

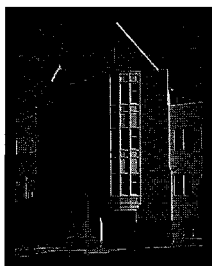
UNIVERSITY OF ST. THOMAS

# Undergraduate Catalog



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# University of St. Thomas

2115 SUMMIT AVENUE  
ST. PAUL, MINNESOTA 55105

## Catalog of the College

2000-2002

**Telephone:**

651-962-5000 or 800-328-6819

**Website:**

<http://www.stthomas.edu>

**Notice:**

This catalog is accurate to the best of our knowledge and ability at the time of publication, but is subject to change.

Additions and changes to the catalog are available on the Web.

With the exception of changes explicitly affecting students entering under this catalog, the printed version remains the "official" catalog.

It is the student's responsibility to know and meet graduation requirements and academic policy.

**Affirmative Action Statement:**

The University of St. Thomas does not discriminate on the basis of race, color, creed, religion, ancestry, national origin, sex, affectional preference, disability, age, marital status, or status with regard to public assistance in the employment of faculty or staff, the admission or treatment of students, or in the operation of its educational programs and activities.

As permitted by applicable statutes and regulations, the university reserves the right to consider gender as one factor in its undergraduate admissions policy in order to effect a desired balance in the proportionate representation of sexes in the student body.

## Calendars

### Fall Semester 2000

September 6	Classes begin
September 19	Last day to register or add a class
September 19	Last day to drop a class without notation on record
October 11	Last day to designate grading option (S-D-R)
October 27	Fall semester break
October 30	2nd half-semester classes begin
October 30	Mid-term grades due
Nov. 13 - Dec. 1	January term and spring semester registration
November 15	Last day to withdraw from a class without a grade of "F"
November 23-24	Thanksgiving recess
November 27	Classes resume
December 1	Incompletes due from spring semester and summer sessions
December 1	1st half-semester grades due
December 15	Last day of classes
December 18	Study Day
December 19 - 22	Final examinations
December 22	Winter commencement
December 28	Final grades due

### January Term 2001

January 2	Classes begin
January 8	Last day to register or add a class
January 8	Last day to drop a class without notation on record
January 11	Last day to designate grading option (S-D-R)
January 15	Martin Luther King Holiday
January 17	Last day to withdraw from a class without a grade of "F"
January 25	Last day of classes/examinations
February 2	January term grades due

### Spring Semester 2001

January 29	Classes begin
February 9	Last day to register or add a class
February 9	Last day to drop a class without notation on record
March 5	Last day to designate grading option (S-D-R)
March 19 - 23	Spring semester break
March 26	Classes resume
March 26	2nd half-semester classes begin
March 26	Mid-term grades due
April 9	Last day to withdraw from a class without a grade of "F"
April 13 - 16	Easter break
April 17	Classes resume
April 23 - May 4	Early registration for summer sessions and fall semester
May 1	Incompletes due from fall semester and January term
May 1	1st half-semester grades due
May 11	Last day of classes
May 14	Study Day
May 15 - 18	Final examinations
May 18	Commencement Mass
May 19	Spring commencement
May 25	Final grades due

### Summer Sessions 2001

May 23 - July 5	First summer session
May 23 - July 19	Extended session
May 23 - August 16	Double session
May 26 - August 25	Weekend session
July 9 - August 16	Second summer session

**Fall Semester 2001**

September 5	Classes begin
September 18	Last day to register or add a class
September 18	Last day to drop a class without notation on record
October 10	Last day to designate grading option (S-D-R)
October 26	Fall semester break
October 29	2nd half-semester classes begin
October 29	Mid-term grades due
November 12 - 30	January term and spring semester registration
November 14	Last day to withdraw from a class without a grade of "F"
November 22 - 23	Thanksgiving recess
November 26	Classes resume
December 3	Incompletes due from spring semester and summer sessions
December 3	1st half-semester grades due
December 14	Last day of classes
December 17	Study Day
December 18 - 21	Final examinations
December 21	Winter commencement
December 28	Final grades due

**January Term 2002**

January 2	Classes begin
January 8	Last day to register or add a class
January 8	Last day to drop a class without notation on record
January 10	Last day to designate grading option (S-D-R)
January 17	Last day to withdraw from a class without a grade of "F"
January 21	Martin Luther King Holiday
January 25	Last day of classes/examinations
February 1	January term grades due

**Spring Semester 2002**

January 29	Classes begin
February 11	Last day to register or add a class
February 11	Last day to drop a class without notation on record
March 4	Last day to designate grading option (S-D-R)
March 18	2nd half-semester classes begin
March 18	Mid-term grades due
March 25 - April 1	Spring semester/Easter break
April 2	Classes resume
April 8	Last day to withdraw from a class without a grade of "F"
April 22 - May 3	Early registration for summer sessions and fall semester
May 1	Incompletes due from fall semester and January term
May 1	1st half-semester grades due
May 10	Last day of classes
May 13	Study Day
May 14 - 17	Final examinations
May 17	Commencement Mass
May 18	Spring commencement
May 24	Final grades due

**Summer Sessions 2002**

May 22 - July 3	First summer session
May 22 - July 18	Extended session
May 22 - August 15	Double session
May 25 - August 24	Weekend session
July 8 - August 15	Second summer session

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## Mission

The University of St. Thomas is a comprehensive, co-educational, Catholic university. It seeks to develop morally responsible individuals who combine career competency with cultural awareness and intellectual curiosity. In its undergraduate program, the university is committed to the development of the student through a liberal arts education within the living Catholic tradition and through a high degree of personal attention in a spiritually and intellectually stimulating campus environment. Graduate programs emphasize the integration of theory with practice, enhance the professional competence and ethical judgment of their students, and foster personal growth and an appreciation of lifelong learning. In all of its academic programs and other educational enterprises, the university is committed to meeting the diverse, changing needs of the community. Throughout, the university fosters in the student a tradition of service to the public welfare and an energetic, thoughtful approach to the challenges of contemporary life.

