particular courses are not a prerequisite for law study. Significant qualities of undergraduate preparation derive from the intellectual discipline required by exacting teachers rather than the subject matter of what is taught. The pre-law student should therefore consult with his academic adviser or Pre-Law Adviser to select courses in the student’s areas of interest which will place demands on analytic skills and both verbal and written expression.

PREPARATION FOR THE FOREIGN SERVICE OF THE UNITED STATES

A student who wishes to enter the Foreign Service of the United States should carefully prepare himself for the Foreign Service Officer Examination. To this end, as many as possible of the following courses should be taken:

- Principles of Economics (Economics 71 and 72)
- American Literature (English 101 and 102)
- Advanced Composition (English 131)
- Modern Foreign Language—French, German, Russian, Spanish (Enough courses to gain fluency in speaking)
- Introductory Geography (Geography 50 and 52)
- Introduction to Political Science (Political Science 1)
- Comparative Politics (Political Science 44)
- International Relations (Political Science 65)
- The Diplomacy of the United States (Political Science 111)
- American Foreign Policy (Political Science 112)
- Public Administration (Political Science 162)
- International Law (Political Science 165)
- Foreign Political Areas (Political Science 153, 154, 158)
- Western Civilization (History 1 and 2)
- The History of the United States (History 30 and 31)
- Introductory Sociology (Sociology 1)

For information concerning the Angus Ward Foreign Service Scholarship, see page 37.
DEACONESS TRAINING PROGRAM

Valparaiso University and the Lutheran Deaconess Association cooperate in the education of women as deaconesses for the Church.

The student who is accepted into this program must meet the requirements of the College of Arts and Sciences for the degree of Bachelor of Arts with a major in religion. The program is under the direction of the Executive Director of the Deaconess Association.

Each student must fulfill certain courses in the Department of Theology as well as other departments. The student’s minor is in such fields as: Psychology, Sociology, English, Social Work, German, History, Music, Philosophy, Greek. The minor field, as well as the entire curriculum, is approved by the Director of Education for each student.

A student in the program is assisted in the development of an understanding of the diaconate and the church through certain planned programs. One of the extracurricular programs consists of a weekly series of speakers, panel discussions, etc., at Deaconess Hall on subjects relevant to the deaconess ministry. A deaconess student also develops her professional skill and understanding through participation in a planned field work program. Thirdly, each student receives the counsel and guidance of the Executive Director and the Staff Deaconess as well as other University personnel.

Deaconess students are expected to participate in University activities as part of their learning experience.

Finally, each deaconess student spends one year (between the junior and senior academic years) as an intern. The internship year is a structured period of experience in which the student serves but is also testing herself in, and developing, the skills required for functioning in the diaconate.

PREPARATION FOR SEMINARY ENTRANCE

Although Valparaiso University is not one of the regular preparatory schools of the Lutheran Church with a special program of pre-seminary education, it is possible for students to prepare for the seminary in the University’s College of Arts and Sciences. Upon graduation the students are eligible for matriculation at both seminaries of the Lutheran Church—Missouri Synod and at other Protestant seminaries requiring the liberal arts B.A. The University Committee on Pre-Seminary Studies stands ready to assist such students in arranging their undergraduate programs for future seminary admission.

Normally the students select a major and a minor from a wide variety of possible subject-matter areas; some in religion, others in philosophy, history, social sciences, classical languages, English, etc. The prime interest of the University and also of most seminaries is a thorough liberal arts education on the undergraduate level to give the future pastor the best possible cultural, historical, and intellectual training. Most seminaries require competence in the languages necessary for seminary studies: Greek, Latin, Hebrew, and German. Courses in all of these languages are offered at the University.
SPECIAL GENERAL EDUCATION PROGRAMS

Deviations in the basic distribution requirements of the general education program may be approved for groups or individual students in certain special programs. These programs will be administered by the Dean of the College after they have been approved. Further information may be obtained from the Dean of the College.

INDEPENDENT GROUP STUDY PROGRAM

The independent group study program is administered by the Dean of the College for students who desire to work as a group on an academic project.

GROUP STUDIES 100. Independent Group Study Project. Each sem. Cr. 1, 2 or 3. An independent group project is conducted on a topic selected by the group. Grading is limited to the use of S or W. Prerequisites: Approval of a faculty sponsor and the Dean of the College of Arts and Sciences.

A proposal for an independent group study project must be submitted to the Dean of the College of Arts and Sciences at least three weeks before the beginning of the registration period for the semester in which the project is to occur.

Further details and an application form may be obtained at the office of the Dean of the College of Arts and Sciences.

BLACK STUDIES PROGRAM

Valparaiso University has established a Black Studies Program. Consistent with the University's commitment to the Liberal Arts tradition, the special emphasis of this program will be to assist the student to explore and understand the Afro-American experience.

The nature of the Afro-American experience is such that the program consists largely of work in the social sciences, humanities, and fine arts. Special courses and special sections of existing courses may be used in meeting requirements for a bachelor's degree. In recent years special sections of introductory courses in English and Religion have been offered.
in connection with this program. In addition, courses in Black Humanities and The Black Urban Community were offered. Finally, certain regular offerings in History, Law, and Urban Studies were particularly appropriate to the program.

This program includes techniques of instruction and involves students in para-curricular and extra-curricular activities appropriate to the Black Experience.

Inquiries about this program should be addressed to the Coordinator of Special Programs.

**HONORS WORK**

Honors Work is designed for students of exceptional ability who might benefit by earning some of the credits required for graduation through independent study rather than through regular course work. Honors Work may be taken by students of the College of Arts and Sciences only in the humanities, the social sciences, the natural sciences, and religion. It may be taken only by candidates for the degree of Bachelor of Arts or Bachelor of Science.

A student who has completed at least 80 semester hours but has not yet entered upon the work of his last two semesters and who has a standing of at least 3.00 in his major field as well as in all the college work he has undertaken may apply for admission to Honors Work with the consent of his major department.

A student making application for admission to Honors Work must present a plan for an independent-study project to be undertaken under the supervision of a member of his major department during the first semester of his senior year. The proposed project must have the approval of the student’s major department.

With the approval of the departments concerned, a student may propose an independent-study project intended to integrate work in two or more fields (e.g., English literature and religion). A project of this kind will be supervised by the student’s major department.

A student’s first independent-study project will be recorded as course number 197 of his major department with the title “Honors Work in” his major department. A student’s second independent-study project will be recorded as course number 198 of his major department with the same title.

A student who has been admitted to Honors Work must present the results of the independent-study project undertaken during the first semester of his senior year in an essay of not less than 5,000 words not later than the day before the beginning of the final examination period of that semester. Three copies of the essay must be presented. The essay will be judged by a committee consisting of two members selected by the student’s major department and one member selected by the Committee on Honors. If the essay is found worthy of Honors by the committee, the student will be granted 3 semester credits for the independent-study project with the grade of either 4 or 3 and will be admitted to candidacy for graduation “With Honors” in his major field. If the essay is not found worthy of Honors by the examining committee, the Committee on Honors, upon consultation with the examining committee, may recommend that the student be granted 3 semester credits with a passing grade other than 4 or 3
for the independent-study project, or it may recommend that he be given the grade of zero (0) for a 3-credit course.

A student who has successfully completed an independent-study project during the first semester of his senior year may make application to the Committee on Honors for permission to undertake another independent-study project during the second semester of his senior year. All regulations concerning the independent-study project undertaken by a student during the first semester of his senior year will apply to the project undertaken during the second semester of that year. A student who has undertaken a project for the second semester of his senior year must present an essay worthy of Honors on his project of that semester in order to remain a candidate for graduation “With Honors.”

A student who is a candidate for graduation “With Honors” must pass a three-hour comprehensive written examination on the work of the courses taken in his major field, including Honors Work, at least fifteen days before the beginning of the examination period of the last semester of his senior year. This comprehensive written examination will be set by the student’s major department and will be judged by a committee consisting of two members selected by the student’s major department and one member selected by the Committee on Honors.

A student taking this comprehensive examination will be excused from all the regular final examinations of the last semester of his senior year. If the comprehensive written examination is found to be worthy of Honors by the examining committee, the Committee on Honors will recommend to the appropriate Faculty or University Senate Standing Committee that the candidate be granted the degree for which he is a candidate “With Honors” in his major field provided that upon completion of his requirements for graduation he has a standing of at least 3.00 in his major field as well as in all college work he has undertaken.

If the comprehensive written examination is found not to be worthy of Honors by the examining committee, the Committee on Honors, upon consultation with the examining committee, will recommend that the candidate be granted his degree without “Honors.”

During the semester or semesters in which a student is working on an independent-study project, he will not be permitted to carry more than 12 credit hours in addition to his Honors Work.

The Committee on Honors will deposit one copy of each approved Honors essay in the University Library.

INTERDISCIPLINARY MAJORS

A student in the College of Arts and Sciences may propose a plan of study for an interdisciplinary major which the Dean of the College may approve provided the following conditions are satisfied:

1. The proposed plan of study includes at least 24 credits, (chosen from two or more departments) which are not used in meeting general education requirements.

2. The proposed plan of study includes a statement by the student which justifies the types of courses listed.

3. The proposed plan of study includes a statement by a faculty member which supports the plan and states that he is willing to serve as academic adviser to the student.
4. The proposed plan of study must be submitted to the Dean of the College prior to the date to file application of candidacy for the bachelor's degree.

**INTERDISCIPLINARY METROPOLITAN STUDIES PROGRAM**

A student with a first major in Economics, Geography, History, Political Science, or Sociology may earn a second major in the area of urban studies. This interdisciplinary program also permits any student to earn a minor or to construct a plan of study for the concentration requirements which uses courses from those listed below. This program is designed essentially to provide students of the social sciences with the tools which are necessary for the conduct of intensive analysis of problems in urban affairs.

**MAJOR** (See introductory statement for restrictions on the use of this major.)

A minimum of 24 credits selected from those courses listed below and beyond the minimum credits required in the student's first major field. Courses must include Economics 72, Geography 150, History 137, Political Science 155, Sociology 130 (Topic: Urban Sociology), Social Science 150-159 (Topic: Seminar in Urban Policy), and a course in statistics.

The Coordinator of the Interdisciplinary Metropolitan Studies Program shall also serve as the adviser of the students enrolled in the program.

**MINOR**

Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 15 credits selected from the courses listed below (and beyond the minimum credits required in the student's major) constitutes a minor. Courses must include: Economics 72, Geography 150, History 137, Political Science 155, and Sociology 130 (Topic: Urban Sociology).

**COURSES APPROVED FOR THE METROPOLITAN STUDIES PROGRAM**

Further details concerning the courses listed below may be found under the announcements of the individual departments.

**Core Courses:**

- Economics 72 Principles of Economics Cr. 3
- Geography 150 Urban Geography Cr. 3
- History 137 History of the American City Cr. 3
- Political Science 155 Problems in State and Local Politics Cr. 3
- Sociology 130 Societal Structures: Urban Society Cr. 3
- Statistics (Specific course to be selected with advice of departmental committee member) Cr. 3-4
- Social Science 150-159 Integrative Topics in the Social Sciences: Seminar on Urban Policy Cr. 3

**Other Courses:**

- Art 118 Modern Design and Architecture Cr. 3
- Biology 153 Human Environmental Biology Cr. 3
- Economics 71 Principles of Economics Cr. 3
- Economics 174 Public Finance Cr. 3
Economics 199 Problems in Economics Cr. 1-3
Geography 152 Urban and Regional Planning Cr. 3
Geography 154 Cartography Cr. 3
Geography 168 Independent Study in Geography Cr. 2-3
Geography 172 Environics Cr. 3
Pol. Science 156 Problems in American Politics Cr. 3
Pol. Science 175 Seminar in Political Science Cr. 2
Sociology 104 Criminology Cr. 3
Sociology 130 Societal Structures: Ethnic Minorities Cr. 3
Sociology 130 Societal Structures: Poverty, Social Stratification, or Systems of Justice Cr. 3-9
Sociology 140 Social Institutions: Medicine Cr. 3
Sociology 150 Social Processes: Juvenile Deviance and Delinquency Cr. 3
Sociology 195 Independent Study in Sociology I Cr. 3
Sociology 196 Independent Study in Sociology II Cr. 3

SPECIAL MINOR IN BUSINESS ADMINISTRATION

A special minor in Business Administration is a third option of concentration requirement number 2 for the Bachelor of Arts degree on page 67 of the catalog. Twenty-four semester credits are required for this special minor consisting of the following:

Accounting 11 and 12 Cr. 6
Economics 71 and 72 Cr. 6
Administration 31 or 41 or 61 Cr. 3
Nine credits selected from the following: Cr. 9
   Accounting 101, 103, 111
   Administration 31*, 41*, 51, 55, 61*, 131, 133, 137, 142, 163
   Economics 185, 186, 187
   Quantitative Analysis 85

*If not elected under requirement 3.

A student must earn a grade-point average of at least 2.00 in all the course work of this special minor.

OFF-CAMPUS PROGRAMS
INTERNATIONAL STUDIES SEMESTER

Valparaiso University conducts an International Studies Program in which a student has the opportunity to study for one semester at one of the University’s overseas centers. At the present time student centers are maintained in Cambridge, England, and Reutlingen, Germany. Each semester approximately twenty undergraduate students may study at each center. These centers offer the students a chance to broaden their knowledge and expand their experience through extensive travel, personal contact and day-by-day living in a different cultural environment. Inherent in this experience is the development of individual freedom, responsibility and independence.

Supervising each center is a director from Valparaiso’s faculty who secures residences, enlists faculty members and instructs in two courses. Each center’s curriculum is based upon the geographical and cultural
setting of the area. Students are required to take at least twelve credit hours of the fifteen offered at each center, and independent-study projects may also be arranged. The courses are taught by the director and local faculty. All credit hours are considered as residence work applicable to graduation from Valparaiso University. Students register at Valparaiso and pay the normal tuition, room without board, general fees and an additional travel expense which covers air travel and other transportation costs to and from either the Cambridge or Reutlingen center.

WASHINGTON SEMESTER PROGRAM

The Washington Semester Program, established by an agreement concluded between the American University, Washington, D.C., and Valparaiso University, makes it possible each semester for three superior students to spend one semester of their junior year (or some other semester by special arrangement) at the American University. The purpose of the program is to give the selected students an opportunity to see at first hand the intricacies of the operation of the national government and to obtain an intimate contact with the broad range of governmental and political activity through field visits, consultation with officials, and evaluating sessions led by academic instructors. Only students who have had the course in Political Science 1 will be considered candidates for this program.

Valparaiso students register at Valparaiso for the Washington Semester and pay the usual tuition and other fees to Valparaiso. Expenses for travel, meals, and lodging are paid directly by the students. The Washington Semester gives full credit toward graduation from Valparaiso University. Not open to students who have participated in the Semester on the United Nations.

For information concerning the Washington Semester Program Loan Fund, see page 39.

For a description of the three required courses of the Program, see page 154.

URBAN AFFAIRS SEMESTER PROGRAM

The Urban Affairs Semester Program, established by an agreement with the American University, Washington, D.C., makes it possible for selected students to spend one semester of their junior year (or some other semester by special arrangement) at the American University. The program is designed to provide students with a broad introduction to urban problems and programs and to examine the intergovernmental characteristics of policy-making. It has four objectives: (1) to provide a solid academic base upon which a student can develop his own unique and personal educational goals, (2) to take advantage of the unique facilities and environment of the nation's Capital, (3) to use the practical to build toward the theoretical, particularly in the writing of integration papers and the research project, and (4) to provide contact in seminars with officials of local, state, and national government, political parties, interest groups, and the press.

Only students who have had the courses in Political Science 1 and 2 will be considered candidates for this program.

Valparaiso students register at Valparaiso for the Urban Affairs Semester and pay the usual tuition and other fees to Valparaiso. Expenses for travel,
meals, and lodging are paid directly by the students. The Urban Affairs Semester gives full credit toward graduation from Valparaiso University. Not open to students who have participated in the Washington Semester or the Semester on the United Nations.

**SEMMESTER ON THE UNITED NATIONS**

The Semester on the United Nations, established by an agreement with Drew University, Madison, New Jersey, makes it possible for selected students to spend one semester of their junior year (or some other semester by special arrangement) at Drew University. The curriculum revolves about on-the-scene observations and analyses of the United Nations through direct contact with the United Nations meetings and headquarters. For two days each week of the semester the student will be in the proximity of the United Nations in New York under the supervision of a member of the Drew University faculty.

Valparaiso students register at Valparaiso for the Semester on the United Nations and pay the usual tuition and other fees to Valparaiso. Expenses for travel, meals, and lodging are paid directly by the students. The Semester on the United Nations gives full credit toward graduation from Valparaiso University. Not open to students who have participated in the Washington Semester Program. Only students who have had the course in Political Science 44 will be considered candidates for this program.

For information concerning the Valparaiso Branch of the American Association of University Women Loan Fund, see page 39.

For a description of the two required courses of the Semester, see page 154.

**THE MERRILL-PALMER PROGRAM**

This program, established by an agreement with Merrill-Palmer Institute, Detroit, Michigan, and Valparaiso University, makes it possible for selected students to spend a part or all of their junior year, or senior year, or a summer session at Merrill-Palmer Institute. The purpose of the program is to give the superior student an opportunity to interrelate knowledge and to foster inter-personal relations through seminars, class discussions, and practicums. This experience will provide opportunities for work in social services and nursery schools. This program is available to students with a background in Biology, Economics, Home Economics, Psychology, and/or Sociology.

Valparaiso students register at Valparaiso for the Merrill-Palmer Program and pay the usual tuition and other fees to Valparaiso at the current rate. Expenses for travel, meals, and lodging are paid directly by the students. The Merrill-Palmer Institute gives full credit toward graduation from Valparaiso University. In the event the tuition and fees at Valparaiso University exceed the tuition and fees at the Merrill-Palmer Institute, Valparaiso University shall retain $75.00 of this surplus and refund the remainder to the student. In the event the surplus is $75.00, or less, the student will receive no refund.

Students interested in this program should consult the Assistant Dean of the College of Arts and Sciences for further details.
THE VALPARAISO-INDIANA GEOGRAPHY AND GEOLOGY ASSOCIATION (VIGGA)

The purpose of this association is: To provide educational opportunities on the undergraduate level in the geological and geographical sciences to the students enrolled at Valparaiso University and Indiana University Northwest, Gary. Provisions are made for full-time undergraduate students, in these academic disciplines, to enroll beginning with the school year of 1970-1971 under the following conditions:

(a) Students may take a maximum of two courses per semester at the other participating institution.
(b) These courses will be treated as part of the student's normal load at his home institution and tuition and fees will be paid accordingly.
(c) The total number of credit hours to be taken will be determined by the home institution.
(d) Students who wish to take courses at the host institution should obtain the recommendation of the chairman of the Department of Geography (V.U.).
(e) Grades earned shall be recorded at the home institution.
(f) A C or 2.00 average must be achieved on VIGGA courses to qualify the student to register for courses at the host institution in the following semester.

Association students at Valparaiso University are expected to satisfactorily complete the following curriculum from course offerings at Valparaiso University and Association course offerings at Indiana University Northwest in order to complete the major in geology. (Degrees are to be awarded by the home institution):

10 Geomorphology Cr. 4 (VU)
G-112 Elements of Geology II Cr. 3 (IUN)
G-221 Introduction to Mineralogy Cr. 4 (IUN)
G-222 Introduction to Petrology Cr. 3 (IUN)
G-323 Structural Geology Cr. 3 (IUN)
G-334 Principles of Sedimentation and Stratigraphy Cr. 3 (IUN)
G-406 Introduction to Geo-Chemistry Cr. 3 (IUN)
G-411 Principles of Invertebrate Paleontology Cr. 3 (IUN)
G-490 Undergraduate Seminar Cr. 1 (IUN)
30 Meteorology and Climatology Cr. 4 (VU)
G-420 Regional Geology Field Trip Cr. 1 (IUN)

Additional Indiana University Northwest Association course offerings open to Valparaiso University students majoring in geology are: G-399, G-404, G-410, G-416, G-480, G-499 (see I.U.N. catalog).

GARY (INDIANA) LUTHERAN TEACHING INTERNSHIP

This program makes it possible for selected majors in elementary education to spend one semester of their senior year serving as members of a teaching team at Gary Lutheran School. This school has a unique multi-racial, multi-age-grouped, open-education program.
Students complete a six week training program in the summer prior to their service as interns. No tuition or fees are charged for the summer program. Credit for 16 hours of professional course work is granted upon successful completion of the internship.

A small stipend is granted to students during this semester and free housing is furnished in Gary.

**ADJUNCT ACTIVITIES OF THE COLLEGE OFF-CAMPUS DIVISIONS**

Valparaiso University maintains an instructional staff in each of the following hospital schools of nursing: Lutheran Hospital of St. Louis School of Nursing, St. Louis, Missouri; and Lutheran Medical Center School of Nursing, Cleveland, Ohio. In these schools, as part of cooperative programs, Valparaiso University teaches certain courses in natural sciences, social sciences, English, and religion. University course work done in either of these two hospital schools of nursing may be used to meet part of the residence requirements of the University provided that the student meets the University requirements for admission as a fully matriculated student.

**1973 SUMMER INSTITUTE IN ENVIRONMENTAL SCIENCE FOR SECONDARY SCHOOL TEACHERS**

Under a grant from the National Science Foundation, Valparaiso University and Indiana University Northwest will offer a Summer Institute in Environmental Science for Secondary School Teachers from June 25 to August 3, 1973. The Institute program is designed to enable natural and social science teachers to understand the interdisciplinary implications of a variety of environmental problems and to encourage them to cooperate in providing learning experiences in environmental studies to their students.

All members will be enrolled in the following graduate course designed specifically for the Institute:

200. The Environment and Human Affairs. Cr. 6. An interdisciplinary course in which the interrelationship of human affairs and the environment is considered through lectures, field work, discussions, and group study projects.

**LAW ENFORCEMENT EDUCATION PROGRAM**

Through a grant received from the Department of Justice and directed by the Sociology Department, financial assistance is now available to part-time or full-time undergraduate and graduate students interested in police, probation, parole, criminal justice planning, and correctional work. Under the terms of the grant the University may make loans up to $1800.00 and grants up to $600.00 per year to qualified students. Special Activity Fee, $15.00 per semester. Inquiries should be addressed to: Director, Law Enforcement Education Program, Department of Sociology, Valparaiso University, Valparaiso, Indiana.
THE DEPARTMENT OF ART

Associate Professor Caemmerer (Chairman); Associate Professors Brauer and Frey; Assistant Professor Sullivan; Miss Ushenko

DEGREE—Completion of the degree requirements of the College of Arts and Sciences with a major in art leads to the degree of Bachelor of Arts (B.A.) or the degree of Bachelor of Science in Fine Arts (B.S. in F.A.).

MAJOR—A minimum of 27 credits in art. Courses must include Art 21, 31, 33, 71, 120, 121 and 151. For the Bachelor of Science in Fine Arts degree the minimum is 40 credits in art. Art 196 must also be included for this degree.

Majors with professional or graduate school ambitions should complete the Bachelor of Science in Fine Arts degree. See page 68 for the requirements of this degree. Students in this program may earn up to 62 credits in Art in completing minimal degree requirements. Courses may be chosen to provide a specialization in painting, sculpture, design, ceramics, photography, or art history; they may be selected to provide the student with a broad background. A student who wishes to earn this degree must receive approval from the Department of Art of a portfolio presentation. This should occur by the beginning of the junior year.

Further descriptions of the specialized programs as well as suggested curricula are available from the department chairman. Field trips, Sloan art exhibitions, Visual Arts Council and related art events are integral parts of the program of the Department of Art. Requirements for art major participation in these and other departmental programs are given in the Art Student Handbook.
MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 15 credits in art constitutes a minor. Art 21, 31 or 33, and 120 must be included.

APPROVAL OF SCHEDULES—Students taking a major or a minor in art must have their schedules approved by the chairman of the department at the beginning of each semester. Students who expect to teach art should consult, as early as possible, with the appropriate adviser in the Department of Education concerning state and University requirements.

COURSES IN ART

COURSES IN THE THEORY AND HISTORY OF ART

111. TOPICS IN THE THEORY AND HISTORY OF ART. Cr. 1, 2, 3, or 4. An investigation of selected topics central to major developments and purposes of the visual arts. Included may be topics such as: Far Eastern Art, History of the Cinema, Modern Art since 1945, Primitive Art, Northern Renaissance Art, Byzantine Art, and American Art. This course may be repeated for credit when topics vary. Field trips and assessment of a fee are dependent on the needs of the particular topic.

114. ANCIENT ART. Sem. 2. Cr. 3. A study of the art of Ancient Egypt, Mesopotamia, Greece, and Rome. Offered in alternate years. Field trip fee, $5.00.

115. MEDIEVAL ART. Sem. 1. Cr. 3. A survey of the art and architecture of Europe from the first through the fourteenth centuries.

116. RENAISSANCE ART. Sem. 1. Cr. 3. A study of the art and architecture of the Renaissance in Europe during the 15th and 16th centuries.

117. BAROQUE ART. Sem. 2. Cr. 3. A survey of the art and architecture of Europe from 1600 to 1789. Offered in alternate years.

118. MODERN DESIGN AND ARCHITECTURE. Sem. 1. Cr. 3. A survey of the practical arts of the nineteenth and twentieth centuries, with emphasis on architecture. Field trip fee, $10.00.

120 (220). MODERN ART. Sem. 2. Cr. 3. A study of the major developments in painting and sculpture in the nineteenth and twentieth centuries. Field trip fee, $10.00.

127. (Formerly 17, Introduction to Art). ART APPRECIATION. Each sem. Cr. 3. A course of study which acquaints the student with important works of art; helps him towards an understanding of visual aesthetics; explains the distinctive characteristics of the major visual arts; indicates the influence of cultural contexts; and guides the student in applying general methods of critical analysis. May be taken as a General Studies course by non-art major juniors and seniors. Field trip fee, $5.00.

COURSES IN THE PRACTICE OF ART

21. DRAWING. Each sem. 0+6, Cr. 3. A basic course in the fundamentals of drawing using various media. Studio fee, $5.00.

22. DRAWING: ADVANCED STUDIES. Each sem. 0+6, Cr. 3. A study of more advanced techniques and problems involving the drawing media. This course may be repeated for credit. Prerequisite: Art 21. Studio fee, $5.00.

31. TWO-DIMENSIONAL DESIGN. Sem. 1. 0+6, Cr. 3. A basic course in the fundamentals of forming and organizing visual elements on bounded flat surfaces. Studio fee, $5.00.

33. THREE-DIMENSIONAL DESIGN. Sem. 2. 0+6, Cr. 3. A basic course in the fundamentals of forming and organizing visual elements in three-dimensional space. Studio fee, $10.00.
NOTE: The following courses may be repeated for credit.

51. CERAMICS. Each sem. 0+6, Cr. 3. Problems in hand building, wheel throwing, and glazing clay vessel forms. Studio fee, $15.00.

52. CERAMICS: ADVANCED STUDIES. Each sem. 0+6, Cr. 3. A study of more advanced techniques and problems involving glazing, forming, and kiln design and building. Prerequisite: Art 51. Studio fee, $15.00.

56. PHOTOGRAPHY. Each sem. 0+6, Cr. 3. Problems in forming photographic images for expressive aesthetic purposes with instruction in camera and darkroom techniques. Studio fee, $15.00.

52. PHOTOGRAPHY: ADVANCED STUDIES. Each sem. 0+6, Cr. 3. A study of more advanced techniques and problems in photography. Prerequisite: Art 61. Studio fee, $15.00.

61. LIFE DRAWING. Sem. 2. 0+6, Cr. 3. A continuation of Art 21, with emphasis on drawing from the nude model. Prerequisite: Art 21. Studio fee, $15.00.

62. LIFE DRAWING: ADVANCED STUDIES. Sem. 2 0+6, Cr. 3. Special emphasis on the study of the human figure in the context of varying visual ideas. Prerequisite: Art 71. Studio fee, $15.00.

81. CRAFTS. Sem. 1 or Sem. 2. Cr. 0, 1, 2, 3. Basic workshop experience in selected crafts such as: weaving, jewelry, stained glass. This course may be repeated when topics vary. Studio fees will be assessed based on the needs of the particular course.

121. PAINTING. Each sem. 0+6, Cr. 3. Problems in painting in oil and other media. Prerequisite: Art 21, Studio fee, $10.00.

122. PAINTING: ADVANCED STUDIES. Each sem. 0+6, Cr. 3. A study of more specialized problems in the painting media, such as composition, glazing, acrylics, dimensional surfaces, etc. Prerequisite: Art 121. Field trip fee, $10.00.

131. GRAPHIC DESIGN. Each sem. 0+6, Cr. 3. Problems in the design of graphic mass communications with instruction in layout, typography, iconography, and finished art preparation. Actual graphic communications problems from the community are often worked on by the class, and many times student solutions are printed and used. Prerequisite: Art 31. Studio fee, $15.00.

132. GRAPHIC DESIGN: ADVANCED STUDIES. Each sem. 0+6, Cr. 3. A more technical approach to graphic design with attention to practical solutions to current graphics problems in industry, advertising, television, etc. Prerequisite: Art 131. Studio fee, $15.00.

151. SCULPTURE. Each sem. 0+6, Cr. 3. Problems in forming sculptural statements in various materials and techniques such as concrete casting, metal welding, wood construction, etc. Prerequisites: Art 21 and 33, or consent of the instructor. Studio fee, $15.00.

152. SCULPTURE: ADVANCED STUDIES. Each sem. 0+6, Cr. 3. Advanced problems in the sculpture processes. Prerequisite: Art 151. Studio fee, $15.00.

161. PRINTMAKING. Sem. 2. 0+6, Cr. 3. An introduction to print techniques and composition. Projects in woodcut, silkscreen, and intaglio including drypoint, etching, aquatint, engraving, etc. Prerequisite: Art 21. Studio fee, $15.00.

162. PRINTMAKING: ADVANCED STUDIES. Sem. 2. 0+6, Cr. 3. A study of the more advanced techniques and problems of the printmaker's craft. Prerequisite: Art 161. Studio fee, $15.00.

COURSES IN THE TEACHING OF ART

109. ELEMENTARY SCHOOL ART PROCESSES. Each sem. 0+6, or 0+8, Cr. 3 or 4. A basic course providing the prospective teacher with studio experiences in the selection, organization, and use of two- and three-dimensional art and craft materials for the elementary school. The fourth credit provides opportunities to work in elementary classrooms. This course may not be counted toward a minimum major or a minor in the department. Field trip. Studio fee, $15.00.
110. **SECONDARY SCHOOL ART PROCESSES.** Sem. 2. 0+8, Cr. 4. A basic course providing the prospective teacher with studio experiences in the selection, organization, and use of two- and three-dimensional art materials for the junior and senior high school. This course may not be counted toward a minimum major or a minor in the department. Field trip. Studio fee, $15.00.

191. **THE TEACHING OF ART.** Sem. 1. Cr. 2. A study of the methods of teaching art in the secondary schools. (See Education 191.) This course may not be counted toward a major or a minor in the department. Prerequisite: admission to Supervised Teaching.

**SPECIAL STUDIES COURSES IN ART**

*Note:* The following courses may be repeated for credit.

196. **SENIOR STUDIES.** Each sem. Cr. 1-4. Independent work in a major's specialized program. This work should contribute directly to a senior exhibition and/or portfolio or other appropriate capstone presentation of the major's capabilities. In addition to his independent work, the student will participate in a regular series of Senior Studies Seminars.

198. (298). **SPECIAL STUDIES.** Each sem. Cr. 1-4. Special work in the practice of art or the teaching of art arranged for by a professor and one or more students. Included may be, for example, work in the crafts, in liturgical design, or in areas of the practice of art or the teaching of art offered in the catalog. A Satisfactory/Unsatisfactory grade may be given if so stipulated at the beginning of the course. Prerequisites for undergraduates: upperclass major or consent of the instructor. Prerequisite for graduates: undergraduate art major. Studio fee. $5.00 per credit hour.

**THE DEPARTMENT OF BIOLOGY**

Professor Krekeler (Chairman); Professors Bloom, Gunther*, Hanson, and Nichols; Associate Professors F. Meyer, Peri, and Tan; Assistant Professor Marks

**MAJOR**—A minimum of 24 credits in biology beyond Biology 50. Courses must include Biology 60, 61, and 63; at least three of courses 157, 159 or 170, 161, 175; and at least two credits in 185, Biological Problems, and/or 193, Pro-Seminar.

Majors must include chemistry through Organic Chemistry 71 in their program. It is recommended that the major's plan of study also include general physics, mathematics, statistics, and additional chemistry. The most appropriate foreign languages for biology majors are German and French.

**MINOR**—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 15 credits in biology constitutes a minor.

**APPROVAL OF SCHEDULES**

All students taking a major or a minor in the department and all students planning to teach biological subjects must have their schedules approved by the chairman of the department at the beginning of each semester.

*Note:* Entering students who test out of the Unity of Life, 50, by taking a departmental examination will be granted 4 credits toward graduation.

COURSES IN BIOLOGY

41. ANATOMY AND PHYSIOLOGY. Sem. 1. 2+2, Cr. 3. A course of the structure and function of the organs of the human body. Lectures and laboratory work dealing with the epithelial and connective tissues, the skeleton, muscles, the nervous system, and special sense organs, the circulatory system and the blood; the digestive, respiratory, excretory, endocrine, and reproductive systems; and human development. (Given in St. Louis and Cleveland Divisions only).

42. ANATOMY AND PHYSIOLOGY. Sem. 2. 2+2, Cr. 3. A continuation of Biology 41. (Given in St. Louis and Cleveland Divisions only.)

46. MICROBIOLOGY. Sem. 2. 2+2, Cr. 3. A study of micro-organisms and their relation to health and disease. (Given in St. Louis and Cleveland Divisions only.)

*50. UNITY OF LIFE. Each sem. 3+3, Cr. 4. An introductory course designed to give the student a broad view of the principles of biology as related to the nature and activities of protoplasm and the structure, physiology, ecology, reproduction, growth and development of organisms. These principles are considered in historical perspective and include examples from microbes, plants, and animals. No prerequisite. Laboratory fee, $5.00.

60. DIVERSITY OF LIFE. Each sem. 2+4, Cr. 4. A survey of the plant and animal kingdoms. Modern classifications systems are considered. Emphasis is on the structures and their functions, life cycles, development, ecology, distribution, social and economic importance of representative members of both kingdoms. Prerequisite: Biology 50. Laboratory and field trip fee, $10.00.

*Credit for Biology 50 may be earned through the College Level Examination Program (CLEP) subject examination in Biology.
61. GENETICS. Each sem. 2+3, Cr. 3. An introductory study (lecture problems, laboratory) of the basic laws of genetics, the physical and chemical basis of inheritance, genes as functional and structural units of heredity and development, and qualitative and quantitative aspects of genetic variation. Prerequisite: Biology 50. Laboratory fee, $5.00. (May not be counted toward the minimum General Education Requirement in the Natural Sciences and Mathematics. See Biology 62.)

62. GENETICS. Each sem. 3+3, Cr. 4. Same as Genetics 61 with additional lecture topics on human genetics and social implications. May be used in partial fulfillment of the general education requirement in the Natural Sciences and Mathematics. Prerequisite: Biology 50. Laboratory fee, $5.00.

63. SYSTEMATIC BIOLOGY. Sem. 1+0, Cr. 1. Lectures on principles of modern systematic biology as related to the synthetic theory of evolution. Must be accompanied by Biology 64 and/or 65. Prerequisites: Biology 60 and 61. This will be offered as a short course.

64. ENTOMOLOGY. Sem. 2. 0+6, Cr. 2. Laboratory, field work, and discussions dealing with the systematics and basic biology of insects and their arthropod relatives. Must be accompanied or preceded by Biology 63. Laboratory fee, $5.00.

65. SYSTEMATIC BOTANY. Sem. 2. 0+6, Cr. 2. Laboratory, field work, and discussions dealing with the systematics and basic biology of the seed plants. Must be accompanied or preceded by Biology 63. Laboratory fee, $5.00.

101. BIOLOGICAL TOPICS. Each sem. Cr. 2-3. A consideration of various topics in biology through lectures, laboratory work, field work, and/or conferences. The topics presented will be related to staff and student interests. A student may repeat the course for credit for each topic studied. A sample of possible offerings is: Ornithology, Biometry, Experimental Botany, Radiation Biology, Immunology, Vertebrate Anatomy, Tropical Biology, Neural Physiology. Prerequisite: Biology 50 and consent of the instructor. Laboratory fee, $10.00.

105 (205). BIOCHEMISTRY. (Also offered as Chemistry 105-205). Sem. 2. 4+0, Cr. 4. The chemistry of proteins, carbohydrates, fats, and nucleic acid, and the changes these undergo during processes of digestion and metabolism; stress on physical biochemistry topics and enzyme kinetics. Prerequisite: Chemistry 71 or equivalent.

110. MICROBIOLOGY. Each sem. 2+5, Cr. 4 or 2+7, Cr. 5. A study of microbes including bacteria, viruses, rickettsiae and fungi with emphasis on understanding disease and applications for control. May be taken for 5 credits with consent of instructor by students who desire additional work in a hospital laboratory observing clinical diagnostic procedures and the role of the laboratory. Prerequisites: Biology 50 and Chemistry 44 or 52. Laboratory fee, $5.00. (May not be credited toward graduation by students who take Biology 159.)

115. ANATOMY AND PHYSIOLOGY. Each sem. 2+5, Cr. 4. A study of the structure and function of the organs and systems of the human body. Prerequisites: Biology 50 and Chemistry 44 or 52. Laboratory fee, $5.00.

125. BIOMETRY. Sem. 1. 2+2, Cr. 3. Basic concepts and principles underlying quantitative and statistical methods in biology. Topics include finite probability, statistical measures, distributions, tests of significance, analysis of variance and elementary experimental design, regression and correlation, nonparametric statistics. Prerequisites: Biology 61 and one year of college mathematics or consent of the instructor. Not open to students who have had a course in statistics. Laboratory fee, $5.00.

137. COMPARATIVE PSYCHOLOGY. (Also offered as Psychology 137.) Sem. 2. 2+4, Cr. 4. A psychological approach to the development of behavioral processes in animals and man, with special reference to motivational mechanisms of behavior. Prerequisites: 9 hours selected from biology and psychology. Laboratory fee, $10.00.

153 (253). HUMAN ENVIRONMENTAL BIOLOGY. Each sem. 2+3, Cr. 3. Lectures, conferences, demonstrations, and laboratory work considering man's health and physical needs in relation to his past, current, and future environmental
situation. Special emphasis is given to problems associated with the biological nature of man, healthful living, occupational and recreational conditions, environmental pollution, and public health organizations and functions. May be used to meet the General Studies requirement. Prerequisites: completion of general education natural science requirements and junior standing. Laboratory fee, $5.00.

157 (257). ECOLOGY. Sem. 1. 2+5, Cr. 4. A study of organisms in relationship to their physical and biotic environment. There is considerable field work in local terrestrial and aquatic habitats. Prerequisite: Biology 63. Laboratory and field trip fee, $10.00.

159 (259). BACTERIOLOGY. Sem 2. 2+6, Cr. 4. An intensive study of the cell biology of bacteria and their viruses including morphology, cultivation, physiology, environmental factors, and genetics. Prerequisites: Biology 61 and Chemistry 71. Laboratory fee, $5.00.

161 (261). GENERAL PHYSIOLOGY. Sem. 2. 3+3, Cr. 4. A study of the fundamental physiological activities of animals and plants. The course will consist of lectures, assigned readings, and experimental work in nutrition (including synthesis, oxidation, and energy release of nutrients and elimination of waste products), irritability and response, and growth and reproduction. Prerequisites: Chemistry 71 (which may be taken concurrently) and Biology 50. Laboratory fee, $5.00.

170 (270). CYTOLOGY. Sem. 2. 2+3, Cr. 3. An introduction to cell biology with reference to composition, structure, function, growth, and differentiation of cells. Cytological aspects of genetics are emphasized. Laboratory work in experimental cytology. Prerequisites: Chemistry 71 (which may be taken concurrently) and Biology 61. Laboratory fee, $5.00.

175 (275). DEVELOPMENTAL BIOLOGY. Sem. 1. 2+3, Cr. 3. An introduction to the descriptive and analytic study of plant and animal development and growth, with emphasis on higher plants and vertebrate animals. Prerequisite: Biology 61. Laboratory fee, $5.00.

185. BIOLOGICAL PROBLEMS. Each sem. Cr. 1. Special research problems. Prerequisites: 14 credit hours in the department and consent of the chairman of the department. A maximum of 4 credits in this course may be applied toward graduation. S/U grade.

191. THE TEACHING OF BIOLOGICAL SCIENCES. Sem. 2. 1+2, Cr. 2. (See Education 191.) The aims and methods of teaching biology, botany, and zoology in the secondary school. Lectures, discussions, demonstrations, and projects. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or a minor in this department.

193. PRO-SEMINAR IN BIOLOGY. Each sem. Cr. 1. Student and staff presentation and discussion of selected topics in biology. A sample of current topics is: Bioethics, Biological Effects of Drugs, Biology of Sex, Endocrinology, Evolution, History of Biological Thought, Human Genetics, Immunology, Light and Life, Protozoology, Radiobiology. Registration open to juniors and seniors who have had 14 credit hours in biology; certain topics may have specific course prerequisites. At least three topics will be offered each semester so that during a two-year period a broad spectrum of topics will be available. A maximum of two Pro-Seminars may be credited toward graduation. S/U grade optional.

THE DEPARTMENT OF CHEMISTRY

Professor Cook (Chairman); Professors J. Deters, Larson, Leoschke, Schwan*, and L. Oliver Smith; Associate Professors Ferguson and E. Nagel

MAJOR—A minimum of 24 credits in chemistry. Courses must include Chemistry 51, 52 (or 63), 64, and 118 or 120. For the plan of study option, Chemistry 112 must also be included.

Prospective chemistry majors planning to enter the chemical profession or a graduate school should complete not less than 32† credit hours in chemistry beyond the introductory courses. This major must include Chemistry 64, 112, 120, 122, 130, 193, 194, 140, and 150. Calculus and Physics 68 or equivalent must also be included. German is recommended for meeting the foreign language requirement. This program of courses meets the minimum requirements for certification by the Committee on Professional Training of the American Chemical Society. The Department of Chemistry has the approval of that committee.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 16 credits in chemistry constitutes a minor. Chemistry 64 and 71 must be included.

APPROVAL OF SCHEDULES—All students taking a major or a minor in the department must have their schedules approved by the chairman of the department at the beginning of each semester. Students who pass the Chemistry Placement Examination and successfully complete Chemistry 63 will be granted 8 credits toward graduation.

†Four hours in an advanced course in physics or mathematics may substitute for four hours in chemistry.
COURSES IN CHEMISTRY

*43. GENERAL CHEMISTRY. Each sem. 3+2, Cr. 4. Intended for students who elect chemistry to meet one of the natural science requirements. It is a study of the principles of chemistry. Students taking a major or minor in Elementary Education, Home Economics, Nursing, or Physical Education should take this course to meet their chemistry requirement. (Not open to students who have taken Chemistry 51.) Laboratory fee, $10.00.

*44. GENERAL CHEMISTRY. Sem. 2. 3+2, Cr. 4. A continuation of Chemistry 43. It includes the study of organic chemistry and biochemistry. The laboratory work includes organic and biochemical laboratory procedures. (Not open to students who have taken Chemistry 52.) Prerequisite: Chemistry 43 or 51. Laboratory fee, $10.00.

47. GENERAL CHEMISTRY. Sem. 1. 3+2, Cr. 4. This course consists of an introduction to inorganic, organic and physiological chemistry. (Given in St. Louis and Cleveland Divisions only.)

*51. GENERAL CHEMISTRY. Sem. 1. 3+3, Cr. 4. An introductory course in the fundamental principles of chemistry designed primarily for students who wish to pursue a scientific vocation. It is required of majors and minors in chemistry, and students in the pre-medical, pre-dental, or medical technology curricula except for students who take Chemistry 63. Laboratory fee, $10.00.

51E. GENERAL CHEMISTRY. Sem. 1. 3+2, Cr. 4. Same as Chemistry 51 except for laboratory hours. Intended for engineering students. Laboratory fee, $10.00.

*52. GENERAL CHEMISTRY. Sem. 2. 3+3, Cr. 4. A continuation of Chemistry 51. Semi-micro inorganic qualitative analysis is included in the laboratory work. Prerequisite: Chemistry 51. Laboratory fee, $10.00.

52E. GENERAL CHEMISTRY. Sem. 2. 3+0, Cr. 3. Same as Chemistry 52 except for laboratory hours and more emphasis on organic chemistry. Intended for engineering students. Prerequisite: Chemistry 51E.

55. PHYSIOLOGICAL CHEMISTRY. (Also offered as Home Economics 65.) Sem. 2. 3+0, Cr. 3. The chemistry of proteins, carbohydrates, and fats, and the changes these undergo during processes of digestion and metabolism; brief consideration of enzymes, vitamins, and the chemistry of food processing. This course may not be counted toward a major or minor in chemistry. Prerequisite: Chemistry 44.

63. GENERAL CHEMISTRY. Sem. 1. 3+3, Cr. 4. An accelerated introductory course in the fundamental principles of chemistry for students with a strong background in chemistry. The laboratory includes semi-micro inorganic qualitative analysis. This is the introductory course that would normally be taken by the student planning to enter the chemical profession or graduate work in chemistry. Admittance by special examination. Laboratory fee, $10.00.

64. QUANTITATIVE ANALYSIS. Each sem. 3+4, Cr. 4. A study of the theory of chemical equilibria, electrochemistry and elementary chemical analysis. The laboratory work consists of an introduction to gravimetric, volumetric, and instrumental methods of analysis. Prerequisite: Chemistry 52 or 63. Laboratory fee, $10.00.

71. ORGANIC CHEMISTRY. Each sem. 3+3, Cr. 4. An introductory survey of the nomenclature, reactions, structure, and properties of carbon compounds. Prerequisite: Chemistry 52 or 63. Laboratory fee, $10.00.

70. INSTRUMENTAL TECHNIQUES FOR SCIENTISTS. (Also offered as Electrical Engineering 80.) Sem. 2. 1+2, Cr. 2. The application of modern electronic principles is applied to the proper use of basic scientific instrumentation. Emphasis is placed upon laboratory experience. The philosophy underlying the use and limitations of instrumentation and simple trouble-shooting techniques are studied. Special topics include: Basic electronic circuit elements, operational amplifiers, power sources, logic devices, the use of an oscilloscope as a basic

*Credit for Chemistry 51 and 52 (or 43 and 44) may be earned through the College Level Examination Program (CLEP) subject examination in General Chemistry.
measuring tool, various meters, and recording apparatus. Prerequisites: Physics 67 or concurrent enrollment and sophomore standing. Laboratory fee, $10.00.

101 (201). ELEMENTARY PHYSICAL CHEMISTRY. Sem. 1. 3+3, Cr. 4. A one-semester course in physical chemistry covering elementary thermodynamics and kinetics, together with their applications to various chemical systems. Prerequisites: Chemistry 64 and 71 or equivalent. Laboratory fee, $10.00. (Not open for credit to students who have taken Chemistry 111.)

105 (205). BIOCHEMISTRY. (Also offered as Biology 105-205). Sem. 2. 4+0, Cr. 4. The chemistry of proteins, carbohydrates, fats, and nucleic acid, and the changes these undergo during processes of digestion and metabolism; stress on physical biochemistry topics and enzyme kinetics. Prerequisite: Chemistry 71 or equivalent.

111. PHYSICAL CHEMISTRY. Sem. 1. 3+3, Cr. 4. A theoretical study of chemistry involving thermodynamics, kinetics and modern structural concepts. Prerequisites: Chemistry 64 and 71 (71 may be taken concurrently), Mathematics 76 or equivalent, and Physics 68. Laboratory fee, $10.00.

112. PHYSICAL CHEMISTRY. Sem. 2. 3+3, Cr. 4. A continuation of Chemistry 111. Prerequisite: Chemistry 111. Laboratory fee, $10.00.

118. INTERMEDIATE ORGANIC CHEMISTRY. Sem. 2. 3+3, Cr. 4. A further study of the properties of carbon compounds, including reaction mechanisms and complex organic reactions. Special topics of interest to pre-medical arts students are included. Prerequisite: Chemistry 71. Laboratory fee, $10.00. (Not open for credit to students who have taken Chemistry 120.)

120. INTERMEDIATE ORGANIC CHEMISTRY. Sem. 1. 3+3, Cr. 4. A further study of the properties of carbon compounds, including reaction mechanisms and complex organic reactions. This course is recommended for those planning to enter the chemical profession or graduate school in chemistry. Prerequisite: Chemistry 71. Laboratory fee, $10.00. (Not open for credit to students who have taken Chemistry 118.)

122. ANALYTICAL CHEMISTRY. Sem. 2. 2+3, Cr. 3. A study of the theory and practice of instrumental and other advanced analytical techniques. Prerequisite: Chemistry 112 (may be taken concurrently). Laboratory fee, $10.00.

130. CHEMICAL LITERATURE. Sem. 2. 1+0, Cr. 1. Discussion and library work on the important sources of chemical information. Experience in the use of Chemical Abstracts, Beilstein, and chemical journals.

140 (240). ADVANCED ORGANIC CHEMISTRY. Sem. 1. 1+6, Cr. 3. The lecture is devoted to a discussion of physical organic chemistry with experimental methods illustrated by modern organic analysis. The laboratory is devoted primarily to organic analysis by functional groups and by modern instrumental techniques. Prerequisites: Chemistry 120 and 101 or 111, or consent of the chairman of the department. Laboratory fee, $10.00.

150. (250). ADVANCED INORGANIC CHEMISTRY. Sem. 1. 3+0, Cr. 3. A systematic study of the elements and their compounds from the standpoint of the periodic law. Special theoretical topics in inorganic chemistry are discussed. Prerequisite: three years of chemistry.

160. INTRODUCTION TO QUANTUM MECHANICS. Sem. 1. 3+0, Cr. 3. The fundamental concepts of quantum mechanics are examined. Topics include state functions and their interpretations, the Schroedinger equation, approximation methods, the hydrogen atom, and multielectron atoms. Prerequisite: Chemistry 112 or consent of the instructor.

191. THE TEACHING OF PHYSICAL SCIENCES. 1+3, Cr. 2. (See Education 191). A study of the methods of teaching chemistry in secondary schools. Laboratory demonstrations and reference reading; problems relating to laboratory construction and equipment; standard tests. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in this department. (Given upon sufficient demand.)
192. **SEMINAR IN CHEMISTRY.** Each sem. Cr. 0. (Concurrent with 193-194.) Required of all junior forty-credit hour majors. They are expected to participate in discussions but are not required to present a report on a special topic in chemistry. Interested freshmen and sophomores are invited to attend. S/U grade.

193. **SEMINAR IN CHEMISTRY.** Sem. 1. Cr. 1. Required of all senior forty-credit hour majors. Each student must prepare and present a report on a special topic in chemistry. S/U grade.


195. **SPECIAL PROBLEMS IN CHEMISTRY.** Sem. 1. Cr. 1. A course for senior majors in chemistry. Each student attacks a chemical problem by study of the literature and by work in the laboratory. A written report is required. Prerequisite: senior standing in the department. Laboratory fee, $5.00.

196. **SPECIAL PROBLEMS IN CHEMISTRY.** Sem. 2. Cr. 1 or 2. A continuation of Chemistry 195. Prerequisite: Chemistry 195. Laboratory fee, $5.00 per credit hour.

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THE DEPARTMENT OF ECONOMICS

*Professor Laube (Acting Chairman); Associate Professor Bernard; Assistant Professors Lesnick, Nielsen, and Noller*

The Department of Economics is a department of the College of Business Administration. Students enrolled in the College of Arts and Sciences may, however, take a major or a minor in economics and may count any courses taken in this department towards a degree offered by the College of Arts and Sciences.