## Convictions

1. The University of St. Thomas is a Catholic, diocesan university, founded on belief in God and commitment to a life of worship leading to active participation in the mission of Christ and the Church to the world. In that context and as an important part of its religious witness, the university welcomes and respects faculty, staff and students who do not share this faith tradition. The Catholic tradition fosters a value-oriented education needed for complete human development and for responsible citizenship in contemporary society.
2. The university's educational program provides a liberal arts education as well as education for a career. It strives to give a student a foundation for clear thinking and expression; a sufficient understanding to read intelligently in fields with which an educated person ought to be acquainted; and proficiency in an area of specialization.
3. The university's curriculum emphasizes a search for and discovery of truth and judgments of value as well as preserving and transmitting enduring truths and values.
4. The university seeks to create an international perspective among its students including an appreciation of cultural diversity.
5. The university strives to anticipate and respond appropriately to changes in its environment.
6. The university emphasizes excellence in teaching. It also is committed to scholarship and encourages service to the university and broader community throughout its faculty.
7. The university welcomes diversity among its students with respect to age and intellectual talents, financial resources, and credal, racial, and geographic characteristics.
8. The university fosters the total development of

the student through close interaction with faculty, staff and other students within a supportive campus environment.

9. The university's metropolitan setting challenges it to participate in community life and to develop innovative programs for persons of all ages within the community.
10. The university, through its educational programs, student services, and other resources, assists its students in the transition to further education and employment.
11. The university cultivates lifelong personal contact and communication with its friends and former students.
12. The university embraces its role in independent liberal arts education because diversity is essential to the health of our educational system, to our national life, and to our responsibilities in the world community.

Within this context, the objectives of the undergraduate curriculum are: liberal learning, moral and ethical development, and career preparation.

## College Vision Statement

The university's mission and convictions and our objectives for undergraduate education provide the framework for the College Vision Statement, which was endorsed by the College Faculty Senate in December 1995.

The strengths of the undergraduate College are embodied in four commitments:

1. A commitment to the Catholic identity that informs its liberal and professional education;
2. A commitment to a common liberal arts foundation that serves as the core of the education in which all St. Thomas undergraduates participate;
3. A commitment to the integration of the liberal arts and career preparation, fostering in students a dedication to work for the common good;
4. A commitment to the underlying unity of the human person with an emphasis on the spiritual, intellectual, ethical and social development of all students.

These commitments are manifested in the following features of the College:

- a. A strong core curriculum for all students that exposes them to enduring, transcultural human truths, provides for multicultural exploration, and encourages integration that crosses disciplinary boundaries;
- b. A comprehensive and strong set of major and minor fields that meet the increasing demands of career competency and interdisciplinary development, while maintaining a common liberal arts core curriculum;
- c. An energetic, expert and diverse faculty who show their concern for the total development of

- students through extensive time and effort spent with them, and through their eagerness to involve students in the work of their fields through joint research projects, practicums, and service to the community;
- d. A faculty who model for students a love of learning through continual efforts to enhance teaching effectiveness, ongoing professional engagement, and collaboration with their colleagues in teaching, research and other program initiatives;
  - e. A faculty who demonstrate a commitment to service through their willingness to serve as role models for students, demonstrating that compassion for others and lifelong dedication to service are ordinary aspects of being an educated, responsible citizen;
  - f. A strong support and professional staff throughout the university committed to fostering the social, spiritual, and intellectual development of students through co-curricular activities, with a special focus on cultivating leadership ability.

As it looks to the future, the undergraduate College seeks to maintain these distinctive manifestations of its key commitments and to:

- a. Build on the strengths of our Catholic identity by promoting dialogue between faith and reason and by enabling students to acquire an organic vision of reality which integrates faith and secular learning;
- b. Increase efforts to cross departmental and disciplinary boundaries in order to enhance further the integration of liberal arts and professional education, faith and practice, principles and techniques, and education and service;
- c. Emphasize more the preparation of students for a life of service in an increasingly diverse world through the development of integrated service learning opportunities for students;
- d. Stress the importance of global awareness by encouraging study abroad opportunities, increasing participation in faculty and student exchanges, and increasing involvement with the university's urban community;
- e. Increase efforts to diversify the student body, the faculty, the staff, and the curriculum to reflect the diversity of the broader society;
- f. Emphasize the integration of technology in teaching, and the development of computer literacy for all students;
- g. Continue our strong emphasis on preparing students to think analytically, write and speak clearly, reason quantitatively, participate in a democratic society, contribute to the health of their communities and the environment, and know the natural world and their own and other cultures;
- h. Continue to foster in our students an appreciation for the dignity of all human persons, created in the image of a just and loving God.

## History

The University of St. Thomas was founded in 1885 by Archbishop John Ireland, less than a year after he was installed as St. Paul's third bishop. What began as the St. Thomas Aquinas Seminary – with 62 students and a faculty of five – has grown to be Minnesota's largest independent university with four campuses and over 10,000 students.

Built near a river bluff on farmland that was still considered "far removed from town" in the late 1800s, the university's main campus is nestled today in a residential area midway between the downtowns of St. Paul and Minneapolis.

In its first decade, St. Thomas was a high school, college and seminary; students enrolled in either the preparatory, classical or theological departments. In 1894 the theological department moved to an adjacent campus where it became The Saint Paul Seminary. The preparatory and classical departments, meanwhile, remained on the original campus and became the College of St. Thomas.

The classical department gradually grew to a four-year college curriculum. The first baccalaureate degrees were conferred in 1910 and St. Thomas was officially accredited in 1916. The preparatory department became the St. Thomas Military Academy, a high school that moved to a suburban campus in 1965.

After 92 years of all-male enrollment, St. Thomas became coeducational in 1977. Today, 54 percent of the undergraduates and more than 51 percent of the graduate students are women.

Coeducation, coupled with new graduate programs as well as new campuses, contributed to St. Thomas' growth over the past two decades. Enrollment increased from under 2,500 students in 1970 to almost 11,000 today. The undergraduate College currently enrolls approximately 5,400 students.

Adult students at the undergraduate level were served through New College, which opened in 1975. The School of Continuing Studies, established in 1998, will continue to serve adult, part-time, and non-traditional students at both the undergraduate and graduate levels with degree and non-credit programs.

Graduate programs in Education and Professional Psychology were first established in 1950, and now offer degrees at the masters, specialist, and doctoral levels. The School of Education and the School of Social Work were both established in 1996.

Graduate programs in Management, begun in 1974, have developed into the Graduate School of Business, which offers a wide range of business-related masters degrees.

The Graduate School of Applied Sciences and Engineering offers masters degrees in software engineering and in manufacturing systems engineering.

St. Thomas' original "classical" and "theological" departments came together once again in 1987 through an affiliation between the seminary and university. Together they created The School of



## General Information

Divinity which offers graduate degrees in pastoral studies, divinity and theology.

In 1990, recognizing the many changes and the addition of graduate programs to the institution, the name of the College of St. Thomas was changed to the University of St. Thomas.

The Graduate School of Arts and Sciences begun in 1991, offers masters-level programs in art history, English, and music education.

Many non-degree programs are offered by St. Thomas through a number of specialized centers devoted to management and business, senior citizens, life-care, creative studies, Jewish-Christian dialogue, and music.

St. Thomas also is home to the undergraduate St. John Vianney Seminary, and to The Catholic Digest, the largest-selling magazine of its kind in the world.

## Locations

St. Thomas' main, 78-acre campus anchors the western end of St. Paul's historic Summit Avenue.

In 1992 the university began a permanent campus in downtown Minneapolis, which is now the home of the Graduate School of Business, the Graduate Department of Professional Psychology, the School of Education, and the proposed Law School.

The university offers a wide range of programs at its Owatonna-based Gainey Conference Center, established in 1982 and at a number of satellite locations, including the Mall of America.

The University of St. Thomas Rome Campus is a residential estate on the banks of the Tiber River purchased in 1999. It is home to the university's Center for Catholic Studies Rome Program. It is also available for conferences, study tours and housing for faculty, students, and visitors to Rome.

## Vital Statistics

The University of St. Thomas is a private, coeducational, Catholic, liberal arts university located in St. Paul, Minnesota. The university awards the B.A., B.S., B.S.M.E., D.Min., Ed.S., Ed.D., M.A., M.B.A., M.B.C., M.Div., M.I.M., M.M.S.E., M.S., M.S.S., M.S.D.D., M.S.W., and Psy.D. degrees.

Enrollment figures for fall semester 1999 (including 26 students enrolled at branch campuses in foreign countries) were: the undergraduate College 4,915; School of Continuing Studies 484; School of Divinity 131; School of Education (graduate) 1,053; School of Social Work (graduate) 189; Graduate School of Business 3,022; Graduate School of Applied Sciences and Engineering, 872; Graduate School of Arts and Science, 112; Graduate Department of Professional Psychology 177. There were 348 full-time faculty.

## Accreditation and Memberships

The University of St. Thomas is accredited by the North Central Association of Colleges and Schools (800-621-7440), the Association of Theological

Schools (412-788-6505), the National Council for the Accreditation of Teacher Education (202-466-7496).

All University of St. Thomas education licensure programs are approved by the Minnesota Department of Children, Families and Learning (651-296-2046).

Programs in chemistry are approved by the American Chemical Society (800-227-5558); the Social Work program is accredited by the Council on Social Work Education (703-683-8080); the masters programs in engineering are accredited by the Accreditation Board for Engineering and Technology (410-347-7700); the music programs are approved by the National Association of Schools of Music (703-437-0700).

The university is a member of the:

American Association of Colleges for  
Teacher Education  
American Council on Education  
Association of American Colleges  
and Universities  
Association of Catholic Colleges  
and Universities  
Council on Undergraduate Research  
Institute of International Education  
International Federation of  
Catholic Universities  
Minnesota Private College Council  
National Association of Independent  
Colleges and Universities  
National Catholic Educational Association

The university is an associate member of the  
American Assembly of Collegiate Schools of  
Business

## Assessment of Programs

The program to assess student learning is an integral part of the university's commitment to excellent teaching and effective learning. The assessment effort is sustained by the faculty and is fully supported by the administration. Information is systematically collected and examined both to document and improve student learning. The assessment program itself is routinely updated, and the information gained from the assessment process becomes part of curricular development.

The Academic Assessment Coordinating Committee (AACC), which oversees the student outcomes assessment programs of the university, consists of six elected faculty and the director of Institutional Research. The committee is co-chaired by the associate vice president for academic affairs and the associate academic dean.

Currently, all curricula for major concentrations and the undergraduate core curriculum are routinely assessed. Thus, students are asked from time to time to participate in testing, surveys, interviews, or other methods of collecting data for assessment purposes.

## Admission Policies

The University of St. Thomas desires to provide an environment in which people of varied backgrounds can learn and grow through shared experiences. Therefore, we welcome all applicants without regard to race, religious preference, or national origin.

## Information and Visits

All correspondence and telephone calls concerning undergraduate day admissions should be directed to the Office of Admissions, Mail #32F-1, University of St. Thomas, St. Paul, Minnesota 55105-1096.

Phone: 800-328-6819, ext. 2-6150

e-mail: admissions@stthomas.edu

Website: www.stthomas.edu

When writing, inquirers should be sure to include their full name, address with zip code, telephone number and social security number.

The Office of Admissions is located at 32 So. Finn Street. It is open from 8 a.m. to 4:30 p.m., Monday through Friday, and 9 a.m. to noon on most Saturdays. Counselors are available during those times for counseling and campus tours. Please contact the Office of Admissions for an appointment.

## Application Procedures

Candidates for admission should complete the following steps.

1. The official application form should be filled out by the applicant and the appropriate high school authorities. It should be sent to the Office of Admissions with the application fee. Or the application may be completed on the Web: [www.stthomas.edu](http://www.stthomas.edu)
2. The admissions committee considers each student's academic record, non-academic recommendations and essay. Applicants are then notified whether they have been accepted officially by the university.
3. Each accepted applicant should make a \$100 confirming deposit to reserve a place in the class. This confirming deposit is refundable upon written request until May 1.
4. A resident applicant must also make a \$100 room deposit. The room deposit will be refunded if written notice of cancellation is received prior to May 1.
5. Each confirmed student is required to provide a final high school transcript after graduation.
6. Each confirmed student will receive a health form which is to be filled out by the family physician and returned to the Office of Admissions.

As of July 1, 1990, all students born after 1956 who are enrolled in a Minnesota public or private college or university are required by Minnesota law to be immunized against diphtheria, tetanus, measles, mumps, and rubella. These immunizations must have been done within a certain time frame. Questions about this requirement and exemptions allowed for by the law should be addressed to the Health Service. A record of immu-

nization form is available from the Office of Admissions or the Health Service.

## Admission Credits

Students entering St. Thomas as first-time college students may have high school credits, advanced placement credits, or informal education that allows them to gain credit by examination. These various supplementary programs are explained in this section.

### High School Credits

It is recommended that an applicant's high school transcript include four units in English, four units in one foreign language, four units of mathematics (three units required), two units in natural sciences and two units in history or the social sciences. Some programs require additional courses in the above-mentioned fields.

Graduates of accredited high schools are admitted on the basis of their academic rank in their graduating class, recommendation of their high school staff and their scores on one of the following: the Scholastic Aptitude Test (SAT), or the American College Test (ACT).

The university's SAT code number is 6110.

The ACT code number is 2102.

Students with a Graduate Equivalency Diploma should submit the GED, including scores, in addition to their high school transcript.