For a student majoring in economics the restriction on page 64 does not apply to credits earned in quantitative analysis. In other respects a major in economics is subject to the restrictions which apply to all students in the College of Arts and Sciences (See page 64 "Restrictions on the Use of Credits").

**MAJOR**—A minimum of 30 credits in economics. Courses must include Economics 71, 72, 185, 186, and 187. Mathematics 36 (or the equivalent) and Quantitative Analysis 85 and 86 or 89 (or the mathematics equivalent of 89) are also required.

**MINOR**—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 18 credits in economics constitutes a minor. Economics 71, 72, and Quantitative Analysis 85 must be included.

**APPROVAL OF SCHEDULES**—All students taking a major or a minor in the department must have their schedules approved by the chairman of the department at the beginning of each semester.

**COURSES IN ECONOMICS**

*71. Principles of Economics.** Each sem. Cr. 3. An introductory study of the central functions and problems of an economic system with emphasis on the determinants of consumer demand, producer supply, and their interaction in the marketplace. No prerequisite.


*Credit for Economics 71 and 72 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Economics.*
107. **Introduction to Computing.** (Also offered as Mathematics 21.) Each sem. Cr. 2. An introduction to the use of digital computers, including the programming of elementary applications using an algorithmic language such as FORTRAN. This course is not intended for students with previous programming experience. Prerequisite: proficiency in algebra.


173. **Comparative Economic Systems.** Sem. 1. Cr. 3. A comparative analysis of political theories and the economic systems that derive from those theories. The course will focus on those ideological assumptions that result in capitalism, socialism, fascism, anarchism, etc. as the solution to economic problems. May be used to fulfill the General Studies Requirement. Prerequisites: Economics 71 and 72 or consent of the chairman of the department.

174. **Public Finance.** (Also offered as Finance 166.) Sem. 2. Cr. 3. An analysis of the role of the public sector in a market economy. Public revenues and expenditures, fiscal administration, and taxation are considered as they relate to economic activity. Prerequisites: Economics 71 and 72.

175. **Economic Insecurity and Social Insurance.** Sem. 2. Cr. 3. An analysis of the socioeconomic risks of accident, disease, unemployment, old age, poverty, and the social insurance and welfare programs designed to meet these risks. Prerequisites: Economics 71 and 72.

176. **International Economics.** Sem. 2. Cr. 3. A study of the theory underlying and the methods of financing international trade, the deviations from and the restoration of equilibrium and the problems associated with foreign investment and indebtedness. Prerequisites: Economics 71 and 72.

177. **Modern European Economic History.** Sem. 2. Cr. 3. A history of the economic development of Western Europe from 1750 to the present. Emphasis is placed on the role of the industrial revolution and its impact on modern man. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

178 (278). **Economic History of the United States.** Sem. 1. Cr. 3. The history of the economic development of the United States from the colonial period to the present. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

181. **Economics of Developing Nations.** Sem. 1. Cr. 3. An analysis of economic variables, both theoretical and institutional, which characterize developing nations. Emphasis is placed on cyclical poverty, allocation of resources and policy planning. Prerequisites: Economics 71 and 72.

183. **Economics of Labor.** Sem. 1. Cr. 3. The approach of workers and employers to the problems of labor; the development of trade unions and collective government regulation of labor relationships; and an economic analysis of wage-employment problems. Prerequisites: Economics 71 and 72.

*185. **Money and Banking.** Sem. 1. Cr. 3. A study of the institutions, principles and problems of money and banking in the U. S. Special attention is given to the basic elements of monetary theory and policies. Prerequisites: Economics 71 and 72.

186 (286). **Intermediate Micro-Economic Theory.** Sem. 1. Cr. 3. A study of the theoretical concepts and analytical techniques which economists employ to interpret the process of resource allocation under various systems of economic organization. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

187 (287). **Intermediate Macroeconomic Theory.** Sem. 2. Cr. 3. A critical examination of theories of national income determination and of techniques for measuring and analyzing aggregate economic activity. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

*Credit for Economics 185 may be earned through the College Level Examination Program (CLEP) subject examination in Money and Banking.
188. **MONETARY THEORY AND POLICY.** Sem. 2. Cr. 3. An examination of monetary theories and their impact on aggregate economic behavior. Prerequisite: Economics 185.

189 (289). **THE HISTORY OF ECONOMIC THOUGHT.** Sem. 1. Cr. 3. Economic thought in its historical development from the Mercantilists to the present day. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

199. **PROBLEMS IN ECONOMICS.** Each sem. Cr. 1-3. A course in which a special topic in economics will be given intensive study. The topic will vary from year to year. Prerequisite: junior or senior standing or consent of the chairman of the department.

THE DEPARTMENT OF EDUCATION

Associate Professor Kochendorfer (Chairman); Professors Hillila, Koester, Kroenke, Lange, Rubke, and Schwanholt; Associate Professors Speckhard and Swihart; Assistant Professors Calloway, Lambert, Ruosch, and Stiemke

ACCREDITATION

Valparaiso University is accredited by the National Council for Accreditation of Teacher Education to prepare elementary and secondary teachers on the undergraduate level. It is a member of the American Association of Colleges for Teacher Education. It is accredited on the undergraduate and graduate levels by the State Board of Education of Indiana as a teacher education institution to meet certification requirements.

CERTIFICATION

For the purposes of the Teacher-Education Program and supervised teaching, the regulations apply which are in force at the time the student is approved for admission to the Teacher-Education Program. All students who expect to teach and have not been admitted to the Teacher-Education Program should consult with the Pre-education Adviser of this department as early as possible concerning adjustments in programs of study to meet certification requirements of the states in which they plan to teach.

The mere completion of the prescribed courses outlined in the Department of Education does not guarantee that the student will be recommended for certification or a teaching position.

A student holding a bachelor's degree and interested in qualifying for certification should consult with the chairman of the department.

ADVISING

MAJOR—Only students preparing to meet elementary education certification requirements may major in education.

MINOR—Only students preparing to meet secondary certification requirements may minor in education. They shall meet the requirements for a major in their teaching field.

APPROVAL OF SCHEDULES—All students preparing to teach must have their schedules approved by the Co-ordinator of Secondary Education or by the Co-ordinator of Elementary Education at the beginning of each semester. Approval of the chairman of the department is also required for admission to courses numbered above 96.
All professional courses in educational methods listed by other departments in the College of Arts and Sciences are given under the supervision of the Department of Education.

**ELEMENTARY EDUCATION**

Undergraduate students who wish to teach in an elementary school should complete the requirements for a Bachelor of Science in Education, a special curriculum in the College of Arts and Sciences. The completion of the requirements for this degree does not in itself qualify a student for a teacher's certificate or license in any given state.

A candidate for the degree of Bachelor of Science in Education must meet all the requirements of the University listed under "Graduation" on page 59 of this bulletin. His course work must include the following as a minimum:

1. **Religion**: 9 semester hours
2. **Language Arts**: 17 semester hours  
   Must include 14 credits in English (including one course in literature for children) and one course in speech.
3. **Social Science**: 18 semester hours  
   Must include two courses in history and one course in conservation. The following areas are considered social sciences: economics, geography, history, political science, and sociology.
4. **Science and Mathematics**: 21 semester hours  
   Must include three courses and a minimum of 12 credits in at least two of the following areas: biology, chemistry, physical geography, and physics and 9 credits of mathematics for the elementary teacher.
5. **FINE ARTS:** 9 semester hours
   Must include at least one course in history or theory of music and one course in art.

6. **GENERAL STUDIES:** 3 semester hours
   Must include one upper-class general studies course. This course may be counted toward meeting the requirements in Language Arts, Social Science, Science, or Fine Arts.

7. **OTHER SUBJECTS:** 5 semester hours
   Must include general psychology and physical education.

8. **EDUCATION:** 32 semester hours
   Must include an introductory course in education, psychological foundations of education, methods in elementary education, and 8 credits of student teaching.

9. **ELECTIVES:** In addition to the above requirements, the student must present sufficient electives to achieve the 124 credits required for graduation.

Endorsements for teaching the Emotionally Disturbed and Special Subjects may be completed through special programs with requirements in addition to the above. Specific requirements should be obtained from the Department of Education.

**Freshman** students will be advised by the Pre-education Adviser. A recommended course program is:

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Cr.</th>
<th>Second Semester</th>
<th>Cr.</th>
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</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td>Religion</td>
<td>3</td>
</tr>
<tr>
<td>Science</td>
<td>4</td>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>History</td>
<td>3</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>Social Science</td>
<td>3</td>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td>Physical Education</td>
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<td></td>
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<td>16</td>
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</tbody>
</table>

Foreign language may be started in the freshman year for those who wish to concentrate in this area.

**Sophomore** students will be advised by the Pre-education Adviser. They should complete Introduction to Education during this year. Application for admission to the Teacher-Education Program should be made during the Spring Semester.

**Junior** students who are admitted to the Teacher-Education Program will be advised by the Co-ordinator of Elementary Education. Application for admission to supervised teaching must be filed by March 15.

**SECONDARY EDUCATION**

**ADVISING**—Prior to admission to the Teacher-Education Program, secondary teacher candidates are asked to consult with the Pre-education Adviser of the Department of Education concerning programs leading to recommendation for teacher certification. Once formally admitted to the Teacher-Education Program, the student should consult periodically with the Co-ordinator of Secondary Education concerning his program.

**REQUIREMENTS**—An undergraduate student preparing to teach in the secondary schools should complete requirements for the appropriate degree in his major.
General Education requirements for all secondary teacher candidates, regardless of the degree sought, are:

I. Humanities—23 semester credits
   - English .......................... 8 credits
   - Speech ............................ 3 credits
   - Foreign Language or Fine Arts........ 6 credits
   - Philosophy or Religion............. 6 credits

II. Life and Physical Sciences—15 semester credits
   The 15 credits are to be selected from at least two of the following areas: biology, chemistry, mathematics, physical geography, and physics.

III. Social and Behavioral Sciences—15 semester credits
   The 15 credits are to be selected from at least three of the following areas and must include general psychology: economics, geography, history, political science, psychology, and sociology. (Since some states require all teachers to have a course in United States history, it is recommended that prospective teachers take at least one such course.)

Students must ascertain that they are meeting the above General Education requirements as well as the University degree requirements.

Professional Education requirements include:

1. Introduction to Education (Education 62)—3 credits.
   (Preferably taken in the sophomore year)
2. Formal application and admission to the Teacher-Education Program in the Fall Semester of the junior year.
3. Formal application and admission to the Professional Semester before March 15 of the year prior to the academic year in which the Professional Semester is to be taken.
4. Completion of the Professional Semester. Courses included in the Professional Semester are:
   - Ed 156 Psychological Foundations of Secondary Education 4 credits
   - Ed 155 Principles and General Methods of Teaching in the Secondary Schools 4 credits
   - Ed 191 Special Methods 2 credits
   - Ed 157 Supervised Teaching in the Secondary-School Subjects 7 credits

Teaching Major and Teaching Minor Requirements
1. A teaching major (or area major) is required of all secondary teacher candidates. A teaching minor is recommended.
2. Courses that are used to satisfy General Education requirements may also be counted to meet teaching major and minor requirements.
3. Credits earned by passing examinations and noted on transcripts may be used to meet certification requirements.
4. Specific requirements for teaching majors and minors should be obtained from the Department of Education or the major adviser.

ADMISSION TO THE TEACHER-EDUCATION PROGRAM

To be admitted to the Teacher-Education Program a student must submit a written application to the Department of Education. This applica-
tion must be made by elementary education majors in the Spring Semester of the sophomore year and by secondary education students in the Fall Semester of the junior year.

The Teacher Education Committee of the College of Arts and Sciences will take action on the application upon the recommendation of the Committee on Admission to Teacher Education and the Department of Education. The action taken (acceptance, conditional acceptance, or denial) will be based on the following criteria:

1. grade point average—normally an applicant must have established a 2.25 g.p.a. in all course work taken at Valparaiso University (a minimum of 12 semester credit hours must be used in establishing this average), and must have established a 2.00 g.p.a. in all course work taken in the Department of Education. Post-baccalaureate students must establish a 2.75 g.p.a. in all course work (12 hours minimum) taken at Valparaiso University subsequent to earning the bachelor's degree.

2. communication skills—an applicant must have obtained a grade of 2.00 or better in the course Fundamentals of Speech or the equivalent and must give evidence of proficiency in written English.

3. health—the Committee on Admission shall obtain clearance from the University Health Center indicating that each applicant is free of serious mental or physical health problems that might impair future teaching effectiveness.

4. character—the Committee on Admission will examine student personnel folders and consult with the personnel deans to determine the status of the applicant on this criterion.

5. faculty recommendations—positive recommendations from two faculty members must be obtained by each applicant. One of these must be obtained from the Introduction to Education instructor. Secondary education students must obtain the second recommendation from the major adviser.

When an applicant is noted as questionable on any of these criteria, he may be asked to meet with the Committee on Admission to Teacher Education before final action is taken. All students who do not apply at the appropriate time must make special application, including an interview, with this committee.

These criteria will receive different emphases in considering students desiring to complete the endorsement program for teaching the Emotionally Disturbed. Admission to the Teacher-Education program does not grant admission to the program for teaching the Emotionally Disturbed.

**PROFESSIONAL SEMESTER**

A professional semester is required of all candidates who wish to be recommended for an initial teaching certificate. This semester includes the methods, principles, and student teaching courses required to meet standards for certification. During this semester the student should enroll only in courses approved for the Professional Semester.

**ADMISSION TO SUPERVISED TEACHING**—Preliminary application for admission to the Professional Semester (Supervised Teaching) must be filed and completed in person with the Coordinator of Elementary Education.
or the Coordinator of Secondary Education by March 15 of the Spring Semester prior to the academic year in which the student teaching is to be done. To be eligible for supervised teaching, the student must have met the following requirements:

1. He must have senior standing and be within two semesters and one summer of graduation.
2. He must have completed at least 12 credit hours in Valparaiso University of which 3 credit hours must be in education.
3. He must have shown the social and emotional maturity, the responsibility, and the dependability necessary for success in the teaching profession.
4. He must have been admitted officially to the Teacher-Education Program.
5. He must have maintained a satisfactory grade-point average since his admission to the Teacher-Education Program.

PLACEMENT OF STUDENT TEACHERS—The placement of student teachers and the direction of supervised teaching experiences are the responsibilities of the Coordinator of Student Teaching. Approved elementary and secondary student teachers will be assigned to selected schools in Northwest Indiana.

PLACEMENT

The Teacher Placement Office gives assistance to beginning and experienced teacher candidates who have completed requirements for certification. All candidates must file their credentials with this office prior to graduation.

COURSES IN EDUCATION

NOTE: No student will be admitted to any courses beyond Education 96 unless he has completed Education 62, has been admitted to the Teacher-Education Program, and has achieved at least junior standing.

62. INTRODUCTION TO EDUCATION. Cr. 3. An introduction to education offering a full view of the American system of education with special emphasis upon historical, philosophical, and sociological aspects. Fee, $10.00.

96. EDUCATIONAL PSYCHOLOGY. Cr. 3. This course applies the principles of psychology and the results of experimental research to the problems of teaching and learning. Prerequisite: Psychology 51. (Not open to majors or minors in education.)

115. PRINCIPLES AND METHODS OF ELEMENTARY EDUCATION. Cr. 9. Study of the organization of instruction, classroom management, and skills of teaching in the elementary school. Includes principles, content, curriculum, methods, and techniques involved in teaching reading and science in the elementary school. Involves directed classroom observation and teaching in a micro setting. Normally taken in the junior year.

116. PSYCHOLOGICAL FOUNDATIONS OF ELEMENTARY EDUCATION. Cr. 4. The course provides a basis in psychological research and theory to aid teachers in guiding the learning and development of children. Involves directed classroom observation. Prerequisites: junior standing and Psychology 51. (To be taken concurrently with Education 115.)

120. KINDERGARTEN EDUCATION. Cr. 3. This course deals with the curriculum, the teaching techniques and the materials used in the nursery school and kindergarten. Special emphasis will be given to the education needs of the pre-school child.
121. PHILOSOPHY OF EDUCATION. Cr. 3. The course is designed to assist the student in formulating a philosophy of education. Basic operational issues in American education will be examined in light of the conflicts and contributions of the major systems of philosophy. Special attention will be given to defining the what, the why, and the how of education in a democracy.

155. PRINCIPLES AND GENERAL METHODS OF TEACHING IN THE SECONDARY SCHOOLS. Cr. 4. A study of the principles, methods, techniques, and materials involved in teaching in the secondary schools; a basic introductory course to teaching.

156. PSYCHOLOGICAL FOUNDATIONS OF SECONDARY EDUCATION. Cr. 4. The course provides a basis in psychological research and theory to aid teachers in guiding the learning and development of adolescents. Involves directed classroom observation. This course is restricted to students enrolled in the Professional Semester in secondary education. Prerequisite: Psychology 51.

157. SUPERVISED TEACHING IN THE SECONDARY-SCHOOL SUBJECTS. Cr. 7. Each student will be assigned to a secondary school for laboratory experiences, which will include at least 246 clock hours of classroom observation, classroom teaching, and related activities. Prerequisites: senior standing and concurrent enrollment in the Professional Semester. See special paragraph on Supervised Teaching in the general statement above for conditions of eligibility. Students enrolled in this course may not carry a load of more than 17 credit hours. S/U grade. Fee, $70.00.

165. ELEMENTARY METHODS AND TECHNIQUES OF TEACHING. Cr. 8. The student is expected to give full time for approximately eight weeks of the professional semester to a study of the development and organization of the elementary school; including principles, content, curriculum, methods, and techniques involved in teaching the language arts, reading, mathematics, and the social studies. This course is restricted to students enrolled in the Professional Semester in elementary education.

167. SUPERVISED TEACHING IN THE ELEMENTARY GRADES. Cr. 8. This course gives the student opportunities for observation, actual classroom teaching, and participation in related activities in elementary schools under the directions of the supervising teacher and the University supervisor. Students are expected to give full time to this course for approximately eight weeks of the semester. Prerequisite: senior standing. See special paragraph on Supervised Teaching under the general statement above for conditions of eligibility. Students enrolled in this course may not carry a maximum load of more than 17 credit hours. S/U grade. Fee, $70.00.

170 (270). MATHEMATICS IN THE ELEMENTARY SCHOOL. Cr. 2. Psychological and instructional aspects of arithmetic, elementary algebra, and geometry, including new methods of teaching based on recent scientific studies; diagnostic and corrective measures. Prerequisites (for undergraduates only); Education 165 and a basic course in the updated mathematics or consent of the chairman of the department.

171 (271). SCIENCE IN THE ELEMENTARY SCHOOL. 1+2, Cr. 2. Analysis of curriculum and instruction in elementary science; methods of presentation, problems, trends, research findings, and instructional resources. Demonstrations and appropriate experiments for elementary schools. Prerequisite (for undergraduates only): Education 165.

172 (272). LANGUAGE ARTS IN THE ELEMENTARY SCHOOL. Cr. 2. An advanced study of the elementary school language arts curriculum considering content and skill requirements as evidenced in present practice and current theory. Prerequisite (for undergraduates only): Education 165.

173 (273). SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. Cr. 2. An advanced study of the scope and sequence of curriculum making in elementary school social studies including instructional resources, methods, trends, and problems as viewed by practice, theory, and research. Prerequisite (for undergraduates only): Education 165.

175 (275). READING IN THE ELEMENTARY SCHOOL. 1+2, Cr. 2. An introductory course in the teaching of reading including a study of the nature of the reading process, the reading curriculum, and principles, methods, and materials used for the development of effective reading.
176 (276). Foundations of Reading. Cr. 3. A course designed to review basic and current accepted practices in teaching reading. Problems concerned with the teaching of reading, remedial reading, and guiding the reading of gifted children will be included. Prerequisite: basic course in the teaching of reading.

177 (277). The Elementary School Curriculum. Cr. 3. A study of the composition of today's elementary curriculum, the factors which affect its development, the principles governing curriculum organization, and current curricular patterns.

180 (280). Introduction to Educational Media. (Formerly Audio-Visual Education.) 2+2, Cr. 3. An introduction into the ways of effective selection and utilization of media, both material and equipment. The course includes laboratory experience in the production and operation of different media. Fee, $10.00.

182 (282). Educational Measurement. Cr. 3. A course dealing with the history and theory of measurement, statistical analysis and interpretation of measurement data, and testing in relation to pupil achievement and guidance.

185 (285). The Junior High School. Cr. 2. The role of the junior high school will be explored. Particular attention will be given to a critical analysis of current practice in the nature, purpose, organization, administration, and supervision of the junior high school. Prerequisite: Education 155 or the equivalent.

186 (286). Educational Guidance and Counseling. Cr. 3. A course dealing with the nature, functions, and organization of student personnel programs in elementary and secondary schools with counseling and guidance services the central feature. Prerequisite: Education 182 or the equivalent.

188 (288). Seminar in Curriculum Problems. Cr. 2. The seminar will study in depth selected problems in one area of the curriculum of the elementary or secondary school. The curriculum area selected for study will be determined on the basis of interests represented by those taking the course. Prerequisite: consent of the chairman of the department.

191. Special Methods in the Academic Courses in Secondary Education. Cr. 2. This course is administered by the Department of Education. It is given in the various departments of the College of Arts and Sciences under the following titles:

The Teaching of Art
The Teaching of Biological Sciences
The Teaching of English
The Teaching of Foreign Languages
The Teaching of Social Studies
The Teaching of Home Economics
The Teaching of Mathematics
High School Music Methods
The Teaching of Physical Education
The Teaching of Physical Sciences
The Teaching of Speech and Drama

Prerequisites: Education 62 and admission to the Professional Semester.

197. Advanced Supervised Teaching. Cr. 3. Four weeks of full-time student teaching are required. Enrollment in this course is restricted to students: (1) who have completed Education 157 or 167; or (2) who wish to extend their certification coverage. S/U grade. Fee, $35.00

199 (299). Current Problems in Education. Cr. 1, 2, or 3. An intensive study of an area of education. Subtitles, amount of credit, and content will depend on instructor's choice and student interest.

For Graduates Only

214. Teaching the Social Sciences in the Secondary School. Cr. 2. A course designed to organize selected materials from the social sciences into teachable content at the junior-senior high school level. An analysis of objectives, curricular patterns, methods of transmission, materials of instruction as means of the kind of effective learning necessary for the student to compete successfully in our modern technological society is attempted.

305. Philosophical Foundations of Education. Cr. 3. A course in educational thought designed to explore systems of thought with emphasis upon educational philosophical patterns, their implications for influence upon practice and theory in education.
310. ADVANCED EDUCATIONAL PSYCHOLOGY. Cr. 3. Basic study of psychological concepts and phenomena as related to the teaching-learning situation. Emphasis on the interpretation and analysis of psychological research concerning human behavior and development. Designed particularly for experienced teachers. Prerequisite: 15 hours in education or consent of the instructor.

317. RESEARCH IN EDUCATION. Cr. 3. A course designed to develop skill in reading, interpreting, and evaluating research in education. Prerequisite: 15 hours in education or consent of the instructor.

320. HISTORICAL FOUNDATIONS OF EDUCATION. Cr. 3. The history of American education in its cultural framework. Special attention will be given the reform movements of the 20th Century.

323. RESEARCH IN READING. Cr. 3. A review of basic research in reading as applied to principles of learning, instructional processes, and curricular organization. Prerequisites: Education 276 or equivalent and a course in statistics or measurement.

327. REMEDIAL READING. Cr. 3. A course designed to develop the concept of remedial and corrective reading, skills in diagnosis of reading difficulties, appropriate remedial techniques and procedures, and the production and evaluation of instructional materials. Prerequisite: Education 276 or equivalent.

328. THE SUPERVISION OF STUDENT TEACHING. Cr. 3. A course dealing with the problems of supervising student teaching at the elementary and secondary levels. The historical development of student teaching, current student-teaching programs, and the problems related to the supervision of student teachers in the classroom and the school will be studied. Prerequisites: teaching experience and consent of the instructor.

329. CLINICAL PRACTICUM IN READING. Cr. 3. Guided experience in clinical diagnosis; practice in dealing with specific procedures for the correction of various types of reading disabilities. Prerequisite: Education 327 or the equivalent. (Open only to students completing a reading endorsement at Valparaiso University.)

330. SEMINAR IN EDUCATIONAL RESEARCH. Cr. 3. Analysis of procedure and methods of research in education. Emphasis on student-initiated investigation into a selected educational field. Prerequisite: consent of the instructor.

335. CURRENT EDUCATIONAL THOUGHT. Cr. 3. A course designed to familiarize the student with current problems and innovations in the field of education. Extensive reading and discussion of selected essays, articles, and books dealing with issues in education are required. Prerequisite: consent of the instructor.

THE DEPARTMENT OF ENGLISH

Associate Professor Loucks (Chairman); Professors Phipps, Risley, Tuttle, and Umbach; Associate Professors Cunningham, Feaster, Arlin Meyer*, Prahl, and Wegman; Assistant Professors Erdoss, Galow, Hall, Loeppert, Riley, Sommer, and Sponberg

MAJOR—A minimum of 22 credits in English in courses numbered 100 or above. Courses must include: 100 or 131 (critical and writing skills), 101 and 102 (major American writers), 103 (major British writers before 1800), 104 or 106 (major British writers after 1800 or masterpieces of world literature, 18th century-present), 110 (Shakespeare), and one of the following: 109, 120, 130, 151, or 152 (courses in various periods of British literature).

It should be noted that 22 hours constitutes a minimum academic major. Students planning to go to graduate school in English should proceed well

beyond the minimum major to attain a balanced view of British literature, including ample study of authors before 1800.

It is strongly recommended that both English 100 and 131 be taken by English majors.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 12 credits in English in courses numbered 100 or above constitutes a minor. Courses must include 100 or 131, one course in American literature, and one course in English literature.

COURSES RECOMMENDED IN OTHER DEPARTMENTS: Foreign Languages: Classical Mythology (Greek 51) and literature in translation ("50" series); Speech and Drama 104, 105, 185, 186, 198; Christ College: Humanities series; electives in History, Philosophy, Psychology, Art, and Music.

PLAN OF STUDY OPTION—The English Department now has model Plans of Study in several areas, including: English/Journalism; American Studies; English/Political Science/History (Pre-Law); English/Foreign Languages; English/Speech and Drama; English/Science (Pre-Med); English/Psychology; and English/Philosophy/History.

APPROVAL OF SCHEDULES—All students taking a major or a minor in the department must have their schedules approved by the chairman of the department at the beginning of each semester. Consult English Department Bulletin or Advanced Course Selection bulletin to determine when any course will be offered.

COURSES IN ENGLISH†

INTRODUCTORY COURSES: English 3-4 or 5 and 25 are the English component of the required "Language and Communications" and "Humanities and Fine Arts" areas listed under the General Education requirement. They should be completed within the first four semesters, and in the sequence 5, 25. If it appears that a student would have difficulty achieving satisfactory performance in writing in English 5, he is advised to take English 3-4, a full-year sequence (2 credits per semester); this sequence is to be uninterrupted, except by permission of the chairman of the department. Freshman placement in English 3-4 is made on the basis of SAT Verbal Aptitude scores and writing samples. Supplementary data, such as high school English performance, usage test scores, and personal interviews, may also be used to ensure appropriate placement.

3. FUNDAMENTALS OF COMPOSITION I. Cr. 2. Intended to develop the student's skills in sentence and paragraph construction, and in the basics of English usage and punctuation, this course relies heavily on carefully reviewed writing assignments and individual tutorial sessions. It is to be followed by:

4. FUNDAMENTALS OF COMPOSITION II. Cr. 2. Intended as a sequel to English 3, and should be taken in the semester following. The emphasis in English 4 is on coherent organization of themes of varying length, with attention to rhetorical and argumentative strategies, critical reading, research methods, and the preparation of term papers.

5. EXPOSITION AND ARGUMENT. Cr. 4. An intensive course in the writing of expository and argumentative prose with emphasis upon coherent organization, the logical progression of thought, and the effective use of language.

25. LITERARY STUDIES. Cr. 4. Readings of poems, plays, and fictional works from various periods, with emphasis upon the understanding and enjoyment of literature gained through close critical analysis. Additional experience in writing complements that of English 5. Prerequisite: English 3-4 or 5.

†For courses given in Christ College, see page 174 of this Bulletin.
INTERMEDIATE COURSES: Prerequisites are English 3-4 or 5 and 25.

57. PROFESSIONAL REPORT WRITING. Cr. 3. Instruction and extensive practice in the principles and procedures of writing formal and informal business or technical reports, preparing students in various professional fields to handle administrative writing tasks effectively. Offers the student further practice in developing a sound prose style, and introduces him to the methods of research and the procedures of internal communication.

65. STUDIES IN CONTEMPORARY LITERATURE.*† Cr. 3. (Intended to satisfy the "Literature or Fine Arts" requirement of the General Education section, but may also be taken for elective credit.) Special topics in recent British, American, European, or non-Western literature. Examples of topics which have been prepared are: (1) The Minority Voice in Contemporary American Literature; (2) Southern Letters: 1929 to the Present; and (3) The American Novel Since World War II.

ADVANCED COURSES: Prerequisites are English 3-4 or 5 and 25, and permission of the chairman of the department. Courses labeled 200 and above are open to qualified graduate students; undergraduates enroll in the dual-numbered courses on the "100" level.

100 (200). METHODS OF LITERARY CRITICISM AND RESEARCH. Cr. 3. A study of the main schools of literary criticism and of the prevailing methods of literary research. Strongly recommended for both academic and teaching majors, this course is intended to provide an adequate critical terminology and to give practice in the analytical reading of literary texts.

101. AMERICAN LITERATURE.* Cr. 3. A study of selected works of major American writers from the Colonial Period to the Civil War.

102. AMERICAN LITERATURE.* Cr. 3. A study of selected works of major American writers from the Civil War to the present day.

103. MAJOR BRITISH WRITERS.* Cr. 3. A study of selected works of the chief British writers from Anglo-Saxon times to the end of the Neoclassical Period.

104. MAJOR BRITISH WRITERS.* Cr. 3. A study of selected works of the chief British writers from the beginning of the Romantic Movement to the present day.

105. MASTERPIECES OF WORLD LITERATURE.* Cr. 3. A study of major literary works of the Greek, Roman, and Christian traditions, from ancient times through the Renaissance.

106. MASTERPIECES OF WORLD LITERATURE.* Cr. 3. A study of major works of Europe and America from the Neoclassical Period to the present day.

109 (209). MEDIEVAL STUDIES.* Cr. 3. A study of medieval lyrics, narratives, and romances, with emphasis on the work of Chaucer. Lectures on medieval social and intellectual backgrounds.

110 (210). SHAKESPEARE.* Cr. 3. Close readings of representative plays: histories, comedies, and tragedies.

120 (220). RENAISSANCE AND SEVENTEENTH CENTURY STUDIES.* Cr. 3. Readings in significant works of selected writers ranging from More to Milton, with attention to the intellectual, religious, and political backgrounds of the Renaissance and earlier seventeenth century.

122. CREATIVE WRITING. Cr. 3. A workshop in the various techniques of writing poetry and short fiction. English majors, as well as other students, may take this course on an S/U basis.

130 (230). RESTORATION AND EIGHTEENTH CENTURY STUDIES.* Cr. 3. An intensive study of several major writers and dominant literary types in England from 1660 to 1780, with attention to the historical and cultural backgrounds of the period.

*All courses designated by an asterisk (*) may vary in content and in writers assigned, depending upon the instructor and year given. Consult English Department Bulletin for specific information.

†May be taken twice for credit, provided topic is new, or there is no significant overlapping in the reading lists.
131. **ADVANCED COMPOSITION.** Cr. 3. Advanced study of the writing of various kinds of English prose, not including fiction. Considerable writing practice is given, the goal being to develop a lucid, effective style.

141. **HISTORY OF THE ENGLISH LANGUAGE.** Cr. 3. An introduction to the development of modern English from Indo-European with emphasis upon structure and vocabulary.

142 (242). **MODERN ENGLISH GRAMMAR.** Cr. 3. An introduction to such recent linguistic developments as structural grammar and transformational-generative grammar.

143 (243). **INTRODUCTION TO LINGUISTICS.** Cr. 3. A general introduction to the theory and methodology of linguistics. The course includes descriptive and historical linguistics, basic notions of grammatical theory, and exploration of some of the relations of linguistics to other branches of knowledge. The presentation of general principles will be supplemented by practical problems in linguistic analysis.

145 (245). **THE DEVELOPMENT OF ENGLISH DRAMA (900-1800).** Cr. 3. The English drama evolved from the native tradition of religious and allegorical plays, and has developed through the centuries by accommodating itself to changes in social and religious thought, as well as to influences from the classics and Continental drama. The readings of this course are designed to trace this development down to about 1800.

151. **THE ROMANTIC MOVEMENT.** Cr. 3. A study of the poetry of Wordsworth, Coleridge, Byron, Shelley, Keats, and minor poets. Some of the prose of the period will be considered incidentally.

152. **VICTORIAN LITERATURE.** Cr. 3. Several major Victorian poets, novelists, and essayists are read in the light of background studies of Victorian values and mores. Among the writers that may be considered are: Carlyle, Ruskin, Tennyson, Browning, Arnold, the Brontes, Dickens, George Eliot, and Hardy.

156 (256). **THE NOVEL.** Cr. 3. A study of representative English novels of the eighteenth and nineteenth centuries, with discussion of the social background.

160 (260). **MODERN DRAMA.** Cr. 3. A study of plays typical of the various phases of the development of British and American drama after 1870, with some attention to related Continental drama.

165. **TOPICS IN AMERICAN LITERATURE.** Cr. 3. A study of a significant movement in American literature, such as Transcendentalism, Romanticism, Naturalism, and Realism, or a group of writers related regionally, ethnically, or in some other special way.

170 (270). **MODERN FICTION.** Cr. 3. Readings of representative works of the most important British and American novelists of the twentieth century, with emphasis on various theories of fiction dominant during the period.

175 (275). **MODERN POETRY.** Cr. 3. Readings in selected modern poets and their forerunners, especially the French Symbolists. The British and American poets included may range from Yeats and Eliot to Auden, Robert Lowell, and some other contemporary figures.

178. **LITERATURE FOR CHILDREN.** Cr. 3. A survey, by types, of distinguished literature for children, with emphasis on developing analytical and evaluative techniques. Introduction to bibliographical aids, review media, and research required of elementary education majors. May not be counted toward a major or minor in English. Prerequisite: senior standing or consent of the chairman of the department.

179 (279). **LITERATURE FOR YOUNG ADULTS.** Cr. 3. A survey, by types, of distinguished literature suitable for students in the secondary schools. Emphasis on the reading of selected books representing the wide range of literature for

*All courses designated by asterisk (*) may vary in content and in writers assigned, depending upon the instructor and year given. Consult English Department Bulletin for specific information.

†May be taken twice for credit, provided topic is new, or there is no significant overlapping in the reading lists.
adolescents, and developing of analytical and evaluative techniques. Introduction to bibliographical aids, review media, and current research in the field. This course may be counted toward a teaching major or minor in English, but not toward an academic major or minor. Prerequisite: senior standing or consent of the chairman of the department.

180. General Studies in English.* Cr. 3. A study of a specific theme or topic in literature (e.g., The Hero in Literature) or in the relationship between literature and another discipline (e.g., Politics and the Novel). This course is designed to fulfill the General Studies requirement. Prerequisite: junior or senior standing.

187. Seminar in English.*† Cr. 3. Designed chiefly for seniors interested in active participation, the seminar encourages independent thought and research, and relies upon free discussion rather than lectures. Some recent topics: The Aesthetic Movement from Poe to Yeats and Mann; Satire; Contemporary British Novelists. Enrollment limited to 15 students. Admission by consent of the chairman of the department.

191. The Teaching of English. Cr. 2. A study of the methods of teaching English in secondary school (See Education 191). Prerequisite: admission to supervised teaching. This course may not be counted toward a major or minor in English.

194. Independent Study in English.*† Cr. 3. An independent-study project for which there are no provisions in the regular course offerings of the English Department. Advanced approval of the project must be obtained from the chairman of the department, and a tutor must be secured in advance of the semester in which the student plans to undertake the project.

195 (295). Topics in Literature.*† Cr. 2. (half course) or Cr. 3. An open-topic course, which may concern a single writer or a group of writers; a literary type or theme; a contemporary art form (e.g., development of the cinema); or an aspect of modern popular culture (e.g., science fiction and fantasy).

197. Honors Work in English. Cr. 3. See this catalog, p. 78, for current regulations regarding honors work. For other types of independent reading and research, consult with the chairman of the Department of English.

For Graduates Only

303. Problems in Literature for Children. Cr. 3. A study of the great children's literature of the past and the present, of the values that that literature holds for children, and of the criticism of that literature with the aim of developing a set of critical standards for the evaluation of books for children; a study of criteria for selecting books for school use. This course includes a scrutiny of representative scholarship as well as the handling of many bibliographical tools.

309. Theory and Practice of Expository Writing. Cr. 3. Readings and lectures in the theory of exposition; practice in analyzing essays and in writing various forms of exposition; study of the principles of teaching expository writing.

310. Studies in Nineteenth Century British Literature.*† Cr. 3. Selected writers from the Romantic and/or Victorian Periods are read in considerable depth, from a special critical, historical or cultural viewpoint.

315. Shakespeare and His Contemporaries.* Cr. 3. A concentrated study of a selection of works by Shakespeare (or by Shakespeare and some of his contemporaries), to reveal both his debts to and his transcendence above the literary, intellectual, and social conventions of his day. The emphasis is largely, though not exclusively, on dramatic literature.

320. Studies in Nineteenth Century American Literature.*† Cr. 3. A study of several important American writers of the nineteenth century, selected

*All courses designated by asterisk (*) may vary in content and in writers assigned, depending upon the instructor and year given. Consult English Department Bulletin for specific information.
†May be taken twice for credit, provided topic is new, or there is no significant overlapping in the reading lists.
on the basis of theme, genre, or relation to a particular literary movement or intellectual background.

325. THE WESTERN TRADITION I. (Also offered as History 325). Cr. 2. A study of some of the important aspects of the heritage that has come down to us from the ancient Greek, Roman, and Judeo-Christian cultures. This course will be devoted, for the most part, to a close reading of important selected texts.

326. THE WESTERN TRADITION II. (Also offered as History 326). Cr. 2. A study of some of the more important aspects of the heritage that has come down to us from the Middle Ages, the Renaissance, and the Reformation. This course will be devoted, for the most part, to a close reading of important selected texts.

335. TOPICS IN MODERN LITERATURE.*‡ Cr. 3. Topic is open, and determined chiefly by expressions of student interest. Thorough investigation of a significant theme, intellectual or cultural trend, movement, or school of writers within the past hundred years. Recent topics include: Visionary and Philosophical Literature (Yeats, Lawrence, Eliot, Mann, Kafka); Literature and Art: The Breakdown of Form in the Twentieth Century; Women in Modern Literature.

JOURNALISM

Courses in journalism may not be counted toward a major or minor in English.

MINOR—A minor in journalism consists of 15 credit hours which must be earned in the following courses: English 70 (formerly 73), 71, 72, 134; and one course selected from Art 61 or 131, or Speech 91, 92, or 153. Recommended course: English 74.

TEACHING MINOR—A teaching minor consists of 24 credit hours which must be earned in the following courses: English 70 (formerly 73), 71, 72, 74, 134, and 136; and 6 hours of elective credit from the following: Speech 91, 92, or 153; Art 61 or 131. (English 134 may be repeated for credit if the project undertaken is significantly different from the previous one.)

COURSES IN JOURNALISM

70. INTRODUCTION TO MASS COMMUNICATION. (Formerly 73.) Cr. 3. A course in the history, development, and organization of the mass media. Analysis and evaluation of the performance of the media and of their relationships to society and government. Examination of the canons of journalism. Discussion of the problems of libel, slander, and censorship. Prerequisite: English 3-4 or 5.

71. NEWS WRITING. Cr. 3. A course in the fundamentals of news writing and news gathering. Practice in writing various types of news stories; problems of in-depth writing and reporting; introduction to newspaper organization and methods. Laboratory and field work. Prerequisite: English 5.

72. NEWS EDITING. Cr. 3. A course in copy editing, headline writing, and newspaper make-up. Basic principles of news evaluation; photo editing; introduction to layout. Laboratory practice. Prerequisite: English 71.

74. ADVERTISING IN MASS COMMUNICATION. Cr. 2. (half course). Introduction to advertising—copy preparation, graphics, design. Principles of advertising in relation to mass communication. Introduction to public relations. Prerequisite: English 70 (formerly 73) or consent of the chairman of the department.

134. ADVANCED NEWS PRACTICE. Cr. 3. A workshop for the advanced journalism student, comprising in-depth reporting, opinion and editorial writing,

*All courses designated by asterisk (*) may vary in content and in writers assigned, depending upon the instructor and year given. Consult English Department Bulletin for specific information.
‡May be taken twice for credit, provided topic is new, or there is no significant overlapping in the reading lists.
specialized editing, and publications design. May be repeated for credit as an independent-study project (Cr. 1-3) to meet the needs of an individual student or a team of students having a special interest in a journalistic topic or problem not covered in the regular journalism course offerings; or as an internship (Cr. 1-3) with regular field work in a non-student-sponsored journalistic agency. Prerequisites: English 71 or 72 and consent of the chairman of the department.

136. Supervision of Student Publications. Cr. 3. Problems and practices in supervision of student newspapers, magazines, yearbooks, and other publications. Prerequisites: English 72 and consent of the chairman of the department.

THE DEPARTMENT OF FOREIGN LANGUAGES

Professor Helms (Chairman); Professors Moulton, Must, and Reinke; Associate Professors Crumpacker, Falkenstein, H. Peters, J. Peters, and Petersen; Assistant Professors S. Baepler, Brent, and Stephan; Mr. Cilo, Mr. Jimenez, Mr. Prouty, and Miss Toledo; Mr. Olsen, Director of Language Laboratory

The Department of Foreign Languages has the following objectives: to give the student in the lower division courses, numbered 10, 20, and 30, a sound grammatical foundation and to develop the ability to read moderately difficult prose and poetry. It also aims to provide the student with a basic speaking ability, aural comprehension and an introduction to a foreign culture.

Courses numbered 50 or 51 are designed for the Literature or Fine Arts requirement. Courses numbered 100 are designed for the General Studies requirement. All of these courses are taught in English.

In the upper division courses, numbered above 100, the objectives are to continue the work begun in the lower division courses, to study the literatures and civilizations of the languages offered and to prepare students for the teaching of foreign languages and for graduate studies.

Credit by Examination—College credit by examination may be achieved for courses numbered 20 and/or 30 by any student, provided that he has not otherwise earned that credit.

The examination will be given by each section of the Department at the beginning of each semester and during the Summer Session upon sufficient demand.

Approval of Schedules—All students taking a major or a minor in the department and all students planning to teach French, German, Latin, or Spanish must have their schedules approved by the chairman of the department at the beginning of each semester.

French

Major—A minimum of 20 credits in French beyond French 30. Courses must include 8 credits in French literature. (For the plan of study option, a student will be expected to take at least 24 credits in French beyond French 30.)

Majors are urged to study at least one other foreign language. In addition, Greek 51 is recommended. Recommended courses in other Departments are: Art 115, 116; English 100 (200), 143 (243); History 1, 2, 106; Philosophy 51, 53; Speech and Drama 185, 186.
MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 9 credits beyond French 30 constitutes a minor in French.

COURSES IN FRENCH

10. FIRST SEMESTER FRENCH. Cr. 4. A course designed to give the student the essentials of French. Laboratory fee, $5.00. Credit may not be counted for graduation by a student with more than one year of high school credit in French. Special sections are scheduled for science majors.

15. REFRESHER COURSE IN FIRST SEMESTER FRENCH. 7 weeks. Cr. 0. S/U grade. Laboratory fee, $5.00.

20. SECOND SEMESTER FRENCH. Cr. 4. A continuation of French 10. Prerequisite: French 10 or consent of the chairman of the department. Laboratory fee, $5.00. Special sections are scheduled for science majors.

25. REFRESHER COURSE IN SECOND SEMESTER FRENCH. 7 weeks. Cr. 0. S/U grade. Laboratory fee, $5.00. If course is passed satisfactorily, student will receive credit for French 20.

30. INTERMEDIATE FRENCH. Cr. 4. A continuation of French 20 with emphasis on reading of literary texts. Prerequisite: French 20 or consent of the chairman of the department. Laboratory fee, $5.00.

35. REFRESHER COURSE IN INTERMEDIATE FRENCH. 7 weeks. Cr. 0. S/U grade. If course is passed satisfactorily, student will receive credit for French 30.

50. TOPICS IN FRENCH LITERATURE. Cr. 3. A course to meet the Literature or Fine Arts Requirement. Study of a selected form or aspect of French literature in English translation. No knowledge of French required. May not be counted toward a major or minor in French.

100. STUDIES IN FRENCH CIVILIZATION. Cr. 3. A course to meet the General Studies Requirement. Study of the arts, history, literature, music, and philosophy of selected periods or aspects of French civilization. Prerequisite: junior standing. No knowledge of French required. May not be counted toward a major or minor in French.
NOTE: French 30 is a prerequisite for all of the following courses:

110. FRENCH COMPOSITION AND CONVERSATION. 7 weeks. Each sem. Cr. 2. Written composition with emphasis on the use of idioms. Conversation related to topics of current interest. Special attention to problems of individual students.

111. FRENCH COMPOSITION AND CONVERSATION. 7 weeks. Each sem. Cr. 2. A continuation of 110 with work of increased difficulty. Prerequisite: French 110.

112. ADVANCED FRENCH COMPOSITION AND CONVERSATION. Cr. 4. A course intended primarily for students who plan to teach French or to do graduate work in French. Writing, stylistics, and presentation of academic papers. Prerequisite: French 111.

113. FRENCH PHONETICS. Cr. 3. A study of the principles of French phonetics with special emphasis upon the difficulties encountered by American students. Much practical training in the laboratory.

115. FRENCH CIVILIZATION. Cr. 3. Civilization of France from earliest times to the present.

120. FRENCH LITERATURE OF THE SIXTEENTH CENTURY. 7 weeks. Cr. 2.

121. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY. 7 weeks. Cr. 2.

122. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY. 7 weeks. Cr. 2.

123. FRENCH LITERATURE OF THE NINETEENTH CENTURY. 7 weeks. Cr. 2.

125 (225). SEMINAR IN FRENCH LITERATURE. Each sem. Cr. 3-4. Intensive study of a French literary topic of a specialized nature such as Contemporary Drama, Nineteenth Century Novel, French Lyric Poetry, French Thinkers, et al. May be repeated provided there is no duplication of material. Prerequisite: consent of the chairman of the department.

190. DIRECTED READING IN FRENCH. Cr. 1-4. Intended for students capable of doing independent study in French language and literature. Prerequisite: consent of the chairman of the department.

191. THE TEACHING OF FOREIGN LANGUAGES. Either sem. Cr. 2. (See Education 191.) A study of the methods of teaching foreign languages in secondary schools. May not be counted toward a major or a minor in the Department of Foreign Languages. (Given upon sufficient demand.) Prerequisite: admission to Supervised Teaching.

GERMAN

MAJOR—A minimum of 20 credits in German beyond German 30. Courses must include German 112 and 145. (For the plan of study option a student will be expected to take at least 24 credits in German beyond German 30.) Majors are expected to study at least one other foreign language. In addition, Greek 51 is recommended. Recommended courses in other Departments are Art 115, 116, 117; English 100 (200), 143 (243); History 125; Music 104; Philosophy 53; Speech and Drama 104 (204), 185, 186.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript. A minimum of 9 credits beyond German 30 constitutes a minor in German.

THE WALTHER M. MILLER MEMORIAL PRIZE—See page 13 for details.

COURSES IN GERMAN

10. FIRST SEMESTER GERMAN. Cr. 4. A course designed to give the student the essentials of German. Laboratory fee, $5.00. Credit may not be counted for graduation by a student with more than one year of high school credit in German.
15. **REFRESHER COURSE IN FIRST SEMESTER GERMAN.** 7 weeks. Cr. 0. S/U grade. Laboratory fee, $5.00.

20. **SECOND SEMESTER GERMAN.** Cr. 4. A continuation of German 10 and reading of selected cultural and literary texts. Prerequisite: German 10 or consent of the chairman of the department. Laboratory fee, $5.00.

25. **REFRESHER COURSE IN SECOND SEMESTER GERMAN.** 7 weeks. Cr. 0. S/U grade. Laboratory fee, $5.00. If course is passed satisfactorily, student will receive credit for German 20.

30. **INTERMEDIATE GERMAN.** Cr. 4. Reading and discussion of German literature on the intermediate level; review of German grammar. Prerequisite: German 20 or consent of the chairman of the department.

35. **REFRESHER COURSE IN INTERMEDIATE GERMAN.** 7 weeks. Cr. 0. S/U grade. If course is passed satisfactorily, student will receive credit for German 30.

50. **TOPICS IN GERMAN LITERATURE.** Cr. 3. A course to meet the Literature or Fine Arts Requirement. Study of a selected form or aspect of German literature in English translation. No knowledge of German required. May not be counted toward a major or minor in German.

100. **STUDIES IN GERMAN CIVILIZATION.** Cr. 3. A course to meet the General Studies Requirement. Study of the arts, history, literature, music, and philosophy of selected periods or aspects of German civilization. Prerequisite: junior standing. No knowledge of German required. May not be counted toward a major or minor in German.

110. **GERMAN COMPOSITION AND CONVERSATION.** 7 weeks. Each sem. Cr. 2. Review of grammar; introduction to various types of written and oral German. Prerequisite: German 30.

111. **GERMAN COMPOSITION AND CONVERSATION.** 7 weeks. Each sem. Cr. 2. A continuation of 110 with work of increased difficulty. Prerequisite: German 110.

112. **ADVANCED GERMAN COMPOSITION AND CONVERSATION.** Cr. 4. A course intended primarily for students who plan to teach German or to do graduate work in German. Writing, stylistics, and presentation of academic papers. Prerequisite: German 111.

118. **MASTERPIECES OF GERMAN LITERATURE.** Each sem. Cr. 4. A systematic approach to literature. Reading and discussion of one tragedy of the eighteenth or nineteenth century, one comedy, one Novelle, and selections from various types of poetry. Prerequisite: German 30.

125. **THE GERMAN LYRIC.** 7 weeks. Cr. 2. A survey of German lyric verse from its beginning to modern times. Class reading, lectures, independent reading and phonograph recordings. Prerequisite: German 110 or 118.

126. **THE GERMAN "Novelle",** 7 weeks. Cr. 2. Systematic and historical study of the Novelle. Class reading and discussion of representative Novellen; lectures, independent reading, and class reports. Prerequisite: German 110 or 118.

131. **THE GERMAN DRAMA.** 7 weeks. Cr. 2. Development of the German Drama from its beginning to modern times. Reading of representative plays of each period, lectures, and discussion. Prerequisite: German 110 or 118.

145 (245). **GERMAN CIVILIZATION.** Cr. 3-4. An historical survey of the German cultural heritage in the fields of history, philosophy, religion, sociology, and the fine arts. Prerequisite: German 110 or 118 or consent of the chairman of the department.

153. **HISTORY OF GERMAN LITERATURE TO 1700.** Cr. 4. Seminar: discussions, lectures, readings. Prerequisite: German 110 or 118.

154. **EIGHTEENTH-CENTURY GERMAN LITERATURE (exclusive of Goethe and Schiller).** 7 weeks. Cr. 2. Seminar: discussions, lectures, readings. Prerequisite: German 110 or 118.
155. Goethe and Schiller. Cr. 4. Class reading and discussion, lectures, independent reading, and class reports. Prerequisite: German 110 or 118.

156. Nineteenth-Century German Literature. Cr. 4. Seminar: discussions, lectures, readings. Prerequisite: German 110 or 118.

158 (258). Twentieth-Century German Literature. Cr. 3-4. Prerequisite: German 110 or 118.