### Advanced Placement

Unless otherwise noted, a student earning a score of three or higher on an Advanced Placement Examination sponsored by the College Entrance Examination Board will receive four credits and an "S" grade. This examination must be taken prior to matriculation to a college or university.

**Art History** – A score of 3 or higher = ARTH 199 (may fulfill Fine Arts requirement; evaluation on individual course basis)

**Biology** – A score of 3 or higher = BIOL 101 (fulfills Natural Science requirement)

**Chemistry** – A score of 3 or higher = CHEM 100 (fulfills Natural Science requirement)

**Computer Science** – A score of 3 or higher in Computer Science A or B = QMCS 199; A score of 3 or higher in Statistics = QMCS 220 (fulfills third Math/Science requirement)

**Economics** – A score of 4 or higher in macroeconomics = ECON 251; A score of 4 or higher in microeconomics = ECON 252 (either course fulfills Social Analysis requirement)

**English** – A score of 3 or higher in English Language/Composition = ENGL 100 (does not fulfill the Literature and Writing requirement); A score of 3 or higher in English Literature/Composition = ENGL 104 (partially fulfills the Literature and Writing requirement);

## Admission Information

- (if both tests are taken, English Language/Composition = GNST 199); GNST 199 does not fulfill the Literature and Writing requirement
- French** – A score of 3 = FREN 211 (fulfills Language and Culture requirement);  
A score of 4 = FREN 212  
A score of 5 = FREN 300
- German** – A score of 3 = GER 211 (fulfills Language and Culture requirement);  
A score of 4 = GER 212  
A score of 5 = GER 300
- Government** – A score of 3 or higher in Government & Politics: U.S. = POL 199 (does not fulfill Social Analysis requirement)
- History** – A score of 3 or higher = HIST 199 (fulfills Historical Studies requirement)
- Latin** – A score of 3 or higher = LAT 212 (fulfills Language and Culture requirement)
- Mathematics** – A score of 3 or higher in Calculus AB = MATH 113 (fulfills Mathematical Reasoning requirement);  
A score of 3 or higher in Calculus BC = MATH 113 and MATH 114; AB sub score of 3 or higher in Calculus BC = MATH 113
- Music Theory** – A score of 3 = MUSC 113;  
A score of 4 or higher = MUSC 212 (does not fulfill fine arts requirement)
- Physics** – Physics B: A score of 3 = PHYS 101 (satisfies Natural Science Requirement);  
A score of 4 or 5 = PHYS 109-110 (satisfies Natural Science Requirement);  
*Physics C1—Mechanics*: score of 3 = PHYS 101 (satisfies Natural Science Requirement);  
A score of 4 or 5 = PHYS 111 (satisfies Natural Science Requirement);  
*Physics C2—Electricity and Magnetism*: A score of 3 or 4 = PHYS 199 (satisfies Natural Science Requirement);  
A score of 5 = PHYS 112 (satisfies Natural Science Requirement)
- Psychology** – A score of 4 or higher = PSY 111 (fulfills Social Analysis requirement)
- Quantitative Methods** – see Computer Science above
- Spanish** – A score of 3 = SPAN 211 (fulfills Language and Culture requirement);  
A score of 4 = SPAN 212  
A score of 5 = SPAN 300

### International Baccalaureate

Students who pass the International Baccalaureate Examination(s) in subjects included in the St. Thomas curriculum with a score of 4 will ordinarily receive 4 credits toward graduation. Students who receive a score of 5, 6, or 7 will ordinarily receive 8 credits toward graduation. The specific courses for which credit would be awarded will be determined by the appropriate academic department. With the exception of Foreign Language, the examinations referred to are at the *higher level*.

Following is a list of guidelines according to which credit may be obtained by examination in specific departments. In each case the decision as to whether or not it is suitable to seek credit by examination for a particular course will be made by the chair of the department.

Credit awarded will be assigned an "S" grade (satisfactory).

**Biology** – A score of 4 or higher = one course.

Students with scores of 5 or above should consult with the department chair about possible placement/credit beyond one course. All students who intend to major in biology should consult with the department chair.

**Chemistry** – A score of 4 or higher usually equals CHEM 111. Students with scores of 5 or above should consult with the department chair. Students should consult with department chair if they intend to major in science, especially chemistry.

**English** – A score of 4 or higher usually equals one course, but students should consult with the department chair to determine exact course credit and placement.

**Foreign Language** – A score of 4 or higher (in the subsidiary examination) usually equals 211 or 212 depending on the results of the departmental placement examination.

**History** – A score of 4 or higher = one course. Students with very high scores should consult with the department chair about placement/credit beyond one course.

**Mathematics** – A score of 3 or 4 will allow MATH 113 to be waived as a prerequisite (but no course credit will be given). Students are encouraged to take the departmental examination to receive credit for MATH 113. A score of 5 or higher gives credit for Math 113. Students are encouraged to take the departmental examination to receive credit for MATH 114.

**Physics** – A score of 4 or higher will be considered for the awarding of credit on a case by case basis.

### Post-Secondary Option Credits

The Post-Secondary Enrollment Options program is a Minnesota State program which allows qualified high school students to earn credit toward their high school diplomas by attending colleges, universities, vocational-technical institutes and other post-secondary institutions. In order to participate, a student must be enrolled as a junior or senior at a Minnesota high school and must meet the admissions requirements set by the post-secondary institution. Legislation passed by the State of Minnesota in 1997 allows students in home schools to participate in the same program.

The University of St. Thomas has participated in the program since its inception in the fall of 1985. Students of high ability who need a greater

academic challenge than their high school provides may take a maximum of six courses through the PSEO program at St. Thomas. The university considers for admission students who are in the top 10 percent of their high school class and who have pursued a rigorous academic program including honors or accelerated coursework.

High school juniors may register for a maximum of eight credits at St. Thomas. High school seniors may register for a maximum of sixteen credits at St. Thomas. Since PSEO students are considered non-degree, the maximum number of credits that may be applied toward a degree program at St. Thomas is twenty-four.

The program allows for registration in fall and spring semesters. January term and summer sessions are not included.

Students are allowed to enroll in any course for which they have adequate preparation, provided that there is space available after the degree-seeking students have registered. There are some courses which are not offered for PSEO students. For instance, they may not enroll in theology courses, since the state will not pay for religion courses. Applied music courses, such as instrumental or vocal lessons, are also not included in the program. PSEO students must register for credit; they may not audit a course.

Students must maintain at least a 2.50 grade point average in order to continue in the program.

Students enrolled in the program receive University of St. Thomas I.D. cards and may participate in college activities and use campus facilities. They may not live in college residences, nor participate in off-campus programs (such as music ensemble tours, study abroad, varsity athletics, volunteer projects, etc.).

### **College Level Examination Program (CLEP)**

The College Level Examination Program (CLEP) was conceived to serve post-secondary students who have acquired certain kinds of knowledge outside the usual formal educational channels.

There are two kinds of CLEP Examinations, General Examinations and Subject Examinations.

#### *General Examinations*

If a student scores at the 50th percentile or above, the university will award 4 credits for each of these five General Examinations: English Composition (the essay component of this examination must be taken to be considered for credit); Mathematics; Natural Sciences; Social Sciences; History and Humanities.

These General Examinations should be taken before or during the first semester of college work.

Credit awarded for these examinations may be used to meet the requirements of the core curriculum with the following qualifications:

- The Natural Sciences Examination does not fulfill the laboratory science requirement, but

would fulfill the third course requirement in math/science.

- The Humanities Examination does not fulfill the fine arts requirement. It would, however, be accepted as an elective course.
- The Social Sciences and History examination fulfills neither the social analysis nor the historical studies requirement.

#### *Subject Examinations*

If a student scores at the 50th percentile or above, the university will award course credit for those Subject Examinations of CLEP that have been approved by the department in which the subject is usually taught.

Credit will not be awarded for a CLEP Examination if a student has already taken a college-level course in an equivalent subject area. Arrangements may be made to take the General or Subject CLEP Examinations. Website: [www.stthomas.edu/pc/testing](http://www.stthomas.edu/pc/testing) Testing registration line at 651-962-6791.

#### **Department Examinations**

Certain departments of the College allow students to obtain credit for specific courses if they can demonstrate that they have mastered the content and method of the courses in question. Those interested in seeking credit in this fashion should contact the department chair of the appropriate department.

The examining faculty member offers no special instruction to the student except to furnish the syllabus of the course. If this is unavailable or of insufficient assistance to the student, the course should be taken as a regular semester offering or on an Individual Study basis.

A student may attempt to earn credit by examination only once for a particular course. Grades for courses taken in this way are usually given on an S/R basis unless the department has decided that a letter grade should be awarded.

Only courses for which credit is awarded will be posted on the transcript. A fee is charged for administering the examination.

The following departments offer the availability of credit by examination for selected courses. Departments not included in the list do not offer any courses under this option.

**Art History** – examinations may be given for certain courses. Each case will be considered individually by the chair of the department.

**Biology** – examinations may be given for certain courses. Each case will be considered individually by the chair of the department.

**Division of Business** – examinations may be given with the consent of the chair of the department. Listed below are the courses in the departments of the Division of Business for which credit may be obtained by examination:

ACCT 205 Introduction to Accounting

## Admission Information

- BLAW 301 Legal Environment of Business
- FINC 321 Financial Management
- MGMT 345 Operations Management
- MKTG 300 Principles of Marketing
- Chemistry** – Examinations may be given for CHEM 111 and/or CHEM 112. Each case will be considered individually by the department chair.
- Economics** – all courses, if circumstances warrant it, with the *exception* of:
- ECON 315 Empirical Methods in Economics
- ECON 494 Research
- Engineering** – all courses, if circumstances warrant it, with the exception of:
- ENGR 480 Engineering Design Clinic I
- ENGR 481 Engineering Design Clinic II
- Each case will be considered individually by the department chair.
- English** – under extraordinary circumstances, with the consent of the department chair, credit by examination may be sought for English courses with the following exceptions:
- ENGL 111 Critical Reading & Writing I
- ENGL 112 Critical Reading & Writing II
- ENGL 190 Critical Reading & Writing
- ENGL 300 Theory and Practice of Writing
- ENGL 484 Literary Magazine Practicum
- ENGL 485 Senior Seminar
- Foreign Language** – examinations may be given for certain courses. Each case will be considered individually by the department chair.
- Geology**
- GEOL 111 Introductory Geology I
- History** – by consultation with the department chair, any regular course (i.e. excluding Topics courses, Individual Study courses, Experiential Learning courses) could be taken by examination if circumstances were to warrant it.
- Journalism & Mass Communication** – in special circumstances, credit by examination could be sought for courses in journalism with the following exceptions:
- JOUR 230 Photojournalism
- JOUR 311 Persuasion in Writing
- JOUR 410 Advanced Reporting
- JOUR 450 Advanced Public Relations
- JOUR 480 Media Ethics
- Mathematics** – a departmental examination is available for MATH 113 Calculus I with the following qualifications:
- A score of 0 - 59 = no credit;
- A score of 60 -79 = no credit but MATH 113 will be waived as a prerequisite;
- A score of 80 - 100 = credit for MATH 113
- Music** – no courses are available. Tests in music theory and auditions for Performance Studies are used to determine placement and do not entail the awarding of credit.
- Psychology** – in special circumstances, and with approval of the department, credit by examina-

tion may be sought for PSY 111 General Psychology

**Quantitative Methods** – under special circumstances and with the approval of the department chair, credit by examination could be sought for courses with the following exceptions:

QMCS 420 Systems Analysis and Design I

QMCS 421 Systems Analysis and Design II

**Sociology**

SOC 100 Introduction to Sociology

**Theology** – credit by examination may be sought for THEO 101 and all 200-level courses.

Each request for credit requires the approval of the department chair.

## Transfer Students

In addition to following the general application procedures, students wishing to transfer from another college should have official transcripts of their high school and college work sent to the Office of Admissions as soon as possible. Previous college work and other academic information will be reviewed in the admission decision. A minimum GPA of 2.30 (4.0 scale) is required in *transferable* previous college work to be considered for admission. *All* transferable coursework, regardless of grade, is considered when calculating the GPA used to determine admission. *Only* coursework in which the student earned a grade of C- or higher will be recognized for credit at St. Thomas.

Besides fulfilling the core curriculum requirements, transfer students must maintain a GPA of 2.00 in courses taken at St. Thomas and must successfully complete thirty-two of their last thirty-six credits at the university.

The deadline for application for the fall semester is August 1. Applications for the spring semester must be received by January 1.

In order to stay within enrollment goals, the university reserves the right to adjust published application and standing deposit deadlines when necessary.

Students interested in transferring to the university should request a copy of the brochure, *Transfer Student Guidebook*, from the Office of Admissions.

## International Students

The university welcomes applications from prospective international students.