170. History of the German Language. Cr. 4. A survey of the development of modern German from Proto-Germanic. Prerequisite: German 110 or 118.

190. Directed Reading in German. Each sem. Cr. 1-4. Intended for students capable of doing independent study in German language and literature. Research paper required. Prerequisite: 20 credit hours of college German.

191. The Teaching of Foreign Languages. Cr. 2. (See French 191 and Education 191.) Prerequisite: admission to Supervised Teaching.

THE CLASSICS

Major—A minimum of 16 credits in Greek and 12 credits in Latin beyond Latin 30.

Majors are expected to study at least one other foreign language. Recommended courses in other departments are: Art 114; English 110, 143; History 101, 102; Music 103; Philosophy 51; Speech and Drama 40.

GREEK

Major—A minimum of 24 credits in Greek.

Majors are expected to study at least one other foreign language. Recommended courses in other departments are: Art 114; English 110, 143; History 101, 102; Music 103; Philosophy 51; Speech and Drama 40.

Minor—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 16 credits in Greek constitutes a minor.

COURSES IN GREEK

10. First Semester Greek. Sem. 1. Cr. 4. An introduction to the study of the Greek language, stressing the features of Greek grammar that the student needs for the reading of easy Greek prose. Laboratory fee, $5.00. Credit may not be counted for graduation by a student with more than one year of high school credit in Greek.

20. Second Semester Greek. Sem. 2. Cr. 4. A continuation of Greek 10, followed by reading of Greek prose of moderate difficulty. Prerequisite: Greek 10 or equivalent. Laboratory fee, $5.00.


50. Greek Classics in Translation. Cr. 3. A course to meet the Literature or Fine Arts Requirement. Greek literature from Homer through Aristotle. Lectures and readings. No knowledge of Greek required. May not be counted toward a major or minor in Greek.

51. Classical Mythology. Cr. 3. A course to meet the Literature or Fine Arts Requirement. Survey of Greek and Roman myths and their influence on modern literature and art. No knowledge of Greek or Latin required. May not be counted toward a major or minor in Greek or Latin.

100. Studies in Greek Civilization. Cr. 3. A course to meet the General Studies Requirement. The cultural history of Greece from the Mycenaean Age through the Graeco-Roman Period, with emphasis on art and architecture.
Slide lectures and discussions. No knowledge of Greek required. Prerequisite: junior standing. May not be counted toward a major or minor in Greek.

NOTE: Unless otherwise stated, the prerequisite for each of the following courses is Greek 30 or consent of the chairman of the department.

113. PLATO. Sem. 1. Cr. 2-4. Reading of representative dialogues. Study of Plato as philosopher and of the personality of Socrates.

114. HOMER. Sem. 2. Cr. 2-4. Selections from the Iliad and Odyssey. Study of the literary qualities of the early epic and of life in the Heroic Age.

115. GREEK DRAMA. Sem. 1. Cr. 2-4. Selected plays of Aeschylus, Sophocles, and Euripides, with supplementary lectures on the Greek theatre.

116. HELLENISTIC GREEK. Sem. 2. Cr. 2-4. Readings from the Greek Septuagint and subsequent Hellenistic literature.

190. DIRECTED READING IN GREEK. Either sem. Cr. 1-4. Intended for students capable of doing independent study in Greek language and literature. Scholarly paper required. Prerequisite: consent of the chairman of the department.

HEBREW

COURSES IN HEBREW

10. FIRST SEMESTER HEBREW. Sem. 1. Cr. 4. Elements of Hebrew grammar and reading of prose sections of the Old Testament. (Offered in alternate years.) Laboratory fee, $5.00. Credit may not be counted for graduation by a student with more than one year of high school credit in Hebrew.

20. SECOND SEMESTER HEBREW. Sem. 2. Cr. 4. Selected reading of Old Testament prose and poetry, Hebrew inscriptive material, and the Qumran scrolls, with special attention to syntax. (Offered in alternate years.) Laboratory fee, $5.00.

LATIN

MAJOR—A minimum of 20 credits in Latin beyond Latin 30. Majors are expected to study at least one other foreign language. Recommended courses in other departments are: Art 114; English 110, 143; History 101, 102; Music 103; Philosophy 51; Speech and Drama 40.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript. A minimum of 9 credits beyond Latin 30 constitutes a minor in Latin.

COURSES IN LATIN

10. FIRST SEMESTER LATIN. Sem. 1. Cr. 4. Study of the fundamentals aimed at an early acquisition of a reading knowledge of Latin. Laboratory fee, $5.00. Credit may not be counted for graduation by a student with more than one year of high school credit in Latin.

20. SECOND SEMESTER LATIN. Sem. 2. Cr. 4. A continuation of Latin 10, followed by study of easy selections from Latin prose authors. Prerequisite: Latin 10 or consent of instructor. Laboratory fee, $5.00.

30. INTERMEDIATE LATIN. Cr. 4. Introduction to Latin epic poetry; readings from the Aeneid of Vergil and the Metamorphoses of Ovid. Prerequisite: Latin 20 or consent of instructor.

50. LATIN CLASSICS IN TRANSLATION. Cr. 3. A course to meet the Literature or Fine Arts Requirement. Latin literature from its earliest Republican beginnings through the Silver Age of the Roman Empire. Lectures and readings. No knowledge of Latin required. May not be counted toward a major or minor in Latin.

51. CLASSICAL DERIVATIVES. Cr. 3. A course to meet the Literature or Fine Arts Requirement. Analysis of English vocabulary, including scientific terms, derived from Latin and Greek. No knowledge of Latin or Greek required. May not be counted toward a major or minor in Latin or Greek.
100. **STUDIES IN ROMAN CIVILIZATION.** Cr. 3. A course to meet the General Studies Requirement. The cultural history of Rome from its legendary period through the Age of Justinian, with emphasis on the Roman contribution to the classical heritage. Slide lectures and discussions. No knowledge of Latin required. Prerequisite: junior standing. May not be counted toward a major or minor in Latin.

**NOTE:** Unless otherwise stated, the prerequisite for each of the following courses is Latin 30 or consent of the chairman of the department:

115. **ROMAN PHILOSOPHY.** Sem. 1. Cr. 2-4. Study of representative essays of Cicero and of selections from the *De Rerum Natura* of Lucretius.

116. **LATIN LYRIC AND ELEGIAIC POETRY.** Sem. 2. Cr. 2-4. Roman society in the last years of the Republic and in the Augustan Age as reflected in Catullus, Horace, Tibullus, and Propertius.

117. **ROMAN HISTORIANS.** Sem. 1. Cr. 2-4. Selections from the works of Nepos, Sallust, Livy, and Tacitus; study of Roman historiography.


119. **ROMAN SATIRE AND EPISTOLOGraphY.** Sem. 1. Cr. 2-4. Selections from the Letters of Pliny and poetry of Juvenal and Martial. Life and manners of the early Roman Empire.

125. **LATIN COMPOSITION.** Sem. 1. Cr. 2-4. Latin writing of moderate difficulty, including translation into Latin of passages of connected English prose; review of grammar and syntax.

140. **MEDIEVAL LATIN.** Sem. 2. Cr. 2-4. Readings in secular and religious prose and poetry extending from the early Middle Ages to the Renaissance.

190. **DIRECTED READING IN LATIN.** Each sem. Cr. 1-4. Intended for students capable of doing independent study in Latin language and literature. Scholarly paper required. Prerequisite: consent of the chairman of the department.

191. **THE TEACHING OF FOREIGN LANGUAGES.** Sem. 1. Cr. 2. (See French 191 and Education 191.) Prerequisite: admission to Supervised Teaching.

**RUSSIAN**

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 9 credits beyond Russian 30 constitutes a minor in Russian.

**COURSES IN RUSSIAN**

10. **FIRST SEMESTER RUSSIAN.** Sem. 1. Cr. 4. An introduction to Russian stressing elementary grammar, pronunciation, and reading of simple texts. Laboratory fee, $5.00. Credit may not be counted for graduation by a student with more than one year of high school credit in Russian.

20. **SECOND SEMESTER RUSSIAN.** Sem. 2. Cr. 4. A continuation of Russian 10, with increased emphasis on reading and speaking. Prerequisite: Russian 10 or equivalent. Laboratory fee, $5.00.

30. **INTERMEDIATE RUSSIAN.** Sem. 1. Cr. 4. An intermediate course in Russian, completing the basic grammar presentation, and reading of Russian and Soviet cultural material. Prerequisite: Russian 20 or equivalent. Offered upon sufficient demand.

50. **TOPICS IN RUSSIAN LITERATURE.** Cr. 3. A course to meet the Literature or Fine Arts Requirement. Study of a selected form or aspect of Russian literature in English translation. No knowledge of Russian required. May not be counted toward a minor in Russian.
100. STUDIES IN RUSSIAN CIVILIZATION. Cr. 3. A course to meet the General Studies Requirement. Survey of major trends and influences in Russia and the Soviet Union. Prerequisite: junior standing. No knowledge of Russian required. May not be counted toward a minor in Russian.


153. NINETEENTH-CENTURY RUSSIAN LITERATURE. Cr. 3. A study of nineteenth-century Russian literary trends through representative works of Pushkin, Lermontov, Gogol, Turgenev, and Dostoevsky. Prerequisite: Russian 30 or consent of instructor. Not offered in 1974-1975.

154. LATE RUSSIAN AND EARLY SOVIET LITERATURE. Cr. 3. A study of late nineteenth-century and early twentieth-century Russian and Soviet literary trends through representative works of Tolstoy, Chekhov, and Bunin, and of Gorky and Sholokhov. Prerequisite: Russian 30 or consent of instructor. Not offered in 1974-1975.

SPANISH

MAJOR—A minimum of 20 credits beyond Spanish 30. Courses must include 111, 120, one course in civilization and one literature course numbered above 120.

It is suggested that majors study one other foreign language. Recommended courses in other departments are: Art 117; English 100, 143; History 50, 51; Political Science 154; Speech and Drama 185, 186.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript. A minimum of 9 credits above Spanish 30 constitutes a minor in Spanish. Spanish 111, 120, and one course in civilization must be included.

COURSES IN SPANISH

10. FIRST SEMESTER SPANISH. Cr. 4. A course designed to give the student the essentials of Spanish. Laboratory fee, $5.00. Credit may not be counted for graduation by a student with more than one year of high school credit in Spanish.

15. REFRESHER COURSE IN FIRST SEMESTER SPANISH. 7 weeks. Cr. 0. S/U grade. Laboratory fee, $5.00.

20. SECOND SEMESTER SPANISH. Cr. 4. A continuation of Spanish 10 in which the student will learn to read simple to intermediate works, to carry on a simple conversation, and to write a coherent paragraph. Prerequisite: Spanish 10 or consent of the chairman of the department. Laboratory fee, $5.00.

25. REFRESHER COURSE IN SECOND SEMESTER SPANISH. 7 weeks. Cr. 0. S/U grade. Laboratory fee, $5.00. If course is passed satisfactorily, student will receive credit for Spanish 20.

30. INTERMEDIATE SPANISH. Cr. 4. A course in which the student will perfect grammar skills, deepen his understanding of Hispanic culture, and be expected to read uncomplicated works of literature, write compositions, and be able to sustain a general conversation. Prerequisite: Spanish 20 or consent of the chairman of the department.

35. REFRESHER COURSE IN INTERMEDIATE SPANISH. 7 weeks. Cr. 0. S/U grade. If course is passed satisfactorily, student will receive credit for Spanish 30.

50. TOPICS IN HISPANIC LITERATURE. Cr. 3. A course to meet the Literature or Fine Arts Requirement. Study of a selected form or aspect of Spanish literature in English translation. No knowledge of Spanish required. May not be counted toward a major or minor in Spanish.
100. STUDIES IN HISPANIC CIVILIZATION. Cr. 3. A course to meet the General Studies Requirement. Study of the arts, history, literature, music, and philosophy of selected periods or aspects of Hispanic civilization. Prerequisite: junior standing. No knowledge of Spanish required. May not be counted toward a major or minor in Spanish.

111. SPANISH COMPOSITION AND CONVERSATION. Each sem. Cr. 4. A perfection of speaking and writing skills in the Spanish language. Prerequisite: Spanish 30.

116. SPANISH FOR SOCIAL WORKERS. Cr. 2-3. A course designed to deal with the Spanish language in situations encountered by social workers. Prerequisite: Spanish 111.

120. SELECTED READINGS IN HISPANIC LITERATURE. Each sem. Cr. 4. The reading and discussion of works of Hispanic literature representative of various literary genres, with emphasis on the techniques of literary criticism and the problems of analyzing literature in a second language. Prerequisite: Spanish 111.

130. SPANISH CIVILIZATION. Cr. 3-4. A course intended to further the student's knowledge of the varied elements of Spanish history and culture. Lectures and individual oral participation in Spanish. Prerequisite: Spanish 111.

131. SPANISH-AMERICAN CIVILIZATION. Cr. 3-4. A course intended to further the student's knowledge of the varied elements of Spanish-American culture. Lectures and individual participation in Spanish. Prerequisite: Spanish 111.

140. THE SPANISH LANGUAGE IN THEORY AND PRACTICE. Cr. 3-4. The presentation of basic Spanish historical grammar, phonology, and syntax, together with additional practice in oral and written skills. Prerequisite: Spanish 111.

Note: All literature courses listed below have as their prerequisite Spanish 120, and will offer varying area sub-topics under the general headings listed below. These courses may be offered for two credits as a short course or for three or four credits as semester-long courses consistent with the demands of the specific area to be studied. All literature courses are taught entirely in Spanish. Certain of these courses may be repeated provided there is no duplication of material.

160. TOPICS IN EARLY SPANISH LITERATURE. Cr. 2-4. Selected areas of study concerning individual genres, authors, or aspects of early Spanish literature. May be repeated, see note above.

161. TOPICS IN GOLDEN AGE SPANISH LITERATURE. Cr. 2-4. Selected areas of study concerning individual genres, authors, movements, or aspects of Spanish literature of the Golden Age. May be repeated, see note above.

162. TOPICS IN NINETEENTH CENTURY SPANISH LITERATURE. Cr. 2-4. Selected areas of study concerning individual genres, authors, movements, or aspects of Spanish nineteenth century literature. May be repeated, see note above.

163. TOPICS IN SPANISH-AMERICAN LITERATURE. Cr. 2-4. Selected areas of study concerning individual genres, authors, movements, or aspects of Spanish-American literature. May be repeated, see note above.

164 (264). TOPICS IN CONTEMPORARY HISPANIC LITERATURE. Cr. 2-4. Selected areas of study concerning individual genres, authors, movements, or aspects of contemporary Hispanic literature. May be repeated, see note above.

190. DIRECTED READING IN SPANISH. Cr. 1-4. Intended for students capable of doing independent study in Hispanic language, civilization, or literature. Research paper required. May be repeated, see note above.

191. THE TEACHING OF FOREIGN LANGUAGES. Cr. 2. (See French 191 and Education 191.) Prerequisite: admission to Supervised Teaching.

THE DEPARTMENT OF GEOGRAPHY

Professor Kallay* (Chairman); Professor Strietelmeier; Associate Professors Buls, Kiefer**, Kowitz, and A. Rechlin; Miss Cummiskey

FIELD AND FUNCTION—Geography is the science which seeks (1) to describe and map the natural and cultural phenomena of the earth, (2) to

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analyze the distribution of human activity, and (3) to investigate the part which environment plays in man's uses of resources.

Valparaiso University, with more than 75,000 maps, is one of the map depositories of the Army Map Service and United States Geological Survey, from which the department currently receives thousands of national, regional, and topographic maps of all continents.

Geography courses in the department yield social science credit. Courses 10, 20, and 30 give natural science credit. Course 21 gives natural science credit for students who need more than 12 such credits.

**General Major**—A minimum of 30 credits in geography. Courses must include 10, 20, 30, 50, and 52, and at least one course numbered 150 or above.

**Professional Major**—A professional major is offered students who are contemplating graduate or professional work in geography. Students with a professional major must take at least 35 hours in the department. Also they are required to take 10, 30, 50, 52, and 154 and at least four of the following systematic or technical courses: 150, 152, 156, 160, 162, 164, 166, 168.

It is recommended that professional geography majors select such courses from the following cognate subjects as will most closely correlate with their program of geographic concentration: biology, economics, history, mathematics, political science, and sociology.

**Minor**—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 18 credits in geography constitutes a minor. Geography 10, 20 or 30, 50, and 52 must be included.

**The Valparaiso University-Indiana University Northwest Geography and Geology Association (Major in Geology).** See page 84 for details.

**Approval of Schedules**—All students taking a major or a minor in the department and all students planning to teach geography must have their schedules approved by the chairman of the department at the beginning of each semester.

**Courses in Physical Geography (Offering Natural Science Credit)**

10. GEOMORPHOLOGY. Each sem. 2+4, Cr. 4. A course designed to introduce the student to the scientific study of landforms. The processes of running water, ground water, glaciers, wind, waves and the principles of geologic structures are analyzed. Their imprint on the landscape is examined with the aid of topographic maps and photographs. Laboratory and field trip fee, $10.00. Open to all students.

20. REGIONAL GEOMORPHOLOGY OF THE UNITED STATES. Sem. 2. 2+4, Cr. 4. The United States is divided into regional areas and the topographic character of each area is examined through the systematic analysis of the geomorphic agents, geologic structures, and geologic time. Prerequisite: Geography 10. Laboratory fee, $10.00.

21. REGIONAL GEOMORPHOLOGY OF THE UNITED STATES. Sem. 2. 2+2, Cr. 3. Same as Physical Geography 20, but with reduced laboratory sessions. Not applicable to general education requirement in Natural Science and Mathematics. Prerequisite: Geography 10. Laboratory fee, $5.00.
30. **METEOROLOGY AND CLIMATOLOGY.** Each sem. 2+4, Cr. 4. A study of the structure and functions of the atmosphere. Laboratory exercises supplement lectures in the treatment of air mass analysis, weather maps and forecasting, and patterns of climate. Laboratory fee, $5.00. Open to all students.

**COURSES IN GEOGRAPHY**

*(Offering Social Science Credit)*

50. **INTRODUCTORY GEOGRAPHY I.** Each sem. Cr. 3 or 4. A study of the major physical and cultural elements in man's environment, especially in their relationships to each other. For a fourth hour of credit students must successfully complete a program of extra work under the direction of the instructor.

52. **INTRODUCTORY GEOGRAPHY II.** Each sem. Cr. 3 or 4. A survey of the world's great physical-cultural regions with special emphasis upon geographic theories, principles, and concepts. For a fourth hour of credit students must successfully complete a program of extra work under the direction of the instructor.

60. **CONSERVATIONAL GEOGRAPHY.** Each sem. Cr. 3. A study of the nature of American resources, current problems in their development, attitudes that led to the creation of those problems, techniques designed to correct those problems and solutions that appear desirable for the future. Open to all students.

62. **ECONOMIC AND COMMERCIAL GEOGRAPHY.** Sem. 2. Cr. 3. A study of agricultural and industrial production in relation to environmental factors and international interdependence. Also a treatment of the geographic bases for inter-regional and international trade, centers and routes of trade. Not open to students who have had Geography 120 or 122. No prerequisite.

100-107. **REGIONAL GEOGRAPHY.** Each sem. Cr. 3. A geographic interpretation of the physical, social, political, industrial, and commercial patterns of a particular region in relation to national and international regions will be offered. Open to students who have completed six hours of geography, and to upper-division students majoring in any of the other social sciences. Several regional courses will be offered each semester from the following:

100. Anglo-America. Cr. 3.
101. Latin-America. Cr. 3.
102. Europe. Cr. 3.
103. Africa. Cr. 3.
104. Asia. Cr. 3.
105. Soviet Union. Cr. 3.
106. Near East. Cr. 3.
107. Australia-Oceania. Cr. 3.

120. **AGRICULTURAL GEOGRAPHY.** Cr. 2. An advanced study of the geographic distribution of the major crops of the world, especially of the United States, in relation to physical and social environments and food requirements. Special attention is given to crop ecology. Prerequisites: 10 hours in geography or 6 hours in geography and 6 hours in economics.

122. **MANUFACTURING GEOGRAPHY.** Cr. 2. An advanced study of the geographic distribution of the major manufacturing industries of the world, especially those of the United States, in relation to the location of raw materials, power, labor, transportation facilities, markets, and the strategy of regional position in time of war. Prerequisites: 10 hours in geography and physical geography, or 6 hours in geography and 6 hours in economics.

124. **POLITICAL GEOGRAPHY.** Cr. 2. An investigation of the relations between man's political activities, organizations and the geographic conditions within which they develop. The uneasy balance of political power among nations, which is the product of varying geographic and economic conditions, will be discussed in terms of spatial, human, cultural and ethnic-geography. Open to all students.

126. **THE GEOGRAPHY OF CONTEMPORARY WORLD ISSUES.** Cr. 3. A course designed to introduce the non-geographer to the methods of geographic thought through an examination in depth of selected current world problems. Its primary direction is cultural in approach, concentrating on economic and political
geography. May be used to fulfill the General Studies Requirement. Prerequisite: junior or senior standing. Not open to geography majors for credit toward their majors.

150. URBAN GEOGRAPHY. Cr. 3. A course treating urban settlements as distinct geographic units. Topics which will be covered include the history of urban settlement in the United States, the theory of urban development, internal urban morphology and transportation, economic base, and classification of cities. Special emphasis will be placed on Central Place Theory. Prerequisites: junior or senior standing and consent of the instructor.

152. URBAN AND REGIONAL PLANNING. Cr. 3. A course treating the nature, purposes, objectives, techniques and organization of modern community planning for the promotion of social and economic well-being. Prerequisite: junior or senior standing.

154. CARTOGRAPHY. 0+6, Cr. 3. An introduction to cartographic techniques, compilation, construction, and reproduction. Required of geography majors. Prerequisite: junior standing. Laboratory fee, $5.00.

156. ENVIRONMENTAL DATA. 0+6, Cr. 3. A laboratory course designed to acquaint the student with the various types and sources of environmental information. Data pertaining to the physical environment will be emphasized. Laboratory exercises cover such topics as topographic maps, soil maps, geologic maps, aerial photographs, remote sensor imagery, weather records, and records from air and water quality monitoring stations. The basic techniques for gathering the environmental data will be discussed and field experiments will be conducted. No prerequisites. Open to juniors and seniors. Laboratory fee, $10.00.

160. GEOGRAPHIC ANALYSIS. Cr. 3. A course designed to teach the techniques of data collection and quantitative analysis. Prerequisite: professional major with at least 15 credit hours in geography.

162. SEMINAR IN CURRENT THEMES IN GEOGRAPHY. Sem. 1 or 2. Cr. 2 or 3. This course is designed to examine current problems from the geographic point of view. A different theme will be selected each time the course is offered. Such topics as rural settlement patterns, ghetto, ethnic, or religious communities, pollution problems, diffusion studies and environmental perception will be considered. A student may repeat the course for credit as each new theme is investigated. The three-credit course will extend throughout the full semester and the two-credit course will extend through one-half semester. Prerequisite: junior or senior major or permission of the instructor. Laboratory fee, $10.00.

164. GEOGRAPHIC PROBLEMS. Cr. 3. A seminar on contemporary social, economic, and political-military issues based on student self-selected topics. Designed to develop student initiative in learning how to analyze, speak, and write geographically, the course is so structured that members of the class are given the opportunity to comment weekly on the progress of each student's project in the matter of geographic relevance. Type topics deal with the geographic aspects of national conflict, population explosion, urban sprawl, industrial transportation complexes, underdeveloped or maladjusted urban or rural landscapes, racial tensions, environmental pollution and other health hazards. Prerequisites: 12 credit hours in geography and permission of the chairman of the department. May involve a limited amount of field work.

166. PRO-SEMINAR IN GEOGRAPHY. Cr. 3. Readings, papers, and discussion on the development of geographic thought especially in the nineteenth and twentieth centuries; on basic techniques and concepts of the field; on the place of geography within thought and value systems; and on the contributions of major geographers, past and present, to the discipline and to the large world of thought. Prerequisite: senior major.

168. INDEPENDENT STUDY. Cr. 2 or 3. Individual research on a topic in geography agreed upon by a student and a faculty member of his choice from within the departmental staff. Prerequisite: senior major. May involve field work.
170 (270). EUROPEAN GEOGRAPHIC PROBLEMS. Cr. 3. A study of the reorganization of the political, economic, and social patterns of Europe in the light of the 20th century attempt to unify Europe's fragmented nationalism.

172 (272). ENVIRONICS. Cr. 3. An integrated study of environment of man. Interrelated ecosystems of human life are analyzed and appraised in the context of the total global environmental system, with a focus on environmental qualities. Earth phenomena and problems are seen and resolved in the twofold perspective of the impact of environment on man and the impact of man on the environment. Treated in specific regional settings, environmental quality as here projected is assessed and enhanced through community and regional planning with the ultimate goal of establishing a sound geographic national land use policy. Oriented to serve both the general and specific educational functions of the University curricula, the scope and flexibility of this course allow for a wide latitude of independent-study projects. Prerequisite: consent of the chairman of the department.

174 (274). HISTORICAL GEOGRAPHY OF THE UNITED STATES. Cr. 2. A regional treatment of the exploration, colonization, territorial expansion, migration, transportation, settlement, and economic development of our country, integrated in relation to the physical framework of the environment in which and with which American regional patterns of culture have come to be established. The course is primarily designed for students majoring in one or another of the social sciences. Prerequisite: 10 credit hours in geography, or 6 hours in geography and 6 hours in history, political science, economics, or sociology, or consent of the chairman of the department.

176 (276). THE GEOGRAPHY OF WORLD AFFAIRS. Sem. 2. Cr. 2. A workshop course to develop the technique of interpreting current world events in the geographic framework in which such events occur. From newspapers and periodicals students clip articles for critical review and rewrite them in the form of "chorograms." Prerequisite: 10 credit hours in geography or 6 hours in geography and 6 hours in history, political science, economics, or sociology, or consent of the chairman of the department.

178 (278). AREA FIELD STUDY. 0-4, Cr. 2. A laboratory and field course designed to give insight into the nature and purpose of geographic field work. It includes such topics as mapping techniques, physical and cultural pattern analysis, rural and urban functions, and an intensive study of a selected area. Prerequisite: consent of the chairman of the department.

For Graduates Only

305. GEOGRAPHIC THOUGHT. Cr. 3. A survey of the main strands of geographic thought from antiquity to the present. Emphasis is upon contemporary ways of knowing and interpreting the data of geography. Particular attention is given to the ideas, principles, and concepts which have been contributed by recent and contemporary scholars in the field. Opportunity is offered for consideration of the ethical, pedagogical, and vocational implications of geography. Prerequisite: consent of the instructor.

310. WESTERN CULTURAL GEOGRAPHY. Cr. 3. An environmental appraisal of the European-American regional patterns of culture which are essential to the understanding of Western man. Prerequisite: consent of the instructor.

315. NON-WESTERN CULTURAL GEOGRAPHY. Cr. 3. An environmental appraisal of the cultural regional patterns of Asia and Africa. Prerequisite: consent of the instructor.

320. AMERICAN RESOURCES. Cr. 3. A study of the development of thought with respect to the nature and function of natural resources of the United States in the context of prevailing physical and cultural conditions. It is based on an intensive review of the literature with special attention given to those books and documents that have played a vital role in shaping American thinking with respect to resource use. Prerequisite: consent of the instructor.
THE DEPARTMENT OF HISTORY

Professor Boyd (Chairman); Professors Kautz, Krodell, and Startt; Associate Professors Berg, Engelder, and Schaefer; Assistant Professor Kohlhoff; Mr. Piehl and Mr. Schoppa*

MAJOR—A minimum of 30 credits in history. Courses must include History 1, 2, 170, and two seminars, one of which must involve a major paper.

Students planning on graduate work are strongly urged to acquire reading proficiency in at least one modern foreign language.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 18 credits in history constitutes a minor. History 1 and 2 must be included.

CONCENTRATION AREAS—For students whose field of interest lies in the Humanities, it is recommended that they attain ability to read a foreign language, and, in the case of the modern languages, to gain sufficient oral ability to maintain a sustained conversation, as well as developing a basic writing ability, that they take a year of philosophy, and a considerable number of literature and fine arts electives.

For students whose field of interest lies in the Social Sciences, or who will be teaching on the secondary level, it is recommended that they take a variety of geography, political science, economics, sociology, and psychology electives, and either a semester of philosophy or a year of mathematics and/or statistics.

APPROVAL OF SCHEDULES—Students taking a major or minor in the department must have their schedules approved by the chairman at registration each semester. In addition, all majors above the freshman level are requested to select a member of the department for general advising of any nature.

COURSES IN HISTORY

GENERAL SURVEY COURSES

**1. WESTERN CIVILIZATION I. Cr. 3. An introduction to the historical development of the Western world from the ancient Near East to the 18th century.

**2. WESTERN CIVILIZATION II. Cr. 3. An introduction to the historical development of the Western world from the 18th century to the present.

***30. UNITED STATES HISTORY I. Cr. 3. A study of the various aspects of American civilization from the age of discovery to the end of the Civil War, with emphasis on the development of democratic ideas and institutions.

***31. UNITED STATES HISTORY II. Cr. 3. A study of various aspects of American civilization from the Civil War to the present, with emphasis on the development of industrial and world power against a background of social and cultural tensions.

50. LATIN AMERICAN CIVILIZATION I. Cr. 3. A survey of the major periods of Latin American history to 1825, with emphasis on the pre-Columbian Indian cultures, Africa's contribution, and the Iberian heritage.


**Credit for History 1 and 2 may be earned through the College Level Examination Program (CLEP) subject examination in Western Civilization.

***Credit for History 30 and 31 may be earned through the College Level Examination Program (CLEP) subject examination in American History.
51. **LATIN AMERICAN CIVILIZATION II.** Cr. 3. A survey of the republics from independence to the present, relating contemporary Latin American problems to underdevelopment and unrest in the current world scene.

60. **EAST ASIAN CIVILIZATION I.** Cr. 3. A survey of the traditional cultures of China, Japan, and Korea prior to the impact of Western civilization.

61. **EAST ASIAN CIVILIZATION II.** Cr. 3. A survey of the modern history of China, Japan, and Korea, with emphasis on the meeting of East and West and the struggle for development and self-expression in our times.

**STUDIES IN EUROPEAN HISTORY**

Prerequisites: History 1 and 2 or consent of the chairman of the department.

101. **ANCIENT WORLD I.** Cr. 3. A study of the Eastern Mediterranean peoples from the earliest times to Alexander the Great.

102. **ANCIENT WORLD II.** Cr. 3. A study of Hellenistic and Roman civilization to the 5th century A.D.

105 (205). **THE HIGH MIDDLE AGES.** Cr. 3. A study of political and social development, of cultural and intellectual flowering of Christian Europe from the 10th century to the 14th.

106 (206). **RENAISSANCE AND REFORMATION.** Cr. 3. A study of the emergence of modern Europe through events of the Italian and Northern Renaissance, and the impact of the Protestant Reformation through the 16th century.

110 (210). **FRENCH REVOLUTION AND NAPOLEON.** Cr. 3. A study of the background, development, and significance of the French Revolution and Napoleonic Era.

115 (215). **MODERN EUROPE I 1870-1919.** Cr. 3. A study of Europe emphasizing themes of nationalism, political evolution, militarism, industrialism, and Western World predominance to the close of World War I.

116 (216). **MODERN EUROPE II 1919-.** Cr. 3. A study of Europe emphasizing the troubled years leading to World War II, and the complex changes in European life since 1945.

120. **HISTORY OF ENGLAND I.** Cr. 3. A study of main currents in the evolution of the cultural, social, and constitutional institutions of England, and their importance for understanding American history.

121. **HISTORY OF ENGLAND II.** Cr. 3. A study of main currents in modern British history.

125. **HISTORY OF GERMANY.** Cr. 3. A study of the German people since the 17th century, with emphasis upon the unique factors shaping their history to the present time.

126. **GERMANY DURING THE SIXTEENTH CENTURY.** Cr. 3. A study of the political, social, economic, and religious movements in Germany during the age of the Reformation. **REUTLINGEN CAMPUS ONLY.**

**STUDIES IN UNITED STATES HISTORY**

Prerequisites: History 30 and 31 or consent of the chairman of the department.

130 (230). **THE COLONIAL ERA 1607-1763.** Cr. 3. A study of the history of early America from the first English settlements to the eve of the Revolution.

131 (231). **THE FOUNDING OF THE NATION 1763-1815.** Cr. 3. A study of the events leading to the American Revolution and the working out of new directions in the young United States.

132 (232). **THE FEDERAL UNION 1815-1860.** Cr. 3. A study of the major problems that beset the American people from the close of the War of 1812 to the eve of the Civil War.

133 (233). **CIVIL WAR AND RECONSTRUCTION.** Cr. 3. A study of the great watershed conflict in American history, with special emphasis on the problems of Black Americans.

134. **MODERN AMERICA I 1877-1929.** Cr. 3. An intensive study of recent United States history, emphasizing such themes as continental expansion, industrial development, political reform, immigration and urbanization, minority peoples, imperialism, and world power status.
135 (235). Modern America II 1929-. Cr. 3. An intensive study of recent United States history from the great depression and New Deal of the 1930's to the present.

137. History of the American City. Cr. 3. A study of the growth, impact, and significance of the city in the development of the United States.

Studies in Non-Western History

Prerequisite: the appropriate general survey or consent of the chairman of the department.

150 (250). History of Mexico. Cr. 3. A study of the struggle for political, economic, and cultural identity in America's southern neighbor.

160. History of China to 1800. Cr. 3. A study of the political, economic, social, and cultural development of traditional China from the earliest times to the 19th century.


Specialized Departmental Offerings

Prerequisite: consent of the chairman of the department.

170. The Study of History. Cr. 2. A half-semester course required of history majors in their junior year, examining the nature of history as a discipline and sampling varieties of historical writing.

175. Seminars in History. Cr. 2 or 3. These are full or half-semester courses covering a variety of subject areas, with subtitles and content dependent upon instructor choice and student interest. They will be of two types, and labeled accordingly: (a) reading and discussion seminars, or (b) seminars with major papers.

Topics in European history might emphasize controversial themes and movements not normally treated in depth in other departmental courses (e.g., Imperialism, Contemporary European Thought).

United States history seminars might deal with constitutional or diplomatic history, the growth of the West, social reform, 20th century Black history, the urban challenge, or American church history.

Seminars may also involve study programs abroad in a variety of cultural settings.

180. Selected Readings in Historical Literature. Cr. 2 or 3. An opportunity for majors and non-majors alike to read extensively under the guidance of a member of the department a number of significant works in the history of a given event or historical movement. Arrangements must be made at the beginning of the semester through the chairman, and limits will be imposed on the number of students any instructor may agree to sponsor. This course may not be used in partial fulfillment of the University's general education requirements.

184. The Western Experience. Cr. 3. An integrative course for non-majors on the junior-senior level designed to explore selected topics in the Western past that bear upon present problems. The course content, as in the case of seminars, will depend upon instructor and student interest, and may be taught by one or more instructors, or in collaboration with other departments. May be used to fulfill the General Studies Requirement.

185. The American Experience. Cr. 3. An integrative course for non-majors on the junior-senior level designed to explore selected topics in the American past that bear upon present problems. The course content, as in the case of seminars, will depend upon instructor and student interest, and may be taught by one or more instructors, or in collaboration with other departments. May be used to fulfill the General Studies Requirement.

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191. The Teaching of Social Studies. Cr. 2. A study of the methods of teaching social studies in secondary schools. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in the department.

For Graduates Only

325. The Western Tradition I. (Also offered as English 325.) Cr. 2. A study of some of the important aspects of the heritage that has come down to us from the ancient Greek, Roman, and Judeo-Christian cultures. This course will be devoted, for the most part, to a close reading of important selected texts.

326. The Western Tradition II. (Also offered as English 326.) Cr. 2. A study of some of the important aspects of the heritage that has come down to us from the Middle Ages, the Renaissance, and the Reformation. This course will be devoted, for the most part, to a close reading of important selected texts.

335. Problems in European History. Cr. 3. An intensive study of a significant period or movement in European history. Subtitles and content will depend upon instructor’s choice and student interest. Normally, this course will require a major paper.

336. Problems in United States History. Cr. 3. An intensive study of a significant period or movement in American history. Subtitles and content will depend upon instructor’s choice and student interest. Normally, this course will require a major paper.

340. Stuart England. Cr. 3. A concentration upon the religious, political, economic, and social problems of 17th century England, involving civil war, regicide, political experimentation, Restoration, and a resolution of the basic problem of sovereignty.

356. Latin America in the 20th Century. Cr. 3. A study of the Latin American peoples since 1900, their internal problems, policies, and foreign relations. Attention will be centered upon Mexico and the Caribbean.

380. The Interpretation of History. Cr. 3. The role of interpretation in the study of history with emphasis on major trends and types of historical thought in Western culture.

THE DEPARTMENT OF HOME ECONOMICS

Assistant Professor Shabowich (Chairman); Assistant Professor Anita Manning; Miss Kemp, Mrs. Sylvester

Degree—Completion of the degree requirements of the College of Arts and Sciences with a major in home economics leads to the degree of Bachelor of Science in Home Economics (B. S. in H. E.).

Major—A minimum of 32 credits in home economics. Courses must include Home Economics 5, 7 or 45, 8, 11, 140, and 195. Also Psychology 51, Sociology 51, Chemistry 43 and 44, Biology 50, Speech 40, and 3 credits in Art must be taken. Students preparing for careers in the field of dietetics must substitute Biology 110 for the 3 credits in Art, and Home Economics 45 for Home Economics 7.

A major in home economics is not permitted to use more than 12 credits in the College of Business Administration without the approval of the chairman of the department.

Minor—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 13 credits in home economics constitutes a minor. Home Economics 7 and 8 must be included. Students must also take Sociology 51.
Programs are designed to fit the needs of students interested in child development*, extension work, food services, interior decoration, journalism, merchandising**, or teaching. A program may also be combined with a minor in social work.

APPROVAL OF SCHEDULES—All students taking a major or minor in this department and all students planning to teach home economics must have their schedules approved by the chairman of the department at the beginning of each semester.

COURSES IN HOME ECONOMICS

5. Foods. Sem. 1. 3+0, Cr. 3. A course covering the history of food from ancient times to modern, the food marketing structure, food sanitation and those factors which affect man’s food supply.

6. Food for the Family. Each sem. 2+4, Cr. 3. Basic principles underlying the preparation of foods with emphasis on the ability to judge quality in foods. Laboratory fee, $20.00.

7. Elementary Nutrition. (Also offered as Physical Education 48.) Each sem. 3+0, Cr. 3. A study of the principles of nutrition. Evaluation and planning of diets for the child, the adult, and the family.

8. Art in Daily Living. Each sem. 3+0, Cr. 3. A study of the principles of art in the home, with emphasis on the development of good taste in costume, home furnishing, and creative design. Course fee, $5.00.

11. Clothing and Textiles. Sem. 2. 3+0, Cr. 3. Significance of clothing and textiles in relation to social, psychological, and economic factors. Special emphasis given to the factors involved in clothing selection.

12. Clothing Construction and Flat-Pattern Design. Each sem. 1+6, Cr. 3. Basic principles of clothing construction and design. Evaluation of various methods of construction in relation to style, fabric characteristics, and end use. Laboratory fee, $5.00.

45. Human Nutrition. Sem. 1. 3+0, Cr. 3. A study of the body chemistry as related to the utilization of nutrients. Prerequisite: Chemistry 44.

51. Meal Management. Each sem. 1+6, Cr. 4. A study of the economic and nutritional problems involved in buying and utilizing food and of the managerial aspects of meal planning and meal service. Guest meals which are planned, prepared and served by the students throughout the semester are followed by product and performance evaluation. Prerequisite: Home Economics 6. Laboratory fee, $20.00.

52. Custom Tailoring. Sem. 1. 1+6, Cr. 3. Clothing construction, with emphasis upon tailoring. A field trip is made to a suit and coat factory. Prerequisite: Home Economics 12 or consent of the chairman of the department. Laboratory fee, $5.00.

65. Physiological Chemistry. (Also offered as Chemistry 55.) Sem. 1. 3+0, Cr. 3. The chemistry of proteins, carbohydrates, and fats, and the changes these undergo during processes of digestion and metabolism; brief consideration of enzymes, vitamins, and the chemistry of food processing. This course may not be counted toward a major or minor in chemistry. Prerequisite: Chemistry 44.

101. Family Health. Sem. 1. 2+0, Cr. 2. (Also offered as Physical Education 47). A study of health concerns as they relate to the needs of the family. Offered as a short course.

*A student interested in child development (pre-school education, family relations, etc.) may prepare herself by completing a program in collaboration with Merrill-Palmer Institute, Detroit (see page 83 for further details on the Merrill-Palmer Program). Such a student should enter this program not later than the second semester of her sophomore year.

**Students in the Home Economics-Merchandising Program may apply the following courses in the College of Business Administration to her degree: Accounting 11, Economics 71, and Administration 31, 41, 131 or 133, 137 or 142. These students should consult with the Chairman of the Department of Home Economics regarding their plans of study.
102. INTERIOR DESIGN. Sem. 1. 3+0, Cr. 3. Application of the principles of art to the design of the home and its furnishings as demonstrated in historic and contemporary dwellings. Field trip arranged. Prerequisite: Home Economics 8 or consent of the chairman of the department.

104. ADVANCED TEXTILES. Sem. 2. 2+2, Cr. 3. A study of the specific properties of fibers, yarn and fabric construction and finishing, in relation to end-performance of textiles; consumer problems in selection and care of textiles in home furnishings and wearing apparel; a survey of the historic and aesthetic significance of textile design. Prerequisites: Home Economics 11 and junior standing. Laboratory fee, $5.00.

114. FAMILY HOUSING. Sem. 2. 3+0, Cr. 3. A study of family housing needs as influenced by family life cycle, geographic location, and income. Problems concerning the choice of house plans, exterior designs, and home construction practices are considered. Prerequisite: junior standing.

115. CONSUMER ECONOMICS. Each sem. 3+0, Cr. 3. The aim is to prepare a background for intelligent use of resources through a study of buying practices, government action, and social and psychological factors. Judging of commodities and current selling practices in the market place will be studied. May be taken to fulfill General Studies Requirement in the College of Arts and Sciences. Prerequisite: junior or senior standing.

125. EXPERIMENTAL FOODS. Sem. 1. 1+5, Cr. 3. A course in the physical chemistry of food processing. Prerequisites: Home Economics 6 and Chemistry 44. Laboratory fee, $15.00. (Given in alternate years.)

126. CULTURAL ASPECTS OF FOOD. Sem. 2. 2+3, Cr. 3. A study of the historical, social, psychological, economic, religious and aesthetic significance of food customs in various cultures. Prerequisite: junior standing or consent of chairman of the department. Fee, $25.00.

131. CLOTHING DESIGN. Sem. 2. 1+4, Cr. 3. Fundamentals of flat-pattern designing and of draping on personal dress forms. Prerequisite: Home Economics 12. Laboratory fee, $5.00.

140. CHILD CARE AND DEVELOPMENT. (Also offered as Physical Education 116.) Sem. 1. 3+2, Cr. 4. A study of factors affecting the physical, social, mental, and emotional development of young children in the home and fundamental principles in the care and guidance of children. An observation of a preschool child in a family situation is assigned for 2 hours per week and a field trip is made to a nursery school. Prerequisites: Psychology 51 and junior standing.

149. QUANTITY FOOD SERVICE. Sem. 1. 2+4, Cr. 3. A study of quality food production and service including menu planning, work planning, and food preparation. Consideration is given to the equipment, the storage facilities, and the safety controls necessary for efficient institutional food service. Prerequisite: Home Economics 51.

150. ORGANIZATION AND MANAGEMENT OF FOOD SERVICES. Sem. 2. 3+0, Cr. 3. A study of the organization and administration of the food service industry including the principles of management and the role of the manager, as well as the structure of the organization. Consideration is given to the control of personnel, costs, sanitation, and safety. Prerequisites: Home Economics 149 and Accounting 11.

152. HOME MANAGEMENT. Sem. 2. 3+0, Cr. 3. A study of the fundamental concepts in the management of the home—the interrelationships of family members—the effect of family philosophy, values, and goals in decisions of the use of resources of time, energy, and money. Prerequisite: junior standing.

162. ADVANCED NUTRITION. Sem. 2. Cr. 3. A study of human nutritional requirements from the prenatal period to old age. Techniques for the metabolic balance study and evaluation of nutritional status are also included. Prerequisites: Home Economics 45 and Biology 115.

164. DIET THERAPY. Sem. 2. Cr. 3. A study of the relationship between nutrition and specific diseases, and of the practical therapeutic aspects of special dietary programs. Prerequisites: Home Economics 45 and Biology 115. Laboratory fee, $5.00.
191. THE TEACHING OF HOME ECONOMICS. Sem. 2. Cr. 2. (See Education 191.) A study of the methods of teaching home economics in the secondary schools. This course may not be counted toward a major or minor in this department. Prerequisite: admission to Supervised Teaching. Laboratory fee, $5.00.

195. PRO-SEMINAR IN HOME ECONOMICS. Each sem. Cr. 1 or 2. A study of special problems in home economics for seniors majoring in the department. A written report and an oral presentation are required.

THE DEPARTMENT OF MATHEMATICS

Assistant Professor R. Deters (Chairman); Professors K. Carlson, Foster, Hallerberg, Mundt*, and Sorenson; Associate Professors Hughes, Lennes, and Sanford; Assistant Professors L. Carlson**, Cezus, Krebs, Reynolds, and Wagenblast***

MAJOR—A minimum of 28 credits in mathematics. Courses must include 75, 76, 77, 104, 114, 177 or 184, 193, 194 or 196, and one additional course numbered above 100.

Mathematics majors who will not complete a second major in another department must, at the beginning of their junior year, submit for approval by the chairman of this department a detailed program for their field of concentration. This program should include at least 40 credits in mathematics and related fields and it must include at least one course which applies mathematics to a related field (e.g., Mathematics 163.)

Students having a major in view should begin mathematics in their freshman year. Mathematics majors should elect French, German, or Russian to satisfy the foreign language requirement of the College of Arts and Sciences.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 12 credits in mathematics including 36 and 76 constitutes a minor. Credits cannot include more than 8 credits from courses 31, 33, 36, 70, 75, or 76, and must include credits from two courses other than these.

APPROVAL OF SCHEDULES—All students taking a major or minor in this department and all students planning to teach mathematics must have their schedules approved by the chairman of the department (or his representative) at the beginning of each semester.

PLACEMENT EXAMINATION—All students who expect to take mathematics 21, 31, 33, 36, 70, or 75 should take the Mathematics Department Placement Examination during Orientation Week. This Placement Examination is in three parts: (1) High school algebra. Students who do not pass this part must complete Mathematics 10 before enrolling in any of the above courses. (2) Elementary functions. Students who pass this part will receive two credits for Mathematics 33. Such a student will normally have an exceptional background in high school mathematics. (3) Precalculus. Only students who wish to enroll in Mathematics 75 will take this. Any such student who does not exhibit proficiency in this material will be required to take Mathematics 70 before Mathematics 75.

COURSES IN MATHEMATICS

NOTE: A student may use 2 of the courses 21, 31, 33 (or 70) to satisfy 4 credits of the Natural Science and Mathematics Requirement in the College of Arts and Sciences. Other mathematics courses that may be counted toward the requirement are 36, 54, 75, 76, and 161.

10. ALGEBRA. Sem. 1. 7 weeks. Cr. O. A remedial course in the fundamentals of algebra. Topics include: equations, exponents and radicals, polynomials, factoring, algebraic fractions, and systems of equations. Students will work at their own pace using programmed text material. Completion of this course is approximately equivalent to the completion of three semesters of high school algebra. S/U grade.

21. INTRODUCTION TO COMPUTING. Each sem. Cr. 2. An introduction to the use of digital computers, including the programming of elementary applications using an algorithmic language such as FORTRAN. This course is not intended for students with previous programming experience. Prerequisite: proficiency in algebra.

31. MATRIX ALGEBRA. Sem. 1. 7 weeks. Cr. 2. A course for students not majoring in mathematics or the physical sciences. Topics include elementary matrix theory, solution of systems of linear equations, and an introduction to linear programming. Prerequisite: proficiency in algebra.

33. ELEMENTARY FUNCTIONS. Each sem. 7 weeks. Cr. 2. For students not majoring in mathematics or the physical sciences, this is a course on the basic concepts of functions and a study of the elementary functions. Topics include relations, inequalities, functions and their graphs, composition, inverses and their properties; polynomial, exponential, and logarithmic functions. Prerequisite: proficiency in algebra.

*36. INTUITIVE CALCULUS. Each sem. Cr. 4. This course is an intuitive treatment of the calculus for students not majoring in mathematics or the physical sciences. Topics include sequences, differential and integral calculus, and some applications. Prerequisite: Mathematics 33 or 70 or the equivalent.

40. LABORATORY IN ELEMENTARY MATHEMATICS. Each sem. 0+2, Cr. 1. This course is designed to provide an opportunity for the prospective elementary teacher to learn certain mathematical concepts in an active, materials-centered situation. Enrollment is restricted to students in the special curriculum in elementary education. Prerequisite: concurrent registration in Mathematics 43 or 44. S/U grade.

43. ELEMENTARY MATHEMATICS I. Sem. 1. Cr. 4. This course is restricted to students majoring in elementary education. Topics include elementary logic, sets, numeration systems with their historical backgrounds; elementary number theory; mathematical systems, properties of whole numbers, the rational number system, the real number system.

44. ELEMENTARY MATHEMATICS II. Sem. 2. Cr. 4. This is a continuation of Elementary Mathematics I. Additional topics include intuitive geometry, nonmetric and metric approaches to geometry, geometric figures of the plane and space, the axiomatic approach; elements of probability and statistics; concepts of algebra, functions, and graphs. Prerequisite: Mathematics 43.

**54. STATISTICAL ANALYSIS. Sem. 1. Cr. 4. A course in statistical methods for students not majoring in mathematics. Topics include probability, empirical and theoretical frequency distributions, sampling, correlation and regression, testing hypotheses, estimation of parameters. Emphasis will be placed on illustrations and application of these techniques to the social sciences. This course is not open to any student who has had a first statistics course in any department. Prerequisite: Mathematics 43.

70. PRECALCULUS. Sem. 1. Cr. 3. A course for students who plan to take the calculus sequence. Topics include sets and numbers, relations and functions, circular and trigonometric functions. Prerequisite: proficiency in algebra.

Credit for Mathematics 36 (or 75) may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Calculus.

Credit for Mathematics 54 may be earned through the College Level Examination Program (CLEP) subject examination in Statistics.
75. **CALCULUS I.** Each sem. Cr. 4. This course is designed for students who plan to major in mathematics, engineering or a physical science. Topics include a review of set theory, induction and the real number system; functions, inequalities and absolute value; an introduction to FORTRAN programming and the use of the computer in the study of calculus; limits, continuity and derivatives; area and integration. Prerequisite: proficiency in precalculus mathematics as shown on the placement examination or in Mathematics 70.

76. **CALCULUS II.** Each sem. Cr. 4. A continuation of Mathematics 75. Additional topics include an introduction to the theory of the integral; techniques of integration; exponential, logarithm and inverse trigonometric functions; polynomial approximations to functions; and topics from analytic geometry. Prerequisite: Mathematics 75.

77. **CALCULUS III.** Each sem. Cr. 4. A continuation of Mathematics 76. Additional topics include sequences, series and improper integrals; vector algebra; calculus of vector-valued functions, and multiple integration. Prerequisite: Mathematics 76.

104. **LINEAR ALGEBRA AND DIFFERENTIAL EQUATIONS.** Each sem. Cr. 4. Topics include: matrices, determinants, and vector spaces; linear transformations; elementary and linear differential equations; power series solutions of differential equations; Laplace transforms. Prerequisite: Mathematics 77.