In addition to the Application for Admission, the Test of English as a Foreign Language (TOEFL) is required of all students for whom English is not their native language. The minimum acceptable score for this examination is 550 for the paper/pencil test or 213 for the computer-based test. The TOEFL *Bulletin of Information* and registration form can be obtained through American embassies and consulates, offices of the United States Information Service (USIS) and various bi-national centers.

Students unable to obtain the TOEFL *Bulletin* and registration form locally should write well in advance to: TOEFL Services, P.O. Box 6151, Princeton, NJ 08540-6151, U.S.A.

All international students must verify that they have sufficient funds to cover all educational costs for the first year of study and to provide evidence that funds will be available for the duration of the degree.

The University of St. Thomas has very limited funds for scholarships for international students and awards only a few partial tuition grants to incoming students. Selection is based on outstanding merit and need. To qualify for consideration for the following academic year, students must apply to the University of St. Thomas and have submitted an *International Student Scholarship Application* no later than April 1.

For more information, please contact the Coordinator, International Admissions, International Education Center, University of St. Thomas #44C-1, 2115 Summit Avenue, St. Paul, MN 55105-1096.

Web: <http://department.stthomas.edu/inte>  
e-mail: [intlprog@stthomas.edu](mailto:intlprog@stthomas.edu).

## Veterans

The University of St. Thomas has been approved for the education and training of veterans. It is the responsibility of students who are veterans to familiarize themselves with the procedures and regulations concerning satisfactory standards of progress in order to insure proper and prompt payment of benefits due.

Veterans will receive credit as recommended by the American Council on Education for courses completed through USAFI and for courses from accredited colleges when the proper documents have been supplied to the university.

Specific questions should be addressed to the university registrar who serves as Coordinator of Veterans Affairs.

The University of St. Thomas uses *The Guide to the Evaluation of Educational Experiences in the Armed Services* when evaluating work done in these areas. The DD214 or DD295 is required to document these experiences.

## Non-Degree Students

Non-degree students attend classes without intending to complete the work required to obtain a degree. They are admitted to the institution through the Office of the University Registrar. As they are not seeking a degree, they are not obliged to present their previous academic work for evaluation. Registration is on a space available basis with priority given to degree-seeking students.

Non-degree students are not classified as freshman, sophomore, junior, or senior. Neither are they classified as part-time or full-time.

A maximum of 24 credits taken at St. Thomas on non-degree status may be applied to a

degree program. A non-degree student who wishes to change status and pursue a degree program must make a formal application for admission through the Office of Admissions.

Academic sanctions (probation, suspension, dismissal) apply to degree and non-degree students alike.

## Readmission Policies

A student who was formerly enrolled in the university, but is not currently attending, must request reinstatement by calling or writing to the Office of the University Registrar at St. Thomas. The student will be reinstated if the university registrar verifies that the student left St. Thomas in good academic standing, and if the student is eligible to return to the university as certified by the Dean of Student Life.

However, if the student has been enrolled at another college after initial enrollment at St. Thomas, an official transcript of work done at that institution is required. The student will then be reinstated by the university registrar if the transcript indicates work of a C average or better.

A student who discontinues his/her enrollment in the university for four consecutive academic years must re-enroll under the terms of the catalog in effect at the time of re-enrollment.

## College Expenses

The cost of a college education is of vital concern to students, their parents, and the educational institutions they attend. This section identifies many sources of financial aid available to the student seeking a college education. Whenever possible, students will want to take advantage of opportunities such as Federal Pell Grants and the Minnesota State Grant. It is important that proper application for aid be made before the deadlines.

## Financial Aid

The primary responsibility of financing an education rests with the student and his/her parent(s). However, the university does recognize that there are students who need financial assistance.

For this reason, St. Thomas offers scholarships, grants, loans and campus work to students with need who show promise of contributing to the welfare of the university and whose academic records indicate that they will succeed at St. Thomas.

## Applications

To be considered for aid, an applicant must complete the application for admission to the university, pay application fees, and be accepted.

A student wishing to apply for financial aid must complete the Free Application for Federal Student Aid (FAFSA). The FAFSA collects information about the student and his/her family, considers that data in light of the federal financial aid formula and determines financial need.

This form may be obtained from a high school guidance office or from the university's Office of Student Financial Services.

## Awards and Renewals

Aid to a student is for one year only, unless specified otherwise. Students must reapply for financial aid each year.

All financial aid is applied to the final payment of fees or other charges for each semester. Awards will be adjusted if the student withdraws from the university before the end of the year, or if the student is taking less than a full-time load. A student must maintain a cumulative grade average of C (2.00) or better to be eligible for assistance.

## Satisfactory Academic Progress

All applicants must meet the conditions for Satisfactory Academic Progress for Financial Aid to remain eligible for financial aid.

1. A student is eligible to receive financial aid for a maximum of 176 attempted credits.
2. A student must successfully complete 75 percent of all attempted credits.
3. A student must maintain a cumulative GPA of 2.00 after his/her second year of attendance.

A detailed copy of the Financial Aid Satisfactory Academic progress policy is available from the Office of Student Financial Services.

## Scholarships

The University of St. Thomas believes that students with a desire to attend college should have reasonable access to scholarship awards. By virtue of high school academic performance, students may receive academic, merit-based scholarships.

All incoming freshmen accepted for admission will be considered for academic scholarships. The awards are competitive based on the applicant pool.

Graduating high school students who are U.S. citizens or permanent residents who are accepted for admission as regular, degree-seeking students may be eligible for such awards. St. Thomas academic scholarships may be received for a maximum of four consecutive years or until graduation (or 132 credits, whichever comes first) provided the student maintains full-time attendance and meets the necessary renewal criteria.

### *City of Minneapolis Scholarships*

The University of St. Thomas has a scholarship program for graduating seniors at public and private high schools in the city of Minneapolis. Eight scholarships covering tuition and fees for four years at St. Thomas are awarded annually. A scholarship is awarded to one graduating senior (the student with the highest need) from each public high school, and one scholarship is awarded to one applicant from all Minneapolis private high schools. Applications are available from the guidance counselors in the Minneapolis high schools or from the St. Thomas Office of Admissions. Recipients must apply annually for financial aid to renew this scholarship.

### *Recognition Scholarship Program for Community College Students*

This is a competitive scholarship that is awarded to the top students transferring from community colleges who meet the following criteria: have earned 56 semester credits at a community college with a cumulative GPA of 3.20 or higher. Twelve \$2,000 Recognition Scholarships will be awarded to new transfer students annually. For more information, contact the community college liaison.

### *Music Scholarships*

The University of St. Thomas offers scholarships each year on the basis of musical performance and academic achievement. Scholarships are available to incoming freshmen and transfer students who meet the criteria for acceptance into St. Thomas and intend to major in music. Scholarships may also be available for current music majors. Contact the Department of Music for application and deadline information.

Elective half-hour lesson scholarships are available to freshmen in Symphonic Band, Symphonic Wind Ensemble, Concert Choir, Liturgical Choir, Chamber Singers and Women's Choir.

### *Science, Mathematics and Engineering Scholarships*

The University of St. Thomas Division of Natural Science and Mathematics awards two full-tuition and eight \$2,000 scholarships each year. These awards are renewable and may be received for four consecutive years or until graduation (or 132 credits, whichever comes first). Renewal criteria include maintaining a 3.50 GPA in a major in the division.

High school seniors wishing to be considered for a science, mathematics and engineering scholarship must complete the science scholarship application by the established deadline. Selected applicants are tested at St. Thomas (usually in January of their senior year). Based on the application and the test evaluations, finalists are selected and asked to return to campus for personal interviews.

Recipients of the full-tuition science, mathematics and engineering scholarships have reduced eligibility for other St. Thomas scholarships. Please consult Admissions or Student Financial Services for details.

### *University of St. Thomas Scholarships for National Merit Finalists*

Scholarships are awarded to students selected as National Merit finalists who declare St. Thomas as their first-choice institution with the National Merit Scholarship Corporation, and who qualify for a college-sponsored award. Students are selected to compete in the National Merit Scholarship competition by the National Merit Scholarship Corporation based on their PSAT scores. National Merit awards range from \$1000 to \$2000. For more information regarding scholarship amounts, please contact the Office of Student Financial Services or the Office of Admissions.

### *Minority Encouragement Program Scholarship*

The St. Thomas Minority Encouragement Program scholarship is available to eligible students from the St. Paul Public School Minority Encouragement Program (MEP). The scholarship amount is \$2,500 per year and may be received for four consecutive years or until graduation (or 132 credits, whichever comes first). Graduating high school seniors who are MEP participants should contact the Office of Admissions for details on how to apply for the scholarship.

### *Air Force ROTC Scholarships*

The Air Force offers four-, three-, and two-year college scholarships. The purpose of the AFROTC Scholarship Program is to attract and retain students whose academic specialties and potential career areas are essential to Air Force needs. In this regard, AFROTC scholarship offers are based on merit and not on financial need.

Students in any academic major may compete for these scholarships, but the projected needs of the Air Force influence the number and type of scholarships awarded in the various majors (traditionally in scientific and technological areas of study).

Additional scholarships for college freshmen, sophomores and juniors are available for qualified students who enroll in AFROTC. Applications must be received no later than February 1 for scholarships to be activated the following fall semester.

High school juniors and seniors may obtain the College Scholarship Information Booklet, eligibility requirements and application by writing the Regional Director of Admissions, University of St. Thomas, Mail #5016, 2115 Summit Ave., St. Paul MN 55105-1096. The deadline for completed packages is December 1 of the year preceding college entrance.

St. Thomas offers its students who are recipients of Air Force ROTC Scholarships up to full subsidy (room and board and remaining tuition) on almost every Air Force ROTC Scholarship awarded.

Contact the Department of Aerospace Studies for details on scholarship opportunities and the St. Thomas subsidy at 651-962-6329 or 800-328-6819, ext. 2-6329.

### *Army ROTC Scholarships*

St. Thomas has an Army ROTC Scholarship program.

For recipients of a four-year scholarship, St. Thomas pays remaining tuition, and room and board for four years.

For recipients of a three-year advance designee scholarship, St. Thomas pays all tuition and fees (first year only); St. Thomas pays remaining tuition, fees, room and board (last three years)

For incoming sophomore recipients of a three-year scholarship, St. Thomas pays remaining tuition, fees, room and board (three years)

For incoming junior recipients of a two-year scholarship, St. Thomas pays remaining tuition, fees, room and board (two years)

For more information, contact Army ROTC 101 Armory, c/o University of Minnesota, 15 Church St. SE, Minneapolis, MN 55455; or call 612-626-1584; or call collect 612-624-7300.

### *Navy/Marine Corps ROTC Scholarships*

Students who are awarded a full-tuition ROTC scholarship through the Navy/Marine Corps are eligible to receive a full room and board scholarship from St. Thomas.

For more information, contact Navy/Marine Corps ROTC, c/o University of Minnesota, 15 Church St, SE, Minneapolis, MN 55455; or call 612-625-1030; or call collect 612-624-7300.

## **Grants**

The University of St. Thomas participates in the following federal and state programs:

### **Federal Pell Grant**

The Pell Grant is a need-based federal program that currently offers up to \$3,300 per year to meet educational expenses. To apply, a student must complete the Free Application for Federal Student Aid (FAFSA).



### **Minnesota State Grant**

Currently, Minnesota residents may be eligible for up to \$7,500 per year through this need-based grant program.

### **Federal Supplemental Education Opportunity Grant**

Federal SEO Grants are awarded to students who demonstrate exceptional need. Eligibility for a SEOG is determined annually by completing the FAFSA form and by the UST Office of Student Financial Services. Grants range from \$200 to \$4000 each year and are awarded at the discretion of the UST Office of Student Financial Services.

## **Loans**

### **Federal Subsidized Stafford Loan**

Subsidized Stafford loans are long-term, low-interest variable-rate loans. Currently, the federal government is responsible for the interest on the loan as long as the student is enrolled in a post-secondary institution on at least a half-time basis. Eligibility for the Stafford Loan is based on demonstrated financial need. Applications are available from the St. Thomas Office of Student Financial Services or from a local lender.

The aggregate limit for undergraduate borrowers in the Stafford Program is \$23,000. The Stafford Loan interest rate is variable and will not exceed 8.25 percent for new borrowers effective July 1, 1994. The interest rate will change each July 1 thereafter, and will be based on the 52-week T-bill rate plus 3.1 percent. The interest rate on this loan does not have an impact on students until they complete their education or drop below half-time enrollment status. Students normally begin repaying the Stafford Loan six months after they graduate or cease to be half-time students. As long as the student is enrolled in school, no interest accrues. Repayment of the Stafford Loan normally is completed within 10 years of graduation. Note: Federal guarantee-and-origination fees are deducted from the proceeds of the Federal Stafford Loan prior to disbursement. Effective July 1, 1994, maximum fees deducted from the proceeds of the Federal Stafford Loan will be 4 percent.