105. **LINEAR ALGEBRA AND MULTIVARIATE CALCULUS.** Sem. 1. Cr. 4. A continuation of Mathematics 104. Topics include eigenvalues and eigenvectors with applications to systems of differential equations; canonical forms; elements of vector analysis. Prerequisite: Mathematics 104.

114. **ABSTRACT ALGEBRA I.** Each sem. Cr. 4. This course provides an introduction to modern abstract algebra. Topics include: relations, operations, and set algebra; congruences and number systems; properties of groups, rings and fields. Prerequisite: Mathematics 76.

115. **ABSTRACT ALGEBRA II.** Sem. 2. Cr. 3. A continuation of Mathematics 114. The contents include Galois theory and more advanced topics from the theories of groups, modules, rings, fields and finite dimensional vector spaces. Prerequisites: Mathematics 114 and 105. (Offered on sufficient demand.)

121. **MATHEMATICS FOR COMPUTATION.** Cr. 3. Mathematical models and techniques commonly used to solve problems with a computer. Topics may include statistical calculations such as least squares fitting of straight lines, simulation of random or non-random processes, and solutions of equations. Programming projects are a major part of this course. This course may not be counted toward a minimum major in mathematics. Prerequisites: Mathematics 21 and 36 or the equivalent. (Not offered before the Fall Semester 1974.)

125. **COMPUTER ORGANIZATION AND PROGRAMMING.** Each sem. Cr. 3. Fundamentals of the structure and organization of digital computers and the use of programming systems, especially assembly language programming. Prerequisites: Mathematics 21 or the equivalent programming experience and consent of the instructor. Laboratory fee, $10.00. This course may not be counted toward a minimum major or a minor in Mathematics.

145. **PROBABILITY AND STATISTICS.** Each sem. Cr. 3 or 4. An introduction to probability and statistics, including probability spaces, random variables, classical discrete and continuous probability distributions, correlation and regression, the Central Limit Theorem, and elementary applications of these topics to statistical inference. Prerequisite: Mathematics 77.

146. **MATHEMATICAL STATISTICS.** Sem. 2. Cr. 3. A continuation of Mathematics 145. New topics include sampling theory, estimation, tests of hypotheses, analysis of variance, and nonparametric statistics. Prerequisite: Mathematics 145.

154. **ELEMENTS OF GEOMETRY.** Sem. 2. Cr. 4. Logic, axiom systems, and models; consistency, independence, and completeness; consideration of the foundations of Euclidean geometry: incidence, separation, congruence; an introduction to non-Euclidean geometry; topics from projective geometry. Prerequisite: Mathematics 36 or the equivalent.

*Credit for Mathematics 75 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Calculus.
161. Mathematical Ideas. Each sem. Cr. 4. A one semester course intended primarily for students majoring in the humanities. Important concepts in mathematics will be studied from a non-technical point of view. Prerequisite: junior standing. Restricted to students who have not previously completed a college mathematics course.

163. Mathematical Models in the Social Sciences. Each sem. Cr. 3 or 4. (Also offered as Management 144.) This course is intended for students with a strong background in management or the social sciences. Topics will be chosen according to the interests of the class. These may include: Markov chains, linear and dynamic programming, queuing theory, learning models, population models, and simulation. Prerequisites: Mathematics 31 and 36 or the equivalent and a first course in statistics from any department.

166. History of Mathematics. Sem. 2. Cr. 3. A survey of the development of mathematics from the earliest time to the present. Special emphasis on topics in geometry, algebra, and elementary calculus which are related to secondary school mathematics. This course may not be counted toward a minor in mathematics. Prerequisite: Mathematics 36 or the equivalent. (Given in alternate years. Offered in 1973-1974.)


178. Analysis II. Sem. 2. Cr. 3. A continuation of Mathematics 177. Elements of functional analysis; measure and integration. Prerequisites: Mathematics 177 and 105. (Offered upon sufficient demand.)

182. Introduction to Complex Variables. Sem. 2. Cr. 3. Analytic functions; derivatives; power and Laurent series; integrals; residues; conformal mapping; complex inversion formulas; applications to partial differential equations. Prerequisite: Mathematics 104. (Offered upon sufficient demand.)


187. Numerical Analysis. Sem. 1. Cr. 3. Topics from the theory of numerical analysis include: matrices and matrix algebra and solution of systems of linear equations; curve fitting; numerical solution of differential equations. Prerequisite: Mathematics 104. (Given in alternate years. Offered in 1973-1974.)

189. Topics in Mathematics. Sem. 2. Cr. 3. An advanced course for mathematics majors. The topic studied, which may change from year to year, will ordinarily be one of the following: number theory, differential geometry, algebraic topology, advanced numerical analysis, partial differential equations, or functional analysis. Prerequisite: consent of the chairman of the department. Specific course requirements will depend on the content. (Offered upon sufficient demand.)

191. The Teaching of Mathematics. Sem. 1. Cr. 2. (See Education 191.) A study of the methods of teaching mathematics in secondary schools. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major in mathematics.

193. Mathematics Colloquium. Each sem. Cr. 0. Students are required to attend the sessions of Mathematics 194 and participate in the discussion of topics presented by faculty and students. Prerequisites: junior standing and Mathematics 104. S/U grade.


195. Readings in Mathematics. Each sem. Cr. 1-3. Students study advanced topics in mathematics under the supervision of a faculty member. Written work is required. Prerequisite: consent of the chairman of the department.
196. **INDEPENDENT STUDY IN MATHEMATICS.** Each sem. Cr. 3. Each student must undertake a research problem in mathematics under the direction of a faculty member. Written and oral reports are required. Prerequisite: consent of the chairman of the department.

*For Graduates Only*

243. **STRUCTURES OF NUMBER SYSTEMS.** Cr. 3. Vocabulary and symbolism of sets. Language and nature of deductive reasoning. Number theory and numeration systems. Number systems and their properties. Modular number systems and groups. Postulational method and a search for structure. This course is intended for teachers in the elementary schools. Not open to students who have had a year of calculus.

244. **TOPICS IN MATHEMATICS FOR ELEMENTARY TEACHERS.** (Formerly Fundamentals of Geometry.) Cr. 3. Non-metric and metric approaches to geometry, geometric figures of the plane and space, proof and structure as exemplified in geometry; topics in algebra, probability, and statistics. This course is intended for teachers in the elementary school. Not open to students who have had a year of calculus. Prerequisite: Mathematics 243 or equivalent.

**THE DEPARTMENT OF MUSIC**

*Associate Professor Telschow (Chairman); Professors Eifrig, Gehring, Powell, and Weinhorst; Associate Professors Kroeger and McCall; Assistant Professors Aller, Fleming, Hannewald, and Sumrall*

**ADMISSION—**A student who wishes to enroll in any of the degree programs in music must meet all the general requirements for admission to the College of Arts and Sciences (see page 49 of this bulletin). In addition, he must pass an entrance test in musicianship and applied music. Information concerning this test, which will be given prior to matriculation, may be obtained from the chairman of the department.

**APPROVAL OF SCHEDULES—**All candidates for the Bachelor of Arts degree taking a major or a minor in this department and all candidates for the Bachelor of Music and the Bachelor of Music Education degrees must have their schedules approved by the chairman of the department at the beginning of each semester.

A student planning to teach in a particular state should consult the appropriate adviser of the Department of Education before deciding in which music curriculum to enroll.

**DEPARTMENTAL REQUIREMENTS—**Regulations concerning student performance, concert attendance, ensemble participation, and other matters which concern majors and minors within the department are given in the Department of Music Student Handbook, available in the departmental office.

**SPECIAL SEMINARS AND WORKSHOPS—**Visiting artists and lecturers are brought to the campus from time to time to conduct seminars and workshops in various fields of music. The Church Music Seminar, the High School Choral Festival, the High School String Festival, the Wind Clinic,
and other such events give added breadth to the student's musical education through his observation of a skilled artist or conductor at work.

**DEGREES**

The Department of Music offers curricula leading to the following degrees: Bachelor of Arts with a major in Music, Bachelor of Music Education, Bachelor of Music, and Master of Arts in Liberal Studies with a music concentration.

**BACHELOR OF ARTS**

A candidate for the degree of Bachelor of Arts with a major in music must meet all the general requirements for the Bachelor of Arts degree.

**MAJOR**—A minimum of 36 credits in music. Courses must include Music 7, 8, 13, 14, 63, 64, 103, 104; Class Piano 9, 10, 11, 12; and 4 credits on the student's principal instrument. For the plan of study option a student must complete at least 8 credits on his principal instrument (in addition to class piano). The student must pass all the performance tests set for him by this department.

**MINOR**—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 18 credits in music constitutes a minor. Courses must include Music 7, 8, 13, 14, and six credits of applied music, including Class Piano 9 and 10. In addition, the student must pass all performance tests set for him by this department.
BACHELOR OF MUSIC

To be eligible for the degree of Bachelor of Music, a student must complete the required curriculum for his major area of concentration. In addition, he must pass all performance tests set for him by this department. He must earn a total of 134 credit hours for a major in church music and 128 credit hours for the remaining programs. He must have a standing of two (2.00) in all his work. The curricula are outlined on page 137.

Two areas of concentration are offered the student majoring in church music: organ and voice. Each student will be expected, however, to acquire enough skill in the organ and choir training to assume a post as a qualified parish organist and choir director.

BACHELOR OF MUSIC EDUCATION

To be eligible for the degree of Bachelor of Music Education, a student must complete the curriculum described on page 139. In addition, he must pass all performance tests set for him by this department. Three areas of concentration are offered the student majoring in music education: a vocal concentration, an instrumental concentration, and an area major. The area major is designed for the student who wishes to prepare himself for teaching in both the vocal and instrumental fields. A student must earn a total of 134 credit hours if his area of concentration is either vocal or instrumental, and he must earn a total of 138 credit hours to complete the area major. He must have a standing of two (2.00) in all his work.

Requirements for the Degree of Bachelor of Music

A. General Education Requirements:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>Religion</td>
<td>9</td>
</tr>
<tr>
<td>Freshman English</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language (Course 20 or 30)</td>
<td>8</td>
</tr>
<tr>
<td>Literary Studies</td>
<td>4</td>
</tr>
<tr>
<td>History or Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral and Social Sciences</td>
<td>6</td>
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<td>Physical Education</td>
<td>2</td>
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<td>Natural Sciences and Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>General Studies</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>43</strong></td>
</tr>
</tbody>
</table>

B. Music Requirements:

1. Core Curriculum (for all students):

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Music Literature 7, 8</td>
<td>4</td>
</tr>
<tr>
<td>Music Theory 13, 14, 63, 64</td>
<td>16</td>
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<tr>
<td>History and Literature of Music 103, 104</td>
<td>8</td>
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<tr>
<td>Basic Conducting 113</td>
<td>2</td>
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<tr>
<td>Music Theory 135, 136</td>
<td>6</td>
</tr>
<tr>
<td>Ensemble</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>
2. Other Requirements:

<table>
<thead>
<tr>
<th>Program:</th>
<th>Church Music</th>
<th>History &amp; Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Instrument:</td>
<td>Organ</td>
<td>Voice</td>
</tr>
<tr>
<td>Orchestration 112</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Choral Conducting 114</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>Service Playing 115</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Pro-Seminar 121 or 123</td>
<td>—</td>
<td>2-3</td>
</tr>
<tr>
<td>Improvisation 141, 142</td>
<td>4</td>
<td>—</td>
</tr>
<tr>
<td>Hymnology 171</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>History of Church Music 174</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Independent Study 194</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Composition</td>
<td>—</td>
<td>12</td>
</tr>
<tr>
<td>Piano* (or harpsichord)</td>
<td>8</td>
<td>12**</td>
</tr>
<tr>
<td>Organ (or harpsichord)</td>
<td>24</td>
<td>12**</td>
</tr>
<tr>
<td>Voice (may include Voice Class 39)</td>
<td>4</td>
<td>12**</td>
</tr>
<tr>
<td>Instruments</td>
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<td>2</td>
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<tr>
<td></td>
<td>47</td>
<td>43</td>
</tr>
<tr>
<td>C. ELECTIVES</td>
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<td>4</td>
</tr>
<tr>
<td>Total required for graduation</td>
<td>134</td>
<td>134</td>
</tr>
</tbody>
</table>

*To include Class Piano 9, 10, 11, 12.

**Applied music must include a principal medium of at least eight credits.

***Recommended: a second foreign language, a course in non-Western studies.

<table>
<thead>
<tr>
<th>Program:</th>
<th>Applied Music</th>
</tr>
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<tbody>
<tr>
<td>Principal Instrument:</td>
<td>Organ</td>
</tr>
<tr>
<td></td>
<td>Organ or</td>
</tr>
<tr>
<td>Choral Conducting 114</td>
<td>—</td>
</tr>
<tr>
<td>Language Diction 110, 111</td>
<td>—</td>
</tr>
<tr>
<td>Pro-Seminar in Pedagogy of Music 123</td>
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<tr>
<td>Piano* (or harpsichord)</td>
<td>8</td>
</tr>
<tr>
<td>Organ (or harpsichord)</td>
<td>24</td>
</tr>
<tr>
<td>Voice (may include Voice Class 39)</td>
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<tr>
<td>Principal orchestral instrument.</td>
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</tr>
<tr>
<td></td>
<td>34</td>
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<tr>
<td>C. ELECTIVES</td>
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<tr>
<td>Total required for graduation</td>
<td>128</td>
</tr>
</tbody>
</table>

*To include Class Piano 9, 10, 11, 12.
Requirements for the Degree of Bachelor of Music Education

A. General Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Religion</td>
<td>9</td>
</tr>
<tr>
<td>Freshman English</td>
<td>4</td>
</tr>
<tr>
<td>Literary Studies</td>
<td>4</td>
</tr>
<tr>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Music Literature 7, 8</td>
<td>4</td>
</tr>
<tr>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>Social Science (may include one history course)</td>
<td>9*</td>
</tr>
<tr>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>Natural Science</td>
<td>15*</td>
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<tr>
<td>Physical Education</td>
<td>2</td>
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Total Credits: 56

*A General Studies course must be included in the Social Science or Natural Science Category.

B. Professional Education Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles and General Methods of Teaching in the Secondary Schools 155</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Education 62</td>
<td>3</td>
</tr>
<tr>
<td>Psychological Foundations of Secondary Education 156</td>
<td>4</td>
</tr>
<tr>
<td>High School Music Methods 191</td>
<td>2</td>
</tr>
<tr>
<td>Supervised Teaching 157</td>
<td>7</td>
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</table>

Total Credits: 20

C. Music Requirements:

1. Core Curriculum (for all students):
   - Music Theory 13, 14, 63, 64.................. 16
   - History of Music 103, 104.................... 8
   - Basic Conducting 113......................... 2
   - Ensemble.................................. 8

Total Credits: 34

2. Other Requirements:

<table>
<thead>
<tr>
<th>Principal Instrument</th>
<th>Choral-general</th>
<th>Instrumental</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Voice</td>
<td>Piano</td>
</tr>
<tr>
<td>Choral Conducting 114</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Inst. Conducting 125</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Orchestration 112</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Elementary School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Methods 109</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Class Piano, 9, 10, 11, 12</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Piano 100</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>Organ 100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Voice (to include Voice Class 39)</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Principal instrument (string, wind, or percussion)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Secondary instruments (including at least two instrumental classes)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Applied music elective (not in principal instrument)</td>
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Total for graduation: 134 134 134 134

139
<table>
<thead>
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<th>Principal Instrument:</th>
<th>Voice</th>
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<th>Organ</th>
<th>Instrumental</th>
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</thead>
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<tr>
<td>Inst. Conducting 125</td>
<td>—</td>
<td>or 2</td>
<td>or 2</td>
<td>2</td>
</tr>
<tr>
<td>Orchestration 112</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Elementary School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Methods 109</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Class Piano, 9, 10, 11, 12.</td>
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<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Piano 100</td>
<td>—</td>
<td>8</td>
<td>—</td>
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<tr>
<td>Organ 100</td>
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<tr>
<td>Voice (to include Voice Class 39)</td>
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<tr>
<td>Principal instrument (string, wind, or percussion)</td>
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<td>—</td>
<td>12</td>
</tr>
<tr>
<td>Secondary instruments (including at least two instrumental classes)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Applied music elective (not in principal instrument)</td>
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<td>2</td>
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<tr>
<td><strong>Total for graduation</strong></td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
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</tbody>
</table>

**COURSES IN MUSIC**

**COURSES IN THEORY, HISTORY, AND METHODS**

1. **INTRODUCTION TO MUSIC.** Each sem. Cr. 3. A study of the materials of music and their use in the basic forms and styles of musical art. This course may be used to fulfill the general education requirement in the fine arts.

7. **SURVEY OF MUSIC LITERATURE.** Sem. 1. Cr. 2. An introduction to the literature of music. Examples demonstrating various forms and styles are heard and discussed.


13. **MUSIC THEORY.** Sem. 1. 3+2, Cr. 4. A course in the fundamentals of music which includes an introduction to sight singing, dictation, creative writing, counterpoint, part writing, form and analysis, instrumentation, and orchestration. Prerequisite or concurrent registration: Class Piano 9.

14. **MUSIC THEORY.** Sem. 2. 3+2, Cr. 4. A continuation of Music 13. Prerequisites: Music 13, Class Piano 10 (Class Piano 10 may be taken concurrently.)

63. **MUSIC THEORY.** Sem. 1. 3+2, Cr. 4. A continuation of Music 14 with special emphasis on the harmonic developments of the Classic and Romantic periods. Prerequisites: Music 14, Class Piano 11 (Class Piano 11 may be taken concurrently.)

64. **MUSIC THEORY.** Sem. 2. 3+2, Cr. 4. A continuation of Music 63 with special emphasis on tonal counterpoint. Prerequisites: Music 63, Class Piano 12 (Class Piano 12 may be taken concurrently.)

103. **HISTORY AND LITERATURE OF MUSIC.** Sem. 1. 3+2, Cr. 4. The development of musical thought from the ancient world through the early Christian era, the Middle Ages, the Renaissance, and the Reformation to the middle of the 17th century. Prerequisites: Music 7, 8, 14, and junior standing.

104. **HISTORY AND LITERATURE OF MUSIC.** Sem. 2. 3+2, Cr. 4. The development of musical thought and literature from the middle of the 17th century to the present. Prerequisite: Music 103.

107. **MUSIC METHODS FOR THE ELEMENTARY TEACHER.** Cr. 3. A study of materials, methods, and techniques of general classroom music for the primary grades. This course is intended for elementary education majors and may not be counted toward a major or minor in this department. No prerequisite.
109. **ELEMENTARY SCHOOL MUSIC METHODS.** Sem. 2. Cr. 2. A study of materials, methods of procedure and supervision for primary grades. This course may not be counted toward a major or minor in this department. Prerequisite: Music 14. (Offered in 1973-1974 and in alternate years thereafter.)

110. **LANGUAGE DICTIO.** Sem. 1. Cr. 1. This course gives the student a practical knowledge of pronunciation used in singing the four principal languages in music literature: Italian (Latin), French, German, and English. (Offered in 1973-1974 and in alternate years thereafter.)

111. **LANGUAGE DICTIO.** Sem. 2. Cr. 1. A continuation of Music 110. Prerequisite: Music 110. (Offered in 1973-1974 and in alternate years thereafter.)

112. **ORCHESTRATION.** Sem. 1. Cr. 2. The technique of scoring for orchestra and band. Prerequisite: Music 14.

113. **BASIC CONDUCTING.** Sem. 1. Cr. 2. An introduction to conducting including a study of score reading, beat patterns, acoustics, and interpretive principles. Prerequisite: Music 14 or consent of the instructor.


115. **SERVICE PLAYING.** Sem. 1. Cr. 1. A practical course in the function of the organ in the church service emphasizing the playing of hymns, accompanying the music of the liturgy, and improvisation. Prerequisites: Music 64 and senior standing.

120. **MUSIC IN HISTORY.** Sem. 2. Cr. 3. A study of music as a cultural expression in the history of Western civilization. The major stylistic traditions of musical art. This course may be used to fulfill the General Studies requirement. It is not open to music majors or minors. Prerequisite: junior or senior standing.

121 (221). **PRO-SEMINAR IN MUSIC.** Sem. 1. Cr. 2 or 3. An intensive study of a limited area in the history or theory of music. This course may be repeated for credit. Prerequisite: consent of the chairman of the department.

123 (223). **PRO-SEMINAR IN PEDAGOGY OF MUSIC.** Sem. 1. Cr. 2. A consideration of the problems of teaching basic musicianship at all levels. Special attention will be given to the adapting of basic principles to the media of most interest to the members of the pro-seminar. Prerequisite: consent of the chairman of the department. (Offered in 1974-1975 and in alternate years thereafter.)

125 (225). **INSTRUMENTAL CONDUCTING.** Sem. 2. Cr. 2. A study of instrumental scores, conducting techniques, and materials. Prerequisite: Music 113.

127 (227). **ADVANCED CHORAL CONDUCTING.** Sem. 1. Cr. 2. A course for school musicians and professional church musicians dealing with advanced problems in choral conducting. Prerequisite: Music 114 or the equivalent.

128 (228). **ADVANCED CHORAL CONDUCTING.** Sem. 2. Cr. 2. A continuation of Music 127. Prerequisite: Music 127.

135 (235). **MUSIC THEORY.** Sem. 1. Cr. 3. A study of non-tonal counterpoint. Creative projects and analysis form an integral part of the course. Prerequisite: Music 64.

136 (236). **MUSIC THEORY.** Sem. 2. Cr. 3. A study of 20th-century music techniques. Creative projects and analysis form an integral part of the course. Prerequisite: Music 64.

141 (241). **ADVANCED KEYBOARD HARMONY AND IMPROVISATION.** Sem. 1. Cr. 2. Practical keyboard work including harmonization of melodies, realization of figured basses, transposition, modulation, and improvisation. Open only to organ and piano majors with at least junior standing.

142 (242). **ADVANCED KEYBOARD HARMONY AND IMPROVISATION.** Sem. 2. Cr. 2. A continuation of Music 141. Prerequisite: Music 141.

171 (271). **HYMNOLOGY.** Sem. 2. Cr. 2. A study of the Christian hymn from its earliest sources to the present day. Prerequisites: junior standing and consent of the chairman of the department.

174 (274). **HISTORY OF CHURCH MUSIC.** Sem. 1. Cr. 2. A study of the development of church music from the earliest history of the Church in the Old
Testament to the present, with special emphasis on the period from Luther to Bach. Prerequisites: junior standing and consent of the chairman of the department.

191. **High School Music Methods.** Sem. 1. Cr. 2. Principles of planning, organizing, and teaching the various kinds of music courses and activities in high school (see Education 191). Prerequisite: admission to Supervised Teaching.

194. **Independent Study in Music.** Each sem. Cr. 3. A course of study arranged by the student with the consent of and under the supervision of a faculty adviser. The study will result in a written essay on a topic approved by the adviser. Prerequisites: Music 64 and 104.

**For Graduates Only**

308. **Seminar in Music History.** Sem. 2. Cr. 3. A study in depth of a specific period or problem in the history of music. Topics covered will change from semester to semester. This course may be repeated for credit. Prerequisites: Music 64 and 104.

**Applied Music**

Note: Non-music majors who are candidates for degrees in the College of Arts and Sciences are restricted to 16 credits toward graduation in applied music, of which no more than 4 may be in ensemble music.

A. **Private Instruction**

One-half hour per week of private instruction plus three hours of practice per week for a period of one semester gives one semester hour of credit.

One-half hour per week of private instruction plus six hours of practice per week for a period of one semester gives two semester hours of credit.

Forty-five minutes of private instruction and nine hours of practice per week gives three semester hours of credit. Private instruction is supplemented by repertoire classes in the various media that meet one 50-minute class period per week.

**For Undergraduates**

100. Each sem. Cr. 1-3. Open to all students in the University, including the Evening Division. Beginning students in any medium should usually register for only one credit. Registration for three credits is available only to candidates in the Bachelor of Music program in their principal applied music medium.

Primarily for Graduates

200. Each sem. Cr. 1-2. Open to qualified graduate students who have good reason to include such study in their program. Prerequisite: approval of the chairman of the department.

**For Graduates**

300. Each sem. Cr. 2-3. Open only to graduate students holding a Bachelor of Music degree with a major in the given instrument or having the equivalent level of performing ability. Admission by audition only and with the approval of the chairman of the department.

<table>
<thead>
<tr>
<th>Voice</th>
<th>Oboe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano</td>
<td>Clarinet</td>
</tr>
<tr>
<td>Harp</td>
<td>Bassoon</td>
</tr>
<tr>
<td>Harpsichord (by audition only)</td>
<td>Saxophone</td>
</tr>
<tr>
<td>Organ (by audition only)</td>
<td>Trumpet</td>
</tr>
<tr>
<td>Violin</td>
<td>French horn</td>
</tr>
<tr>
<td>Viola</td>
<td>Trombone</td>
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<tr>
<td>Violoncello</td>
<td>Baritone horn</td>
</tr>
<tr>
<td>Contrabass</td>
<td>Tuba</td>
</tr>
<tr>
<td>Guitar</td>
<td>Percussion</td>
</tr>
<tr>
<td>Flute</td>
<td>Electronic music</td>
</tr>
</tbody>
</table>

**Composition.** A program of study dealing creatively with the problems of musical form. Prerequisites: consent of the instructor and the chairman of the department.

*See page 25 for appropriate fees.*

142
B. CLASS INSTRUCTION

9, 10, 11, 12. CLASS PIANO. Each sem. Cr. 1. A practical course in which basic musicianship is developed through work at the keyboard. Harmonization and improvisation are emphasized. The material is designed to correlate closely with Music Theory 13, 14, 63, 64. Each course is a prerequisite for the next course in the sequence. Concurrent enrollment in Piano 100 is limited to two credits for piano majors in the B.M. curriculum and to one credit for all other students.

31. STRINGED INSTRUMENT CLASS. Sem. 1. 0+2, Cr. 1. Violin, viola, cello, and string bass are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

33. SINGLE-REED INSTRUMENT AND FLUTE CLASS. Sem. 1. 0+2, Cr. 1. Clarinet, saxophone, and flute are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

35. BRASS INSTRUMENT CLASS. Sem. 1. 0+2, Cr. 1. Trumpet, French horn, trombone, baritone horn, and tuba are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

37. PERCUSSION AND DOUBLE-REED INSTRUMENT CLASS. Sem. 2. 0+2, Cr. 1. Oboe, bassoon, and percussion instruments are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

39. VOICE CLASS. Sem. 2. 0+2, Cr. 1. This course is designed to give the student a fundamental technical performing and teaching knowledge of the vocal instrument.

C. INSTRUCTION IN ENSEMBLE MUSIC

NOTE: Non-music majors who are candidates for degrees in the College of Arts and Sciences are restricted to 16 credits toward graduation in applied music, of which no more than 4 may be in ensemble music.

Instruction in one of the following ensembles for a period of one semester gives one semester hour of credit. If a student has earned eight credits in ensemble music, any additional enrollments are graded on a Satisfactory/Unsatisfactory basis.

All ensemble courses are available for graduate credit on either the 200 or 300 level. Enrollment is limited to students who have specialized training and background to participate in the ensemble in some special capacity (such as assistant conductor, sectional leader, or project director) to be determined by the instructor of the ensemble and with the approval of the chairman of the department.

150, 250, 350. CHOIR. Admission by audition only. This includes University Choir, University Choral Society, Schola Cantorum, and Chamber Choir.

152, 252, 352. UNIVERSITY BAND. Admission by audition only.

154, 254, 354. UNIVERSITY ORCHESTRA. Admission by audition only.

156, 256, 356. OPERA WORKSHOP. Admission by audition only.

158, 258, 358. CHAMBER MUSIC. Admission by approval of the chairman of the department. This credit may be earned by participation in the Collegium Musicum.

THE DEPARTMENT OF PHILOSOPHY

Professor Klein (Chairman); Professor Scheimann; Assistant Professor J. Leigh Smith

MAJOR—A minimum of 27 credits in philosophy. Courses must include Philosophy 3, 51, 53, and 127.

Majors who are preparing to study philosophy in graduate school are advised to complete a minimum of 36 hours in philosophy. Courses should include, in addition to 3, 51, 53, and 127, the following: 110, 121, 123, 129, 146, and either 142 or 144.
MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 12 credits in philosophy constitutes a minor. Courses must include Philosophy 3, 51, and 53.

APPROVAL OF SCHEDULES—All students taking a major or a minor in the department must have their schedules approved by the chairman of the department at the beginning of each semester.

COURSES IN PHILOSOPHY†

PREREQUISITES—Philosophy 1, 2, 3, 4, 51, and 53 have no prerequisites. All courses numbered over 100 have, as prerequisite, any one of the courses numbered under 100 or Philosophy 101 taken in Christ College. The department urges, but does not require, that majors and others planning to take 100-level courses take Logic (Philosophy 3) and the history of philosophy sequence (Philosophy 51 and 53) prior to taking 100-level courses.

1. SOCIAL PHILOSOPHY. Each sem. Cr. 3. A philosophical introduction to problems of social thought and action. The course will emphasize the problem of relating one's individual moral values to those of society through a study of some of the major works in social philosophy.

2. PHILOSOPHICAL PROBLEMS. Cr. 3. A general introduction to philosophy through readings selected to illustrate a variety of philosophical topics and problems. Attention will be given to analyzing philosophical arguments.

3. LOGIC. Each sem. Cr. 3. An introduction to formal logic in which truth-functional logic and elementary quantification theory are the primary topics. The traditional logic of the syllogism will be studied as one part of contemporary logic. Some consideration will be given to the application of logic in the formal analysis of arguments.

4. (Formerly 10.) ETHICS. Cr. 3. An introduction to the major ethical theories, both classical and modern, which have been advocated as an explanation of moral judgments. Attention will be given to discussing particular moral problems from the point of view of the theories studied.

51. HISTORY OF PHILOSOPHY I. Sem. 1. Cr. 4. An introduction to some themes in the great philosophies of the Western World from the Greeks to William of Ockham. At least one hour a week will be devoted to small group discussion of some major documents of the period. Primary documents will be read throughout.

53. HISTORY OF PHILOSOPHY II. Sem. 2. Cr. 4. An introduction to some themes in the great philosophies of the Western World from Hobbes up to, but not including, the 20th century. At least one hour a week will be devoted to small group discussion of some major documents of the period. Primary documents will be read throughout.

110. PHILOSOPHY OF SCIENCE. Cr. 3. A systematic approach to the philosophical problems involving the concepts, methodologies, and theories of physical and biological sciences, leading toward an interpretation of science. May be used to fulfill the General Studies requirement.

112. PHILOSOPHY OF RELIGION. Cr. 3. A philosophical analysis of some of the beliefs, concepts, and problems involved in one or more of the major religious traditions. May be used to fulfill the General Studies requirement.

114. PHILOSOPHY OF HISTORY. Cr. 3. A philosophical approach to history as a branch of knowledge through an analysis of representative theories of historical processes and a critique of their interpretation. May be used to fulfill the General Studies requirement.

†For course given in Christ College, see page 174 of this Bulletin.
121. **METAPHYSICS.** Cr. 3. An examination of traditional and contemporary metaphysical topics, such as ontology, appearance and reality, persons, the mind-body problem, the analytic-synthetic distinction, the private-language problem.

123. **CONTEMPORARY ETHICS.** Cr. 3. A study of 20th century British and American ethical and meta-ethical theories and their application to moral problems.

127. **EPистемOLOGY.** Cr. 3. An examination of some topics in traditional and contemporary theories of knowledge such as skepticism, perception, memory, belief, and truth.

129. **SYMBOLIC LOGIC.** Cr. 3. A study of quantification-theory, including the concepts of proof, consistency, and completeness, and topics in logical theory.

(Note: Philosophy 3, or its equivalent, will be presupposed.)

140. **NON-WESTERN PHILOSOPHY.** Cr. 3. An introduction to some themes in the great philosophies of the non-Western world. A major part of the semester will be devoted to an analysis of important documents.

142. **PHENOMENOLOGY.** Cr. 3. An examination of some of the major works of 20th century German and French phenomenologists and their approach to philosophical problems.

144. **EXISTENTIALISM.** Cr. 3. An examination of some of the major works of 19th and 20th century existentialists and their approach to philosophical problems.

146. **ANALYTIC PHILOSOPHY.** Cr. 3. An examination of some of the works of representative 20th century British and American “analytic philosophers” and their approach to philosophical problems.

190. **PHILOSOPHICAL TOPICS.** Cr. 3. An examination of the works of one major philosopher, such as Kant or Wittgenstein; or of a single philosophical problem-area such as scientific explanation or free action; or of a single philosophical approach such as Positivism or Pragmatism. (This course may be taken repeatedly provided its content changes each time.)

193. **INDEPENDENT PROJECTS.** Cr. 1, 2, or 3. Students may undertake independent study of some man, problem, theme, etc., under the supervision of some member of the philosophy department.

At the beginning of each academic year the Department of Philosophy prepares a brochure explaining the scope and logistics of the course offerings for each semester. Copies are available at every registration and at the departmental office, Flint House 205.

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**THE DEPARTMENT OF PHYSICAL EDUCATION**

*Assistant Professor Koch (Chairman, Men's Division); Professors E. G. Bauer and Koenig; Associate Professor Krause; Assistant Professors Amundsen and Colyer; Part-time Assistant Professors Bell and Purden*

*Professor Brown (Chairman, Women's Division); Assistant Professors E. V. Bauer and Betts; Visiting Lecturer Peterson*

**DEGREE**—Completion of the degree requirements of the College of Arts and Sciences with a major in physical education leads to the degree of Bachelor of Science in Physical Education (B.S. in P.E.).

**MAJOR**—A minimum of 24 credits in physical education. Courses 1 and 3 (Women) must be taken by all women physical education majors. Courses 2, 3, 4, and 5 (Men) must be taken by all men physical education majors. They must also be class assistants in any two of the aforementioned four classes.
Majors must also complete Biology 50 and 115, and Chemistry 43 and 44. (A year of another natural science may be substituted for Chemistry 43 and 44 only with the permission of the chairman of the division.)

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 12 credits in physical education constitutes a minor. Students may elect to select a plan of study which may lead to a specialty in recreation or health.

APPROVAL OF SCHEDULES—All students taking a major or a minor in the department and all students planning to gain certification in physical education should have their schedules approved by the chairman of the division at the beginning of each semester, beginning with their freshman year.

*COURSES IN PHYSICAL EDUCATION

*Note: Two credit hours in physical education earned in courses numbered below 10 are required for any bachelor's degree offered by the University. Not more than four credit hours earned in courses numbered below 10 may be counted toward any degree (except for students majoring in physical education). Courses 1 and 3 (Women) must be taken by all women students.

BEGINNING COURSES FOR MEN

1. PHYSICAL DEVELOPMENT. Each sem. 0+2, Cr. 1. S/U grade optional.
2. SOCCER AND WRESTLING. Each sem. 0+2, Cr. 1.

*Anyone, except a National Guard member, who has served in the Armed Forces for at least one year, is exempted from this requirement.
3. TEAM SPORTS. Each sem. 0+2, Cr. 1.
4. TENNIS AND BOWLING. Each sem. 0+2, Cr. 1.
5. BADMINTON AND GOLF. Each sem. 0+2, Cr. 1.
6. BEGINNING SWIMMING. (Non-swimmers only.) Each sem. 0+2, Cr. 1.
7. INTERMEDIATE SWIMMING. Each sem. 0+2, Cr. 1.
8. HYGIENE. Each sem. 1+0, Cr. 1.

BEGINNING COURSES FOR WOMEN

1. TEAM SPORTS AND FITNESS. Each sem. 0+2, Cr. 1. Conditioning and developmental exercise program combined with team sports. Volleyball, basketball, or field hockey may be selected as the team sport. S/U grade optional.

3. INDIVIDUAL ACTIVITIES Each sem. 0+2, Cr. 1. Various individual and dual activities are offered: tennis, bowling, golf, badminton, swimming, (beginning and intermediate), synchronized swimming, fencing, modern dance, gymnastics, billiards. Intermediate levels of the activities will be provided when possible. Students may register independently for two offerings within the semester. S/U grade optional.

9. INDEPENDENT STUDY. Each sem. Cr. 1. A student may select a particular area, skill, or aspect of an activity and plan an individualized program to develop skill in that particular activity. S/U grade optional.

THE ACTION NATURE OF MAN

The study of man's physical, psychological, sociological development from the perspective of man and action—the significance of movement as a facet of man's development.

PHYSIOLOGICAL-STRUCTURAL NATURE OF MAN

40. THE STRUCTURE AND FUNCTION OF MOVEMENT. Each sem. 2+2, Cr. 3. A study of the structure and function of the body—how it affects and is affected by movement.

41. THE BODY AND STRESS. Each sem. 2+2, Cr. 3. A study of the effects of stress and injury on the body and the significance of body function in relation to stress.

47. (Formerly 127.) FIRST AID AND SAFETY. (Also offered as Home Economics 101.) Sem. 1. Cr. 2. A study of the prevention and treatment of injuries, leading to the Standard and Advanced American Red Cross First Aid Certificates. This will be offered as a short course.

48. ELEMENTARY NUTRITION. (Also offered as Home Economics 7). Each sem. 3+0, Cr. 3. A study of the principles of nutrition. Evaluation and planning of diets for the child, the adult, and the family.

49. INDEPENDENT STUDY. Each sem. Cr. 1.

PERFORMANCE NATURE OF MAN

Basic performance and movement

51. INDIVIDUAL AND TEAM ACTIVITIES. Each sem. Cr. 1. This course will be presented in four one-hour courses. No more than four credits of this course may be presented for graduation.

55. RHYTHMIC GYMNASTICS. Sem. 1. 1+1, Cr. 1, 1+2, Cr. 2. The use of small apparatus and rhythms in gymnastics. The additional credit may be earned by those interested in certification in the elementary school and will involve stunts and tumbling and self-testing activities for children.

56. GYMNASTICS. Sem. 2. 1+1, Cr. 1.

59. INDEPENDENT STUDY. Each sem. Cr. 1.

60. OFFICIATING IN WOMEN'S SPORTS. Sem. 1. Cr. 2. Officiating procedures in hockey, soccer, basketball.

61. OFFICIATING IN WOMEN'S SPORTS. Sem. 2. Cr. 2. Officiating procedures in volleyball, gymnastics, softball.
63. **Senior Lifesaving.** Sem. 1. 1+1, Cr. 1. Analysis and practice of skills in synchronized swimming and lifesaving. This course leads to the American Red Cross Senior Lifesaving Certificate.

64. **Theory and Practice of Rhythm.** Sem. 2. 1+2, Cr. 2. Fundamentals of rhythmics, child rhythms, folk dance, square dance, and other social recreational activities.

65. **Modern Dance.** Sem. 2. 1+1, Cr. 1. Skills and teaching techniques involved in the modern dance.

67. **Methods and Evaluation.** Sem. 1. 2+2, Cr. 3. Teaching, organizational methods, evaluation techniques for activities and movement programs in the elementary, junior high, and high school program.

68. **Planning and Conducting School Related Activities.** Sem. 2. Cr. 3. The organization, conduct, and development of various intramural and extramural activities: cheerleading, coaching, intramurals, drill squads, swim clubs, etc.

69. **Water Safety Instruction.** Sem. 2. 1+1, Cr. 1. Techniques of teaching swimming and lifesaving. This course leads to the American Red Cross Water Safety Instructor's Certificate. Prerequisite: an American Red Cross Senior Lifesaving Certificate.

89. **Gymnastics and Tumbling.** (Men.) Sem. 1. 2+3, Cr. 3. The theory and analysis of skills and teaching techniques involved in apparatus, stunts, and tumbling. Analysis, interpretation, development of advanced knowledges and skills in various types of movement.


94. **Principles and Practices of Track and Field Coaching.** (Men.) Sem. 2. Cr. 2. History, rules, fundamentals, and strategy. Lectures, reports, discussions, and practice.

95. **Principles and Practices of Basketball Coaching.** (Men.) Sem. 1. Cr. 2. An analysis of the strengths and weaknesses of widely used offensive and defensive systems; fundamentals, strategy, and coaching problems included.

98. **Principles and Practices of Football Coaching.** (Men.) Sem. 2. Cr. 2. An analysis of the strengths and weaknesses of widely used offensive and defensive systems; fundamentals, scouting, and use of motion pictures included.

99. **Tests and Measurements in Health and Physical Education.** Sem. 1. Cr. 3. A study of motor ability tests, sports proficiency tests, health knowledge tests, etc.

**Psychological-Sociological Nature of Man**

110. **Action and Society.** Each sem. Cr. 1. This course will be presented in four one-credit seminars: Historical Foundations of Activity; Structure and Administration of Activity; Philosophical and Historical Implications of Activity; Psychological and Sociological Implications of Activity. These courses will be offered as short courses.

111. **Psychology of Action.** Sem. 1. Cr. 3. The psychology of action dealing with the athlete at different age levels, communication, motivation, discipline, building team cohesion, etc.

112 (212). **Movement and Learning.** Each sem. 2+2, Cr. 3, 3+2, Cr. 4. The study of the place of movement in the life of the child. Ways in which various types of activity can affect the development of the child.

113. **The Learning Potentialities of the Out-of-Doors.** Sem. 1. 1+2, Cr. 2. This course will be offered as a short course. Learning opportunities as provided by camping and out-door education.

114. **Seminar in Health and Physical Education.** Sem. 2. Cr. 3. Discussion of current problems and issues in health and physical education.

115. **Sports and Society.** Sem. 2. Cr. 3. An interdisciplinary study of the role of sport: its political, psychological, physiological, and philosophical implications in the life of man. May be used to fulfill the General Studies requirement.
116. CHILD CARE AND DEVELOPMENT. (Also offered as Home Economics 140.) Sem. 1. 3+2, Cr. 4. A study of factors affecting the physical, social, mental, and emotional development of young children in the home. Fundamental principles in the care and guidance of children. An observation of a pre-school child in a family situation is assigned for two hours per week and a field trip is made to a nursery school. Prerequisites: Psychology 51 and junior standing.

117. THE CHILD AND SOCIETY. (Also offered as Social Work 162.) Each sem. Cr. 3. This course discusses the theories of the psycho-social development of the child through family, peer group, school, church, and community. Comparison is made of childhood in American and other cultures. Child welfare movements are studied with emphasis on available social services. This course is required of all social work minors and majors but can be of great value to any adult who personally or professionally will deal with children. Prerequisite: Social Work 108 or consent of the chairman of the department. Course fee, $5.00.

118. PSYCHOLOGY OF CHILDHOOD. (Also offered as Psychology 177.) Each sem. Cr. 3. A course which gives the student an understanding of the development and behavior of the child, with emphasis given to analysis of related research. Prerequisite: 6 hours of psychology.

119. INDEPENDENT STUDY. Each sem. Cr. 1.

191. THE TEACHING OF PHYSICAL EDUCATION. Each sem. Cr. 2. A study of the problems and methods of teaching physical education. (See Education 191.) Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in physical education.

197. RESEARCH IN PHYSICAL EDUCATION. Each sem. Cr. 1. Investigation of various research techniques and problem design. A research project will be conducted.

THE DEPARTMENT OF PHYSICS

Professor Armin Manning (Chairman); Professor Shirer; Associate Professor Naumann; Assistant Professor Scheiderer

MAJOR—A minimum of 28 credits in physics. Courses must include Physics 70, 73, 75, 110, 111, 121, 122, 193, and 195.

One year of chemistry is strongly recommended. Students preparing for graduate work should also take Physics 106, 107, 130, 183, 187, 188, and Mathematics 184.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 16 credits in physics constitutes a minor. Physics 110 and Physics 111 must be included.

APPROVAL OF SCHEDULES—All students taking a major or minor in this department and all students planning to teach physics must have their schedules approved by the chairman of the department at the beginning of each semester.

COURSES IN PHYSICS

42. INTRODUCTORY PHYSICS. Sem. 2. 3+3, Cr. 4. A one-semester survey of physics. It includes a study of mechanics, heat, sound, electricity, and modern physics laboratory work in each of these fields. This course may not be counted toward a major or minor in physics and is limited to those majoring in elementary education. Students are expected to have had high school algebra and plane geometry or the equivalent. Laboratory fee, $10.00. Note: This course may be used to fulfill the natural science general education requirement.

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67. CONCEPTS OF PHYSICS. Sem. 1. 3+3, Cr. 4. A course in which the modern interpretations of the fundamental phenomena and laws governing the behavior of the physical universe are discussed. Intended as the basic introduction to physics for both non-science and science majors, this course stresses the logical content and structure of the causal relations between matter and energy rather than their mathematical formulation. Laboratory experiments in mechanics and electromagnetism. Prerequisite: 3 units of high-school mathematics or equivalent. Laboratory fee, $10.00. Note: This course may be used to fulfill the natural science general education requirement.

68. CONCEPTS OF PHYSICS. Sem 2. 3+3, Cr. 4. A continuation of Physics 67. Laboratory experiments in wave motion, thermal phenomena, relativity, and atomic structure. Prerequisite: Physics 67. Laboratory fee, $10.00.

69. ACOUSTICS. Sem. 2. 3+2, Cr. 4. A study of the physical nature of sound waves, the production and measurement of sound and physical and psychophysical basis of hearing and music. Laboratory fee, $10.00. Note: This course is basically for those majoring in music and may be used to fulfill the natural science general education requirement.

70. ANALYTICAL MECHANICS. Sem. 1. 3+0, Cr. 3. A course utilizing vectors and the calculus to study the forces and fields of mechanics on a mathematically rigorous basis. Prerequisites: Physics 68 and Mathematics 76, or advanced placement by the chairman of the department.

73. ELECTRICITY AND MAGNETISM. Sem. 2. 3+0, Cr. 3. This course emphasizes the fundamental laws of electricity and magnetism. Maxwell's equations, dialectic media, magnetic media, and problems of electromagnetic radiation. Vector methods are used. Prerequisite: Physics 70.

75. ELECTRICAL MEASUREMENTS: PHYSICS. Sem. 1. 0+3, Cr. 1. Laboratory training in the use of modern electrical and electronic measuring instruments. The analytical techniques used are similar to those of Physics 70, which is designed to be taken concurrently. Laboratory fee, $10.00.

81. DESCRIPTIVE ASTRONOMY I. 2+0, Cr. 2. A study of the principles of astronomical observation, the tools and methods employed by the modern astronomer to gain information and knowledge concerning the solar system. Lecture time will occasionally be used for observation of the planets and predominant constellations. Only elementary mathematics is required. This course, together with Physics 82, may be used to fulfill natural science general education requirement.

82. DESCRIPTIVE ASTRONOMY II. 2+0, Cr. 2. A continuation of Physics 81. A study of the stellar system in general. Stellar classification; the content and evolution of stars, galaxies, and the universe. Some emphasis will be placed on the methods used to obtain information necessary to construct a model universe. As in Physics 81, lecture time will occasionally be replaced by observation. Only elementary mathematics is required. Physics 81-82 may be used to fulfill natural science general education requirement.

83. OBSERVATIONAL ASTRONOMY. Each sem. 0+3, Cr. 1. Practical experience in the application of photographic and photometric techniques to astronomical problems, stellar magnitudes, spectral classification, variable stars and satellites. Prerequisites: Physics 81-82. Laboratory fee, $10.00.

106. BASIC ELECTRONIC AND ELECTROMAGNETIC DEVICES. (Also offered as EE 96.) Each sem. 3+3, Cr. 4. Principles and applications of electronic and electromagnetic devices are studied. Laboratory work in basic electromagnetic devices; semiconductor circuitry including: logic circuits, amplifiers, and associated instrumentation. Prerequisite: Physics 68 or equivalent. Laboratory fee, $10.00.

107. OPTICS. Sem. 1. 3+0, Cr. 3. A study of electromagnetic radiation, with emphasis on interference, diffraction, dispersion, polarization, absorption, and scattering. Prerequisite: Physics 73.

110. INTRODUCTORY MODERN PHYSICS. Sem. 1. 3+0, Cr. 3. An introduction to atomic and nuclear physics. Topics include properties of the electron, scattering theories, special relativity, nuclear structure, neutron physics, accelerators, nuclear energy, and chain reactions. Prerequisite: Mathematics 77. (Mathematics 77 may be taken concurrently.)
111. INTRODUCTORY MODERN PHYSICS LABORATORY. Sem. 1. 0+3, Cr. 1. This course must be taken concurrently with Physics 110. Laboratory fee, $10.00.

121. EXPERIMENTAL PHYSICS. Sem. 1. 0+3, Cr. 1. Experiments in modern physics and radioactivity. A 300kev positive ion accelerator and a scattering chamber are used in this course. Prerequisites: Physics 110 and Mathematics 77. Laboratory fee, $10.00.

122. EXPERIMENTAL PHYSICS. Sem. 2. 0+3, Cr. 1. Students are required to develop the theory in selected experiments in advanced mechanics, optics, heat, spectroscopy, electromagnetism, etc., and perform these experiments. Each student will present an oral report on one of these experiments at the PHYSICS COLLOQUIUM and write reports on the others. Prerequisites: Physics 110 and Mathematics 77. Laboratory fee, $10.00.

130. THERMAL PHYSICS Sem. 2. 3+0, Cr. 3. A study of heat, thermodynamics, and introductory statistical physics. Prerequisite: Physics 68.

181. REACTOR PHYSICS. Sem. 2. 3+3, Cr. 4. Neutron and reactor physics for students with physics or engineering backgrounds. Topics include neutron physics, fission, neutron diffusion, neutron moderation, bare homogeneous thermal reactors, reflected reactors, heterogeneous reactors, and an introduction to neutron transport theory. Laboratory work in neutron detection, slowing down and diffusion, subcritical reactor studies, and pulsed neutron methods. Prerequisite: Physics 121. Laboratory fee, $10.00.

183 (283). INTRODUCTION TO QUANTUM MECHANICS I. Each sem. 3+0, Cr 3. The fundamental concepts of quantum mechanics are examined with applications to atomic, nuclear, and solid state physics. Topics include the Schrödinger equation, perturbation theory, the hydrogen atom, angular momentum and electron spin, identical particles, multielectron atoms, and collision theory. Prerequisite: Physics 110 or consent of the chairman of the department.

184 (284). INTRODUCTION TO QUANTUM MECHANICS II. Each sem. 3+0, Cr. 3. A continuation of 183 (283). Prerequisite: Physics 183.

185. RADIOACTIVITY AND REACTOR PHYSICS. Sem. 1. Cr. 3. This course is designed for those in the industrial field who wish to gain a knowledge of the properties of radioactive materials and the fundamentals of reactor physics. The course content will be adjusted to the needs of the class and will basically cover the following topics: nuclear structure, nuclear stability, natural and induced radioactivity, laws of radioactive decay, neutron activation, energy levels of nuclei, neutron cross-sections, the fission cross-section, fissionable materials, neutron studies, nuclear reactors and their classification, calculations for homogeneous and heterogeneous reactors, neutron diffusion, reactor periods and control, and health physics. This material will be covered by lecture and laboratory demonstrations.

186. RADIOACTIVITY AND REACTOR PHYSICS. Sem. 2. Cr. 3. A continuation of Physics 185. Prerequisite: Physics 185.

187 (287). THEORETICAL PHYSICS. Sem. 1. 2+0, Cr. 2. Theorems of mathematical physics and applications, including small oscillations, general rotations, and potential theory. Prerequisites: Physics 70 and 73 and Mathematics 104.

188 (288). THEORETICAL PHYSICS. Sem. 2. 2+0, Cr. 2. A continuation of Physics 187 including wave motions, Maxwell's equations, and boundary value problems. Prerequisite: Physics 187.

191. THE TEACHING OF PHYSICAL SCIENCES. Sem. 1. 1+3, Cr. 2. A study of the methods of teaching physics in secondary schools. Laboratory demonstrations and reference reading; problems relating to laboratory constructions and equipment; standard tests. This course may not be counted toward a major or minor in physics. (See Education 191.) Prerequisite: admission to Supervised Teaching. (Given upon sufficient demand.)

193. PHYSICS COLLOQUIUM. Each sem. Cr. 0. All physics majors except freshmen and sophomores must register for this course.

195. SPECIAL PROBLEMS IN PHYSICS. Each sem. Cr. 1-2. Each student undertakes a special research problem. A written report and an oral presentation at the PHYSICS COLLOQUIUM are required. Prerequisite: consent of the chairman of the department. Laboratory fee, $10.00 per credit hour.
THE DEPARTMENT OF POLITICAL SCIENCE
Associate Professor Trost (Chairman); Professors Huegli and Wehling; Associate Professor Balkema; Mr. Combs and Mr. Krueckenberg

MAJOR—A minimum of 30 credits in political science. Courses must include Political Science 1, 2, 44, 53, 54, and 199.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 18 credits in political science constitutes a minor. Political Science 1, 2, 44, and either 53 or 54 must be included.

APPROVAL OF SCHEDULES—Students taking a major or a minor in this department must have their schedules approved by the chairman of the department at the beginning of each semester.

For information concerning the Washington Semester Program see page 82. For information concerning the Urban Affairs Semester Program see page 82. For information concerning the Semester on the United Nations see page 83.

COURSES IN POLITICAL SCIENCE

1. INTRODUCTION TO POLITICAL SCIENCE. Each sem. Cr. 3. An introduction to some basic concepts, approaches, and methods in the discipline of political science.

2. THE GOVERNMENT OF THE UNITED STATES. Each sem. Cr. 4. A study of the structure and function of the federal system, with emphasis on the national government. (Recommended for general education requirement.)

10. THE FIELD OF LAW. Sem. 1. Cr. 1. A course designed to help students prepare for the professional study of law. Open to all students. (This course may not be counted toward a major or minor in political science.)

41. STATE AND LOCAL POLITICS IN THE UNITED STATES. Each sem. Cr. 3. Comparative analysis of state and local political systems in the United States. Emphasis to be placed on the contemporary role of states and localities in the development and implementation of public policies.

44. COMPARATIVE POLITICS. Each sem. Cr. 3. Comparative study of Western and non-Western political systems. Includes examination of conceptual frameworks for comparative analysis.

NOTE: The following courses are not open to freshmen.

53. POLITICAL PHILOSOPHY I. Sem. 1. Cr. 3. The ideas of the major political philosophers of the classical and modern periods are compared and contrasted.

54. POLITICAL PHILOSOPHY II. Sem. 2. Cr. 3. A continuation of Political Philosophy I.

65. INTERNATIONAL RELATIONS. Sem. 1. Cr. 3. The fundamentals of international politics and international organization, particularly the United Nations and its specialized agencies.

NOTE: The following courses are not open to sophomores, except 158:

111. THE DIPLOMACY OF THE UNITED STATES. Sem. 1. Cr. 3. A study of the development of American diplomatic problems and practices, including materials on the Foreign Service. Prerequisite: Political Science 2. (Given in alternate years.)

112. AMERICAN FOREIGN POLICY. Sem. 2. Cr. 3. A study of contemporary American foreign policy including its implementation and execution. Prerequisite: Political Science 2. (Given in alternate years.)

*Credit for Political Science 2 may be earned through the College Level Examination Program (CLEP) subject examination in American Government.
153. **Politics of Industrialized States.** Sem. 2. Cr. 3. A study of political systems in the Western industrialized world. Attention will primarily be directed at Western and Eastern Europe, alternately. Prerequisite: Political Science 44 or consent of the chairman of the department.

154. **Politics of Developing States.** Each sem. Cr. 3. A study of the governments and political problems of selected newly-independent, underdeveloped states. Areas given in a semester will vary across Africa, Latin America, the Middle East, and the Far East. Prerequisite: Political Science 44 or consent of the chairman of the department.

155 (255). **Problems in State and Local Politics.** Sem. 1. Cr. 3. A study in depth of important contemporary problems on the state or municipal levels in the United States. Given in cooperation with the Community Research Center. Prerequisite: Political Science 41 or consent of the chairman of the department.

156 (256). **Problems in American Politics.** Either sem. Cr. 3. An intensive study of topics in the process, policies, and functions of the American political system. (e.g., Political Parties). Prerequisite: Political Science 2 or consent of the chairman of the department.

157. **Problems in International Relations.** Sem. 2. Cr. 3. An intensive study of topics in international relations (e.g. International Organizations). Prerequisite: Political Science 65 or consent of the chairman of the department.

158. **Problems in Political Philosophy.** Each sem. Cr. 3. The study of one or more specific problems or philosophers in modern political philosophy. Prerequisites: Political Science 53 and 54 or consent of the chairman of the department.

162. **Public Administration.** Sem. 1. Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: Political Science 2 and junior standing.

163. (263). **The Constitution of the United States.** Sem. 2. Cr. 3. An examination of great constitutional issues, decided and undecided, in the light of the contemporary interpretation of the Constitution. Prerequisite: Political Science 2 or consent of the chairman of the department.

164 (264). **Church and State.** Sem. 1. Cr. 2. An examination into some of the ramifications of church-state relationships in the United States. Prerequisite: senior standing. (Given in alternate years.)

165 (265). **International Law.** Sem. 2. Cr. 3. The nature, origin, and development of law among the states of the world. Leading principles illustrated with cases. Prerequisite: senior standing. (Given in alternate years.)

175. **Seminar in Political Science.** Either semester. Cr. 2. These are full or half-semester courses covering a variety of subject areas, with subtitles and content dependent upon instructor choice and student interest. They will be of two types, and labeled accordingly: (a) reading and discussion seminars, or (b) seminars with major papers.

191. **The Teaching of Social Studies.** Sem. 1. Cr. 2. (See Education 191.) A study of the methods of teaching social studies in secondary schools. Prerequisite: admission to Supervised Teaching. (This course may not be counted toward a major or minor in political science.)

193. **General Studies in Political Science.** Each sem. Cr. 3. Topics to be considered will come primarily from policy areas in political science and interdisciplinary offerings (e.g., The Political Novel). May be used to fulfill the General Studies requirement.

195. **Independent Study in Political Science.** Each sem. Cr. 1-3. Individual research on a specific problem in one of the fields of government under the supervision of a member of the departmental staff. A written report is required. Prerequisites: Major with junior standing and consent of the chairman of the department.

199. **Research in Political Science.** Each sem. Cr. 3. Student is to bring to bear a special topical interest and substantive methodological insights received during the course of his major in the department, on a research paper. Paper should be seen as the culminating effort of the major. Prerequisite: major with senior standing.
WASHINGTON SEMESTER PROGRAM


56.411. SEMINARS IN UNITED STATES GOVERNMENTAL PROCESSES II. Sem. 2. Identical with 56.410.

56.412. INDIVIDUAL PROJECTS. Sem. 2. Analytical reports prepared under the guidance and counseling of the academic directors of the Program.

SEMESTER ON THE UNITED NATIONS


133. RESEARCH SEMINAR ON INTERNATIONAL ORGANIZATION. Each sem. Cr. 3. Selected topics and problems concerning the United Nations. The preparation of research projects designed to develop research techniques appropriate to international affairs. Conducted at the Drew University facilities in New York, New York.

For Graduates Only

209. BASIC POLITICAL ISSUES. Each sem. Cr. 3. A course devoted to detailed examination and consideration from many angles of a specific fundamental political problem. Copious required readings. Discussions conducted by members of the class.

320. READINGS AND RESEARCH IN POLITICAL SCIENCE. Each sem. Cr. 3. In consultation with a faculty member, the student selects a program of readings and/or a research project in his area of interest.

THE DEPARTMENT OF PSYCHOLOGY

Professor Waldschmidt (Chairman); Associate Professors Berry, Harris, and Karvellas; Assistant Professors Ikeda and Millar; Mrs. Gehrke

MAJOR—A minimum of 27 credits in psychology. Courses must include Psychology 51 or 52, 131 or 173, 132, 150, and two of the following laboratory courses: 135, 136, 137, or 154. For the Bachelor of Science degree, courses must include Psychology 52, 131, 132, 150, and two of the following laboratory courses: 135, 136, 137, or 154.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 18 credits in psychology constitutes a minor. Courses 51 or 52, and 131 or 173 must be included.

APPROVAL OF SCHEDULES—All students taking a major or a minor in psychology must have their schedules approved by the chairman of the department at the beginning of each semester.

COURSES IN PSYCHOLOGY

*51. (Formerly 51S.) GENERAL PSYCHOLOGY. Each sem. Cr. 3. An introduction to the general field of psychology with special emphasis upon the scientific study of behavior. The final examination is left to the discretion of the instructor. (For behavioral and social science credit only. Not open to students who have taken 52.)

*Credit for Psychology 51 may be earned through the College Level Examination Program (CLEP) subject examination in General Psychology.

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52. (Formerly 51N.) GENERAL EXPERIMENTAL PSYCHOLOGY. Each sem. 3+2, Cr. 4. Identical with Psychology 51, with the exception that laboratory work is conducted in selected problem areas. (For natural science credit only. Not open to students who have taken 51). Laboratory fee, $10.00.

Note: Psychology 51 or 52 is a prerequisite for all of the following courses.

123. INDUSTRIAL PSYCHOLOGY. Sem. 1. Cr. 3. This course deals with psychological principles, techniques, and procedures applied to technical and employment problems in business and industry.

125. HUMAN GROWTH AND DEVELOPMENT. Sem. 2. Cr. 3. A study of man's entire life cycle, involving socialization processes, personality development, physical growth and decline, and environmental influences on the life cycle. Major empirical findings will be reviewed with attention to theoretical issues and methodological problems. (Not open to students who have taken Psychology 126 or 177).

126. PSYCHOLOGY OF ADOLESCENCE. Sem. 1. Cr. 3. Analysis of the physical, mental, and emotional development of the adolescent, and the interaction of the adolescent with his social world. (Not open to students who have taken Psychology 125 or 177).

128. SOCIAL PSYCHOLOGY. Sem. 1. Cr. 3. A study of the influence of social interaction in shaping the personality.

130. PSYCHOLOGY OF THE ABNORMAL. Each sem. Cr. 3. An analysis of behavior disorders is made within the framework of psychological theory and research.

131. STATISTICAL METHODS. Each sem. Cr. 4. An introduction to the fundamentals of descriptive and inferential statistics. Selected advanced topics in experimental design and inferential statistics are also covered.

132. PHYSIOLOGICAL PSYCHOLOGY. Each sem. Cr. 3-4. A study of the structure and functions of the nervous system in relation to perception, learning, and emotion. A limited number of students may elect the laboratory work for an additional credit hour under the Course Intensification Plan. Laboratory fee, $10.00.

135. EXPERIMENTAL PSYCHOLOGY: SENSATION AND PERCEPTION. Sem. 2. 2+4, Cr. 4. A study of the sensory and perceptual processes. Supervised individual experimentation. Prerequisites: Psychology 131 or 173, and 132. Laboratory fee, $10.00.

136. EXPERIMENTAL PSYCHOLOGY: CONDITIONING AND LEARNING. Sem. 1. 2+4, Cr. 4. A study of the basic principles in motivation, conditioning, learning, problem solving, concept formation, language, and higher ideational processes with representative laboratory experiments in selected areas. Supervised individual experimentation. Prerequisite: Psychology 131 or 173. Laboratory fee, $10.00.

137. COMPARATIVE PSYCHOLOGY. (Also offered as Biology 137.) Sem. 2. 2+4, Cr. 4. A psychological approach to the development of behavioral processes in animals and man, with special reference to motivational mechanisms of behavior. Prerequisites: 9 hours selected from biology and psychology. Laboratory fee, $10.00.

150. CONTEMPORARY PSYCHOLOGICAL THEORIES. Sem. 2. Cr. 3. A systematic analysis of contemporary psychological theories and relevant research. Prerequisite: 6 hours of psychology.

152. PSYCHOLOGY OF PERSONALITY. Sem. 2. Cr. 3. An introduction to theoretical problems, methodology, and empirical findings in the area of psychodynamics, with emphasis on social and biological factors in personality and motive development. Prerequisite: Psychology 131 or 173.

154. PSYCHOLOGICAL MEASUREMENT AND EVALUATION. Sem 1. 3+2, Cr. 4. Principles and methods of psychological measurement and evaluation; statistical analysis, interpretation, and manipulation of measurement data. Construction, administration, and interpretation of various psychological tests will be undertaken. Prerequisite: Psychology 131 or 173. Laboratory fee, $10.00.
160. CURRENT PROBLEMS IN THE BEHAVIORAL SCIENCES. Sem. 2. Cr. 3. Students are invited to submit to the chairman current problems in the behavioral sciences which they would like to study. One or more of these problems will be selected by the staff, and the topics will be announced. May be used to fulfill the General Studies requirement. Prerequisite: Psychology 51 or 52 or consent of the instructor.

173 (273). STATISTICAL METHODS FOR THE BEHAVIORAL SCIENCES. Each sem. Cr. 3. An introduction to the fundamentals of descriptive and inferential statistics. (Not open to students who have taken Psychology 131 or the equivalent.)

*177 (277). PSYCHOLOGY OF CHILDHOOD. (Also offered as Physical Education 118). Each sem. Cr. 3. A course which gives the student an understanding of the development and behavior of the child, with emphasis given to analysis of related research. Prerequisite: 6 hours of psychology or consent of the chairman of the department. (Not open to students who have taken Psychology 125 or 126.)

180 (280). THE EXCEPTIONAL CHILD. Sem 1. Cr. 3. A course designed to help the student understand the impact of various physical and mental handicaps on the child’s life. Emphasis will be given to the child’s personal, social, and intellectual development and to the effect of this growth on the learning process. Prerequisite: Psychology 177 (277) or the equivalent.

185 (285). BEHAVIOR MODIFICATION. Sem. 1. Cr. 3. An experimental analysis of human behavior, with emphasis upon (1) the principles of various behavior modification techniques, (2) application of these principles to personality development, (3) methods used in recent research, and (4) application of behavior modification to the classroom. Prerequisite: 6 hours of psychology.

190 (290). METHODS OF CLINICAL PSYCHOLOGY. Sem. 2. 2+2, Cr. 3. A study of the techniques of diagnosis and therapy employed in the clinical setting. Supervised practice in testing. Prerequisite: Psychology 130 or consent of the chairman of the department. Laboratory fee, $5.00.

193. PRO-SEMINAR IN PSYCHOLOGY. Each sem. Cr. 1. This course is designed to provide more detailed coverage of significant topics within the field than is possible in the regular course offerings of the department. A few such topics, determined jointly by the interests of the faculty and the students, will be discussed each semester. Prerequisite: An advanced laboratory course in psychology.

195. SPECIAL PROBLEMS IN PSYCHOLOGY. Each sem. Cr. 1-3. Individual research projects under staff supervision. A written report is required. Prerequisite: An advanced laboratory course in psychology or consent of the chairman of the department. Laboratory fee, $10.00. This course may be repeated for credit. Maximum: 6 credit hours.

For Graduates Only

301. LEARNING AND MOTIVATION. Cr. 3. A study of the principles, techniques, and variables observed in the learning and motivational behavior of various organisms. Prerequisite: 6 hours of psychology or educational psychology.

303. COGNITIVE PROCESSES. Cr. 3. Analysis of various cognitive processes, such as concept formation, reasoning, problem solving, creativity, and language. Prerequisite: 6 hours of psychology or educational psychology.

310. PRINCIPLES OF PSYCHOTHERAPY. Cr. 3. Representative theoretical approaches to the process of personality change and to the techniques used in treating neurotic and psychopathic disturbances. Prerequisite: 3 hours of psychology at the graduate level.

315. PROBLEMS IN PERSONALITY THEORY. Cr. 3. A treatment of the theoretical systems of personality, current approaches to the assessment of human motives, and the behavioral consequences of specific motives in the individual and society. Prerequisite: 3 hours of psychology at the graduate level.

*The following courses are the equivalent to Psychology 177 (277): Psychology 125 or 126, Physical Education 117 or 118, Education 116, or Social Work 162.
THE DEPARTMENT OF SOCIAL WORK

Assistant Professor Rivers (Chairman); Associate Professor Neal; Assistant Professors Given, Kain, and Walton

The Department of Social Work, which is a member of the Council on Social Work Education, offers a special curriculum, the completion of which leads to the degree of Bachelor of Arts with a major in social work. This curriculum is a strong liberal arts program with a sequence of carefully selected courses from this department and other departments of the College of Arts and Sciences. The curriculum is designed to meet the needs of three groups of students:

1. Those who wish to qualify for positions in social work which are open to college graduates who have had a good liberal arts education including undergraduate courses in social work.

2. Those who wish to obtain a good foundation for professional (graduate) education in social work.

3. Those who are not preparing themselves for a career in social work but wish to obtain a broad liberal arts education with sufficient emphasis upon social work to prepare them for civic leadership and volunteer services in social welfare or for employment in another helping profession.

All full-time faculty members of the Department of Social Work hold the A.C.S.W. credential, as do the vast majority of part-time faculty and field instructors. Indeed, the region of Northwest Indiana provides a rich resource in trained social workers to enrich the classroom experience and the field instruction program.

MAJOR—A minimum of 24 credits in social work. Courses must include Social Work 107, 108, 150, 160, 162, 163, and 164.

Also required are Psychology 51, Sociology 1 and 51, one course in political science, and one of the following courses: Economics 71 or 72, Geography 62, or Home Economics 115. Biology is recommended in meeting the general education requirement.

For majors planning to enter a graduate program in social work, an introductory course in statistics is recommended. Although a minor is not required, psychology is recommended as a minor or as one of the areas of related concentration.

Students majoring in social work ordinarily must begin courses in the department at least four semesters prior to graduation. It is recommended that Social Work 107 and 108 be taken in the sophomore year.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 16 credits in social work constitutes a minor. Social Work 107, 108, 150, 160, and 162 must be included.

APPROVAL OF SCHEDULES—All students taking a major or minor in the department must have their schedules approved by the chairman of the department at the beginning of each semester.
### SAMPLE CURRICULUM LEADING TO DEGREE OF BACHELOR OF ARTS WITH A MAJOR IN SOCIAL WORK

#### FRESHMAN YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Cr.</th>
<th>Semester</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman English</td>
<td>4</td>
<td>Literary Studies</td>
<td>4</td>
</tr>
<tr>
<td>Natural Science</td>
<td>4</td>
<td>Sociology 1 or Psychology 51</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>4</td>
<td>Natural Science</td>
<td>4</td>
</tr>
<tr>
<td>Religion</td>
<td>3</td>
<td>Foreign Language</td>
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</table>

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#### SOPHOMORE YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Cr.</th>
<th>Semester</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Work 107</td>
<td>3</td>
<td>Social Work 108</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 51 or Sociology 1</td>
<td>3</td>
<td>Sociology 51</td>
<td>3</td>
</tr>
<tr>
<td>History or Philosophy</td>
<td>3</td>
<td>Natural Science</td>
<td>4</td>
</tr>
<tr>
<td>Literature or Fine Arts</td>
<td>3</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>Political Science</td>
<td>3</td>
<td>Religion or Electives</td>
<td>5</td>
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<tr>
<td>Physical Education</td>
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16

#### JUNIOR YEAR

<table>
<thead>
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<th>Semester</th>
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<th>Semester</th>
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<tr>
<td>Social Work 150</td>
<td>4</td>
<td>Social Work 160</td>
<td>3</td>
</tr>
<tr>
<td>Economics*</td>
<td>3</td>
<td>Social Work 162</td>
<td>3</td>
</tr>
<tr>
<td>Religion or Electives</td>
<td>8</td>
<td>Religion or Electives</td>
<td>9</td>
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15

#### SENIOR YEAR

<table>
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<tr>
<th>Semester</th>
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<th>Semester</th>
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<tbody>
<tr>
<td>Social Work 163</td>
<td>4</td>
<td>Social Work 164</td>
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<tr>
<td>Religion or Electives</td>
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<td>Religion or Electives</td>
<td>12</td>
</tr>
<tr>
<td>General Studies</td>
<td>3</td>
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<td></td>
</tr>
</tbody>
</table>

16

Total Semester Credits: 124

### COURSES IN SOCIAL WORK

78. **INTRODUCTION TO YOUTH-LEADERSHIP WORK.** Sem. 2. Cr. 3. An orientation course to acquaint the student with the principles, materials, and methods of youth-leadership work. Prerequisite: consent of the instructor.

107. **THE FIELD OF SOCIAL WORK.** Each sem. Cr. 3. A broad survey of social services covering the history, philosophy, goals, and structure of social work. A study of the methods employed to serve individuals, groups, and communities. This course should be of interest to all students not only in social work but teaching, the ministry, law, nursing, medicine, and church work. Prerequisite: at least sophomore standing or consent of the chairman of the department. Course fee, $5.00.

108. **GOVERNMENT AND SOCIAL WELFARE.** Each sem. Cr. 3. This course will include: (1) a survey of the history of social welfare services in the United States with special attention to the influence of federal social security legislation and (2) a descriptive analysis of various tax-supported social welfare programs and agencies. Case illustrations, films, and a field trip are used to help analyze some of the problems involved in social welfare. Prerequisite: Social Work 107 (may be taken concurrently by juniors and seniors) or consent of the chairman of the department. Course fee, $5.00.

*Economics 71 or 72, Geography 62, or Home Economics 115.*
150. INTRODUCTION TO SOCIAL GROUP WORK. Each sem. 3+4, Cr. 4. A course in the basic principles of working with and programming for individuals in groups of various kinds. Emphasis is placed on beginning social work skills. There will be an opportunity for group work experience with city and county groups, such as group work with the aged, children in settlement houses, institutions, schools, and hospitals. Prerequisite: Social Work 108 (may be taken concurrently.) Course fee, $10.00.

160. INTRODUCTION TO COMMUNITY ORGANIZATION. Each sem. Cr. 3. This course reviews the process and methods of community organization. Course is designed to give the student an intellectual awareness of the various sociological, historical, geographical, and religious forces which produce community organization and/or disorganization. Planning methods will be reviewed as they have emerged from current professional practice. Case illustrations, films, and outside speakers are used to analyze the problems involved. There will be some laboratory experience to test classroom theories and concepts through community participation in and/or observation of programs of social service, social policy, and/or social action. Prerequisite: Social Work 108 or consent of the chairman of the department. Course fee, $5.00.

162. THE CHILD AND SOCIETY. (Also offered as Physical Education 117.) Each sem. Cr. 3. This course discusses the theories of the psycho-social development of the child through family, peer group, school, church, and community. Comparison is made of childhood in American and other cultures. Child welfare movements are studied with emphasis on available social services. This course is required of all social work minors and majors but can be of great value to any adult who personally or professionally will deal with children. Prerequisite: Social Work 108 or consent of the chairman of the department. Course fee, $5.00.

163. SOCIAL SERVICES TO INDIVIDUALS. Sem. 1. 2+8, Cr. 4. The objectives of this course are to help each student acquire: (1) depth in knowledge of the community resources available to individuals; (2) an awareness of generic social work principles and the principles involved in interviewing; (3) insight into student's own personality and prejudices. A weekly field work experience is required under the supervision of a professionally trained worker in one of numerous social work settings in Northwest Indiana: children's homes; clinics (medical and psychiatric); courts; departments of public welfare; family service agencies; hospitals and associations for the retarded and mentally ill; rehabilitation services (physical, social, emotional, and educational); schools; and united funds. Classroom discussions integrate field experience through the use of actual cases studied by the students in different field work settings. Prerequisites: senior standing and a major in social work. Course fee, $10.00.

164. SOCIAL SERVICES TO INDIVIDUALS. Sem. 2. 2+8, Cr. 4. A continuation of Social Work 163 with more emphasis on practice material in classroom discussions and the continuation of the weekly field work experience. Prerequisite: Social Work 163. Course fee, $10.00

170. SPECIAL STUDIES IN SOCIAL WORK. Each sem. Cr. 2 or 3. A topic such as counseling, independent study, and Black urban community will be offered.

THE DEPARTMENT OF SOCIOLOGY

Associate Professor Chalfant (Chairman); Professor Johnson; Associate Professor Martinson; Assistant Professors Beckley and Sederberg; Miss Brocki and Mr. Ford

MAJOR—A minimum of 29 credits in sociology. Courses must include Sociology 1, 101, 102, 195, 196. No more than one sub-field or cognate course (the group numbered 5, 11, 12, and 185) may be included within the minimum requirement.

A course in introductory statistics (e.g., Psychology 131 or 173, Quantitative Analysis 85, Mathematics 54) is strongly recommended. A second
course in introduction to computing (e.g., Mathematics 21) should also be considered.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

A minimum of 16 credits in sociology constitutes a minor. Sociology 1 and 101 must be included, the latter to be taken during the junior or senior year. No more than three (3) credits earned from courses 5, 11, 12, and 185 may be applied to the 16 credit requirement.

APPROVAL OF SCHEDULES—All students taking a major or a minor in the department must have their schedules approved by the chairman of the department at the beginning of each semester. Normally, Sociology 101 and 102 will be taken in the junior year; and Sociology 195 and 196 will be taken in the senior year.

COURSES IN SOCIOLOGY

1. INTRODUCTORY SOCIOLOGY. Each sem. 2+2, Cr. 3. A study of the primary elements of sociological analysis, emphasizing the nature of social organization, the basic social structures within which men live, the forces which hold groups together and lead to social change. The scientific method and the fundamental concepts contemporary sociologists use in the analysis of social life. Laboratory fee, $10.00.

5. CULTURAL ANTHROPOLOGY. Each sem. Cr. 3. The study of the general principles of the discipline with special attention given to the development of human culture, and comparison of selected cultural areas of the world. Field trip fee, $5.00.

11. SOCIAL PROBLEMS. Each sem. Cr. 3. A study of social maladjustments, dislocations, tensions, and social problems which arise from the operation of social systems, and their functional and dysfunctional nature. Theories of disorganization. The analysis of selected contemporary social problems in depth. Prerequisite: Sociology 1 or consent of the chairman of the department.

12. BLACK STUDIES: BLACK URBAN COMMUNITY Each sem. Cr. 3. A topic of special interest to the Black Studies Program is presented. Prerequisite: Sociology 1 or consent of the chairman of the department.

51. THE FAMILY. Each sem. Cr. 3. A study of the family as a basic social unit and institution, emphasizing the various forms and functions of the family in a cross-cultural perspective. Special consideration of modern influences upon the interaction and organization of the American family. Prerequisite: Sociology 1 or consent of the chairman of the department. Field trip fee, $5.00.

52. CULTURE AND PERSONALITY. Sem. 2. Cr. 3. The organization and content of culture and its significance for individual personality, considered from the anthropological, sociological, psychological, and clinical viewpoints. Prerequisite: Sociology 1 or consent of the chairman of the department.

101 (201). SOCIOLOGICAL ANALYSIS I. Each sem. Cr. 3-4. A study of the historical development of sociological thought and the theoretical contributions of major orientations in contemporary sociology. Various American and European schools of thought, both historic and contemporary, are analyzed and critically appraised. Required of junior majors. Prerequisite: Sociology 1 or consent of the chairman of the department. Offered upon sufficient demand.

102 (202). SOCIOLOGICAL ANALYSIS II. Each sem. Cr. 3-4. The construction of testable theories and the testing and derivation of theories with elementary survey analysis techniques. Required of junior majors. Prerequisite: Sociology 101 or consent of the chairman of the department. Offered upon sufficient demand. Laboratory fee, $10.00.

104 (204). CRIMINOLOGY. Each sem. Cr. 3. An analysis of crime in contemporary society with an emphasis upon theories of causation, enforcement, adjudication, institutionalization of offenders, and trends in correctional treat-
ment. Prerequisite: Sociology 1 or consent of the chairman of the department. Field trip fee, $5.00.

*120 (*220). SOCIAL COLLECTIVITIES. Each sem. Cr. 3. Studies of social phenomena which can effectively be analyzed with an emphasis on group-type structure. Possible topics include small groups, work organizations, or voluntary associations. Prerequisite: Sociology 1 or consent of the chairman of the department. May be taken more than once if the topics are different.

*130 (*230). SOCIETAL STRUCTURES. Each sem. Cr. 3. Studies of relatively stable, large-scale social phenomena which can effectively be analyzed with an emphasis on the interplay among groups, processes, and sets of beliefs. Possible topics include social stratification, poverty, ethnic minorities, population analysis, urban sociology, occupations, political sociology, or systems of justice. Prerequisite: Sociology 1 or consent of the chairman of the department. May be taken more than once if topics are different.

*140 (*240). SOCIAL INSTITUTIONS. Each sem. Cr. 3. Studies emphasizing socially shared beliefs and practices developed to deal with the major problems of societies. Possible topics include law, medicine, or religion. Prerequisite: Sociology 1 or consent of the chairman of the department. May be taken more than once if the topics are different.

*150 (*250). SOCIAL PROCESSES. Each sem. Cr. 3. Studies of social phenomena which can effectively be analyzed with an emphasis on processes of influence, development, or change. Possible topics include socialization, juvenile deviance and delinquency, societal change, mass communications, sociology of knowledge, or collective behavior. Prerequisite: Sociology 1 or consent of the chairman of the department. May be taken more than once if the topics are different.

*184. GENERAL STUDIES IN SOCIOLOGY. Cr. 3. A study of selected topics of contemporary concern such as the role of women in society, addictive living, war, and power. Subjects will be approached from the sociological perspective, but the findings by physical science, social sciences, other than sociology, and the humanities will be utilized where appropriate in an attempt to integrate knowledge in these areas. May be used to fulfill the General Studies requirement. Prerequisite: Sociology 1 or completion of the behavioral and social sciences requirement for general education or consent of the chairman of the department.

*185 (*285). SPECIAL PROBLEMS IN SOCIOLOGY. Cr. 1-3. An investigation of selected topics central to the field of sociology. Prerequisite: Sociology 1 or consent of the chairman of the department.

195. INDEPENDENT STUDY IN SOCIOLOGY I. Each sem. Cr. 3. An introduction to individual research on a specific problem in sociology. Required of senior majors. Prerequisites: Sociology 101 and 102. Laboratory fee, $10.00.

196. INDEPENDENT STUDY IN SOCIOLOGY II. Each sem. Cr. 3. A continuation of individual research on a special problem in sociology. Required of senior majors. Prerequisite: Sociology 195. Laboratory fee, $10.00.

For Graduates Only

301. SEMINAR IN THE FAMILY. Cr. 3. Analysis of the development of current theory and the nature of contemporary research problems on the family. Prerequisite: consent of the chairman of the department.

302. SEMINAR IN CRIMINOLOGY AND PENOLOGY. Cr. 3. Critical review of current theory, practice, and research in criminology and penology. Prerequisite: consent of the chairman of the department.

*310. SEMINAR IN SOCIOLOGY. Cr. 3. An investigation of selected problems and concepts within sociology from the standpoint of sociological theory and current research. Topics may include religious systems and institutions, contemporary educational systems and structures, social systems and social change, ethnic systems and structures, juvenile deviance and delinquency, and organized crime. Prerequisite: consent of the chairman of the department.

*Assessment of laboratory fee dependent on selection of topic.
THE DEPARTMENT OF SPEECH AND DRAMA

Professor Sitton (Chairman); Professor Kussrow; Associate Professor Pick; Assistant Professors Dallmann, Guse, and Hardgrove

MAJOR IN SPEECH AND DRAMA—A minimum of 30 credits in speech and drama.

Drama Emphasis: It is recommended that Courses 1, 45, 67, 68, 69, 70, 81, 104, 105, 108, 146, 166, 182, 185, 186, and 193 be included in a major.

Speech Emphasis: It is recommended that Courses 40, 45, 67, 70, 81, 91, 92, 104, 108, 145, 146, 153, 170, 171, 185, and 193 be included in a major.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript.

MINOR IN SPEECH AND DRAMA—A minimum of 16 credits in speech and drama constitutes a minor. It is recommended that Courses 40 or 45, 67 or 68 or 69, 70, 81, 108, 166, 104 or 185 or 186 be included.

MINOR IN SPEECH—A minimum of 16 credits in speech constitutes a minor. It is recommended that Courses 40 or 45, 70, 92, 104 or 105, 108, 145, 146, 153, 170, and 171 be included.

MINOR IN SPEECH PATHOLOGY—A minimum of 16 credits in speech pathology constitutes a minor. It is recommended that Courses 20, 45, 150, 151, 152, 153, and 154 be included. A student cannot take an additional minor in this department.

Students choosing speech and drama as their major or minor are advised to supplement their work with courses from the following fields: English and American literature, fine arts, philosophy, sociology, psychology, history, and foreign languages.

THE UNIVERSITY THEATRE—Additional training and experience in acting and in dramatic production are provided by the University Theatre. (Further information concerning the University Theatre may be found on page 15 of this bulletin.) Since the University Theatre serves as a laboratory for courses in theatre, majors and minors are required to work a minimum
number of hours on productions each year. The hours are to be determined by the departmental faculty.

THE SPEECH CLINIC—This clinic is a service offered by the Department of Speech and Drama to persons with communication disorders in the University and community and to foreign students. It also serves as a laboratory for the courses in speech pathology. Anyone interested in remedial speech work should consult the director of the clinic.

APPROVAL OF SCHEDULES—All students majoring or minoring in speech and drama must have their schedules approved by the chairman of the department at the beginning of each semester.

COURSES IN SPEECH AND DRAMA

1. STAGE MAKE-UP. Sem. 1. 1+1, Cr. 1. A laboratory course in the fundamentals of stage make-up.

20. INTRODUCTION TO VOICE SCIENCE AND PHONETICS. Sem. 1. Cr. 3. A study of the anatomy and physiology of the speech mechanism, acoustic theory, and phonetics. This is a basic course for students of speech pathology, speech communication, and linguistics.

35. DRAMA AND THE CHURCH. Sem. 1. Cr. 2. This course examines the theological dimension of creative action on the presentational level.

40. FUNDAMENTALS OF SPEECH. Each sem. Cr. 2. A basic course giving students training and practice in public speaking.

45. COMMUNICATION PROCESSES: THEORY AND PRACTICE. Each sem. Cr. 3. A study of verbal and non-verbal human communication based upon intrapersonal and interpersonal communication models. Students participate in a variety of semi-structured and pre-structured communication events.

67. TECHNICAL PRODUCTION. Sem. 1. 2+2, Cr. 2. A survey of the development of scenic art. An examination of practices in the construction, painting, mounting, rigging, shifting and the lighting of scenery.

68. THEATRE PRACTICUM. Each sem. Cr. 1 or 2. Creative work in technical production on plays in the University Theatre. Prerequisite: consent of the technical director. May be repeated for credit.

69. SCENE DESIGN. Sem. 2. Cr. 2. A study of the principles of scenic art with practice in perspective drawing, water color painting, mechanical drawing and model building.

70. ORAL INTERPRETATION. Each sem. Cr. 2. A basic course stressing the communication of thought and feeling from the printed page to the listener. Emphasis is on analysis, interpretation, and reading of drama, verse, and prose.

81. ACTING. Sem 1. 2+2, Cr. 2. A basic course in the theory and technique of acting.

91. INTRODUCTION TO RADIO. Sem. 1. Cr. 3. A course in microphone techniques, program production and the history of the radio. Prerequisite: SPDR 45.

92. INTRODUCTION TO MASS COMMUNICATION. Sem 2. Cr. 3. A study of the language concepts of radio and television with special emphasis on a comparison between the printed media and the electronic media.

101. THE CHILD AND CREATIVE DRAMATICS. Each sem. 2+2, Cr. 2. A course designed for students interested in directing plays for and with children. Prerequisite: consent of the instructor.

104 (204). CONTEMPORARY THEATRE AND ITS LITERATURE. Each sem. Cr. 3. A study of the aesthetic and literary aspects of drama beginning with Beckett. This course may be used to fulfill the Literature or Fine Arts requirement.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>105</td>
<td>Modern American Theatre and Its Literature</td>
<td>3</td>
<td>A survey of modern American drama from O'Neill through Williams. This course may be used to fulfill the Literature or Fine Arts requirement.</td>
</tr>
<tr>
<td>108</td>
<td>Persuasion</td>
<td>3</td>
<td>A study of the theories and uses of the persuasive processes in society.</td>
</tr>
<tr>
<td>138</td>
<td>Playwriting</td>
<td>2</td>
<td>A course devoted to creative writing experiences in the dramatic form. May be repeated for credit.</td>
</tr>
<tr>
<td>145</td>
<td>Argumentation and Debate</td>
<td>3</td>
<td>A study of various types of argumentation and debate. Participation in intercollegiate debate.</td>
</tr>
<tr>
<td>146</td>
<td>Group Discussion</td>
<td>3</td>
<td>A study of group process and group problem-solving. Leadership/participation in and evaluation of group discussion situations.</td>
</tr>
<tr>
<td>150</td>
<td>Introduction to Speech Pathology</td>
<td>3</td>
<td>A study of the nature and treatment of disorders of speech and language.</td>
</tr>
<tr>
<td>151</td>
<td>Management of Communication Disorders</td>
<td>2</td>
<td>Each semester the diagnosis and management of a different communication disorder is studied. Pathologies include delayed speech and language, articulation disorders, voice disorders, stuttering and aphasia. May be repeated for credit.</td>
</tr>
<tr>
<td>152</td>
<td>Clinical Practice in Speech Pathology</td>
<td>2 or 4</td>
<td>Supervised clinical experience in the management of communication disorders. Prerequisites: SPDR 20, 150, 151 and consent of the clinic director.</td>
</tr>
<tr>
<td>153</td>
<td>Introduction to General Semantics</td>
<td>3</td>
<td>An examination of relationships between language and human behavior.</td>
</tr>
<tr>
<td>154</td>
<td>Introduction to Audiology</td>
<td>3</td>
<td>An introduction to the anatomy and pathologies of the ear, theories of hearing, and the physics of sound.</td>
</tr>
<tr>
<td>166</td>
<td>Play Directing</td>
<td>2</td>
<td>The course includes a study of the art of directing, the problems of choosing the play, methods of casting, and rehearsal procedures. Students direct one-act plays for public performance. Prerequisites: SPDR 67 or 68 and 81.</td>
</tr>
<tr>
<td>170</td>
<td>Rhetorical Thought</td>
<td>3</td>
<td>A study of rhetorical theory, criticism and practice from the Greco-Roman period to the present.</td>
</tr>
<tr>
<td>171</td>
<td>American Public Address</td>
<td>3</td>
<td>A study of American speakers. Emphasis is on the analysis of oral communication in contemporary American society.</td>
</tr>
<tr>
<td>182</td>
<td>Acting</td>
<td>2 or 4</td>
<td>A continuation of study in the theory and technique of acting. Prerequisite: SPDR 81.</td>
</tr>
<tr>
<td>185</td>
<td>Dramatic Form: Tragedy</td>
<td>3</td>
<td>A survey of the literature, history, and theory of tragedy and melodrama from the ancient to the modern theatre. This course may be used to fulfill the Literature or Fine Arts requirement.</td>
</tr>
<tr>
<td>186</td>
<td>Dramatic Form: Comedy</td>
<td>3</td>
<td>A survey of the literature, history, and theory of comedy and farce from the ancient to the modern theatre. This course may be used to fulfill the Literature or Fine Arts requirement.</td>
</tr>
<tr>
<td>191</td>
<td>The Teaching of Speech and Drama</td>
<td>2</td>
<td>A study of the methods of teaching speech and drama in the secondary schools. (See Education 191.) Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in the department.</td>
</tr>
<tr>
<td>193</td>
<td>Advanced Acting</td>
<td>2</td>
<td>An intensive study of characterization, ensemble playing, and acting technique. Prerequisites: SPDR 81 and 182.</td>
</tr>
<tr>
<td>195</td>
<td>Projects in Speech and Theatre</td>
<td>1 or 2</td>
<td>A course offering talented students an opportunity to study intensively an area of theatre arts or communication. May be repeated for credit.</td>
</tr>
<tr>
<td>198</td>
<td>Contemporary Man in Drama</td>
<td>3</td>
<td>A search for the psychological, philosophical, and theological perspectives of man. Open to seniors in all courses of study.</td>
</tr>
</tbody>
</table>
THE DEPARTMENT OF THEOLOGY
Professor Keller (Chairman); Professors R. Baepler, Koepke, Kretzmann, Krodel, Rast, and Schultz; Associate Professors Droge, Jungkuntz*, Korby, and Lasky; Assistant Professors Albers**, Boehringer***, Brockopp, Ludwig, Senne, Truemper****, Weinhold, and Widiger

The religion requirement at Valparaiso University is three courses of three credits each. Introduction to Religious Studies (Religion 1) is the required first course for all students and is to be taken during the student's freshman or sophomore year. The second course will normally be chosen from the intermediate courses. The third course will normally be chosen from the advanced courses. The student should take at least one course in his junior or senior year.

Only three hours in the history of religions, and none of the courses numbered 81, 82, 83, may be applied to the general education requirement.

Only one of the courses numbered 81, 82, 83, 190 may be applied toward the major or the minor.

Courses 10-72, 100-150, 171, 172, 181, 182 are designed for general education students. For courses numbered 100-150, varied listings are to be announced each semester. Certain individual listings may require prerequisites. Courses 73, 74, 81, 82, 83, 173, 174, 175 are designed especially for those students who wish to prepare either for deaconess ministry or for the alternative major program listed under option (b) below.

Religion 160 is designed to meet the General Studies requirement.

MAJOR—The major offered by the Department of Theology requires a minimum of 24 hours beyond Religion 1.

a) A student who desires to earn a major in religion shall complete at least one course in each of the following five areas: Bible (Courses 10 or 73 and 74, 100), Church History (Courses 20, 110), Christian Thought (Courses 30, 40, 71, 72, 120), Church and Ministry (Courses 50, 130), and History of Religions (Courses 60, 140). He shall also take Religion 180 and two electives.

b) A student with a first major in another department may develop his concentration according to (a) above, or by completing the following alternative major program, intended to provide additional preparation for voluntary service in the Church: Religion 60, 73, 74, 173, 174, and three religion electives.

MINOR—Although a minor is not required for graduation in the College of Arts and Sciences, a student may request that a minor be listed on his transcript. A minimum of 15 credits beyond Religion 1 constitutes a minor.

APPROVAL OF SCHEDULES—All students taking a major or minor in this department must have their schedules approved by the chairman of the department at the beginning of each semester.

COURSES IN RELIGION†

1. INTRODUCTION TO RELIGIOUS STUDIES. Each sem. Cr. 3. A study of religious commitment, with special concentration on the nature of the Christian message and commitment, its origins, its central focus, and its contact with contemporary culture. Specific content of the various sections of this course to be announced prior to registration.

†For courses given in Christ College, see page 174 of this Bulletin.


**Director, University Overseas Center, Reutlingen, Germany, 1973-1974.


INTERMEDIATE COURSES


20. FORMATIVE EVENTS IN CHURCH HISTORY. Each sem. Cr. 3. A study of the Church's understanding of her nature and mission through formative events in her history.


40. CHRISTIAN ETHICS. Each sem. Cr. 3. A study of the dynamics for ethical action and of the norms for ethical judgment provided by the Christian faith.

50. THE CHURCH AND HER WORK. Each sem. Cr. 3. A study of the theology and life of the Church with emphasis on those motifs and movements which contribute to a renewal of the Church.

60. HISTORY OF RELIGIONS. Each sem. Cr. 3. A study of major religions of mankind, especially their concepts of God, their institutions, and their literature.

71. LIFE AND THOUGHT OF MARTIN LUTHER. Sem. 1. Cr. 3. A study of the life of Martin Luther, with emphasis on his more important writings.

72. LUTHERAN CONFESSIONAL THEOLOGY. Sem. 2. Cr. 3. A study of the historical background and doctrinal content of the confessions of the Lutheran Church.


74. INTRODUCTION TO THE BIBLE: NEW TESTAMENT. Sem. 2. Cr. 3. A study of the history and theology of the New Testament with attention to its rootage in the Old Testament. Prerequisite: Religion 73.

81. CHRISTIAN EDUCATION. Sem. 1. Cr. 3. A study of the principles of Christian education combined with teaching experience in nearby parishes. Not applicable to the general education requirement.

82. DEACONESS WORK. Sem. 2. Cr. 3. A study of the various fields of Deaconess ministry, care, and counseling, combined with field experience in nearby parishes and institutions. Not applicable to the general education requirement.

83. ADMINISTRATION IN THE PARISH PROGRAM. Sem. 1. Cr. 4. This course for professional church workers is designed to evaluate the internship, to explore theological grounds for counseling, and to give attention to the devotional life of the church worker. Prerequisite: senior standing in Deaconess or YLTP. Not applicable to the general education requirement.

90. PRACTICUM IN MINISTRY. Each sem. Cr. 1-3. Semester to semester design for field experience in various local agencies, together with reflection on the work being done. This course may be taken only for elective credit. Arranged with the chairman of the department.

ADVANCED COURSES

Prerequisite: One intermediate course other than Religion 81, 82, 83.

100. STUDIES IN THE BIBLE AND ITS WORLD. Each sem. Cr. 3. An examination of individual topics, such as: Israel’s Life and Worship, the Prophetic Faith, Archaeology and the Religions of the Ancient Near East, Judaism, the Gospels and Jesus, Paul and the Epistles. Varied listings to be announced each semester.

110. STUDIES IN CHURCH HISTORY. Each sem. Cr. 3. An examination of individual topics, such as: History of the Early Church, the Medieval Synthesis, the Reformation, the Church in the Revolutionary Age. Varied listings to be announced each semester.

120. STUDIES IN CHRISTIAN THOUGHT. Each sem. Cr. 3. An examination of the writings of great Christian thinkers past and present. Varied listings to be announced each semester.
130. STUDIES IN WORSHIP AND THE LITURGY. Each sem. Cr. 3. An examination of individual topics, such as: Worship and Secularization, Principles and Form of Worship, Art and Liturgy. Varied listings to be announced each semester.

140. STUDIES IN THE HISTORY OF RELIGIONS. Each sem. Cr. 3. An examination of topics in individual religious traditions, or of motifs in several traditions, such as: Buddhism, Creation Myths, African Religions. Varied listings to be announced each semester. Prerequisite: Religion 60. Not applicable to the general education requirement.

150. COLLOQUIUM. Each sem. Cr. 3. An approach to the understanding of the Christian faith in the light of current questions, problems, and interdisciplinary dialogue through readings and discussion. Each semester a number of colloquia will be offered, each dealing with a particular topic, such as: Religion and Medicine, Communications and Theology in a Mass Culture, The Search for Reconciliation in the Middle East, Christianity and Modern Problems*, Church and the Race Issue.

160. THE AMERICAN RELIGIOUS EXPERIENCE. Each sem. Cr. 3. An investigation of American religious thought with special emphasis on the interaction between religion and American cultural development. This course may be used to fulfill the General Studies requirement.

171. COMPARATIVE CHRISTIANITY. Sem. 1. Cr. 3. An examination of various Christian denominations in the light of their history and confessions.

172. CHRISTIANITY AND CULTURE. Sem. 2. Cr. 3. An examination of the contemporary Christian life through its encounter and dialogue with the world.

173. MINISTRY OF THE LAITY. Sem. 1. Cr. 3. A theological study of the diaconal activity of the Church, with special emphasis on the role of the laity.

174. MINISTRY OF THE LAITY. Sem. 2. Cr. 3. Continuation of Religion 173, with emphasis on practical guidance and experience. Prerequisite: Religion 173.

175. PRINCIPLES AND PRACTICE OF BIBLICAL INTERPRETATION. Sem. 1. Cr. 3. Studies of selected biblical sections concentrating on methods of interpretation. Prerequisite: Religion 74.

180. THEOLOGY SEMINAR. Each sem. Cr. 3. Advanced study of selected areas or issues in the discipline of theology. Varied listings to be announced each semester. Prerequisites: senior standing and consent of the chairman of the department.

181 (281). THEOLOGY AND THE SCIENCES OF MAN. Sem. 1. Cr. 3. An investigation of the areas of common interest in the fields of Christian theology and the social or personality sciences. Varied listings to be announced each semester.

182 (282). CONTEMPORARY ETHICAL ISSUES. Sem. 2. Cr. 3. Advanced studies in selected contemporary ethical issues. Prerequisite: junior standing. Varied listings to be announced each semester.


184 (284). SYSTEMATIC THEOLOGY II. Sem. 2. Cr. 3. Continuation of Religion 183 (283). Prerequisite: Religion 183 (283).

190 (290). INDEPENDENT STUDY. Each sem. Cr. 1-3. Prerequisites: junior standing, 12 semester hours in religion, and consent of the chairman of the department.

For Graduates Only

320. BIBLICAL STUDIES TODAY. Cr. 3. A survey and evaluation of the post-Reformation revolution in biblical studies, its origin and nature of the problems with which it has confronted the Church and the Church's response.

350. THE CHRISTIAN MESSAGE AND EASTERN CULTURES. Cr. 3. A study of the historical and cultural impact of the Christian message on the life of the people of selected Eastern countries.

*This topic only will be given for 2 credits and is open to seniors only.
352. The Church and the Secular Age. Cr. 3. A study of secularism with special emphasis on the theological evaluation of it in the works of contemporary theologians, and an examination of the Church's life and task in response to the challenges of the secular age.

365. The Lutheran Liturgical Heritage. Cr. 3. A study of the theology and forms of the Lutheran Rite in their historical and religious settings. Special attention is given to the implications of current liturgical renewal for the Lutheran understanding of the Liturgy.

381. Basic Theology of the Reformation. Cr. 3. A study of the historical setting and structural coherence of Reformation theology in terms of its 16th century context and its role in contemporary theological and secular thought.

382. The Dynamics of Modern Roman Catholicism. Cr. 3. A study of the theology and structure of current Roman Catholicism in relation to the internal development of that communion since Trent.

385. Images of Man. Cr. 3. A seminar exploring differing views of man. A selected number of works by significant writers from various disciplines will be studied.

CHRIST COLLEGE

Professor R. Baepler (Dean); Professors R. Luecke and Rubel; Associate Professor Reiner; Assistant Professors Affeldt and Lee; Mr. Olmsted

Christ College is an Honors College emphasizing liberal studies and providing a place in undergraduate study for courses and programs which implement honors standards and offer the freedom and flexibility for educational experimentation.

The College shares the general purposes of Valparaiso University. Its membership is drawn from the University's four undergraduate colleges in which each student is completing a normal specialized program. Through these colleges a university degree will be granted with the added honors designation, "Christ College Scholar" or "Christ College Associate" for students who at the same time have met the requirements of Christ College.

The program of courses offered by Christ College replaces many of the general education courses required of all students by the University. This program, supplemented by additional seminar work, invites its students to inquire beyond their specialized interests into larger contexts of thought, action and production, encouraging thereby the exploration of values and the integration of knowledge. Such liberal studies are an excellent preparation for many professions. Personal and intellectual growth of high quality is fostered by a resident staff which works closely with small numbers of students.

Above all Christ College encourages the restlessness of the seeker who desires to know things as they are and whose thought and imagination have been captured by some vision of things as they might be under the grace of God and the exertions of human will and intelligence.

To achieve these purposes Christ College provides a variety of planned programs and supervised study leading to a student's graduation with the honors designation "Christ College Scholar" or "Christ College Associate";
one or more comprehensive Freshman Programs which approach
general education experimentally at the level of honors work and
fulfill part of the University’s general education requirement;
a range of courses and programs, largely experimental or interdis-
циплиinary in nature, which do not naturally fall into the traditional
division of work among the regular departments;
co-curricular experiences, including lectures and conferences designed
to foster a reflective and civilized style of life as well as involvement
in the problems of modern society;
opportunities to work out a theology of life and vocation;
a new physical setting which facilitates immediate relationships be-
tween students and faculty as well as communication among the
traditional divisions of knowledge.

THE FRESHMAN PROGRAM

The Freshman Program is a network of activities designed to capitalize
on the educational opportunities arising from a series of carefully designed
general studies. The Freshman Program is offered to a relatively small
group of freshmen who are willing to invest more of themselves in the
academic enterprise than might normally be required of them. Small
classes, tutorial work, and an experimental flair characterize the multi-
disciplinary work of the Program.

Students are admitted into the Program upon approval of their ap-
plications for admission. The application form, which is available through
the Dean’s office, asks that a student provide evidence of his ability to profit from the Program, together with an expression of his personal intellectual goals. Since a limited number of students can be accepted for the Program, the Christ College staff will choose its registrants from among the applicants.

The Freshman Program for 1972-1973 was planned as a two-semester sequence and carried eight hours of academic credit per semester. The “course” was called “Problems of Inquiry: The Humanities and Social Sciences” and successful completion of the Program satisfied part of the general education requirements of the student’s college. Students from the professional colleges as well as from the College of Arts and Sciences were enrolled in the Program. This Program will be repeated in 1973-1974 and 1974-1975; a further description of it is available through the office of the Dean of the College.

ADMISSION AND MEMBERSHIP

Any student at Valparaiso University is welcome to enroll in the courses offered by Christ College, subject to the approval of the instructor of the course. Students who wish to become members of the College may apply for admission beginning with their sophomore year but no later than the middle of their junior year. Students admitted to the College are designated “Members of Christ College.” Since such students are at the same time enrolled in another University college, they are jointly advised by their departmental adviser and their Christ College adviser.

In admitting students, consideration will be given to the interests and goals of the student, his academic achievement and promise, and evidence of his initiative, originality, creativity or qualities of leadership.

Once admitted to membership, a student’s status is periodically reviewed by the faculty to determine whether the student is satisfying the standards and requirements of the College. These requirements include satisfactory academic progress toward the College’s stated goals and contribution to the common life of the College and the University. Even when a student is not directly involved in the courses offered by the College, he shall contribute to the College’s common life, partly through his relation-
ship with his adviser and partly through membership in the Christ College Symposium which meets periodically during each semester at a regularly scheduled hour. He may further contribute by assisting in teaching; opportunities for instructional assistance shall be arranged particularly for senior students.

The faculty takes an interest in the total program of each member. Accordingly it may authorize certain variations in the normal academic requirements of a student if such variations seem desirable. For example, it may permit him to carry additional hours, to waive prerequisites for advanced courses, to acquire academic credit through examination, and to waive certain University requirements if such waivers are justified. In general, the faculty may tailor the student's program to meet his interests and needs within the general framework of the University's objectives.

Membership in Christ College is never terminated by the mechanical application of arbitrary criteria such as grade-point average or the student's academic record for a particular semester. In general Christ College students should expect to maintain an average grade of 3.00 or better, but in every case the judgment of whether a student should be admitted, retained, or readmitted as a member of the College will be made only after thorough consideration of the probable best interests of the student.

A member of Christ College may graduate as a "Christ College Scholar" or a "Christ College Associate." The particular requirements of each designation are stated below. The transcript of each graduate will carry this designation together with an explanation of its meaning.

Members of the College will normally be required to meet, by course examination or other evidence of qualification, the regular requirements for graduation except where explicitly modified. The faculty of Christ College may recommend such adjustments in these requirements as are in the spirit of the University's requirements and in the best interests of the students.

REQUIREMENTS FOR GRADUATING AS A CHRIST COLLEGE SCHOLAR

1) Membership in Christ College for a minimum of three semesters.
2) Twenty-five hours of work in courses in the College at a grade average of at least 3.00. Students who have completed part or all of the Freshman Program need offer only twenty-one additional hours.
3) Three courses in Christ College taken during the junior and senior years. These courses shall be either junior-senior seminars or tutorial and independent study work taken under the auspices of the College. Students enrolled in an off-campus program of the University may petition to waive one of these three courses. Of the three courses, one shall be a senior seminar which shall not be waived. The senior seminar replaces the junior-senior General Studies requirement of the University.
4) One course in religion sponsored by Christ College. It is recommended that students complete their entire religion requirement through courses offered by the College or especially designated in the offerings of the Department of Theology.
5) An appropriate independent study project. This shall not count as one of the three required junior-senior courses referred to in 3, above.
REQUIREMENTS FOR GRADUATING AS A CHRIST COLLEGE ASSOCIATE

Same as above except that 16 hours of total work will be required in Christ College, of which the senior seminar shall be required as the only necessary junior-senior course. The Associate is required to write a bachelor's essay.

*URBAN SEMESTER

Through Christ College Valparaiso University offers to all students a semester long program involving residence in Chicago in cooperation with a number of midwest colleges. This program involves the student in direct observation of urban life in the context of academic reflection and research. Students admitted to the program may earn from 13-16 credits, including closely supervised independent study. In addition, each student is required to engage in a service job supplied him by the Director. The program is taught by a special staff, partly recruited from the cooperating colleges and partly from other academic institutions.

The following courses are offered in a residential program in Chicago in cooperation with the Associated Colleges of the Midwest:

- Urban Studies 138 The City and Its Systems ........ 6 credits
- Urban Studies 150 Power and Justice .............. 4 credits
- Liberal Studies 194 Independent Study Project ...... 3 credits

Students shall be admitted to this program on the recommendation of an appropriate committee. This program is scheduled to be offered for the school years of 1973-1974 and 1974-1975.

SPECIAL PROGRAMS

These interdisciplinary programs aim to develop in students a greater sense of the relatedness of various fields of knowledge and experience, and to increase their awareness of value-choices in intellectual and social life. They thus provide a background for a wide range of professions and, when combined with concentrated study in a particular field, prepare a student for advanced graduate scholarship in a more specialized sense.

These programs are open to all members of the University and are normally begun in a student's junior year. Each student is assigned an adviser with whom he shall regularly confer in the planning and execution of his program. (Several programs are presently under study; the Special Program in the Humanities began in the fall of 1969).

THE SPECIAL PROGRAM IN THE HUMANITIES

The Humanities are concerned with the works of the human spirit, a spirit discernible in works of literature, philosophy, history, religion, and the fine arts. Together they constitute the preponderant common subject matter of the Humanities, each being a different manifestation of the same spirit. Thus these works can be explored as imaginative and intellectual constructs within historical contexts and traditions. Indeed, viewed from such a standpoint, certain works more commonly associated with social and scientific thought, are drawn into the range of concern of this Program.

*S/U grade.
A student with a first major in any department of the Arts and Sciences may earn a second major in an interdisciplinary study of the humanities. These combined majors comprise the Special Program in the Humanities. In this plan of study special emphasis is given to offering the student coherency in course programming, concreteness in working with basic source material, and directness in relationships among the student, the teacher, and the "tradition." When the knowledge and skill acquired in a regular major are placed within the broader context offered by the humanistic disciplines, the student may both enrich the perspective he brings to his own area of specialization, and develop a more acute sense of the methods, materials, and identity of this discipline. In addition, the Humanities program insures an orderly movement from interdisciplinary work and from conventional instruction to independent study. A more detailed explanation of the program is available from the office of the Dean of Christ College. A brief outline of the study plan follows:

I. Supporting Studies. Students in the Special Program in the Humanities are expected to develop historical perspective, basic appreciation in the fine arts, and some insight into the relation of theology and the imagination before or during their formal work in the Special Program. Evidence of this background for the study of the humanities is furnished by taking the following courses to satisfy the University's general education requirements:

A. English 53 and English 54, Masterpieces of Literature (Christ College); English 105 and English 106, Masterpieces of World Literature; or, History 1 and History 2, Western Civilization I and II; or, Philosophy 51 and Philosophy 53, History of Philosophy I and II; or, satisfactory passing of the College Level Examination Program (CLEP) subject examination in Western Civilization.

B. Art 127, Art Appreciation; or Music 1, Introduction to Music.

C. An upper-division course in the area of theology and the imagination.

II. Core Sequence. Each student must take all of the following seminars.

A. Humanities 150: Interpretation in the Humanities
B. Humanities 160: Topic seminar
C. Humanities 170: Source seminar
D. Humanities 180: Period seminar
E. Humanities 195: Value and Judgment in the Humanities

Selection of specific seminars or sequences of seminars will be determined through advising and continued review of the student's program.

III. Independent Study. At least six hours of independent study are required for completion of the Special Program in the Humanities, including a three-credit independent study resulting in an essay on an approved topic. A study proposal is to be submitted by the end of the spring term of the junior year.

Any of the following types of independent study satisfies the remaining three-hour requirement:
A. Another three-hour independent study leading to an essay on an approved topic.
B. Independent study culminating in a comprehensive examination on selected works of four great men from the humanities.
C. Independent study issuing in an artistic work or project undertaken and approved for this purpose. The project, for example, may consist of an attempt to relate humanistic concerns to social problems of a community.
D. Independent study in preparation for serving as a teaching associate in an approved Christ College course.
E. A combination of the above as described in a prospectus which has secured faculty approval at the beginning of the semester in which the work is done.

The Special Program in the Humanities may also serve as a nucleus or coordinated portion of an "individual program of studies" or an "interdisciplinary major." The Special Program may be taken as an academic minor: the minor shall consist of sixteen hours, including Interpretation in the Humanities. Any of the 150-180 seminars may be taken individually or in combination by any student, subject to the instructor’s permission.

Courses in Christ College

Humanities and Social Sciences 35. Problems of Inquiry I. Sem. 1. Cr. 8. A close examination of major works selected from various disciplines within the humanities and social sciences. Special attention is given to the arts necessary for proper reading, argument, and writing. Weekly essays read in a tutorial setting are basic to the course. Advisory grades (4, 3, 2, 1, 0) will be given throughout the semester but the final course grade will be S/U.

Humanities and Social Sciences 36. Problems of Inquiry II. Sem. 2. Cr. 4. A half-semester course which is a continuation of Humanities and Social Sciences 35. The course will focus intensively on aspects of works selected from the writings of several systematic thinkers such as Plato, Aristotle, and Freud. S/U grade optional.

Humanities and Social Sciences 37. Problems of Inquiry III. Sem. 2. Cr. 4. A half-semester course which is a continuation of Humanities and Social Sciences 36. The course will deal with a number of masterpieces drawn from the humanities and the sciences. Each student will conduct a major investigation of a problem to be formulated in the course of the term.

English 53. Masterpieces of Literature. Sem. 1. Cr. 4. A study of selected masterpieces of world literature. Prerequisite: Humanities and Social Sciences 35 or English 5.

English 54. Masterpieces of Literature. Sem. 2. Cr. 4. Continuation of English 53. Prerequisite: Humanities and Social Sciences 35 or English 5.

Religion 180. Issues in Contemporary Christian Thought. Each sem. Cr. 3. A study of contemporary Christian writers and the issues they deal with in their effort to relate the Christian faith to modern culture.


Urban Studies 138. The City and Its Systems. Each sem. Cr. 6. An introduction to the history of the city and to various methods of studying and perceiving urbanism. The major part of this interdisciplinary course proposes to study, through systems analysis, selected sub-systems of the city of Chicago, such as housing, work, transportation, and communications. This course is offered only in Chicago and includes field work experience.
Urban Studies 150. **POWER AND JUSTICE.** Each sem. Cr. 4. Social and ethical analysis is brought to bear on a particular problem selected from the contemporary urban scene.

Liberal Studies 140. **SPECIAL TOPICS.** Each sem. Cr. 3. Each year Christ College will offer courses, often in the form of seminars and open to all juniors and seniors in the University, dealing with themes of social, intellectual, or artistic importance. These courses will ordinarily be multidisciplinary in nature. Topics dealt with in the past and likely to be repeated in the future include:
- Law and Society
- Technology and Human Culture
- The Unity of the Arts
- Personality and Politics
- American Public Policy
- Scientific Theories

Liberal Studies 155. **TUTORIAL STUDIES.** Each sem. Cr. 2-4. A course of studies arranged by a professor and one or more students. S/U grade optional. Open only to members of Christ College. Prerequisite: consent of the dean.

Liberal Studies 185. **CHRIST COLLEGE SYMPOSIUM.** Each sem. Cr. 0. A periodic occasion for presentation and discussion of items and topics of special interest to members of the Christ College community. Required of all members of the College. S/U grade.

Liberal Studies 191. **INQUIRY IN THE LIBERAL ARTS.** Sem. 1 or 2. Cr. 3. A course in the theory and practice of the liberal arts. Students in this course will collaborate with instructors as tutorial assistants in other courses offered by the College. S/U grade.

Liberal Studies 192. **CONTEMPORARY VIEWS OF MAN.** Sem. 2. Cr. 3. A seminar offered under the supervision of the faculty of Christ College. The purpose of the course is to make a thorough study of a limited number of works by significant contemporary writers in the various disciplines in order to understand and analyze the writers' views of man. This course is intended primarily for seniors in the Christ College Program. When space permits, other students will be admitted upon the approval of the Dean of the College.

Liberal Studies 194. **INDEPENDENT-STUDY PROJECT: (Area of concentration.)** Each sem. Cr. 3-6. A special independent-study project in which there are no provisions for independent work in the student's major area of concentration. Approval of the project must be obtained from the head or chairman of the department concerned and the Dean of the College. Only under special circumstances may a student register for this course in a regular Summer Session. However, under certain circumstances, some credit may be assigned for a portion of the work done during the summer months.

Humanities 150. **INTERPRETATION IN THE HUMANITIES.** Sem. 1. Cr. 4. An introductory study of interpretive problems in the humanities. Primary attention will be given to the theory and practice of interpretation, particularly in relating interpretation to authorial or artistic intention, varying subject matters, and differing audience expectations. Required for humanities majors.

Humanities 160. **HUMANITIES SEMINAR.** Sem. 1 or 2. Cr. 3. An interdisciplinary study of a particular topic (e.g., Christian Humanism, Marxist Humanism, Technology and Culture) on the basis of works selected from the various fields of the humanities. Prerequisite: consent of the dean.

Humanities 170. **HUMANITIES SEMINAR.** Sem. 1 or 2. Cr. 3. An interdisciplinary study of a representative person whose work and life have had a significant influence in the Western Tradition (e.g., Nietzsche, Coleridge, Goethe). Prerequisite: consent of the dean.

Humanities 180. **HUMANITIES SEMINAR.** Sem. 1 or 2. Cr. 3. An interdisciplinary study of the thought, sensibility and social context of a particular period (e.g., The Greek Experience, The Romantic Movement, Man in the Modern Epos) through an examination of selected works from that period. Prerequisite: consent of the dean.

Humanities 184. **SUPERVISED STUDY PROJECT.** Sem. 1 or 2. Cr. 3. A study of selected texts in the humanities major's concentration area. Designed by the student with his faculty tutor, this study focuses on development of the student's analytical skills in the methods and materials of his concentration area.
Humanities 186. INDEPENDENT STUDY. Sem. 1 or 2. Cr. 3. A course of study arranged by the student with an instructor. The study will comply with requirements and options for independent study as described under the Special Program in the Humanities (III. Independent Study).

Humanities 194. SOURCES OF THOUGHT. Sem. 1 or 2. Cr. 3. An independent study of the works of a number of great thinkers and artists selected jointly by the student and the faculty of the College. Prerequisites: senior standing and consent of the dean.

Humanities 195. VALUE AND JUDGMENT IN THE HUMANITIES. Sem. 2. Cr. 3. A study of evaluative problems encountered in assessing the significance of selected texts and/or works in the performing or fine arts the student has reflected on in his undergraduate experience. Open to seniors only.

Public Affairs. 135. PUBLIC AFFAIRS SEMINAR: (TOPIC). Sem. 1 or 2. Cr. 3. Application of the arts of inquiry, invention and judgment to a selected issue currently under public discussion. The approach is interdisciplinary from the standpoint of involving several academic and professional fields and in shaping new questions for research and policy formation.

THE COLLEGE OF BUSINESS ADMINISTRATION

Professor Laube (Dean); Assistant Professor Bierwagen (Secretary)

OBJECTIVES

The College of Business Administration, as an integral part of Valparaiso University, shares the philosophy and the general objectives of the University.

The special objective of the College of Business Administration, however, is to provide the appropriate basic education for business careers and for graduate work in three fundamental areas. Each student, in addition to majoring in a department, is required to complete a number of courses which provide an introduction to various phases of business. Because of the variety of business opportunities and the changing environment within which business operates, the student is encouraged to broaden his background and his outlook by taking as many courses as possible in the liberal arts.

The College of Business Administration encourages each student to learn to think coherently, logically, and creatively and to learn to apply his knowledge and understanding of human society and of Christian principles gained from the liberal arts and religion to business decision making and to his conduct as a businessman.

ORGANIZATION

The College of Business Administration is an administrative and instructional unit of the University under the direction of the Dean of the College of Business Administration. It comprises three departments: the Department of Accounting, the Department of Economics, and the Department of Administration. Course offerings in this department are structured to permit limited concentrations in management, marketing, finance, and quantitative analysis.

CURRICULA

The College of Business Administration offers three four-year curricula leading to the degree of Bachelor of Science in Business Administration. In
addition to taking certain prescribed courses in accounting, business law, marketing, finance, management, and economics, the student must complete a major in one of the three departments: Accounting, Economics, or Administration. The requirements for a major in each of these three departments are set forth in the curricula described below.

Each of the three curricula requires that the student devote approximately one half of his time to required and elective courses in the liberal arts. The required courses include English, religion, the natural sciences, mathematics, the social sciences, and physical education. The liberal arts electives may be chosen from any of the natural sciences, humanities, languages, or social sciences. The student will normally choose elective courses in those areas which provide diversity to his educational background. Specific details concerning the prerequisites for courses in the liberal arts will be found in the announcements of the College of Arts and Sciences.

STUDENT ORGANIZATION

All students in the College of Business Administration are eligible for membership in The Association of Business Students of the College of Business Administration. This association offers the student the opportunity for development through field trips, a guest speaker program, and participation in other extracurricular activities.

COOPERATIVE PROGRAM

The College of Business Administration has established an arrangement with the Internal Revenue Service such that two students each year from
the Department of Accounting participate in a work-study program with the Gary, Indiana office of the Internal Revenue Service. Students selected for this program work during the summer between their junior and senior years and half time during their senior year. This arrangement is designed to familiarize the student with accounting practices and also to give him a singular advantage should he elect to join the Internal Revenue Service after graduation.

GRADUATION REQUIREMENTS

In order to be eligible for the degree of Bachelor of Science in Business Administration, a student must complete one of the three curricula prescribed by the College of Business Administration and must meet all the additional requirements for graduation set by the University (see pages 59-61 of this bulletin).

No credits earned in secretarial studies and only four semester credits earned in the College of Engineering may count towards the degree of Bachelor of Science in Business Administration. Credits earned in Developmental Reading are treated in the same manner as secretarial studies. Students who transfer to the College of Business Administration from another college within the University must have their work evaluated with reference to the requirements of the appropriate curriculum.

ADMISSION

The requirements for admission to the College of Business Administration are the same as those for admission to the College of Arts and Sciences. These requirements may be found on page 49 of this bulletin.
BUSINESS ADMINISTRATION CURRICULA

The following courses are common to each major.

LOWER DIVISION

COLLEGE OF ARTS AND SCIENCES

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion</td>
<td>6</td>
</tr>
<tr>
<td>English: Exposition and Argument</td>
<td>4</td>
</tr>
<tr>
<td>Literary Studies</td>
<td>4</td>
</tr>
<tr>
<td>Professional Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>*Mathematics</td>
<td>8</td>
</tr>
<tr>
<td>Natural Science (Any two courses)</td>
<td>8</td>
</tr>
<tr>
<td>Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>Principles of Economics 71 and 72</td>
<td>6</td>
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</tbody>
</table>

COLLEGE OF BUSINESS ADMINISTRATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 11 and 12</td>
<td>6</td>
</tr>
<tr>
<td>Marketing 31</td>
<td>3</td>
</tr>
<tr>
<td>Management 41</td>
<td>3</td>
</tr>
<tr>
<td>Finance 61</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Analysis 85</td>
<td>3</td>
</tr>
<tr>
<td>**Business Law 53</td>
<td>3</td>
</tr>
</tbody>
</table>

UPPER DIVISION

COLLEGE OF ARTS AND SCIENCES

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion</td>
<td>3</td>
</tr>
<tr>
<td>****General Studies</td>
<td>3</td>
</tr>
<tr>
<td>***Liberal Arts Electives</td>
<td>12-14</td>
</tr>
</tbody>
</table>

†CURRICULA LEADING TO THE DEGREE OF
BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

The required and elective courses for the three majors are as follows.

ACCOUNTING MAJOR

UPPER DIVISION

Major Requirements in the College of Arts and Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 21</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements in the College of Business Administration

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting 101</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 102</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 111</td>
<td>3</td>
</tr>
<tr>
<td>Accounting 115</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Analysis 87</td>
<td>3</td>
</tr>
<tr>
<td>Business Law 152</td>
<td>3</td>
</tr>
<tr>
<td>Management 146 or 147</td>
<td>3</td>
</tr>
<tr>
<td>Economics (E183, E185, E186, or E187)</td>
<td>3</td>
</tr>
<tr>
<td>Accounting Electives</td>
<td>12</td>
</tr>
<tr>
<td>Business Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Total                             | 42      |

*A student placing out of the first course in mathematics must take the second course in mathematics or the equivalent. The 4 credits by-passed by the placement qualification may be satisfied by any 3 credit liberal arts course. A student placing out of both courses in mathematics must take one other course in mathematics (4 credits). The 4 credits by-passed by the placement qualification may be satisfied by any 3 credit liberal arts course. Consult with the Dean of the College for specific information on other substitutes.

**Accounting majors must take Business Law 55.

***For all majors these liberal arts electives must contain at least 3 credits of social science other than economics.

****Any approved course except Home Economics 115.

†A transfer student may apply a maximum of 6 credits in religion from his advanced standing to the religion requirement. Otherwise, a transfer student with more than 45 credits but less than 75 credits of advanced standing need complete two courses (6 credits) of religion at Valparaiso University. A transfer student with 75 credits or more of advanced standing need complete one course (3 credits) of religion at Valparaiso University.
ADMINISTRATION MAJOR

UPPER DIVISION

Major Requirements in the College of Business Administration

*Accounting 103 ........................................ 3 credits
Marketing 132 ......................................... 3 credits
Management 146 or 147 ................................ 3 credits
Finance (Any course numbered above F161) ............. 3 credits
Finance 161 ........................................... 3 credits
Management or Marketing
(Any course numbered above Mgmt. 41 or Mrktg. 31) .... 3 credits
Quantitative Analysis 87 ................................ 3 credits
Economics (E183, E185, E186, or E187) ................... 3 credits

Specialization Options:
A. Business Electives ................................. 18 credits
B. Management, Marketing
   or Finance ........................................ 9 credits
   Business Electives ............................. 9 credits 18 credits
C. Related Arts and Sciences
   Minor as defined by the
   Arts and Sciences department
   and approved by the Dean,
   College of Business Admin. .......... 12 credits
   Business Electives ......................... 6 credits 18 credits 18 credits

Total .................................................. 42 credits

*Accounting 101 or 111 may be substituted.

ECONOMICS MAJOR

UPPER DIVISION

Major Requirements in the College of Business Administration

Economics 185 ......................................... 3 credits
Economics 186 ......................................... 3 credits
Economics 187 ......................................... 3 credits
Quantitative Analysis 86 or 89 (or mathematics
   equivalent to Quantitative Analysis 89) .............. 3 credits
Management 146 or 147 ................................ 3 credits
Economics Electives .................................. 15 credits
Business Electives ................................... 12 credits

Total .................................................. 42 credits

THE DEPARTMENT OF ACCOUNTING

Associate Professor Sievers (Chairman); Associate Professor Ehrenberg;
Assistant Professor R. Beifuss

COURSES IN ACCOUNTING*

**11. ACCOUNTING PRINCIPLES. Each sem. 2+2, Cr. 3. A course developing
   and giving practical application to the fundamental principles and procedures of
   accounting to the single proprietorship, partnership, and corporate forms of
   business enterprise. Laboratory fee, $5.00.

**12. ACCOUNTING PRINCIPLES. Each sem. 2+2, Cr. 3. A continuation of

*Of the courses offered in the College of Business Administration, only three semester credits
(Accounting 11 or Accounting 12) may be counted toward a degree offered by the College of
Engineering.

**Credit for Accounting 11 and 12 may be earned through the College Level Examination Pro-
gram (CLEP) subject examination in Introductory Accounting.
Accounting 11. Prerequisite: Accounting 11 or the equivalent. Laboratory fee, $5.00.

101. **Intermediate Accounting I.** Sem. 1. Cr. 3. A study of the preparation and analysis of working papers and statements, problems relating to the organization and operation of corporations, and the classification and valuation of various balance sheet accounts. Prerequisite: Accounting 12 or the equivalent. Laboratory fee, $5.00.

102. **Intermediate Accounting II.** Sem. 2. Cr. 3. A continuation of Accounting 101. Prerequisite: Accounting 101 or the equivalent. Laboratory fee, $5.00.

103. **Managerial Accounting.** Each sem. Cr. 3. Non-accounting majors only. A course designed to develop and to present the accounting aids needed by management for effective control of a business enterprise. Prerequisite: Accounting 12 or the equivalent.

111. **Cost Accounting.** Sem. 1. Cr. 3. A course designed to expose students in depth to job order and process methods of costing production. Topics also include budgeting, profit volume relationships, and profit planning. Prerequisite: Accounting 12 or the equivalent. Laboratory fee, $5.00.

112. **Advanced Cost Accounting.** Sem. 2. Cr. 3. A course designed to prepare students to analyze and use cost information for decision making purposes. Direct costing, cost-volume-profit relationships, estimated costs and standard costing systems, and variance analyses are covered in more depth than in Accounting 111. Prerequisite: Accounting 111. Laboratory fee, $5.00.

115. **Advanced Accounting.** Sem. 1. Cr. 3. A course dealing with the special problems of business organizations expanding into multiple groups, including the federal tax dimension. Prerequisites: Accounting 101 and 102.

116. **Accounting Procedures in Special Areas.** Sem. 2. Cr. 3. A course dealing in accounting procedures in special areas and the tax regulations affecting income determination. This course is designed primarily for students who intend to enter public accounting. Prerequisites: Accounting 101 and 102.

120. **Income Tax Accounting.** Sem. 2. Cr. 3. A study of the underlying principles of income taxation and the special accounting problems involved in the determination of the tax liability of the individual. Prerequisites: Accounting 12 or 101 and consent of the chairman of the department.

123. **Accounting Theory.** Sem. 1 Cr. 3. A critical investigation of current and classical accounting theories as they exist within the framework of the underlying fundamental principles, concepts, and postulates. Prerequisites: Accounting 101 and 102.

125. **Controllership.** Sem. 1. Cr. 3. A course designed to acquaint the student with internal control, including what it is, how it is used, and what it can do for the business organization. Topics will include accounting systems—manual accounting procedures, mechanical, automatic, and electronic adaptions to the accounting needs; budget programming and control; and projection for analysis of return on capital invested. Prerequisites: Accounting 111 and senior standing in the College or consent of the chairman of the department.

128. **Principles of Auditing.** Sem. 2. Cr. 3. A study of the application of accounting theory and practice to the procedures followed in performing the various steps in balance sheet, detailed and special audits. Prerequisites: Accounting 111 and 115. Laboratory fee, $5.00.

129. **Problems in Accounting.** Each sem. Cr. 1-3. A course in which a special topic in accounting will be given intensive study. The topic will vary from year to year. Prerequisites: senior standing in the College and consent of the chairman of the department.
THE DEPARTMENT OF ADMINISTRATION

Professor Laube (Acting Chairman); Professor Gram; Associate Professor Hutchins; Assistant Professors Bierwagen, Tychsen, and Wilson; Mr. Burfeindt and Mr. Vöelker

COURSES IN BUSINESS LAW

53. THE LEGAL ENVIRONMENT OF BUSINESS. Each sem. Cr. 3. A survey of the nature, formation, and application of law in our society. Prerequisite: Accounting 12.

55. BUSINESS LAW I. Sem. 1. Cr. 3. An introduction to law and the judicial system and a study of the law of contracts and agency. Prerequisite: Accounting 12.

152. BUSINESS LAW II. Sem. 2. Cr. 3. A study of the Uniform Commercial Code including the law of sales, commercial paper, and secured transactions; and with attention to the law of business organizations and property. Prerequisite: Business Law 53 or 55.

COURSES IN FINANCE

51. RISK AND INSURANCE. Each sem. Cr. 3. An introduction to risk and risk bearing for business and individuals. Topics include the theory of risk, the insurance mechanism, insurance techniques, and a survey of insurance functions by principal types of coverage. Prerequisite: Accounting 12.

61. PRINCIPLES OF FINANCE. Each sem. Cr. 3. A survey of the principles of finance from the viewpoint of the manager, emphasizing the use of financial statements, tools, and concepts for measuring, planning and controlling for profitability and liquidity. Prerequisite: Accounting 12.

153. PROPERTY AND LIABILITY INSURANCE. Sem. 1. Cr. 3. A study of the basic economics and legal concepts of property and liability insurance. Special attention is given to the protection of business assets through insurance coverage. Prerequisite: Finance 51.

154. LIFE AND HEALTH INSURANCE. Sem. 2. Cr. 3. An analysis of the alternate techniques for protection against economic losses for the individual through death, disability, and retirement. Prerequisite: Finance 51.

161. CORPORATE FINANCE. Sem. 1. Cr. 3. An analysis of the administrative and managerial problems of raising short-term capital for the corporate enterprise. Prerequisite: Finance 61.

162. CAPITAL AND DEBT FINANCING. Sem. 2. Cr. 3. An analysis of the managerial problems connected with the generating of long term capital for the corporate enterprise. Prerequisite: Finance 61.

163. PRINCIPLES OF INVESTMENT. Each sem. Cr. 3. A survey of the principles of investment, security analysis, measurement of the investment risk, the organization and operation of security exchanges, and the investment policies of individuals and financial firms. Prerequisite: Finance 61.

164. SECURITY ANALYSIS. Sem. 2. Cr. 3. An advanced analysis of the techniques and methods utilized in the evaluation of securities. Prerequisite: Finance 61.

166. PUBLIC FINANCE. (Also offered as Economics 174.) Sem. 2. Cr. 3. An analysis of the role of the public sector in a market economy. Public revenues and expenditures, fiscal administration, and taxation are considered as they relate to economic activity. Prerequisites: Economics 71 and 72.

169. PROBLEMS IN FINANCE. Each sem. Cr. 1-3. A course in which a special topic in finance will be given intensive study. The topic will vary from year to year. Prerequisite: senior standing in the College or consent of the chairman of the department.

*Credit for Business Law 53 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Business Law.
Courses in Management

*41. PRINCIPLES OF MANAGEMENT. Each sem. Cr. 3. In this course the various concepts of management which include the management process, behavioral, decision making, quantitative, and management systems are examined with an analysis of their application. Prerequisite: sophomore standing in the College.

102. INTRODUCTION TO COMPUTING. (Also offered as Mathematics 21.) Each sem. Cr. 2. An introduction to the use of digital computers, including the programming of elementary applications using an algorithmic language such as Fortran. This course is not intended for students with previous programming experience. Prerequisite: proficiency in algebra.

140. BUSINESS POLICIES. Sem. 2. Cr. 3. A case method approach to organization problems stressing alternative actions in decision making on the various business functions. Prerequisite: senior standing in the College.

141. PRODUCTION MANAGEMENT. Sem. 1. Cr. 3. Provides the student with an understanding of the basic production operations of a business firm relating to the plant location, the physical background, plant layout, material handling, plant safety, industrial hygiene, maintenance, product design, simplification, and development, industrial research, inventory control, quality control, and production control. (Offered in alternate years.) Prerequisite: Management 41.

142. PERSONNEL MANAGEMENT. Each sem. Cr. 3. An analysis of the policies and practices of personnel administration such as manpower planning, selection, placement, compensation, and training. Prerequisite: junior standing in the College or consent of the chairman of the department.

144. MATHEMATICAL MODELS IN THE SOCIAL SCIENCES. (Also offered as Mathematics 163.) Sem. 1. Cr. 3 or 4. This course is intended for students with a strong background in management or the social sciences. Topics will be chosen according to the interests of the class. These may include: Markov chains, linear and dynamic programming, queuing theory, learning models, population models, and simulation. Prerequisites: Mathematics 31, 33, and 36 or the equivalent, and a first course in statistics from any department.

145. INDUSTRIAL RELATIONS. Sem. 2. Cr. 3. A study of employer and employee relations with special attention to wage determination, grievance procedure, arbitration, and the negotiation of collective bargaining agreements in both the private and public sector. Prerequisite: Management 142.

146. MANAGEMENT SYSTEMS AND ORGANIZATIONAL THEORY. Sem. 1. Cr. 3. An integrated study of the relationship between managerial systems and organizational theory. Prerequisite: Management 41.

147. MANAGEMENT SIMULATION. Sem. 2. Cr. 3. Emphasis is upon decision making as applied through a computer simulation game in which students represent executive positions on a manufacturing firm. Prerequisite: senior standing in the College.

148. BUSINESS AND MODERN SOCIETY. Sem. 2. Cr. 3. An analysis of modern business in its contemporary environment with particular reference to the ethical, political, and sociological context of business operations. Prerequisite: senior standing in the College or consent of the chairman of the department.

149. PROBLEMS IN MANAGEMENT. Each sem. Cr. 1-3. A course in which a special topic in management or marketing will be given intensive study. The topic will vary from year to year. Prerequisites: senior standing in the College and consent of the chairman of the department.

Courses in Marketing

**31. PRINCIPLES OF MARKETING. Each sem. Cr. 3. An introductory study in the marketing of goods and services using the managerial approach. Among

*Credit for Management 41 may be earned through the College Level Examination Program (CLEP) subject examination in Introduction to Business Management.

**Credit for Marketing 31 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Marketing.
those areas studied will be price, promotion, product and distribution. Pre-
requisite: sophomore standing.

131. RETAILING. Sem. 1. Cr. 3. A survey of modern practices in retailing,
such as store location, organization, buying, sales promotion and merchandise
planning and control. Prerequisite: Marketing 31.

132. MARKETING MANAGEMENT. Sem. 1. Cr. 3. A study of the marketing
problems of the firm approached from the management point of view. Pre-
requisites: Marketing 31 and Management 41.

133. PROMOTIONAL TECHNIQUES. Each sem. Cr. 3. An introductory study
of marketing communication tools which include advertising, personal selling,
publicity, and sales promotions. Prerequisite: Marketing 31.

136. INTERNATIONAL MARKETING. Sem. 2. Cr. 3. An analysis of cultural,
legal and political factors affecting the marketing of products and services in
world markets. Emphasis is placed upon differences in life styles, beliefs and
attitudes and their influences upon marketing decisions of the foreign firm.
Prerequisite: Marketing 31. (Offered in 1973-1974.)

137. CONSUMER BEHAVIOR. Sem. 2. Cr. 3. A study of the factors which
influence the behavior of consumers in the market. Contributions from the
behavioral and social sciences are related to various marketing applications.
Prerequisite: Marketing 132.

138. MARKETING RESEARCH. Sem. 2. Cr. 3. A study of important research
concepts and techniques as applied to marketing decision making. Emphasis will
be placed upon marketing investigation and analysis of research results through
a field project. Prerequisites: Marketing 132 and Quantitative Analysis 85.

139. PROBLEMS IN MARKETING. Each sem. Cr. 1-3. A course in which a
special topic in marketing will be given intensive study. The topic will vary from
year to year. Prerequisites: senior standing in the College and consent of the
chairman of the department.

Courses in Quantitative Analysis

85. STATISTICS I. Each sem. Cr. 3. A course in the elements of statistical
inference and the application of statistical methods to business and economic
problems. Content includes descriptive statistics, probability theory and prob-
bability distributions, estimation, and tests of hypotheses. Prerequisite: Mathe-
matics 36. Laboratory fee, $5.00.

86. STATISTICS II. Sem. 2. Cr. 3. A continuation of Quantitative Analysis
85. New topics include non-parametric statistics, analysis of variance, regression
and correlation analysis, and time series analysis. Prerequisite: Quantitative
Analysis 85. Laboratory fee, $5.00.

87. QUANTITATIVE METHODS. Sem. 1. Cr. 3. A course covering operations
models in the field of management science. Topics such as Bayesian decision
making, inventory analysis, linear programming, queuing theory and simulation
are included. Prerequisites: Quantitative Analysis 85 and Mathematics 36.
Laboratory fee, $5.00.

89. MATHEMATICS FOR ECONOMISTS. Sem. 1. Cr. 3. A course which
considers economic problems of a mathematical type along with the necessary
mathematical analysis. Not open to students with more than a year of calculus.
Prerequisites: Mathematics 36 and Economics 72.

144. MATHEMATICAL MODELS IN THE SOCIAL SCIENCES. (Also offered as
Mathematics 163. Sem. 1. Cr. 3 or 4. This course is intended for students
with a strong background in management or the social sciences. Topics will
be chosen according to the interests of the class. These may include: Markov
chains, linear and dynamic programming, queuing theory, learning models,
population models, and simulation. Prerequisites: Mathematics 31, 33, and 36
or the equivalent, and a first course in statistics from any department.

187. ADVANCED QUANTITATIVE METHODS. Sem. 2. Cr. 3. A continuation
of Quantitative Analysis 87. The course considers models covered in Quantitative
Analysis 87 in more depth and also covers new topics such as game theory,
dynamic programming, and Markov analysis. Prerequisite: Quantitative Anal-
ysis 87.
THE DEPARTMENT OF ECONOMICS

Professor Laube (Acting Chairman); Associate Professor Bernard; Assistant Professors Lesnick, Nielsen, and Noller

COURSES IN ECONOMICS

*71. PRINCIPLES OF ECONOMICS. Each sem. Cr. 3. An introductory study of the central functions and problems of an economic system with emphasis on the determinants of consumer demand, producer supply, and their interaction in the marketplace. No prerequisite.

*72. PRINCIPLES OF ECONOMICS. Each sem. Cr. 3. An introduction to macro-economic analysis with emphasis on national income, consumer spending, investment, government, and monetary aspects. No prerequisite.

107. INTRODUCTION TO COMPUTING. (Also offered as Mathematics 21.) Each sem. Cr. 2. An introduction to the use of digital computers, including the programming of elementary applications using an algorithmic language such as Fortran. This course is not intended for students with previous programming experience. Prerequisite: proficiency in algebra.


173. COMPARATIVE ECONOMIC SYSTEMS. Sem. 1. Cr. 3. A comparative analysis of political theories and the economic systems that derive from those theories. The course will focus on those ideological assumptions that result in capitalism, socialism, fascism, anarchism, etc. as the solution to economic problems. Prerequisites: Economics 71 and 72 or consent of the chairman of the department.

174. PUBLIC FINANCE. (Also offered as Finance 166.) Sem. 2. Cr. 3. An analysis of the role of the public sector in a market economy. Public revenues and expenditures, fiscal administration, and taxation are considered as they relate to economic activity. Prerequisites: Economics 71 and 72.

175. ECONOMIC INSECURITY AND SOCIAL INSURANCE. Sem. 2. Cr. 3. An analysis of the socioeconomic risks of accident, disease, unemployment, old age, poverty, and the social insurance and welfare programs designed to meet these risks. Prerequisites: Economics 71 and 72.

176. INTERNATIONAL ECONOMICS. Sem. 2. Cr. 3. A study of the theory underlying and the methods of financing international trade, the deviations from and the restoration of equilibrium and the problems associated with foreign investment and indebtedness. Prerequisites: Economics 71 and 72.

177. MODERN EUROPEAN ECONOMIC HISTORY. Sem. 2. Cr. 3. A history of the economic development of Western Europe from 1750 to the present. Emphasis is placed on the role of the industrial revolution and its impact on modern man. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

178 (278). ECONOMIC HISTORY OF THE UNITED STATES. Sem. 1. Cr. 3. The history of the economic development of the United States from the colonial period to the present. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

181. ECONOMICS OF DEVELOPING NATIONS. Sem. 1. Cr. 3. An analysis of economic variables, both theoretical and institutional, which characterize developing nations. Emphasis is placed on cyclical poverty, allocation of resources and policy planning. Prerequisites: Economics 71 and 72.

183. ECONOMICS OF LABOR. Sem. 1. Cr. 3. The approach of workers and employers to the problems of labor; the development of trade unions and collective government regulation of labor relationships; and an economic analysis of wage-employment problems. Prerequisites: Economics 71 and 72.

*Credit for Economics 71 and 72 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Economics.
185. **MONEY AND BANKING.** Sem. 1. Cr. 3. A study of the institutions, principles and problems of money and banking in the U. S. Special attention is given to the basic elements of monetary theory and policies. Prerequisites: Economics 71 and 72.

186. (286). **INTERMEDIATE MICRO-ECONOMIC THEORY.** Sem. 1. Cr. 3. A study of the theoretical concepts and analytical techniques which economists employ to interpret the process of resource allocation under various systems of economic organization. Prerequisites: Economic 71 and 72 and junior standing or consent of the chairman of the department.

187 (287). **INTERMEDIATE MACRO-ECONOMIC THEORY.** Sem. 2. Cr. 3. A critical examination of theories of national income determination and of techniques for measuring and analyzing aggregate economic activity. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

188. **MONETARY THEORY AND POLICY.** Sem. 2. Cr. 3. An examination of monetary theories and their impact on aggregate economic behavior. Prerequisite: Economics 185.

189 (289). **THE HISTORY OF ECONOMIC THOUGHT.** Sem. 2. Cr. 3. Economic thought in its historical development from the Mercantilists to the present day. Prerequisites: Economics 71 and 72 and junior standing or consent of the chairman of the department.

199. **PROBLEMS IN ECONOMICS.** Each sem. Cr. 1-3. A course in which a special topic in economics will be given intensive study. The topic will vary from year to year. Prerequisite: junior or senior standing in the College or consent of the chairman of the department.

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**THE COLLEGE OF ENGINEERING**

*Professor Lehmann (Dean); Professor Mortimer (Secretary)*

**CURRICULA AND DEPARTMENTS**

The College of Engineering offers four-year curricula leading to the degrees of Bachelor of Science in Civil, Electrical, and Mechanical Engineering. Special options are available which combine work in chemistry and biology for a pre-medical program or to prepare a person for a career in bio-engineering or chemical engineering. These programs are accredited by the Engineers' Council for Professional Development. A double-degree program is also offered for students desiring to earn the degree of Bachelor of Arts in addition to the degree of Bachelor of Science in Engineering.

The College of Engineering is a member of the Engineers' Council for Professional Development and an institutional member of the American Society for Engineering Education.

**ENGINEERING EDUCATION AT VALPARAISO UNIVERSITY**

The College of Engineering recognizes the responsibility to offer a program which is strong in engineering fundamentals yet broad in liberal arts in order to prepare graduates for the expanding role engineers are assuming. Being a person basically trained in the physical sciences, the engineer is called upon to make important technical decisions that affect the conditions under which people live, work, and play. Today's industrial systems have become so complex that the person who manages them must be well versed

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*Credit for Economics 185 may be earned through the College Level Examination Program (CLEP) subject examination in Money and Banking.*
in all the technical phases of industry. More and more engineers are being called upon to serve as managers, advisers to governmental bodies, and directors of major scientific projects. It is, therefore, obvious that an engineer must be more than a technically competent person.

Valparaiso University believes that it is important for the engineer to have a proper perspective of the social, moral, and ethical problems of today. It further believes that such a perspective can be gained only by full participation in the academic, social, cultural, and spiritual life of a Christian university. The College of Engineering has, therefore, been made an integral part of the University in order to give the student an opportunity to participate in all phases of University life.

ACADEMIC PROGRAM

The academic programs of the College of Engineering prepare the student for either industry or graduate school. The first year and one-half is designed to give the student a good general education, including a firm foundation in mathematics and the physical sciences. During the following two and one-half years the student receives a broad education in the particular field of engineering that he has chosen. In his senior year the student has the option to select either graduate school oriented or terminal design courses. All programs contain extensive laboratory work which demonstrate practical applications and support the theory taught in the classroom. In addition, each senior student works on an independent study project in an area of personal interest. Many of these projects involve solving real engineering problems supplied by industry.

One-fourth of the engineering program is devoted to non-technical course work. These courses are placed throughout the four years and include religion, literature, English composition, economics, public speaking, and several electives. The academic program plus participation in the life of the University help the student mature socially and spiritually, as well as professionally.
LOCATION

Valparaiso University's location, approximately fifty miles from the heart of Chicago and a short distance from the Calumet and St. Joseph Valley industrial areas of Indiana, provides opportunity for close contact with industry through inspection trips. Student members of the professional engineering societies are welcome at meetings of the parent societies in the area.

ORGANIZATION

The College of Engineering constitutes a separate administrative and instructional unit of the University and is under the direction of the Dean of the College of Engineering. It is divided into the Department of Civil Engineering, the Department of Electrical Engineering, and the Department of Mechanical Engineering. The College places its major emphasis on producing an outstanding undergraduate program.

PLANT AND FACILITIES

The College of Engineering is located in the Gellersen Engineering-Mathematics Center. This building was made possible through the generosity of the late William A. Gellersen of Oakland, California, and houses the offices, classrooms, and laboratories of the College of Engineering, as well as the offices, classrooms and computer center of the closely-related Department of Mathematics of the College of Arts and Sciences.
The Laboratories of the Department of Civil Engineering

Materials Testing Laboratory—This laboratory contains equipment necessary to conduct investigations of the behavior of real engineering materials under static, impact, and cyclic loading conditions. This equipment includes both mechanical and hydraulic universal testing machines with capacities up to 60,000 pounds for applying tensile, compressive, torsional, and flexural loads. Fatigue testing machines are also available for applying alternating direct stress and/or bending stress to test specimens or to actual machine or structural components. In addition, instrumentation is available for measuring and recording the deformation and deflection resulting from the applied load.

Fluids Mechanics Laboratory—This laboratory contains apparatus for instructional use and also for student and staff research activities. The equipment includes: devices for measuring fluid pressure, discharge and velocity, Reynolds number apparatus, smoke tunnel, a tilting flume, subsonic wind tunnel, a water table, a pipe network, electric analog equipment, a pump-Pelton wheel-impulse rig, a Hele-Shaw unit, a set of instructional films and miscellaneous supporting apparatus.

Environmental Engineering Laboratory—This laboratory is equipped with apparatus required for physical, chemical, and bacteriological analyses of air, water, waste water, and solid wastes. The laboratory is also equipped to handle individual investigation and research studies by the students and staff in the field of environmental engineering.

Concrete and Soil Mechanics Laboratory—This laboratory contains the equipment required for conducting the ASTM standard tests on Portland cement, aggregates, cement and masonry products and soil as an engineering material. Among the major pieces of equipment are a 400,000 pound compression testing machine, direct shear, unconfined compression, consolidation and triaxial testing machines.

The Laboratories of the Department of Electrical Engineering

Systems Analysis Laboratory—This laboratory is equipped with electromechanical and electrohydraulic devices and components, transducers, recorders, and breadboard apparatus. Analog computers and special measuring devices are used for component modeling and system studies.

Electrical Science Laboratory—Instruction in basic electrical instrumentation and circuit testing is given in this laboratory. Work stations are equipped with signal generators, power supplies, oscilloscopes, metering and components necessary for study of elementary electrical and electronic circuitry. Electric and electromechanical systems are modeled and tested.

Junior Laboratories—Two laboratory rooms are equipped with the necessary instrumentation and devices for conducting studies in semiconductor electronics, active and passive networks, transmission media and signal spectra.

Microwave Laboratory—This laboratory is equipped with the necessary instrumentation for making precision measurements of electrical quantities at all frequencies. It also contains the necessary signal sources, cabling, wave guides, and auxiliary equipment for the study of the propagation of electrical energy at high frequencies.
Energy Conversion—This laboratory is equipped to conduct studies of the behavior of electrical energy conversion devices and their control under static and dynamic conditions. In addition to conventional motors and generators, special educational machines, including a Westinghouse Generalized Machine are available for study.

Communications—This laboratory contains opto-electronic devices, noise and signal generating equipment and measurement instrumentation for studies of analog and digital methods of information transmission and signal processing.

*The Laboratories of the Department of Mechanical Engineering*

Energetics—This laboratory is equipped for the study of mobile power sources. Equipment consists of reciprocating and rotating (Wankel) spark ignition and compression ignition engines, gas turbine, fuel cell and associated measurement and analysis instruments.

Experimental Stress—This laboratory contains the necessary equipment for experimental studies of stress and strain distribution using Brittle coatings, photoelasticity, electrical strain gage, and Birefringent coating.

Heat Transfer and Gas Dynamics—This laboratory is equipped with a heat exchanger, natural convection loop, refrigeration and air conditioning units, blowers, compressors, shock tube, flow table, thrust stand, a supersonic wind tunnel, and necessary instrumentation for the study of heat transfer and compressible fluid flow.

Manufacturing Processes—This laboratory contains modern production equipment including both tracer and numerically controlled machines; standard tool room equipment; and foundry, welding, heat treatment, plating and inspection facilities. It is equipped to conduct fundamental metallurgical studies, machine tool measurements, and production methods studies.

Measurements and Controls—This laboratory contains the equipment for measurement in the areas of pressure, temperature force, torque displacement and fluid flow. Equipment for both static and dynamic studies is available. The laboratory is also equipped with standard process control devices as well as complete process systems and process analogs.

Vibrations and Sound—This laboratory contains a vibration table, electrical vibration excitation equipment, system models, and vibration and sound measuring instrumentation.

*Interdepartmental Laboratories*

Television Center—This facility is equipped with a control room for the preparation of videotapes and videocassettes for instructional use and student self-evaluation. Television cameras, recorders, monitors, special effects, and distribution equipment are operated by trained personnel to provide supplementary audio-visual material for the classroom teacher. The facility also houses dial-access and videocassette study carrels which are provided for independent study and/or review of material at times convenient to the student. The study carrels are also available for use by other academic departments of the University.

Computation Room—The College of Engineering maintains a room, available during school hours to students, for basic and advanced automatic
calculations. The room is equipped with various types of electronic calculation machines located in individual carrels. Scientific keyboard machines, including programmable types and automatic plotting, are also included.

The Computer Center—The digital computer laboratory, which is under the administrative direction of the mathematics department, is housed in the Gellersen Engineering-Mathematics Center and is available for use by the students and faculty of the College of Engineering. The Center is equipped with an IBM 1711 digital computer system complete with analog to digital and digital to analog interface equipment and disc pack memory console. The Center also houses the necessary accessory devices such as printers, sorters, key punches, and data link terminals from each of the engineering bays. This system is used for academic purposes only.

Analog Computer Laboratory—This laboratory is equipped with electronic analog computers, function generators, and output devices required for the simulation of various engineering problems and processes on the analog computer.

STUDENT ORGANIZATIONS

Professional development of the engineering students is encouraged through the activities of the Engineering Society. Upper division students are encouraged to join the local student chapters of the American Society of Civil Engineers, the American Society of Mechanical Engineers, and the Institute of Electrical and Electronic Engineers. Officers of these Founder Societies form the Joint Engineers Council which administers the affairs of the Engineering Society. The Engineering Society conducts a general interest program for all engineering students and sponsors social and recreational activities for the students of the College of Engineering.

The Engineering Supply Store is a student operated nonprofit store that supplies the students with engineering materials at reduced prices. The surplus earnings of the store are used to finance the activities of the Engineering Society.

TAU BETA PI

Junior and senior students who have distinguished themselves by high scholarship, exemplary character, unselfish activity, and breadth of interest in their profession may be elected to membership in Tau Beta Pi, the national engineering honorary fraternity. The Delta Indiana chapter of Tau Beta Pi was installed at Valparaiso University on March 23, 1963. The chapter of Tau Beta Pi serves to replace Appian Society, which was a local honorary organization founded in 1959.

PROFESSIONAL REGISTRATION OF ENGINEERS

Registration of anyone who wishes to practice professional engineering is required by law in each of the states and the District of Columbia. The purpose of the law is to assure the general public that anyone professing to practice engineering has had his qualifications examined and accepted by a State Board of Examiners. It is desirable, therefore, that every engineering graduate apply for registration as an Engineer-in-Training (EIT) shortly before or upon graduation. EIT examinations for the State of Indiana are held at a convenient time in the spring of each year at Valparaiso University and at other institutions offering accredited engineering programs.
SPECIAL PROGRAMS

Programs can be planned which meet the special needs of students who want to study engineering at Valparaiso, and wish to pursue careers in medicine, bio-engineering, or chemical engineering. These programs involve replacing some of the technical and free electives with courses in chemistry and biology. Each student plans his program in consultation with his department head and must secure the approval of the Dean of the College of Engineering. Upon graduation the student receives a Bachelor of Science degree in Civil, Electrical, or Mechanical Engineering.

DOUBLE-DEGREE PROGRAMS

The double-degree program leads to the degree of Bachelor of Arts in addition to the Bachelor of Science. Five years are usually required to complete this program, although exceptional students have completed it in less time.

A student may earn two degrees by completing one of the engineering curricula and completing the general education requirements of the B.A. degree as well as one of the academic majors for that degree. This will require him to earn 166 credit hours and to have a standing of at least two (2.00) in all his work. Students electing such a program must have their schedules approved by both the Dean of the College of Arts and Sciences and the Dean of the College of Engineering at the beginning of each semester. Sample or representative curricula for such programs may be obtained upon application to the Dean of the College of Engineering.

ADMISSION

The requirements for admission to the first-year class in engineering are set forth on page 49 of this bulletin.

REQUIREMENTS FOR GRADUATION

In addition to the requirements for graduation set forth on page 59 of this bulletin, the student must complete one of the prescribed curricula.

THE COLLEGE OF ENGINEERING AND CHRIST COLLEGE

Certain students enrolled in the College of Engineering may be invited to participate in the program of Christ College. For administrative purposes, these students will be enrolled in the College of Engineering. They will pursue a normal engineering program, but may substitute courses offered in Christ College for a portion of the required and elective courses offered in the College of Arts and Sciences. These students will be assigned an academic adviser who is a member of the faculty of the College of Engineering as well as a member of the Christ College Committee of the University. In conjunction with their advisers, and with approval of the Dean of the College of Engineering, these students will plan and execute an enriched program taking advantage of the specialized courses not normally offered within the departmental framework of the various colleges; the intention of such a program is to prepare a student to meet both personal and professional educational goals in a much more comprehensive manner.
HONORS WORK
A student of exceptional ability may pursue a program of independent study or research during his senior year. Details of this program must be worked out with the Department Chairman and have the approval of the Dean of the College of Engineering.

INSPECTION TRIPS
Inspection trips to industrial plants are required of all engineering students. These trips are arranged and conducted by members of the engineering faculty and are designed to correlate the instruction with the industries visited.

PLACEMENT
Each year the University Placement Service provides arrangements so that interested organizations may interview students on campus. The Placement Service will also make contacts for students with firms who are not in a position to interview prospects on campus. Representatives from approximately two hundred organizations from all parts of the United States visit the campus each year seeking engineering students.

APPROVAL OF SCHEDULES
All engineering students must have their schedules approved by their advisers at the beginning of each semester.

ENGINEERING CURRICULA
(Four-Year Program)
The first one and one-half years are common to all departments.
(In the three columns for each semester, the first is the number of lecture hours per week; the second the number of laboratory hours per week; and the third the number of semester hours of credit.)

FIRST YEAR
First Semester

<table>
<thead>
<tr>
<th>M</th>
<th>75.</th>
<th>Calculus I</th>
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<tr>
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<tr>
<td>GE</td>
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<tr>
<td>GE</td>
<td>GE 63/GE 14.</td>
<td>Energy Systems/Mechanics-Statics</td>
<td>3</td>
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<td></td>
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<td>Engineering Science I/Graphics</td>
<td>2</td>
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Second Semester

<table>
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<tr>
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<td>GE 90/GE 69.</td>
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<tr>
<td>GE</td>
<td>GE 14/GE 63.</td>
<td>Mechanics-Statics/Energy Systems</td>
<td>3</td>
<td>0</td>
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<tr>
<td></td>
<td></td>
<td>Graphics/Engineering Science I</td>
<td>2</td>
<td></td>
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<td></td>
<td></td>
<td>1-4-2</td>
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## SECOND YEAR

### First Semester

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<tr>
<td>M 77. Calculus III</td>
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<tr>
<td>Ch 51E. General Chemistry</td>
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</tr>
<tr>
<td>GE 95. Electricity and Magnetism</td>
<td>3 3 4</td>
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<tr>
<td>GE 94. Mechanics-Dynamics</td>
<td>3 0 3</td>
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<td>R Religion</td>
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Total Credits: 18

### Second Semester

#### CIVIL ENGINEERING

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>M 104. Linear Algebra and Differential Equations</td>
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<tr>
<td>CE 103. Mechanics of Materials</td>
<td>3 0 3</td>
</tr>
<tr>
<td>GE 64. Engineering Science II</td>
<td>3 0 3</td>
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<tr>
<td>EE 96. Basic Electronic and Electromagnetic Devices</td>
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Add one of the following:

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Ch 52E. General Chemistry</td>
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<tr>
<td>Bi 50. Unity of Life</td>
<td>3 3 4</td>
</tr>
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<td>Geo 10. Geomorphology</td>
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Total Credits: 17/18

#### ELECTRICAL ENGINEERING

<table>
<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>M 104. Linear Algebra and Differential Equations</td>
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</tr>
<tr>
<td>Ch 52E. General Chemistry</td>
<td>3 0 3</td>
</tr>
<tr>
<td>EE 127. Laboratory I</td>
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<tr>
<td>EE 128. Linear Circuits</td>
<td>3 0 3</td>
</tr>
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<td>EE 129. Non-Linear Circuits</td>
<td>3 0 3</td>
</tr>
<tr>
<td>E 25. Literary Studies</td>
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Total Credits: 18

#### MECHANICAL ENGINEERING

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<td>M 104. Linear Algebra and Differential Equations</td>
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</tr>
<tr>
<td>Ch 52E. General Chemistry</td>
<td>3 0 3</td>
</tr>
<tr>
<td>ME 173. Mechanical Measurements Laboratory</td>
<td>2 3 3</td>
</tr>
<tr>
<td>ME 170. Thermodynamics</td>
<td>3 0 3</td>
</tr>
<tr>
<td>GE 169. Digital Computer Methods</td>
<td>2 0 2</td>
</tr>
<tr>
<td>Ec 71. Principles of Economics</td>
<td>3 0 3</td>
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</table>

Total Credits: 18

A transfer student may apply a maximum of 3 credits in religion from his advanced standing to the religion requirement. A transfer student with more than 68 credits of advanced standing need only complete one course (3 credits) of religion at Valparaiso University.
THE DEPARTMENT OF CIVIL ENGINEERING

Professor Peller (Chairman); Professors El-Naggar* and Mortimer; Associate Professors Marino and Schueler; Assistant Professor Spring

CURRICULUM

THIRD YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th></th>
<th>Second Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 106. Fluid Mechanics I</td>
<td>2 3 3</td>
<td>CE 100. Surveying</td>
<td>2 3 3</td>
</tr>
<tr>
<td>CE 109. Structural Analysis I</td>
<td>4 0 4</td>
<td>CE 115. Structural Analysis II</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CE 112. Materials Engineering</td>
<td>1 3 2</td>
<td>CE 122. Soil and Foundation Engineering</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CE 120. Soil Mechanics</td>
<td>2 3 3</td>
<td>CE 164. Environmental Engineering</td>
<td>2 3 3</td>
</tr>
<tr>
<td>GE 169. Digital Computer Methods</td>
<td>2 0 2</td>
<td>CE 116. Structural Design I</td>
<td>3 3 4</td>
</tr>
<tr>
<td>E 25. Literary Studies</td>
<td>4 0 4</td>
<td>SP 40. Fundamentals of Speech</td>
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<tr>
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<td>Total Credits</td>
<td>18</td>
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FOURTH YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th></th>
<th>Second Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 163. Transportation</td>
<td>3 0 3</td>
<td>CE 114. Engineering Management</td>
<td>3 0 3</td>
</tr>
<tr>
<td>CE 117. Structural Design II</td>
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<td>CE 113. Fluid Mechanics II</td>
<td>2 0 2</td>
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<tr>
<td>CE 165. Environmental Engineering II</td>
<td>3 0 3</td>
<td>Technical Elective</td>
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</tr>
<tr>
<td>CE 190. Independent Study Project I</td>
<td>1 3 2</td>
<td>CE 191. Independent Study Project II</td>
<td>1 3 2</td>
</tr>
<tr>
<td>Ec 71. Principles of Economics</td>
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<td>Free Elective</td>
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<td>Technical Elective</td>
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Technical Electives

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<tbody>
<tr>
<td>CE 166. Environmental Engineering III</td>
<td>2 2 3</td>
<td>CE 118. Structural Design III</td>
<td>2 2 3</td>
</tr>
<tr>
<td>ME 105. Experimental Stress Analysis</td>
<td>2 2 3</td>
<td>CE 167. Traffic Engineering</td>
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<tr>
<td>Mathematics</td>
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Comment: 15 credits of electives required as follows:
6 credits of technical electives.
3 credits of free electives to be selected from any University offering (students electing Bio 50 or Geo 10 may register for a 2 credit free elective).
6 credits of liberal arts electives selected from an approved list.
Total Credits, 136

### THE DEPARTMENT OF ELECTRICAL ENGINEERING

*Professors Dauberman, E. Luecke, Shewan, and Vocke; Associate Professor Vater*; Assistant Professor Schoech

#### CURRICULUM

**THIRD YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
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<tbody>
<tr>
<td><strong>EE 131.</strong> Electromagnetic Field Theory</td>
<td><strong>EE 138.</strong> Energy Conversion</td>
</tr>
<tr>
<td>EE 132. Laboratory II 0 6 2</td>
<td>EE 133. Laboratory III 0 6 2</td>
</tr>
<tr>
<td>EE 140. Electronics I 3 0 3</td>
<td>EE 141. Electronics II 3 0 3</td>
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<tr>
<td>EE 135. Network Analysis</td>
<td>EE 153. System</td>
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<tr>
<td>GE 64. Engineering Science II 3 0 3</td>
<td>CE 106. Fluid Mechanics I 2 3 3</td>
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<td>Elective 3 0 3</td>
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<td><strong>Total Credits 17</strong></td>
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**FOURTH YEAR**

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<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td><strong>ME 177.</strong> Heat Transfer</td>
<td><strong>SP 40.</strong> Fundamentals of Speech</td>
</tr>
<tr>
<td><strong>EE 154.</strong> System Theory II</td>
<td>EE 191. Independent Study Project II 1 3 2</td>
</tr>
<tr>
<td><strong>EE 158.</strong> Communication Theory</td>
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<td><strong>EE 190.</strong> Independent Study Project I 1 3 2</td>
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<td>Elective 7</td>
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<td><strong>Total Credits 18</strong></td>
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**Comment:** 25 credits of electives required as follows:
- 16 credits of technical electives of which at least 13 credits must be in electrical engineering.
- 3 credits of free electives to be selected from any University offering.
- 6 credits of liberal arts electives selected from an approved list.

**Total Credits, 136**

### THE DEPARTMENT OF MECHANICAL ENGINEERING

*Professor Zoss (Chairman); Professors Isbell**; Kruger, and Lehmann; Assistant Professors Lux and Rose

#### CURRICULUM

**THIRD YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CE 103.</strong> Mechanics of Materials 3 0 3</td>
<td><strong>CE 112.</strong> Materials Engineering 1 3 2</td>
</tr>
<tr>
<td><strong>ME 186.</strong> Manufacturing Processes 2 6 4</td>
<td><strong>GE 64.</strong> Engineering Science II 3 0 3</td>
</tr>
<tr>
<td><strong>ME 172.</strong> Fluid Dynamics 3 0 3</td>
<td><strong>ME 187.</strong> Statistical Engineering 2 3 3</td>
</tr>
<tr>
<td><strong>ME 180.</strong> Mechanisms 3 0 3</td>
<td><strong>E 25.</strong> Literary Studies 4 0 4</td>
</tr>
<tr>
<td><strong>EE 96.</strong> Basic Electronic and Electromagnetic Devices 3 3 4</td>
<td><strong>SP 40.</strong> Fundamentals of Speech 2 0 2</td>
</tr>
<tr>
<td><strong>ME 177.</strong> Heat Transfer 3 0 3</td>
<td><strong>ME 177.</strong> Heat Transfer 3 0 3</td>
</tr>
<tr>
<td><strong>Total Credits 17</strong></td>
<td><strong>Total Credits 17</strong></td>
</tr>
</tbody>
</table>

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**On leave of absence, Spring Semester, 1973-1974.**

†Chairmanship vacant at the time of printing.
## FOURTH YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 183. Machine Design</td>
<td>ME 191. Independent Study</td>
</tr>
<tr>
<td>ME 179. Heat Power Design I</td>
<td>ME 190. Independent Study</td>
</tr>
<tr>
<td>ME 190. Independent Study</td>
<td>Project II</td>
</tr>
<tr>
<td>Electives</td>
<td>Electives</td>
</tr>
<tr>
<td>Total Credits</td>
<td>Total Credits</td>
</tr>
</tbody>
</table>

**Comment:** 27 credits of electives required as follows:
- 15 credits of technical electives of which at least 12 credits must be in mechanical engineering.
- 6 credits of free electives to be selected from any University offering.
- 6 credits of liberal arts electives selected from an approved list.

Total Credits, 136

### COURSES IN ENGINEERING*

#### GENERAL ENGINEERING

**GE 4. ELEMENTARY GRAPHICS.** Sem. 2. 1+3, Cr. 2. A course of study designed to acquaint the student with the graphic language-techniques (lettering and line work), scale drawing and size description, orthographic projection, sectional representation, and other conventional methods, graphic theory involving lines and plane relationships, and pictorial representation (perspective and isometric). Emphasis on blue-print reading and interpretation of plans and elevations. Brief survey of methods, practices, and techniques of home construction. (Not open to engineering students.) Prerequisite: sophomore standing. Laboratory fee, $5.00. (Given in alternate years.)

**GE 14. GRAPHICS.** Each sem. 1+4, Cr. 2. A basic course in the theory and techniques of engineering graphics. Emphasis is placed on theoretical geometric projections including line and plane principles in space, orthographic projections with auxiliary and oblique views, intersections and contours. Graphical accuracy, lettering, and technical graph techniques supplement theoretical concepts.

**GE 26. INTRODUCTION TO ENGINEERING.** Sem. 1. 2+0, Cr. 2. An introductory course in engineering methods and applications. Numerical logic, dimensional integrity and calculations are performed using both slide rule and small calculators. The engineering profession in the academic areas of civil, electrical, and mechanical engineering, is introduced by departmental chairmen.

**GE 63. ENGINEERING SCIENCE I.** Each sem. 2+0, Cr. 2. An introduction to the principles of wave motion including wave characteristics, interference, Doppler effect, refraction, reflection, polarization, and diffraction. Applications involve electromagnetic, sound, and water waves. Prerequisite: Mathematics 75 or concurrent registration.

**GE 64. ENGINEERING SCIENCE II.** Each sem. 3+0, Cr. 3. A study of the fundamental laws of atomic and nuclear structure, including properties of the electron and the special theory of relativity as applied to atomic and subatomic particles. A study is included of the development of nuclear energy and its application and the use of isotopes in industry. Prerequisite: Mathematics 76.

**GE 69. ENERGY SYSTEMS.** Each sem. 3+0, Cr. 3. A basic course in heat and thermodynamics. The first and second laws of thermodynamics are emphasized through energy balances, conservation of energy and energy limits.

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*See page 64 for the number of credits that may be applied toward a degree offered by the College of Arts and Sciences.

Not more than four semester credits of engineering may be counted toward a degree offered by the College of Business Administration.
Properties of fluids and vapors are studied using tables and charts, and the equation of the perfect gas. Functions, principles of construction, and actual performance of heat power machinery are analyzed to demonstrate theory and practice.

GE 90. MECHANICS-STATICS. Each sem. 3+0, Cr. 3. Resolution and composition of forces; couples; free-body diagram; principles of equilibrium; friction; first and second moments of areas.

GE 94. MECHANICS-DYNAMICS. Sem. 1. 3+0, Cr. 3. A basic course in kinetics. Motion of a particle in rectangular, curvilinear, and polar coordinates; motion of a rigid body; forces involved in moving systems; work and energy relations; impulse and momentum; periodic motion. Prerequisites: Mathematics 76 and GE 90.

GE 95. ELECTRICITY AND MAGNETISM. Sem. 1. 3+3, Cr. 4. A study of the definitions and properties of electric and magnetic force fields. The application of Kirchhoff's Laws to elementary DC and AC circuits is emphasized. Prerequisite: Mathematics 75. Laboratory fee, $10.00.

GE 169. DIGITAL COMPUTER METHODS. Each sem. 2+0, Cr. 2. An introductory course in numerical methods using the digital computer. Topics include the following: programming for the digital computer using the FORTRAN language, selected methods of numerical analysis applied to solutions of engineering problems, comparison of selected numerical methods. Prerequisite: Mathematics 77 or concurrent registration with previous exposure to FORTRAN.

GE 195. SENIOR PROBLEM. Each sem. Variable credit. Selected students are permitted to work out a special problem in their particular field under the supervision of a member of the faculty. Each student will be required to keep a progress notebook and to turn in a final report, typed in triplicate and in approved form. Open only to students with acceptable senior standing upon permission of the faculty and approval of the Dean of the College of Engineering.

THE DEPARTMENT OF CIVIL ENGINEERING

CE 100. SURVEYING. Sem. 2. 2+3, Cr. 3. A study of the art and science of field measurements of length and angles. Special emphasis is placed upon the theory of errors; use of surveying instruments; computer and calculator techniques as applied to surveying problems; and field practice in Transit-Tape Traverse and route surveying. Prerequisites: GE 26 and Mathematics 76. Laboratory fee, $10.00.

CE 103. MECHANICS OF MATERIALS. Each sem. 3+0, Cr. 3. Concepts of stress and strain; stress-strain relations; plane states of stress and strain at a point; elementary analysis of stress distributions and deformations; axial loading, torsion of circular shafts, shear force and bending moment diagrams, elementary theory of bending. Introduction to statically indeterminate problems. The continuous beam; conjugate beam method; introduction to the buckling of columns. Prerequisites: Mathematics 77 and GE 90.

CE 106. FLUID MECHANICS I. Each sem. 2+3, Cr. 3. An examination of fluid properties, fluids at rest, and fluid flow including conservation of mass, momentum, energy, fluid friction, lift, drag, dimensional analysis, and similitude. Applications include pipe flow, channel flow, pumps, turbines, flow measurement, hydraulic model studies, and flow around submerged objects. Prerequisite: GE 94. Laboratory Fee $10.00.

CE 109. STRUCTURAL ANALYSIS I. Sem. 2. 4+0, Cr. 4. Analytical and graphical methods for the determination of axial, flexural, shearing, and torsional stresses and their resulting deflections. Common structural forms of both determinate and indeterminate types such as bridge and roof trusses, cable-structures, beams and frames will be treated. Influence line theory and energy methods will be introduced. Prerequisite: CE 103.

CE 112. MATERIALS ENGINEERING. Each sem. 1+3, Cr. 2. A study of the mechanical properties of engineering materials and the relationship between their behavior and the design of structural and machine components. The macro- and micro-structure of materials are studied and the elementary concepts
of failure including fracture, yielding, and elastic instability are presented along with the classic theories of failure. Experimental investigations involving static yielding and fracture, high cycle fatigue, cryogenic temperature impact, and elevated temperature creep are conducted in the laboratory. Prerequisite: CE 103. Laboratory fee, $10.00.

CE 113. FLUID MECHANICS II. Sem. 1. 2+0, Cr. 2. Application of the principles of fluid mechanics to solution of engineering analysis and design problems. Topics include: model testing, advanced closed conduit and open channel hydraulics, a study of reservoirs, ground water flow, advanced flow about objects and other items of current interest. Prerequisites: CE 106 and GE 169.

CE 114. ENGINEERING MANAGEMENT. Sem. 2. 3+0, Cr. 3. The application of engineering economy concepts to construction projects using the case study approach. Investigating methods of construction management and the role the engineer plays in interacting with client and contractor. Prerequisite: senior standing in the College.

CE 115. STRUCTURAL ANALYSIS II. Sem. 2. 3+0, Cr. 3. Analysis of statically indeterminate structures, using the approximate method, classical methods and contemporary methods. These will include moment distribution, slope-deflection, matrix methods, elastic center column analogy and digital computer approaches. Prerequisites: GE 169 and CE 109.

CE 115A. STRUCTURAL ANALYSIS II. Sem. 1. 2+0, Cr. 2. Introduction to stiffness concept in approaching stress-deflection relationships applied to beams and frames, trusses, and grid and plate structures. Moment distribution; effect of stability on stiffness; deflection theory for arches and suspension bridges. Prerequisites: GE 169 and CE 109. (Not offered after 1973-1974.)


CE 117. STRUCTURAL DESIGN II. Sem. 2. 3+0, Cr. 3. The analysis and design of reinforced concrete structural system components using working-stress method and ultimate-strength method. Design will include bending, shear and diagonal tension, bond, compression members, slab design and footings. Prerequisites: CE 109 and CE 115. (After 1973-1974, Sem. 1.)

CE 118. STRUCTURAL DESIGN III. Sem. 2. 2+2, Cr. 3. The design of structural system components using methods of composite design, plastic design and prestressed concrete design. Prerequisites: CE 116 and CE 117.

CE 120. SOIL MECHANICS. Sem. 1. 2+3, Cr. 3. The study of index, structural, mechanical, and hydraulic properties of soils. Soil compaction and stabilization. Theoretical soil mechanics, including shearing strength, pressure distribution, consolidation, active and passive states of plastic equilibrium, and flow through permeable media. Elementary principles of laboratory identification and testing of soils. Fundamental properties of plain concrete and its components, including batch design. Prerequisites: CE 103 and concurrent registration in CE 106 and CE 112. Laboratory fee, $10.00.

CE 122. SOIL AND FOUNDATION ENGINEERING. Sem. 2. 3+0, Cr. 3. A continuation of CE 120. Further aspects of theoretical soil mechanics, including slope stability, lateral earth pressure and retaining walls, vertical pressure distribution and settlement, bearing capacity analysis, and load capacity of individual piles and pile groups. Proportioning of shallow and deep foundations. Subsoil investigation techniques. Prerequisite: CE 120.

CE 160. ENGINEER IN SOCIETY. Sem. 2. 2+0, Cr. 2. The discussion of selected topics involved in the interaction between the engineer and his sociological environment. Included will be topics from the fields of law, ethics, and economics; the application of these topics to engineering practice through case studies. Prerequisite: senior standing in the College. (Not offered after 1973-1974.)
CE 163. Transportation. Sem. 2. 3+0, Cr. 3. A survey of the application of engineering principles to the location, design, and construction of highway systems, railroads, and airports. Prerequisite: CE 122. (After 1973-1974, Sem. 1.)

CE 164. Environmental Engineering I. Sem. 2. 2+3, Cr. 3. The general aspects of man and his environment and the effects of pollution on nature's resources. Among topics considered are: water supply; water distribution; waste water problems; waste water collection; solid waste disposal; and the study of air and water quality criteria. Field trips are required. Prerequisite: CE 106. Laboratory fee, $10.00.

CE 165. Environmental Engineering II. Sem. 1. 3+0, Cr. 3. The application of environmental pollution control principles to unit processes studies and design. Field trips are required. Prerequisite: CE 164.

CE 166. Environmental Engineering III. Sem. 1. 2+2, Cr. 3. The history of the air pollution problem. Study of the different types of pollutants and their effect on the environment as well as investigation of the methodology for determining air quality criteria and standards, regulations, and ordinances. Discussion of plans for the implementation of air pollution control. Prerequisite: CE 165.

CE 167. Traffic Engineering. Sem. 2. 2+2, Cr. 3. An introductory study of traffic flow: techniques for describing the flow and capacities of highways and intersections. Economic factors are considered. Prerequisite: CE 163.

CE 190. Independent Study Project I. Sem. 1. 1+3, Cr. 2. The application of theoretical and experimental engineering concepts and mathematical principles in the analysis, design, or investigation of an engineering system. Individual or group problems in the field of civil engineering to be selected by the student with the approval of the civil engineering faculty. Prerequisite: senior standing in civil engineering. Laboratory fee, $10.00.

CE 191. Independent Study Project II. Sem. 2. 1+3, Cr. 2. A continuation of the project selected in CE 190. Laboratory fee, $10.00.

The Department of Electrical Engineering

EE 80. Instrumentation Techniques for Scientists. (Also offered as Chemistry 80.) Sem. 2. 1+2, Cr. 2. The application of modern electronic principles is applied to the proper use of basic scientific instrumentation. Emphasis is placed upon laboratory experience. The philosophy underlying the use and limitations of instrumentation, and simple trouble shooting techniques are studied. Special topics include: Basic electronic circuit elements, operational amplifiers, power sources, logic devices, the use of an oscilloscope as a basic measuring tool, various meters, and recording apparatus. Prerequisites: Physics 67 or concurrent enrollment and sophomore standing. Laboratory fee, $10.00.

EE 96. Basic Electronic and Electromagnetic Devices. (Also offered as Physics 106.) Each sem. 3+3, Cr. 4. Principles and applications of electronic and electromagnetic devices are studied. Laboratory work in basic electromagnetic devices; semiconductor circuitry including: logic circuits, amplifiers, and associated instrumentation. Prerequisite: GE 95 or Physics 68. Laboratory fee $10.00.

EE 127. Laboratory I. Sem. 2. 0+3, Cr. 1. Experimental study of linear and piece-wise linear circuits and instrumentation techniques. Prerequisite: GE 95. Laboratory fee, $10.00.

EE 128. Linear Circuits. Sem. 2. 3+0, Cr. 3. An introduction to the analysis of linear circuits and systems. Topics include: formulation of resistive network equations and computer methods of solution; state analysis of first and second order dynamic systems and networks; input-output analysis in terms of transfer functions, s-plane, and frequency response; and numerical solution of differential equations. Prerequisite: GE 95.

EE 129. Non-Linear Circuits. Sem. 2. 3+0, Cr. 3. An introduction to the analysis of non-linear electrical devices and their performance in circuits and systems. Topics emphasized are: switching circuits; two state devices; Boolean algebra and logic circuits; piecewise-linear models of non-linear devices. Prerequisite: GE 95.
EE 131. ELECTROMAGNETIC FIELD THEORY. Sem. 1. 3+0, Cr. 3. A study of the fundamental laws of static and dynamic electric and magnetic fields. Maxwell's equations; applications to boundary value problems including transmission lines and traveling waves. Prerequisites: Mathematics 77 and GE 63.

EE 132. LABORATORY II. Sem. 1. 0+6, Cr. 2. The study of signals and signal processing circuits, emphasizing instrumentation and measuring techniques. Prerequisites: concurrent registration in EE 135 and EE 140. Laboratory fee, $10.00.

EE 133. LABORATORY III. Sem. 2. 0+6, Cr. 2. A study of energy conversion devices and an introduction to project design. Case studies and open-end design problems are emphasized. Prerequisites: EE 132 and concurrent registration in EE 141. Laboratory fee, $10.00.

EE 135. NETWORK ANALYSIS. Sem. 1. 3+0, Cr. 3. Composite networks are characterized by terminal and port parameters. Network topology serves as the basis for developing independent equations. Frequency response of transfer functions including filters is studied. Prerequisite: EE 128.

EE 138. ENERGY CONVERSION. Sem. 2. 3+0, Cr. 3. A study of electromagnetic devices with emphasis on the principles and operating characteristics of transformers and rotating electrical machines. Prerequisites: EE 128 and concurrent registration in EE 133.

EE 140. ELECTRONICS I. Sem. 1. 3+0, Cr. 3. A study of semiconductor theory as it applies to diodes and transistors; the steady state switching characteristics of diodes and transistors; clipping, clamping, and comparator circuits; and transistor amplifiers and their biasing circuits. Prerequisite: EE 129.

EE 141. ELECTRONICS II. Sem. 2. 3+0, Cr. 3. A continuation of EE 140. The analysis and design of amplifiers. Power and small signal amplifiers, multiple transistor circuits, integrated circuits, multivibrator and logic circuits, oscillators, and amplifiers. Prerequisite: EE 140.

EE 142. ELECTRONICS III. Sem. 2. 3+0, Cr. 3. The third course in the electronic series. Special emphasis is placed on the synthesis of systems using electronic devices. Topics of interest include the frequency response of amplifiers, the operational amplifier and its applications, and active filter design, feedback in amplifiers, and switching characteristics of semiconductor devices. Prerequisite: EE 141. (Not offered after 1973-1974.)

EE 148. LOGIC DESIGN. Sem. 2. 3+0, Cr. 3. A study is made of Boolean algebra, basic logic circuits. Truth tables and Karnaugh maps are utilized in the design of combinational logic networks. State diagrams are employed in the study and design of sequential logic networks. Prerequisite: EE 141. (Not offered after 1973-1974.)

EE 151. ENERGY CONVERSION. Sem. 1. 3+3, Cr. 4. A study of electromagnetic devices with emphasis on the principles and operating characteristics of transformers and rotating electrical machines. Direct current machines; single phase and polyphase transformers, synchronous machines, inductive machines and fractional horsepower motors. Prerequisite: GE 95. Laboratory fee, $10.00. (Not offered after 1973-1974.)

EE 153. SYSTEM THEORY I. Sem. 1. 3+0, Cr. 3. An introduction to system analysis with emphasis on linear time-invariant systems and applications to communications and automatic control. Particular emphasis is placed on: signal representation; signal flow techniques; feedback theory; and an introduction to state space methods. Prerequisite: EE 135. (After 1973-1974, Sem. 2.)

EE 154, SYSTEM THEORY II. Sem. 2. 3+0, Cr. 3. A continuation of System Theory I with emphasis upon discrete-time systems; the optimal control problem; non-linear systems and selected topics. Prerequisite: EE 153. (After 1973-1974, Sem. 1.)

EE 158. COMMUNICATION THEORY. Sem. 2. 3+0, Cr. 3. The effects of system bandwidth and noise on the transmission of information; amplitude modulation; frequency modulation; pulse modulation; sampling theorem; information measure; channel capacity; and the application of statistical methods. Prerequisite: EE 153. (After 1973-1974, Sem. 1.)

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EE 190. INDEPENDENT STUDY PROJECT I. Sem. 1. 1+3, Cr. 2. The application of theoretical and experimental engineering concepts and mathematical principles to the analysis, design, and investigation of an engineering system. Individual or group problems in the field of electrical engineering are to be selected by the student with approval of the faculty. Prerequisite: senior standing in electrical engineering. Laboratory fee, $10.00.

EE 191. INDEPENDENT STUDY PROJECT II. Sem. 2. 1+3. Cr. 2. A continuation of the project selected in EE 190. Laboratory fee, $10.00.

ELECTRICAL ENGINEERING TECHNICAL ELECTIVES

EE 143. DIGITAL SYSTEM DESIGN. Sem. 2. 3+0, Cr. 3. A course in the organization and design of digital systems for computation, communication, and control. At least one major design project will be required for a system in each of these three areas. Prerequisites: EE 141 and EE 133.

EE 144. MICROWAVES. Sem. 1. 2+3, Cr. 3. An introduction to guided waves, microwave devices and systems, with a detailed study of waveguides, microwave circuit theory, and antennas. Laboratory experimentation emphasizes precise measuring technique and system performance. Prerequisite: EE 131. Laboratory fee, $10.00. (After 1973-1974, 3+3, Cr. 4.)

EE 145. ELECTRO-OPTICAL SYSTEMS. Sem. 2. 3+0, Cr. 3. A course in the application of electro-optical devices in the solution of problems in sensing, communication, and display. Special devices include: lasers, fibre optics, photo detectors, light emitting and light sensitive diodes, and illumination. Prerequisite: EE 153.

EE 149. TOPICS IN ELECTRICAL ENGINEERING. Each sem. Cr. 2 or 3. The investigation of electrical engineering topics of special interest. Prerequisite: consent of the chairman of the department.

EE 155. POWER SYSTEM ENGINEERING. Sem. 2. 3+0, Cr. 3. Power system components, load flow and the control of voltage and energy, are studied. System fault studies are related to system protection. Prerequisite: EE 138.

ME 105. EXPERIMENTAL STRESS ANALYSIS. Sem. 1. 2+2, Cr. 3. An introduction to experimental methods for measuring stresses and strains including: Brittle coatings, photoelasticity, electrical strain gages, Birefringent coatings, and Moire grids. The theoretical and experimental analysis of stress distributions in machine and structural components subjected to various loadings. Prerequisites: Mathematics 104 and CE 103.

ME 170. THERMODYNAMICS. Sem. 2. 3+0, Cr. 3. The study of the second law of thermodynamics to reversible and irreversible processes, entropy, real gases, gas and gas-vapor mixtures. The application of thermodynamic principles to the study of vapor and gas cycles. Prerequisite: GE 69.

ME 172. FLUID DYNAMICS. Sem. 1. 3+0, Cr. 3. The study of fluid flow, both compressible and incompressible, in variable and constant area ducts. The control volume method is employed in application of the conservation equations to flow systems. Fluid dynamics theory is applied to engineering design. Prerequisites: GE 94 and ME 170 or concurrent registration.

ME 173. MECHANICAL MEASUREMENTS LABORATORY. Sem. 2. 2+3, Cr. 3. Investigations into typical industrial and laboratory primary transducers and read out equipment in the mechanical measurement areas. Dynamic as well as static measurements are emphasized. Prerequisite: GE 69. Laboratory fee, $10.00.
ME 174. **MECHANICAL ENGINEERING LABORATORY.** Sem. 1. 0+4, Cr. 1. A laboratory course in the prediction and verification of the performance of typical mechanical equipment in the areas of automatic control, mechanical energy conversion, and heat transfer. Prerequisites: ME 172 and ME 173. Laboratory fee, $10.00. (Not offered after 1973-1974.)

ME 175. **AIR CONDITIONING.** Sem. 2. 3+0, Cr. 3. Basic calculations for capacity and selection of equipment for heating, ventilating, and air conditioning. Design and specifications for complete systems covering both human comfort and industrial process work. Prerequisite: ME 172. (Not offered after 1973-1974.)

ME 176. **ENERGETICS.** Sem. 1. 3+0, Cr. 3. A study of the principal characteristics of various mobile prime power sources such as: reciprocating and rotating spark ignition and compression ignition engines, gas turbines, rockets, fuel cells, etc. Analysis of the theoretical and actual thermodynamic cycles of each power source. Prerequisite: ME 172. (Not offered after 1973-1974.)

ME 177. **HEAT TRANSFER.** Sem. 1. 3+0, Cr. 3. The principles and practice of heat transfer by conduction, radiation, free and forced convection, vapor condensation, and boiling liquids. Unsteady state heat transfer, dimensional analysis, analytical and graphical solutions to engineering problems related to heat exchangers. Prerequisite: ME 172. (Not offered after 1973-1974.)

ME 178. **GAS DYNAMICS.** Sem. 2. 3+0, Cr. 3. The study of gas dynamics in one and two dimensional flow; topics include: nozzles, ducts, normal and oblique shock waves, and Prandtl-Meyer expansions. The application of the theory of gas dynamics to engineering design. Prerequisite: ME 170. (Not offered after 1973-1974.)

ME 179. **HEAT POWER DESIGN I.** Sem. 1. 2+3, Cr. 3. The design of systems and equipment applying thermodynamic, flow and heat transfer fundamentals to power generation, energy conversion and environmental control. Interrelation of theory and practice based on reliability, safety, environmental and economic considerations is incorporated in both lecture and laboratory study. Emphasis will be placed on reciprocating and rotating spark ignition and compression engines, steam and gas turbine power plants, and pollution considerations of combustion processes. Prerequisite: senior standing in mechanical engineering. Laboratory fee $10.00.

ME 180. **MECHANISM.** Sem. 1. 3+0, Cr. 3. A study of the kinematics of mechanisms and machines by analytical and graphical media; linkages, cams, flexible connectors, gearing, gear trains. Prerequisites: Mathematics 77 and GE 90.

ME 183. **MACHINE DESIGN.** Sem. 1. 2+3, Cr. 3. The rational application of material developed in courses in Mechanics of Materials and Mechanism to the design of pressure vessels and machine elements such as fastenings, power screws, belt and chain drives, gearing, couplings, bearings, shafting strength and springs. Empirical design receives emphasis during the first half of the course. Prerequisites: ME 180 and CE 103.

ME 186. **MANUFACTURING PROCESSES.** Sem. 1. 2+6, Cr. 4. A study of manufacturing methods including production drawings, tools, materials, fabrication techniques, and inspection. Machinability of materials, application of machine tools, welding, metallurgy, casting, heat treating, and numerical control are introduced through lecture and laboratory work. Field trips to industrial facilities are arranged. Prerequisite: GE 14. Laboratory fee, $10.00.

ME 187. **STATISTICAL ENGINEERING.** Sem. 2. 2+3, Cr. 3. An introduction to the application of statistics and probability theory in the solution of engineering problems. Concepts of variance, tolerance, and statistical properties of engineering materials are applied to design and production problems. The algebra of normal functions, learning curves, engineering economics, and statistical quality control techniques are related to manufacturing, reliability, and maintainability. Prerequisites: Mathematics 104 and ME 186.
ME 190. INDEPENDENT STUDY PROJECT I. Sem. 1. 1+3, Cr. 2. The application of theoretical and experimental engineering concepts and mathematical principles in the analysis, design, or investigation of an engineering system. Individual or group problems in the field of mechanical engineering to be selected by the student with the approval of the mechanical engineering faculty. Prerequisite: senior standing in mechanical engineering. Laboratory fee, $10.00.

ME 191. INDEPENDENT STUDY PROJECT II. Sem. 2. 1+3, Cr. 2. A continuation of ME 190. Laboratory fee, $10.00.

MECHANICAL ENGINEERING TECHNICAL ELECTIVES

ME 105. EXPERIMENTAL STRESS ANALYSIS. Sem. 1. 2+2, Cr. 3. An introduction to experimental methods for measuring stresses and strains including: Brittle coatings, photoelasticity, electrical strain gages, Birefringent coatings, and Moire grids. The theoretical and experimental analysis of stress distributions in machine and structural components subjected to various loadings. Prerequisites: Mathematics 104 and CE 103.

ME 181. AUTOMATIC CONTROL. Sem. 1. 2+2, Cr. 3. Basic fundamentals of instrumentation with particular application to process control. System dynamics and stability concepts using step, ramp and frequency response techniques. Prerequisite: Mathematics 104.

ME 182. VIBRATIONS. Sem. 2. 2+2, Cr. 3. Vibration analysis; isolation and determination of natural frequencies for various systems; practical aspects of vibration isolation and absorption; critical speeds; balancing. Prerequisites: Mathematics 104 and GE 94 and CE 103.

ME 184. HEAT POWER DESIGN II. Sem. 2. 2+2, Cr. 3. A continuation of ME 179. Emphasis will be placed on heat transfer, air conditioning and environmental control systems and modern energy sources. Prerequisite: senior standing in mechanical engineering.

ME 185. MACHINE DESIGN. Sem. 2. 2+2, Cr. 3. A continuation of ME 183, with further development of shafting design as related to deflection and critical frequency. Precision gearing and special gear tooth forms are extensively treated, and careful analysis of planetary gearing force relationships and design, both for conventional and for auxiliary-drive units, is considered. The practical design of high-speed cams and linkages and analyses of mechanical frames is treated.

ME 188. PRODUCTION OPERATIONS AND SYSTEMS. Sem 2. 2+2, Cr. 3. An analysis of production operations including both physical systems which produce goods and services, and management systems which provide decisions, information and control data. Course emphasis is placed on analysis, synthesis and improvement of individual operations within the production system physical measurements; data reduction techniques and engineering design. Inspection visits to production facilities are planned. Prerequisites: GE 14, ME 186, and ME 187. Laboratory fee $10.00.

THE COLLEGE OF NURSING

Professor D. Smith (Dean); Associate Professors Bluemel, Sheehan, and Whitehead; Assistant Professors Herzog, Janiga, Juell, and Lindemann; Mrs. Barlow, Miss Krueckeberg, and Mrs. Sprecher

OBJECTIVES

The College of Nursing offers a four-year curriculum leading to the degree of Bachelor of Science in Nursing. The specific purposes of the College of Nursing are:

1. To provide students with a liberal education.
2. To prepare students as beginning practitioners of nursing in a variety of health care settings.

3. To offer an education which can serve as a basis for graduate study.

In accordance with the philosophy of Valparaiso University, we believe that the responsibility of the College of Nursing is to foster the intellectual, emotional, and spiritual growth of the student as an individual, as a potential member of the nursing profession and as an effective citizen, through a curriculum which combines a program of professional nursing and liberal arts courses and which emphasizes the development of Christian character and the inculcation of Christian ideals. We believe that nursing exemplifies the Christian ideal of service to one’s fellow man.

**DEGREE REQUIREMENTS OF THE COLLEGE OF NURSING**

In order to realize its objectives, the College of Nursing holds the students to the following degree requirements:

A. A minimum of 58 credits in nursing. The specific requirements are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Clinical Nursing</td>
<td>6</td>
</tr>
<tr>
<td>Maternal-Child Health</td>
<td>8</td>
</tr>
<tr>
<td>Nursing in Chronic Illness</td>
<td>6</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>Nursing in Acute Illness</td>
<td>6</td>
</tr>
<tr>
<td>Community Nursing</td>
<td>6</td>
</tr>
<tr>
<td>Mental Health—Psychiatric Nursing</td>
<td>6</td>
</tr>
<tr>
<td>Nursing in the Social Order</td>
<td>3</td>
</tr>
<tr>
<td>Leadership in Nursing Care</td>
<td>6</td>
</tr>
<tr>
<td>Seminar in Clinical Nursing</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Credits: 58
B. A minimum of 55 credits from the College of Arts and Sciences. The specific requirements are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Exposition and Argument</td>
<td>4</td>
</tr>
<tr>
<td>Literary Studies</td>
<td>4</td>
</tr>
<tr>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Unity of Life</td>
<td>4</td>
</tr>
<tr>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>Human Environmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>General Chemistry (must include laboratory)</td>
<td>6</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>Religion</td>
<td>9</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
</tbody>
</table>

C. Electives:
In addition to meeting the requirements in Nursing and Arts and Sciences, the student must present for graduation a sufficient number of electives to bring the total number of semester credits to 124. These electives are to be selected from the offerings of the College of Arts and Sciences.*

D. Requirements for Admission to Nursing Courses:
A student must have a minimum cumulative grade-point average of 2.00 to be admitted to the first nursing course (usually N 52). Continuation of the nursing program requires that the student entering the junior year shall have completed the required courses listed in the suggested schedule for freshman and sophomore years with an overall grade-point average of at least 2.00.

**SUGGESTED SCHEDULE**

**FRESHMAN YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 43</td>
<td>Chemistry 44</td>
</tr>
<tr>
<td>Biology 50</td>
<td>Biology 115 or 110.</td>
</tr>
<tr>
<td>Sociology 1</td>
<td>English 5</td>
</tr>
<tr>
<td>Religion</td>
<td>Psychology 125</td>
</tr>
<tr>
<td>Psychology 51</td>
<td>Physical Education</td>
</tr>
<tr>
<td>Total Credits</td>
<td>Total Credits</td>
</tr>
<tr>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

*Six credits earned in the College of Business Administration may be counted toward a degree of Bachelor of Science in Nursing.*
SOPHOMORE YEAR

First Semester
- Biology 110 or 115 .................................. 4
- Psychology 173 ................................ 3
- Psychology 130 ................................ 3
- Religion ........................................... 3
- Physical Education ................................. 1
- Elective ............................................ 3
- Total Credits ....................................... 17

Second Semester
- Nursing 52 .......................................... 6
- Nursing 100 ......................................... 3
- Nursing 101 ......................................... 2
- English 25 ......................................... 4
- Total Credits ....................................... 15

JUNIOR YEAR

First Semester
- Nursing 103 ......................................... 4
- Nursing 105 ......................................... 6
- Biology 153 ........................................ 3
- Total Credits ....................................... 13

Second Semester
- Nursing 104 ......................................... 4
- Nursing 102 ......................................... 6
- Religion ............................................. 3
- Elective ............................................. 3
- Total Credits ....................................... 16

SENIOR YEAR

First Semester
- Nursing 107 ......................................... 6
- Nursing 109 ......................................... 6
- Elective ............................................. 3
- Total Credits ....................................... 15

Second Semester
- Nursing 106 ......................................... 6
- Nursing 108 ......................................... 6
- Nursing 110 ......................................... 3
- Total Credits ....................................... 15

Total Credits: 124

Note: The student is responsible for providing transportation whenever it is necessary for off-campus clinical experience.

Courses in Nursing

52. Introduction to Clinical Nursing. Each sem. 4+6, Cr. 6. Introduces the student to the nature and scope of professional nursing and to fundamental organizational, interpersonal, manipulative, and observational skills. Laboratory fee $20.00.

100. Pathophysiology. Sem. 2. 3+0, Cr. 3. A study of pathologic conditions which stimulate alterations in physiologic behaviors and the body’s attempt to control these conditions. Prerequisites: Biology 110 and 115.

101. Pharmacology. Each sem. 2+0, Cr. 2. Introduces the principles of pharmacology with emphasis on commonly used groups of drugs as a foundation for further study in clinical nursing courses.

Note: The prerequisites for the following courses are Nursing 52, 100, and 101 and at least junior standing. See also requirements for admission statement above.

102. Nursing in Acute Illness. Each sem. 4+6, Cr. 6. Emphasizes the identification and application of scientific principles in nursing care and a problem-solving approach in meeting the nursing needs of patients with acute medical and surgical conditions. Laboratory fee, $10.00.

103. Maternal-Child Health I. Each sem. 2+6, Cr. 4. Focuses on the reproductive function of the family and the concomitant relationships of the family members during the childbearing and childrearing phases of the health continuum. Laboratory fee, $10.00.
104. Maternal-Child Health II. Each sem. 2+6, Cr. 4. The application of concepts of growth and development to the nursing care of the sick child with emphasis on understanding the effects of illness and hospitalization on the child and his family.

105. Nursing in Chronic Illness. Each sem. 4+6, Cr. 6. Focuses on the unique nursing care problems of patients with chronic illness, stressing principles of rehabilitation and the social and economic implications of chronic illness. Laboratory fee, $10.00.

106. Leadership in Nursing Care. Each sem. 3+9, Cr. 6. Focuses on the basic principles of administration, teaching, and research as they apply to the management of a nursing unit, to team leadership, and to the improvement of patient care. Laboratory fee, $10.00.

107. Mental Health—Psychiatric Nursing. Each sem. 3+9, Cr. 6. Focuses on the major concepts of mental health and on the role of the nurse in prevention and care of the mentally ill. Laboratory fee, $10.00.

108. Seminar in Clinical Nursing. Each sem. 3+9, Cr. 6. Focuses on planning and implementing comprehensive care to patients with complex health problems and on utilizing the interdisciplinary team. Laboratory fee, $10.00.

109. Community Nursing. Each sem. 3+9, Cr. 6. Delineates organized community efforts for the promotion of health and prevention of disease and focuses on the role of the public health nurse in the family and the community. Laboratory fee, $10.00.

110. (Formerly 104). Nursing in the Social Order. Sem. 2. 3+0, Cr. 3. Focuses on the influences of social, political, economic, and religious forces on the development of nursing and on the present status of nurses.

UNIVERSITY CALENDAR FOR 1973-1974

For the School of Law

1973

FALL SEMESTER

August 27, Monday, 8:00 A.M. Instruction begins.
August 28 and 29, Tuesday and Wednesday. Registration during free periods.
October 20, Saturday. Homecoming Day.
November 1, Thursday. Last day to file application of candidacy for the Juris Doctor degree to be conferred in May 1974.
November 16, Friday, 6:30 P.M. Thanksgiving recess begins.
November 26, Monday, 8:00 A.M. Thanksgiving recess ends.
December 7, Friday, 6:30 P.M. Instruction ends.
December 8, Saturday, 8:00 A.M. Reading period begins.
December 11, Tuesday, 6:30 P.M. Reading period ends.
December 12, Wednesday, 8:00 A.M. Final examinations begin.
December 21, Friday, 6:30 P.M. Final examinations end. Semester ends.

1974

SPRING SEMESTER

January 14, Monday, 8:00 A.M. Instruction begins.
January 14, Monday, 8:00 A.M. Registration during free periods.
March 22, Friday, 6:30 P.M. Spring recess begins.
April 1, Monday, 8:00 A.M.  Spring recess ends.
April 12, Friday.  Vacation day.*
April 26, Friday, 6:30 P.M.  Instruction ends.
April 27, Saturday, 8:00 A.M.  Reading period begins.
April 30, Tuesday, 6:30 P.M.  Reading period ends.
May 1, Wednesday.  Last day to file application of candidacy for the Juris Doctor degree to be conferred in December 1974.
May 1, Wednesday, 8:00 A.M.  Final examinations begin.
May 10, Friday, 6:30 P.M.  Final examinations end. Semester ends.
May 15, Wednesday, Noon.  Deadline for grades for candidates for the Juris Doctor degree.
May 19, Sunday.  100th Annual Commencement.

*Classes to be made up on April 20, Saturday.

UNIVERSITY CALENDAR FOR 1974-1975
For the School of Law

1974
FALL SEMESTER
August 26, Monday, 8:00 A.M.  Instruction begins.
August 27 and 28, Tuesday and Wednesday.  Registration during free periods.
October 12, Saturday.  Homecoming Day.
November 1, Friday.  Last day to file application of candidacy for the Juris Doctor degree to be conferred in May 1975.
November 22, Friday, 6:30 P.M.  Thanksgiving recess begins.
December 2, Monday, 8:00 A.M.  Thanksgiving recess ends.
December 6, Friday, 6:30 P.M.  Instruction ends.
December 7, Saturday, 8:00 A.M.  Reading period begins.
December 10, Tuesday, 6:30 P.M.  Reading period ends.
December 11, Wednesday, 8:00 A.M.  Final examinations begin.
December 20, Friday, 6:30 P.M.  Final examinations end. Semester ends.

1975
SPRING SEMESTER
January 13, Monday, 8:00 A.M.  Instruction begins.
January 13, Monday, 8:00 A.M.  Registration during free periods.
March 21, Friday, 6:30 P.M.  Spring recess begins.
March 31, Monday, 8:00 A.M.  Spring recess ends.
April 25, Friday, 6:30 P.M.  Instruction ends.
April 26, Saturday, 8:00 A.M.  Reading period begins.
April 29, Tuesday, 6:30 P.M.  Reading period ends.
April 30, Wednesday, 8:00 A.M.  Final examinations begin.
May 1, Thursday.  Last day to file application of candidacy for the Juris Doctor degree to be conferred in December 1975.
May 9, Friday, 6:30 P.M.  Final examinations end. Semester ends.
May 14, Wednesday, Noon.  Deadline for grades for candidates for the Juris Doctor degree.
May 18, Sunday.  101st Annual Commencement.
THE SCHOOL OF LAW

Professor A. W. Meyer (Dean); Professors Bartelt, Gromley, Hiller*, Stevenson, Wechsler**, and Willis; Associate Professors Brockington and Moskowitz; Assistant Professors Berner, Bodensteiner, Schmitt, Scott, and Stith; Associate Professor Hess, Law Librarian

GENERAL INFORMATION

HISTORY—The School of Law was founded in 1879 as the Northern Indiana Law School. In 1905 it became a part of Valparaiso College, now Valparaiso University. The School moved into quarters in DeMotte Hall in 1926 and into Wesemann Hall in September 1963. It was approved by the American Bar Association in 1929, and since that time it has met continuously the requirements established by that Association’s Council on Legal Education and Admission to the Bar. In 1930 it was admitted to membership in the Association of American Law Schools. The degree of Juris Doctor which is granted by the School is approved by the Board of Regents of the University of the State of New York. Valparaiso University, of which the School is an integral part, holds membership in the North Central Association of Colleges and Secondary Schools.

LOCATION AND FACILITIES—The School of Law is housed in its own building completed for occupancy during the late summer of 1963 and located on Valparaiso University’s beautiful new campus. This modern law plant including library, classrooms, faculty and student offices, and lounges, was made possible by the gifts of loyal alumni, friends of Valparaiso University, many congregations of The Lutheran Church-Missouri Synod, and especially the generosity of the late Mr. Adolph H. Wesemann and his wife Janette, of LaGrange, Illinois, in whose honor the building is named. This building is evidence of the determined policy of the Valparaiso University Administration to develop and maintain as an integral part of its educational complex a quality school for the training in law of those who desire it.

Students in the School of Law find it to their advantage that the School is located in a county seat which has three trial courts in session throughout most of the year. In addition, there are numerous trial courts in adjacent

Lake County, a heavily industrialized area. The Federal District Court holds its sessions in nearby Hammond, and a United States Court of Appeals sits throughout the year in Chicago, about fifty miles away.

**Law Library**—The law library, which contains approximately 75,000 volumes and government documents, meets the requirements of all accrediting associations. It contains the official and unofficial reports of the Supreme Court of the United States and the official reports (of appellate courts) of all states up to the establishment of the National Reporter System, which now provides complete coverage of all federal and state appellate court reports. The library contains all sets of general annotated decisions, English appellate cases to date, as well as English digests and statutes, Canadian reports and Canadian Abridgment, the Federal Code Annotated, the United States Code Annotated, and earlier compilations of federal statutes, the United States Statutes at Large, the current statutes of all of the states and the District of Columbia, the American Digest System, state and special digests, a complete set of Shepard's Citators, 300 legal periodicals, most in complete bound sets, the standard law encyclopedias, and a collection of state trials, legal histories, and treatises on law, jurisprudence, and related subjects.

**Objectives**

The term “law” is a comprehensive one, including, as it does, three relatively distinct elements: the great body of judicial decisions from England and the United States, more commonly called Anglo-American Common Law; constitutions and statutory enactments of national and state legislatures; and various decisions and rulings by individuals and boards in the executive branches of national and state governments. It is no longer sufficient for a lawyer to be grounded merely in the Common Law; he must have a thorough working knowledge and understanding of all three elements of the law. The study of law is a rewarding one, and its rewards are not necessarily limited to a knowledge of law for its own sake, important and valuable though this may be. Historically, the School of Law has conceived its purpose to be the preparation of lawyers for general private practice. The law is not a set of rules self-executing in nature; the services of thousands of judges, lawyers, legislators, and administrators are required to make the law a working force in the everyday world. Consequently, the major task of all American law schools has been the training of young men and women to fill these roles. The School, however, also recognizes that there is a real and growing need for law training for the persons who are to carry on the complex activities of modern governmental units or modern business enterprises. It therefore welcomes students who are preparing for public service careers or for careers in business or engineering. Finally, the School recognizes that some of its students may not be clear as to the area of their interest. It therefore offers a sound education in the general field of the law so that a student may later intelligently choose his particular field of interest.

The School recognizes that, if its students are to be prepared adequately to meet the needs of practice, government, or business, it must introduce them to the basic concepts of the law, teach them to think like lawyers, and train them in the skills needed in the profession of law.
ORGANIZATION

The School of Law of Valparaiso University is distinguished by three characteristics: it is Christian, it is national, and it is small.

Christian—The School of Law, as an integral part of the University, shares to the fullest the cultural life of the campus. Like other students in the University, law students are encouraged to participate in many and varied religious activities of the University. In addition, a constant effort is made by the School to make Christianity relevant to the study and practice of the law. To focus this effort, the School requires each third-year student to take the course in jurisprudence, which explores both past and present legal philosophy, as well as the nexus between Christianity and the law.

National—The School of Law is a national school in that it does not confine its interest to the laws of any one state. It clearly recognizes that the concept of justice belongs to all courts and all states and all people. It also recognizes, however, that the law of various states may differ because of economic or geographic considerations; it therefore encourages its students to keep abreast of local developments in the law by providing easy access to statutes, court reports, and treatises which articulate these differences.

Small—Despite its unprecedented growth during the past few years, the School of Law is still relatively small. Recognizing the distinct advantages of a small law school, the faculty is determined to limit enrollment and to maintain a very favorable faculty-student ratio. Even with the increased enrollment most second-year and third-year classes are small, making maximum participation by each student possible. Easy access to faculty members for personal consultation and advice is a Valparaiso tradition.

A thorough grounding in substantive law is the basis of the curriculum. The student must, however, also be thoroughly familiar with the framework in which the substantive law has been developed and is used in the work of the courts; for that reason, adjectival courses are integrated with substantive courses. The School of Law recognizes as a further objective the teaching of the basic skills which are the tools of every good practicing lawyer and which must be understood even by students not planning to enter private practice. Training in these skills is therefore considered an integral part of the curriculum, both as course-study and as required extracurricular activity.

First-year students are required to take the following block schedule:

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
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</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
</tr>
<tr>
<td>119. Torts I</td>
</tr>
<tr>
<td>121. Criminal Law I</td>
</tr>
<tr>
<td>123. Contracts I</td>
</tr>
<tr>
<td>125. Property I</td>
</tr>
<tr>
<td>129. Procedure I</td>
</tr>
<tr>
<td>135. Legal Problems I</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

SECOND AND THIRD YEARS

Second- and third-year courses are elective except that second-year students are required to take Constitutional Law and either Legal Process
or American Legal History, third-year students are required to take Jurisprudence, The Legal Profession, and a Seminar. With permission of the dean and the instructor involved, a student may engage in an independent research project during his third year in lieu of the seminar requirement. A substantial paper reflecting the results of his research will be required. Students should consult the description of courses (pages 222 to 225) to determine which courses are "strongly recommended", or "prerequisite" to other courses. As a guide to course selection, courses numbered in the 200's were formerly considered third-year courses.

**LAW REVIEW**

The *Valparaiso University Law Review* is published three times each year by the students of the School of Law. The Review affords superior students the opportunity to develop analytical, research, and writing skills and, thus, is an invaluable adjunct to legal education. The Review contains articles and book reviews by distinguished law teachers and practicing lawyers, and notes by members of the editorial staff. It is edited in its entirety by the student Board of Editors. It is considered an honor to be appointed to the Review staff.

**LEGAL AID**

The recognized obligation of the bench and the bar is to provide equal justice under law to all persons in our society, rich and poor. The law school, training the judges and lawyers of the future, is the logical starting point in meeting that obligation. The courses offered enable students to gain insight into the particular legal problems of the poor and to serve justice and the community.

The second-year classroom course in Law of the Poor presents students with a theoretical framework of the law pertinent to poor people. Students also engage in field work, observing judicial and administrative proceedings, and assisting lawyers and third-year students in the preparation of cases. In addition, a second-year, two-credit hour course titled "Introduction to Legal Aid" is designed to develop basic skills in interviewing, pre-trial procedures, and preparation and use of memoranda and trial briefs. This course is prerequisite to the third-year courses in the Clinical Program.

The third-year courses, Clinical Program in Legal Problems of the Poor I and II, allow students to gain practical work experience while dealing with actual legal problems of indigents and agencies working with the poor. Participating students represent clients in criminal, civil, and administrative proceedings. Indiana Supreme Court Rules allow these students to represent their clients in court under the supervision of a licensed attorney.

**LECTURE PROGRAM**

The School of Law recognizes that the practicing lawyer and persons working in areas related to law have something of very real significance to say to the student of law, but that it is difficult for them to say this within the confines of academic classes which may conflict with busy schedules. The School and the Student Bar Association, therefore, bring prominent
men from various fields to the campus for special lectures on subjects of interest and importance to law students.

ORGANIZATIONS

1. ALUMNI—The Alumni Association of the School of Law was organized in its present form in 1938 and has devoted itself since to the task of supporting the School of Law. In 1963, the Association established the Student Assistance Trust, a fund from which needy law students may borrow to help finance their education. The Association, which holds annual meetings, maintains a close relationship with the administration of the School at all times. The School draws many of its lecturers from the Association.

2. FRATERNITIES—Two intercollegiate law fraternities have chapters on the campus: Phi Alpha Delta and Delta Theta Phi.

3. STUDENT GOVERNMENT—The Student Bar Association of the School is one of the oldest organizations for student self-government among the law schools of the Middle West. It is affiliated with the Law Student Division of the American Bar Association. Each year the Student Bar Association sponsors the annual observance of LAW DAY and makes all arrangements for the Day’s activities. In addition, the Association sponsors numerous speakers and provides social recreation for its members. All students are members of the Association and have an opportunity to participate in the activities and share the responsibilities of the organization.

4. LAW WIVES—The wives of law students may participate in the activities of Amicae Curiae, an official adjunct of the Student Bar Association. The purpose of the organization is to promote a better understanding of the legal profession, to cooperate with the Student Bar Association and the School of Law and to establish a continuing liaison with the faculty members and their wives as well as with law wives’ groups in law schools throughout the country.

ENDOWED CHAIR

Mr. Edward A. Seegers of River Forest, Illinois, has endowed a faculty chair in honor of his father and mother, Louis and Anna Seegers.

LAW DAY

In the spring of each year the School of Law celebrates LAW DAY, U.S.A. The day’s activities include arguments of a moot appellate case, a banquet, and a talk by a distinguished member of the bench or bar.

NATIONAL MOOT COURT COMPETITION

The School of Law participates each year in the National Moot Court Competition sponsored annually among accredited law schools by The Young Lawyers Committee of the Bar Association of the City of New York. The names of the members of the team chosen to represent the school each year are engraved on an appropriate plaque displayed in the Law Library.
THE CHARLES L. VAUGHAN MEMORIAL AWARD

Mr. Charles R. Vaughan, an alumnus of the School of Law, established this award in memory of his father who was a prominent trial attorney. The award is presented annually to the student whose performance in Trial Advocacy merits special recognition.

THE JOHN E. CHRISTEN MEMORIAL AWARD

Mr. and Mrs. F. E. Christen established this award in memory of their son, John E., who was graduated from the School of Law in 1965 and who had been elected President of the Law Alumni Association in the month preceding his untimely death in November 1969. The award is made annually to a third-year law student whose law school performance has manifested substantial improvement and whose financial need makes him a worthy candidate for financial assistance.

A number of other awards are available in the School of Law for outstanding scholarship and achievement. Among those being currently offered are the following: The Student Bar Association Award; the Nathan Burkan Memorial Prize; the Lawyers Cooperative Publishing Company and Bancroft-Whitney Company award; the West Publishing Company award; the Prentice-Hall Taxation Award; the U. S. Law Week Award; the Lutheran Laymen's League Award. Awards are also presented to the top oral advocates in the moot court competition by the West Publishing Company and the Bobbs-Merrill Company.

FINANCIAL AID

A limited number of grants are available each year. They are awarded principally on the basis of demonstrable financial need. Applicants for grants must register with GAPSFA S (Graduate and Professional School Financial Aid Service) on the registration form which is part of the LSAT information kit. Applications for grants are considered after certificates of admission to the School of Law have been issued and financial information has been received by the School of Law from GAPSFA S.

National Defense loans may be applied for through the central Financial Aid Office of the University. The University Financial Aid Office also assists in applying for Federally insured loans.

PLACEMENT

The School of Law actively assists graduating seniors seeking positions in the profession. Close liaison is maintained with the Placement Service of the University.

The School of Law subscribes to the policy of the Association of American Law Schools which requires its members to deny use of their placement facilities to prospective employers who discriminate on the grounds of race, color, religion, sex, or national origin.

PRE-LEGAL EDUCATION

No particular course of study is prescribed for students planning to enter schools of law. The attention of the pre-law student is, however, called to
the recommendation of the Committee on Pre-Legal Education of the Association of American Law Schools that pre-legal education should be concerned with the development in pre-law students of basic skills and insights involving education for:

A. Comprehension and expression in words;
B. Critical understanding of the human institutions and values with which the law deals; and
C. Creative power in thinking.

The law schools seek in their entering students ability to understand, ability to think for themselves, and ability to express their thoughts clearly and forcefully.

ADMISSION

TIME OF ENTRANCE—No person will be admitted to the School of Law as a first-year student at a time other than at the beginning of a fall semester. Persons who desire to be admitted with advanced standing must comply with existing regulations.

APPLICATION FOR ADMISSION—Applications for admission to the School of Law may be obtained by writing to the Dean, School of Law, Valparaiso University, Valparaiso, Indiana. Applications for admission will be accepted starting October 1. Because the beginning class is necessarily limited in size, all application materials must be submitted by March 15.

DEPOSIT REQUIREMENT—The School of Law requires a tuition deposit of $50.00. Applicants admitted must remit this deposit within 15 days of the date of the certificate of admission or by April 1, whichever is later.

This deposit is not refundable except for extraordinary reasons such as illness or military service, but will be credited to the applicant’s tuition fee when he registers.

Failure to remit the deposit within the time specified will result in cancellation of the certificate of admission. In such case an applicant who still desires to enroll must reapply for admission.

Applications for admission to the School of Law will be considered only from those persons who have been graduated with a bachelor’s or higher degree from Valparaiso University or another college or university accredited by one of the regional associations of colleges.

Application for admission is accomplished by filing the application with the School of Law and by registering with the Law School Data Assembly Service (LSDAS) of the Educational Testing Service, Princeton, N. J. An LSDAS registration form is provided with each application form but the LSDAS form must be sent directly to the Educational Testing Service, not to the School of Law. The LSDAS registration involves supplying LSDAS with a transcript from each college and university attended. Except in unusual cases, transcripts should not be supplied until they include a record of three full academic years. If the application is approved, the applicant must supply a final transcript certifying the receipt of a bachelor’s degree directly to the School of Law. The LSDAS registration must also be supported by a report of the applicant’s score on the Law School Admission Test administered by the Educational Testing Service at various testing centers throughout the country in October, December, February, April, and July. It is administered on the campus of Valparaiso University in October and February. Application forms for taking the test
are supplied with the LSDAS registration materials or may be obtained from either the School of Law or the Educational Testing Service. The applicant should indicate on the test application form and on the LSDAS registration form that the score is to be reported to the Valparaiso University School of Law.

**TRANSFER STUDENTS**—A student transferring to Valparaiso from another law school may receive credit ordinarily not exceeding one year, provided: (1) that the law school from which he is transferring is a member of the Association of American Law Schools or is on the approved list of the American Bar Association; (2) that the student transferring meets the scholastic average required for graduation by that law school and all other conditions and requirements for continued attendance at that school; (3) that his scholastic standing meets the requirements of Valparaiso University for advanced standing; (4) that the work which he has completed is similar in character to that which is given at Valparaiso University; and (5) that he has met the entrance requirements of the School of Law for beginning law students. The right is reserved to withhold such credit, wholly or in part. Credit which has been granted provisionally may be withdrawn because of unsatisfactory work at this University. No advanced standing is given for courses completed with a grade of D.

Students who enter with advanced standing because of credits transferred from another school must earn a numerical average of at least 70 in all law work undertaken at Valparaiso University in order to be eligible for a degree. In the computation of a student's standing grades of 55 earned at Valparaiso University are included.

All candidates for admission to the School of Law, whether as first-year students or as candidates for advanced standing, must, in addition, meet any and all requirements imposed by the American Bar Association and the Association of American Law Schools for admission to an approved school of law. All transfer students must take the Law School Admission Test if they have not already done so. Applicants who have previously taken the test should request that their scores be sent to the Dean, School of Law, Valparaiso University.

**SPECIAL STUDENTS**—In extraordinary cases, applicants who do not hold a bachelor's degree, may be admitted as special students provided: (A) they are at least 23 years of age and (B) there is evidence that their experience and training have equipped them to engage successfully in the study of law despite the lack of required college credit.

**REGISTRATION**

All students are expected to register on the official registration days of each semester as listed in the School of Law Calendar.

**RESPONSIBILITY ASSUMED BY REGISTRATION**—By registering, the student subscribes to the terms and conditions, financial and otherwise, which have been set forth in these announcements.

**CHANGE OF PROGRAM**—During the first seven days of classes of the semester, changes of enrollment may be made with the written approval of the Dean. There is no adjustment in the tuition and general fees after the first seven days of classes of a semester.
Students who wish to drop courses after the first seven days of classes of the semester will be permitted, upon the approval of the Dean and of the instructors concerned to withdraw from the course with a grade of W up to and including the end of the ninth week of a semester.

Students who wish to drop courses after the first seven days of classes of the semester should read the regulation regarding a grade of W. Application for changes in enrollment must be made by the student on proper forms and filed at the Office of the Registrar.

**ADMISSION TO COURSES AS AN AUDITOR**—A classified student may register in a course as an auditor only with the permission of his adviser and the instructor concerned. An auditor may not be admitted to the final examination and is never granted credit for the course audited. No additional fee is charged when the student pays full tuition.

**SUMMER SCHOOL COURSES**—Students enrolled in the School of Law may not transfer credits earned at other law schools during summer sessions without the prior consent of the Dean of the School of Law.

**WITHDRAWAL FROM THE UNIVERSITY**—A student who wishes to withdraw from the University for the remainder of a semester should apply to the Business Office for a permit to withdraw. Upon receipt of the permit properly signed, the Registrar will authorize the return of such fees as are refundable. In every case the parent or guardian is notified of the withdrawal by the Vice-President for Student Affairs.

If, during the course of a semester, a student is drafted for service in the armed forces, he will receive a full refund of his tuition and fees. A student living in University housing will receive a pro-rated refund.

The term "honorable dismissal" refers to conduct and character only, not to class standing and grades. It will not be granted unless the student's conduct and character are such as would entitle him to continue in the University.

A student who withdraws from the University without authorization is not entitled to refunds of any kind and the instructor of each subject in which the student is enrolled is required to report a final grade of 55 to the Registrar.

**COURSE LOAD**

**COURSE LOAD**—The course load for first-year students is the block schedule. Second- and third-year students must carry a minimum of 14 credit hours in each semester and may not register for more than 16 credit hours in each semester.

**EXAMINATIONS**

The regular written examinations of the University are held at the close of each semester.

The semester examinations are conducted according to a published schedule.

**NUMERICAL MARKING SYSTEM**

Results of work will be recorded in the Registrar's Office as follows:

- **70-100.** Passing. Credit for graduation.
- **56-69.** Unsatisfactory. Credit for graduation.
- **55.** Failure. No credit for graduation.
I. Incomplete. The grade I (Incomplete) may, at the discretion of the instructor, be given to a student whose completed work in a course indicates the probability of his passing the course but who has failed to complete a segment of the assigned work of the course because of circumstances beyond his control. An I (Incomplete) received in one semester or summer session must be removed by the beginning of the official examination period of the next succeeding semester or it will automatically become a grade of 55. The student’s deadline for submitting the outstanding work to the instructor shall be one full week prior to that date.

W. An authorized withdrawal. (See Change of Program). This mark carries no credit.

Any student withdrawing from a subject without first securing the official permission of his adviser will receive a grade of 55 in that subject for the semester.

Only in exceptional cases, such as prolonged or serious illness, will the Educational Processes Policy Committee permit a student to withdraw from a course without a grade of 55 after the end of the ninth week of the semester.

S. Satisfactory; meets course objectives. Hours with grade of S count toward graduation but are not counted in computing the student’s standing. All regular work of the course is required of students electing the S/U registration. It is assumed that this work should be of 70, or better, quality to warrant the grade of S.

U. Unsatisfactory; does not meet course objectives. Hours with grade of U do not count toward graduation and are not counted in computing the student’s standing.

Grades of S and U are used in courses which are so designated in the course descriptions contained in the University Bulletin. (See page 53 for further use.) They may be used in other courses only in exceptional cases when approved by the dean of the respective college and the Vice-President for Academic Affairs.

DEFINITION OF THE STANDING OF A STUDENT—A student’s standing is determined by his average numerical grade. (Computed by multiplying the numerical grade in each subject by the credit value of that subject, and dividing the total by the total number of credits attempted.)

CLASS HONORS IN SCHOLARSHIP

A student who achieves a standing of an average numerical grade of 87 in any semester will be awarded class honors, provided that he has received no grades of I or U at the official end of the semester concerned, and that he was registered for at least 12 hours of work for the semester.

First-, second-, and third-year students eligible for honors in scholarship are given special recognition at honors convocations. Graduating honors for third-year students are announced at Commencement and are based on the work of the last two semesters.

CLASSIFICATION

CLASSIFICATION OF STUDENTS—A student in the School of Law shall have completed 30 hours to be classified as a second-year student, and 60 hours to be classified as a third-year student.
UNCLASSIFIED STUDENTS—Unclassified students are those students who meet the requirements for admission as regularly classified students working toward a degree, but who, for valid reasons, are temporarily departing from degree requirements or from specified curricula. Credits received while a student is unclassified may be subject to revision should the student in the future become a candidate for a degree. This status is not available to students dismissed from the University for academic or other reasons.

APPROVAL OF SCHEDULES

All students must have their programs of study approved by the Dean of the School of Law at the beginning of each semester.

SCHOLASTIC REQUIREMENTS

In the computation of a student’s standing, numerical grades of 55 to 69, inclusive, are included. For students who have completed the work of the second year (or beyond) standing refers to all law work undertaken as well as to all courses undertaken in the required curriculum (page 212.)

A student in the School of Law will be denied permission to continue study in the School of Law if his cumulative grade-point average falls below the minimum cumulative grade-point average indicated in the following table:

<table>
<thead>
<tr>
<th>NUMBER OF CREDIT HOURS PREVIOUSLY UNDERTAKEN</th>
<th>DENIED PERMISSION TO CONTINUE IF NUMERICAL GRADE AVERAGE BELOW:</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>68.30</td>
</tr>
<tr>
<td>31-46</td>
<td>69.50</td>
</tr>
<tr>
<td>over 46</td>
<td>70.00</td>
</tr>
</tbody>
</table>

In determining the number of hours previously undertaken by a transfer student, the hours for which such student received advanced standing are added to the hours undertaken at Valparaiso University.

Any student whose numerical average falls below 70.00 is considered to be on scholastic probation.

At the close of the fall semester of each year, the Dean of the School of Law may issue a warning to any student whose standing at that time indicates unsatisfactory work.

GRADUATION

DEGREE—The University offers a three-year (six-semester) curriculum leading to the degree of Juris Doctor (J.D.). The degree is conferred upon recommendation of the Faculty of the School of Law. All work toward a degree must be completed to the satisfaction of the Faculty. In all cases, the student is responsible for meeting the requirements for graduation.

A student who returns to the School of Law after an absence of three or more years may no longer be a candidate for a degree on the basis of the catalog under which he first entered the University, but must fulfill for graduation all the requirements and provisions of the catalog of the year in which he re-enters the University.
COURSE, CREDIT AND NUMERICAL GRADE REQUIREMENTS—A candidate for graduation must have undertaken a total of 90 credit hours with passing numerical grades in a minimum of 85 credit hours. In addition he must have a numerical average of at least 70 in all law work undertaken at Valparaiso University. In the computation of this standing grades of 55 to 69, inclusive, earned at Valparaiso University are included. Credits earned at another law school and for which advanced standing has been given are treated as grades of 70 in the computation.

RESIDENCE REQUIREMENTS—To be eligible for graduation from the School of Law a student must have been enrolled as a full-time student in an accredited law school for six semesters. In addition, the student must complete his last 30 hours in residence at Valparaiso University.

APPLICATION FOR DEGREE—A student who wishes to receive his degree at the end of a Spring Semester must make formal application for his degree on a form provided for this purpose by the Registrar’s Office not later than the preceding November 1st.

PRESENCE AT COMMENCEMENT—A candidate must be present at commencement in order to receive his degree. Degrees are not conferred in absentia, except on special permission from the President.

A student who completes his work toward a degree at the end of the Fall Semester or the Summer Session may be granted his degree at that time.

INDIVIDUAL HONORS AT GRADUATION

1. Graduation “With High Distinction.” A student who has been in attendance at Valparaiso University at least three years and who has maintained a numerical average of 88 in his work at this institution will be graduated With High Distinction. A student who has been in attendance for only two years must maintain a numerical average of 90 to be eligible for this honor.

2. Graduation “With Distinction.” A student who has been in attendance at least three years and who has maintained a numerical average of 86 in his work at Valparaiso University will be graduated With Distinction. A student who has been in attendance for only two years must maintain a numerical average of 88 to be eligible for this honor.

REGISTRATION WITH BAR AUTHORITIES

The rules of many states require the filing of certain forms with state officials before the study of law is begun. Any student desirous of pursuing a career in law should obtain instructions from the proper authorities in the state in which he intends to practice. This is usually the board of bar examiners or the clerk of the highest court. Failure to comply with such a rule may delay admission to the bar for a substantial period. The law library has on file a compendium of the regulations on bar admissions for all states.

REQUIREMENTS WITH REGARD TO STUDENTS WHO WORK

The study of law is an exacting one and demands a very considerable portion of the students’ time. The School of Law therefore requires each student to register with the Dean the number of hours per week that he works.
COURSES IN LAW*

REQUIRED COURSES FOR FIRST-YEAR STUDENTS

119. TORTS I. Sem. 1. Cr. 2. Civil liability for damage to persons and property resulting from intentional or negligent conduct. Limitations on liability. Liability of owners and occupiers of land. Strict liability. The impact of legislation on common law concepts.

120. TORTS II. Sem. 2. Cr. 3. A continuation of Law 119.

121. CRIMINAL LAW I. Sem. 1. Cr. 2. General considerations; solicitation and attempt; assault, battery, and mayhem; false imprisonment; homicide; rape; larceny; embezzlement and false pretenses; receiving stolen property; burglary; arson; combination of persons.

122. CRIMINAL LAW II. Sem. 2. Cr. 2. A continuation of Law 121.

123. CONTRACTS I. Sem. 1. Cr. 3. The general scope and purpose of the legal protection accorded contracts; mutual assent and consideration; the rights of third parties; assignment; the effect of changed circumstances; conditions; specific performance; the Statute of Frauds. Economic and psychological aspects of the subject are considered along with legal history, comparative law and modern statutory developments. Primary emphasis is placed on the contract in litigation, but problems of negotiation, draftsmanship, and legal planning are considered throughout.

124. CONTRACTS II. Sem. 2. Cr. 2. A continuation of Law 123.

125. PROPERTY I. Sem. 1. Cr. 3. Real property; easements and profits, licenses, water; adverse possession and prescription; conveyancing, execution of deeds, subject-matter, estates created; creation of easements by implication, covenants for title, estoppel by deed, priorities.

126. PROPERTY II. Sem. 2. Cr. 3. Personal property; possessory interests in chattles, finding, bailment, lien, acquisition of ownership; emblements; fixtures. Real property, general introduction, types of estates in land, equitable estates. Statute of Uses and its effects, waste, covenants running with land.

129. PROCEDURE I. Sem. 1. Cr. 3. Jurisdiction; venue; immunity; variance; theory of pleading; nature and scope of equity; amendments; alternative pleading.

130. PROCEDURE II. Sem. 2. Cr. 3. Allocation of burden; detail required in pleading; discovery; pre-trial conference; adjudication without trial; joinder and splitting; parties.

135. LEGAL PROBLEMS I. Sem. 1. Cr. 2. A problem course designed to develop the basic legal skills required in the preparation of memoranda and other legal documents which necessitate the search for and synthesis of legal and non-legal materials.

136. LEGAL PROBLEMS II. Sem. 2. Cr. 2. A continuation of Law 135.

SECOND- AND THIRD-YEAR COURSES

161. COMMERCIAL TRANSACTIONS AND CONSUMER PROTECTION I. Sem. 1. Cr. 3. Legal problems in modern commercial practice: the financing and marketing transactions by which goods are produced, moved, stored, protected, and distributed. Particular attention is given to the effects of Uniform Laws and the Uniform Commercial Code.

162. COMMERCIAL TRANSACTIONS AND CONSUMER PROTECTION II. Sem. 2. Cr. 2. A continuation of Law 161.

164. CONSTITUTIONAL LAW. Sem. 1. Cr. 4. Relations between the federal government and the states; scope of legislative, judicial, and executive powers; interstate commerce; money; federal taxation; territories and dependencies; constitutional limitations in favor of life, liberty, and property; due process of law and equal protection of the laws; powers of states. (A required second-year course.)

165. BUSINESS ASSOCIATIONS. Sem. 2. Cr. 4. The principal forms of all the various business associations are analyzed and studied.

166. EVIDENCE. Sem. 1. Cr. 4. Rules for exclusion of evidence; functions of court and jury; burden of proof; circumstantial evidence; hearsay; examina-

*See page 64 for the number of credits that may be applied toward a degree offered by the College of Arts and Sciences.
tion of witnesses, with demonstrations thereof. Prerequisite to Trial Advocacy and Clinical Program.

167. **Taxation.** Sem. 2. Cr. 4. A study of the basic principles of the federal income taxation of individuals. Prerequisite to Law 254, Corporate Taxation.

169. **Trusts and Estates I.** Sem. 1. Cr. 3. A study of the essential tools of lifetime and testamentary planning of estates: (1) intestate succession; (2) wills and testaments; (3) uses and trusts, express, resulting, and constructive; (4) future interests in real property; (5) perpetuities and restraints on alienation; (6) powers of appointment; and (7) gifts, charitable and *causa mortis*. Prerequisite to Trusts and Estates II.

170. **Trusts and Estates II.** Sem. 2. Cr. 3. A continuation of Law 169.

*173. **Legal Process.** Sem. 2. Cr. 2. A problem course study designed to heighten student awareness and understanding of the main institutions and processes (courts, legislatures, executive, administrative, private law making) of the American legal system in the perspective of their everyday working interrelationships.

*175. **American Legal History.** Sem. 2. Cr. 2. A study of the sources and development of Anglo-American law, with particular emphasis on the evolution of American legal institutions since the founding of the Republic and their relation to the social process in the United States.

177-178. **Legal Writing.** Sem. 1. Cr. 1; Sem. 2. Cr. 1. Preliminary participation in *Law Review* activities. Admission by invitation and permission of the dean only. Students who receive credit with honors are eligible to register for *Law Review* in the succeeding semester. S/U grade.

180. **Law Review.** Sem. 2. Cr. 1. Participation in *Law Review* activities, including the writing, editing and publication of legal notes and articles. Admission by invitation only. S/U grade.

184. **Law of the Poor.** Sem. 1. Cr. 2. Open to senior students in the various baccalaureate programs of the University with the consent of the instructor. A study of welfare law; the need for remedial legislation; juvenile courts and youth problems; legal problems of housing; education of the poor; indigents accused of crime. (Strongly recommended as a second-year course for those students intending to register for the Clinical Program courses in the third year.)

188. **Appellate Advocacy.** Sem. 1. Cr. 2. The preparation of briefs and presentation of oral arguments at the appellate level. The problems are assigned in the form of records on appeal. Students are required to prepare written briefs and present oral arguments on a competitive basis.

190. **Trial Advocacy.** Sem. 2. Cr. 2. A training course designed to develop through student participation the desired skills of a trial lawyer: pre-trial preparation; proving facts in court; closing arguments; attention to the tactical and ethical aspects involved. S/U grade.

192. **Introduction to Legal Aid.** Sem. 2. Cr. 2. A course designed to develop basic skills in interviewing, pre-trial procedures, and preparation and use of memoranda and trial briefs. S/U grade. Prerequisite to the third-year Clinical Program courses.

194. **Prisoners’ Rights.** Cr. 2. An examination of substantive and procedural rights of prisoners; evolving standards of “cruel and unusual punishment;” access to law books, lawyers, and the courts. Emphasis will be placed on the study of, and involvement in, the on-going process of change in this area, through negotiation, litigation, and legislation.

195. **Sex Discrimination and the Law.** Cr. 2. This course constitutes a survey of the legal sources and remedies for sex discrimination in such areas as constitutional law, employment, education, media, criminal law, domestic relations, public accommodations, government programs, etc. The course will utilize cases and readings to illustrate the common aspects of sex discrimination and to investigate litigative and legislative avenues for change.

202. **Law and Medicine.** Cr. 2. A course designed to acquaint law students with the medical profession, its organization and specialization; scientific and

*Second-year students must elect either Legal Process or American Legal History.*
technical terminology; the doctor-patient relationship; the physician as an expert witness; hospital organization and records. Discussion of common personal injury problems of interest to practicing attorneys. Some reference to professional malpractice and health insurance.

215. JURISPRUDENCE. Sem. 1. Cr. 2. An examination of various theories of law relative to its nature, source, growth, and function. Relation of law to other disciplines. A critical examination of philosophies of law in the light of the teachings of Christianity. (A required third-year course.)

220. THE LEGAL PROFESSION. Sem. 2. Cr. 2. The study of the individual canons of professional ethics adopted by the American Bar Association and other materials on the lawyer's professional responsibility. (A required third-year course.)

223. FAMILY LAW. Cr. 3. The promise to marry and the breach thereof; husband and wife; parent and child; liability of minors in contract and tort.

224. CONFLICT OF LAWS. Cr. 3. A study of the territorial jurisdiction of courts; the enforcement of foreign judgments; the problems arising when the operative facts of a case are connected with jurisdictions having different rules of law; the control exercised by the federal government.

227. ADMINISTRATIVE LAW. Cr. 3. The development of administrative law; delegation of legislative power; administrative rulemaking, administrative adjudication and finality; judicial review of administrative determinations; extraordinary remedies in administrative cases; various doctrines, long established and new, applying to the administrative process; reviewing specific cases illustrating the foregoing matters.

229. THE PUBLIC ORDER OF THE WORLD COMMUNITY. Cr. 3. A study of the role of authority in the decision-making processes of the world community. Consideration is given to formal prescription and effective practice with respect to the participants in such processes (nation-states, international governmental organizations, political parties, pressure groups, private associations, individuals); arenas of interaction; bases of power; practices; and effects. The principal emphasis is upon the many roles of the nation-state in the value shaping and sharing processes of the world community.

233. MUNICIPAL CORPORATIONS. Cr. 3. Incorporation and incidents of existence; types of organizations; legislative control; corporate agencies, expressed and implied powers; revenue and indebtedness; acquisition and control of property; liability in contract and tort; remedies; home rule.

235. FEDERAL PRACTICE. Cr. 3. A study of the federal courts with respect to the part played by them in achieving a workable federalism. Special attention will be given to the original jurisdiction of the federal district courts, the relationship of the federal courts to state courts and state law, and the permissible and desirable range of federal judicial power.

237. SECURITIES REGULATION. Cr. 3. Federal and state regulation of issuance and subsequent sales of corporate securities.

238. ADMIRALTY. Cr. 2. A study of the doctrines of admiralty as administered by the federal courts under the Constitution. Consideration is given to the problems of jurisdiction, carriage of cargo and passengers, rights and duties of maritime workers, salvage, insurance, and the conflict of laws at sea.

240. INSURANCE. Sem. 2. Cr. 3. A study of insurable interest, concealment, representation, warranty, cause of invalidity, increase of hazard, the peril insured against, the amount of recovery, subrogation, conditions applicable after loss, waiver and estoppel, assignment of policies, and rights of beneficiaries.

254. CORPORATE TAXATION. Sem. 1. Cr. 2. Income tax problems involved in the formation, operation, reorganization, and liquidation of corporations. Prerequisite: Law 167.

256. FEDERAL ESTATE AND GIFT TAXATION. Cr. 2. A detailed study of the federal taxation of estates and gifts. Prerequisite to Law 258, Estate Planning.

258. ESTATE PLANNING. Sem. 2. Cr. 3. The principles of lifetime and testamentary planning of estates. Integrates the principles of the law of property, wills, and trusts; considers the favorable and unfavorable aspects, on such planning, of state and federal taxes. Prerequisite: Law 256.

260. CURRENT LITIGATION. Cr. 2. A clinical course in which students will be assigned various tasks to assist practicing attorneys in current litigational prob-
lems. Students will work under the supervision of a member of the faculty and the practicing attorney. Enrollment is by invitation only and preference will be given the students not enrolled in the Clinical Program courses. Students registered for the Clinical Program courses may not also take the Current Litigation course and count the 2 credit hours toward the 90 hour graduation requirement.

262. LAW AND ENVIRONMENTAL CONTROLS. Cr. 3. An interdisciplinary study of the legal problems involved in air, water, and noise pollution.

271-272. LAW REVIEW. Sem. 1. Cr. 1., Sem. 2. Cr. 1. Participation in Law Review activities, including the writing, editing, and publication of legal notes and articles. Admission by invitation only. (Note: This course may be offered in satisfaction of seminar requirement.) S/U grade.

273. LABOR LAW. Cr. 3. Organization, including the right to organize; protection against interference; discrimination and employer domination; selection of representatives. Collective bargaining, including the requirement of bargaining; provisions and enforcement of collective agreements. Strikes, picketing, and boycotts. Intra-union and inter-union relationships.

278. DEBTORS' PROTECTION AND CREDITORS' RIGHTS. Cr. 3. The legal position of the creditor, secured and unsecured, and his legal and equitable remedies. Fraudulent conveyances, general assignments, creditors' agreements, receiverships, and bankruptcy.

285. ECONOMIC REGULATION. Cr. 3. A study of the statutes and legal theories involved in the preservation of competition. Monopoly; exclusive dealing; resale price maintenance; mergers; stock acquisitions.

286. LAND ACQUISITION AND USE. Cr. 3. A study of the legal concepts and institutions relating to the marketing of land. The principal emphasis will be upon control of land use and development through legislation and private agreement; the marketing and financing of real estate; risks of title defects and methods of title assurance.

287. CRIMINAL PROCEDURE. Cr. 3. Covers an in-depth study of the nature of due process, and within this area takes into consideration arrest, searches and seizures; electronic eavesdropping; the right to counsel; confessions; entrapment; news media; disclosure and multiple punishment. Rights of juveniles and post-conviction proceedings are also considered.

288-289. SEMINAR. Sem. 1. Cr. 1., Sem. 2. Cr. 1. The seminar requirement is designed to afford third-year students an opportunity to build on the knowledge they have gained during their first two years of law study, by permitting them to make in-depth studies in specialized subjects. Since a substantial investigation paper is required in all seminars, students also gain experience in advanced research and writing. The seminar runs throughout the year, thus permitting adequate time for critiques and redrafts of the papers. In past years seminars have been offered in Securities Regulation, Church and State, Civil and Political Rights, Social Legislation, Commercial Arbitration, Commercial Law, Business Problems, Federal Antitrust Laws, and Natural Resources. These seminars will be supplemented from time to time as student interest demands. With permission of the dean and the instructor involved, a student may engage in an independent research project during his third year in lieu of the seminar requirement. The supervising instructor will prescribe the student's responsibilities in the project in addition to the substantial research paper which is required.

290-291. CLINICAL PROGRAM IN LEGAL PROBLEMS OF THE POOR. Sem. 1. Cr. 3, Sem. 2. Cr. 3. Clinical course designed to give students practical work experience while dealing with the legal problems of the poor. Involves students in both civil and criminal litigation, and in the economic and social problems which underlie such litigation. To participate in the Program students must first to be certified to the Supreme Court of Indiana by the dean. Students on academic probation are not permitted to register for these courses. Students who have registered for the first semester of the Clinical Program will be expected to register also for the second semester. Only in exceptional cases will students be permitted to register for the second semester without having taken the first semester. S/U grade. Prerequisites: Law 166 and 192.

In certain courses a small charge will be made for relevant mimeographed materials distributed to the class.
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1973-1974

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FACULTY

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Montana State College (B.S., 1925); State University of Iowa (M.A., 1929); Universidad Nacional Autonoma de Mexico; La Sorbonne, Paris (Diploma, 1934), Le College de France.

JOHN WALLACE MORLAND, A.M., LL.B., J.D., Dean Emeritus of the School of Law, Professor Emeritus of Law
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4Fall Semester only.
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*Spring Semester only.
*On leave, Spring Semester only.

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11Fall Semester only.
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22Fall Semester only.
24Fall Semester only.
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16 Spring Semester only.
16a Spring Semester only.
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Concordia College; University of North Dakota (Ph.B., 1957; M.S., 1959); University of California, Los Angeles; University of Michigan (M.P.H., 1962; Ph.D., 1970).
MARTIN H. SCHAEFER, M.A., Director of Foreign Studies, Associate Professor of History
Concordia Theological Seminary, St. Louis, Missouri (A.B., 1941; Diploma, 1943); Washington University (M.A., 1949); The University of Chicago.

SHIRLEY MARGARET SCHAEPER, M.A.R., Part-time Instructor in Religious Education
Valparaiso University (B.A., 1963); Concordia Theological Seminary, St. Louis, Missouri (M.A.R., 1966).

WILLIAM G. SCHEIDERER, M.A., Assistant Professor of Physics
Concordia Teachers College, Seward, Nebraska (B.S., 1957); University of Michigan (M.A., 1962).

RICHARD WILLIAM SCHEIMANN, Ph.D., Professor of Philosophy
Concordia (Junior) College, Fort Wayne, Indiana (Diploma, 1944); Concordia Theological Seminary, St. Louis, Missouri (B.A., 1945; M.Div., 1950); The University of Chicago; Divinity School, The University of Chicago (Ph.D., 1963).

WILLIAM JOSEPH SCHOECH, Ph.D., Assistant Professor of Electrical Engineering
Valparaiso University (B.S. in E.E., 1966); Pennsylvania State University (M.S.I.E., 1969); Purdue University (Ph.D., 1971). Professional Engineer (Indiana).

ROBERT KEITH SCHOPPA, M.A., Instructor in History
Valparaiso University (B.A., 1966); Taiwan National Normal University; University of Hawaii (M.A., 1968).

JAMES EDWARD SCHUELER, M.S., Associate Professor of Civil Engineering
Valparaiso University (B.S. in C.E., 1959); Northwestern University (M.S., 1960). Professional Engineer (Indiana).

ROBERT C. SCHULTZ, Dr. theol., Professor of Theology
Concordia Theological Seminary, St. Louis, Missouri (B.A., 1949; M.Div., 1952); Friedrich Alexander University, Erlangen, Germany (Dr. theol., 1956); Harvard Divinity School; The Menninger Foundation.

THEODORE CARL SCHWAN, Ph.D., Professor of Chemistry
Valparaiso University (A.B., 1941); University of Notre Dame (M.S., 1949; Ph.D., 1953).

DANA B. SCHWANHOLT, M.S., Professor of Education
Indiana University (A.B., 1929; M.S., 1934).

ALBERT FRANK SCRIBNER, M.A., LL.D., (Hon.), University Archivist, with rank of Distinguished Service Professor, Vice-President Emeritus, Business and Finance
Valparaiso University (A.B., 1931); University of Kentucky (M.A., 1937); Concordia Teachers College, Seward, Nebraska (LL.D., [Hon.], 1956).

NANCY CAROL SEDERBERG, M.Ed., Assistant Professor of Sociology
Thiel College (A.B., 1964); University of Pittsburgh (M.Ed., 1965).

EDGAR PAUL SENNE, M.A., Assistant Professor of Theology

ERMA LUCILE SHABOWICH, M.S. in H.E., Assistant Professor of Home Economics
Fort Hays Kansas State College (B.S. in H.E., 1952); New Mexico State University (M.S. in H.E., 1966).

WILLIAM SHEWAN, Ph.D., Professor of Electrical Engineering
Valparaiso University (B.S. in App. Sci., 1950); University of Notre Dame (M.S. in E.E., 1952); Purdue University (Ph.D., 1966).

DONALD LEROY SHRIRER, Ph.D., Professor of Physics
Case Institute of Technology (B.S., 1952); The Ohio State University (M.Sc., 1953; Ph.D., 1957); University of Illinois.

KAREN KENT SHRIRER, M.M., Part-time Instructor in Music
Ohio State University (B.M., 1957); American Conservatory of Music (M.M., 1958); University of Minnesota; University of Illinois.

Spring Semester only.
PHILIP SIEBURG, Part-time Instructor in Music
Chicago Civic Orchestra and School of Music; Indianapolis Symphony Orchestra; Pittsburgh Symphony Orchestra.

JANET LOUISE SIEVERS, M.B.A., Associate Professor of Accounting
Valparaiso University (A.B., 1939); The University of Chicago (M.B.A., 1952). C.P.A.

FRED SITTON, Ph.D., Professor of Speech and Drama
Texas Western College (B.A., 1943; M.A., 1951); University of Texas (M.F.A., 1954); University of North Carolina (L.D.A., 1959); Northwestern University (Ph.D., 1962).

DOROTHY PAULSEN SMITH, R.N., Ph.D., Dean, College of Nursing, with rank of Professor
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JOHN LEIGH SMITH, M.A., Assistant Professor of Philosophy
Columbia University; Roanoke College (B.A., 1952); Lutheran Theological Seminary, Philadelphia, Pennsylvania (B.D., 1955); University of Virginia (M.A., 1966).

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RONALD J. SOMMER, M.A., Assistant Professor of English
Wabash College (B.A., 1960); Yale School of Drama; Brown University (M.A., 1963); Indiana University.

JOHN RAYMOND SORENSON, Ph.D., Professor of Mathematics
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GERALD PAUL SPECKHARD, Ed.D., Associate Professor of Education
Valparaiso University (B.A., 1952); Stanford University; University of Wisconsin (M.S., 1959); Concordia Teachers College, Seward, Nebraska; University of Colorado (Ed.D., 1966).

ARVID FREDERICK SPOENBERG, Ph.D., Assistant Professor of English

ELISE LINNEA SPRECHER, R.N., M.A. in L.S., Instructor in Nursing
Hinsdale Sanitarium and Hospital School of Nursing (R.N., 1953); Andrews University (B.S. Nurs., 1967); University of Wisconsin; Valparaiso University (M.A. in L.S., 1972).

BRADFORD H. SPRING, M.S., Assistant Professor of Civil Engineering
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ARTHUR RAYMOND STEIGER, B.M., Part-time Instructor in Music
American Conservatory of Music (B.M., 1970).

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Valparaiso University (B.A., 1949); Indiana University School of Medicine (M.D., 1953).

†John Henry Strietelmeier, M.A., Litt.D., (Hon.), Professor of Geography, Vice-Chairman of the University Senate
Valparaiso University (A.B., 1942); Northwestern University (M.A., 1947); Concordia Theological Seminary, St. Louis, Missouri (Litt.D. [Hon.], 1963); University of Cambridge.

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Carleton College; Valparaiso University (B.A., 1965; J.D., 1967); Yale University (LL.M., 1968).

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University of Notre Dame; Valparaiso University (B.A., 1948).

Judith Thurow Timmel, M.A., Instructor in Foreign Languages
Valparaiso University (B.A., 1967); University of Texas (M.A., 1969); University of Wisconsin.

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James E. Trice, A.M., Part-time Lecturer in Education
University of East Carolina (B.S., 1960); George Washington University (A.M., 1965); College of William and Mary; University of Virginia; LaVerne College; University of Maryland.

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ALLEN EDMOND TUTTLE, Ph.D., Professor of English
Washburn College (A.B., 1938); The University of Chicago; Northwestern
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University (M.A., 1930); Cornell University (Ph.D., 1934); American
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AUDREY ANDREYNA USHENKO, M.A., Instructor in Art
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Indiana University (B.S.Ed., 1953; M.S.Ed., 1956); Teachers College,

MARJORIE E. WATERBROOK, M.A., Visiting Instructor in English

36Spring Semester only.
38Fall Semester only.
39Fall Semester only.
ERNEST ROGERS WEBSTER, Ed. D., Assistant Professor of English
University of North Carolina (A.B., 1962; M.A.T., 1965); University of
Northern Iowa; Ball State University (Ed. D., 1970).

†BURTON D. WECHELNER, LL.B., Professor of Law
University of Michigan (B.A., 1947); University of Colorado; Oklahoma
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(LL.B., 1949).

NOLA JEAN WEGMAN, Ph.D., Associate Professor of English
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LOUIS ALBERT WEHLING, J.D., Professor of Political Science
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1935); University of Southern California (A.M., 1940).

ROBERT JAMES WEINHOLD, B.A., Assistant Professor of Theology
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Wittenberg University (B.S.Ed., 1960); Ohio State University (M.A.,
1968).

‡Marvin D. Weiss, M. Ch. E., Assistant Professor of Mechanical Engineering
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Eng., 1949); Polytechnic Institute of Brooklyn (M.Ch.E., 1952).

RONALD WEST, M.A. in L.S., Part-time Instructor in History
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University; Valparaiso University (M.A. in L.S., 1967).

SUZANNE FLYNN WHITEHEAD, M.S., Associate Professor of Nursing
Holy Cross School of Nursing; Case-Western Reserve University (B.S.,
1959); University of Pennsylvania (M.S., 1962).

NORMAND JOHN WIDIGER, A.B., Assistant Professor of Theology
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Chicago.

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‡Fall Semester only.
‡Spring Semester only.
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1David Ernest Bodenstab, B.S., Instructor in Biology
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2John Wesley Constable, Ph.D., Part-time Instructor in Theology
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3Lester W. Draheim, B.A., Part-time Assistant Professor of Theology
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4Ruth M. Froehlich, B.S., Part-time Instructor in Nutrition
Baldwin Wallace College (B.S., 1943).

5Robert Adelbert Grunow, M.A., Part-time Assistant Professor of Sociology
Concordia (Junior) College; Concordia Theological Seminary, St. Louis, Missouri (B.A., 1946; M. Div., 1949); University of Detroit (M.A., 1957).

6Howard Eugene Mueller, Part-time Assistant Professor of Theology
Concordia (Junior) College, Edmonton, Alberta, Canada (Diploma, 1936); Concordia Theological Seminary, St. Louis, Missouri (Diploma, 1940); Washburn University; University of Kansas.

7David Theodore Rohde, M.A., Part-time Assistant Professor of Psychology

8Erwin William Schnedler, M.A., Part-time Assistant Professor of Sociology
Concordia (Junior) College, Fort Wayne, Indiana (Diploma, 1936); Concordia Theological Seminary, St. Louis, Missouri (Diploma, 1940); Western Reserve University (M.A., 1950).

9Miriam L. Smith, R.N., M.A., Assistant Professor of Biology and Chemistry
Trumbull Memorial School of Nursing, Warren, Ohio (Diploma, 1940); The Ohio State University (B.S. in Ed., 1943); Western Reserve University (M.A., 1964).

10Patricia Smith Spreng, M.A., Assistant Professor of English
Flora Stone Mather College, Western Reserve University (B.A., 1950); Case Western Reserve University (M.A., 1969).

11Kenneth Joseph Whelan, Ph.D., Part-time Associate Professor of Psychology
Cleveland College (B.S., 1949); Western Reserve University (M.S., 1958); Case Western Reserve University (Ph.D., 1965).

12Thiemo Wolf, Jr., Ph.D., Assistant Professor of Biology and Chemistry

Valparaiso University appoints its Faculty without regard to race, sex, creed, color, or national origin.

---

1Cleveland only.
2St. Louis only.
# STATISTICS

## SUMMARY OF ATTENDANCE

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<th>The College of Arts and Sciences</th>
<th>Summer Session 1972-1973</th>
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FORMS OF BEQUEST

BECAUSE of the constantly increasing tendency on the part of our friends to provide for the growing needs of the University by bequests and the many inquiries received each year as to the proper wording thereof, there are given below forms for the convenience of those who plan to remember Valparaiso in their wills.

(GENERAL)

I give and bequeath to The Lutheran University Association, a corporation existing under the laws of the State of Indiana, and located in the City of Valparaiso, in said State, .................. . . dollars, to be used at the discretion of the Corporation of said Association.

(SPECIFIC)

I give and bequeath to The Lutheran University Association, a corporation existing under the laws of the State of Indiana, and located in the City of Valparaiso, in said State, .................. . . dollars, and direct that the income therefrom shall be used for the purposes following, that is to say:

(Here specify in detail the purposes such as: Faculty salaries, equipment and facilities, etc.)

As in some states a bequest for charitable purposes is void unless the will is executed at least a certain length of time (varying in different states) before the death of the testator, and is attested by two or more credible, and at the same time disinterested witnesses, it is advisable to ascertain the requirements of the law in the state in which the testator resides, and to be careful that such requirements are complied with.
... a growing and maturing private University of academic excellence, operating within the Lutheran tradition, whose purpose is the development of an effective Christian personality that will leave its mark throughout society.