### **Federal Unsubsidized Stafford Loan**

The Unsubsidized Stafford Loan is available to all students regardless of demonstrated financial need. The only eligibility criteria is that the student may not borrow in excess of the loan limit for her or his grade level. Students may borrow a combination of Federal Stafford Loan and Unsubsidized Federal Stafford Loan as long as the maximums are not exceeded. For example: a first-year student is eligible for a maximum of \$2,625. If the student had been awarded a \$1,000 need-based Federal Stafford Loan, he or she would be able to borrow \$1,625 in the Unsubsidized Stafford Loan Program. If a student is not awarded need-based aid or a need-based federal Stafford Loan, he or she may borrow the full

amount of eligibility for their grade level in the Unsubsidized Stafford Loan Program.

The Unsubsidized Stafford Loan has a variable interest rate which will not exceed 8.25 percent. The interest rate is based on the 52-week T-bill rate plus 3.1 percent and will be set annually on July 1. To apply for the Unsubsidized Stafford Loan, students must complete an application for Federal Student Aid.

The federal government does NOT cover any interest costs on the Unsubsidized Stafford Loan while the student is enrolled in school. The student is responsible for the interest on the loan from the date of disbursement. Students have the option of paying the interest or deferring the interest while enrolled in school. If the interest is deferred, it will be capitalized when the loan enters repayment.

### **Federal Perkins Loan Program**

St. Thomas participates in the Perkins Loan Program. Responsibility for the administration of the funds rests with the university, which selects student recipients and arranges the loans. The law requires that borrowers be citizens of the United States, be enrolled or accepted for enrollment as at least half-time undergraduate students, be in need of the amount of the loan to pursue their course of study, and be, in the opinion of the university, capable of maintaining good standing in their chosen course of study.

Repayment of principal and interest begins nine months after graduation or when the borrower ceases to be enrolled on at least a half-time basis. The interest is to be paid at the rate of 5 percent per year.

### **Student Education Loan Fund**

The Student Education Loan Fund (SELF) program makes available to students variable interest rate loans from the state of Minnesota. Students do not have to demonstrate need to qualify for SELF loans.

To receive information on current interest rates, or to obtain application materials, contact the University of St. Thomas Office of Student Financial Services.

### **Federal PLUS Loan for Parents**

The PLUS loan is a loan for parents of dependent students. The PLUS loan allows parents to borrow as much as is necessary to cover the expected family contribution and/or any unmet need in the financial aid package.

Currently there is no limit on how much parents may borrow in the PLUS loan program for any one academic year with one exception: total aid (from all sources including the PLUS loan proceeds) may not exceed the total cost of attendance.

The PLUS loan has a variable interest rate which is capped at 9 percent. The interest rate is based on the T-bill rate and will change annually each July 1. Applications are available at the St. Thomas Office of Student Financial Services.

Parents who are borrowing for the first time in the PLUS loan program must begin repayment within 60 days of disbursement of the PLUS loan. Payments are based on both interest and principal. The minimum monthly payment on a PLUS loan is normally \$50. Parents have a maximum of 10 years to repay the PLUS loan.

**Student Work Program**

Through a combination of federal, state and institutional funds, St. Thomas provides its students with the opportunity to apply for campus work to help pay college expenses. Most students can receive some type of student employment award.

Job openings are posted on the Human Resources Website: [www.hr.stthomas.edu](http://www.hr.stthomas.edu) and in the Office of Student Financial Services. Student wages are paid every two weeks by payroll check, direct deposit to a checking account, or direct payment to the UST bill.

**Financial Aid Policy Regarding Withdrawal**

If a student withdraws from a course or from the university during a semester, January or summer term, there may be implications for awards of financial aid. The policy may differ, depending upon the source of the aid, whether it be federal, state, or institutional funds. Information is available from the Office of Student Financial Services.

**Return of Title IV (Federal) Aid**

If a student withdraws from the University of St. Thomas during a semester, January or summer term, a calculation of “earned” versus “unearned” federal aid must be determined. The new policy (effective September 1, 2000) assumes that the student earns aid based on the amount of time in the term that has elapsed. If the student is a recipient of federal financial aid, that aid will be reduced as a result of the student’s withdrawal.

There are three steps that the University of St. Thomas must complete to comply with the new federal policy:

1. determine the withdrawal date;
2. determine the amount of earned federal aid; and
3. return unearned federal funds to the appropriate program(s).

A student must officially withdraw through the Office of the University Registrar. The withdrawal date is the date the withdrawal process began with that office. If the student fails to officially withdraw, the withdrawal date will become the midpoint of the term, unless the university can document a later date.

If a student withdraws before completing 60% of the term, he/she “earns” federal funds in direct proportion to the length of time enrolled. The percentage of earned aid is determined by dividing the total number of calendar days enrolled by the total number of calendar days in the term.

If a student completes 60% of the term, all

financial aid for that term is earned.

The responsibility to repay unearned aid is shared by the institution and the student. The institution’s share is the lesser of unearned aid or unearned institutional charges. The institution’s share must be applied to the federal aid programs in the following order:

1. Unsubsidized Stafford Loan
2. Subsidized Stafford Loan
3. Perkins Loan
4. PLUS Loan
5. Pell Grant
6. Supplemental Educational Opportunity Grant (SEOG)
7. Other Title IV (federal) Assistance

A student required to repay a portion of the loan through the student’s share calculation will not be expected to return those funds immediately, but rather when repayment begins according to the terms and conditions of the promissory note. If the student’s share includes grant funds, federal rules allow the grant to be reduced by 50%. The remaining grant must be immediately paid in full to the University of St. Thomas. However, if this causes an undue hardship, a satisfactory payment arrangement can be made with St. Thomas or the U.S. Department of Education to repay the grant.

**Institutional and State Refund Policy**

The Return of Title IV Aid calculation, as cited above, only takes into consideration federal funds. It does not take into consideration institutional, state, or outside funding sources that may be included in a student’s financial aid package. Other sources of aid may be affected if a student withdraws from the University of St. Thomas.

The University of St. Thomas offers tuition refunds if a student withdraws from the university according to the following schedule for fall and spring semesters:

Through the 10th day of classes	100%
The 11th through the 15th day	80%
The 16th through the 20th day	60%
The 21st through the 25th day	40%
The 26th through the 30th day	20%

If a student withdraws during a period of time that allows for a tuition refund, a portion or all, of the institutional, state, and/or outside funding may need to be reduced or cancelled. If a student receives a 100% tuition refund on all courses for a particular term, all institutional, state, and outside funding must be returned to the appropriate aid program(s). If the tuition refund was not used to fully repay the Return of Title IV Aid, then a proportional share of the remaining tuition refund must be returned to the appropriate aid program(s).

## Baccalaureate Degrees

The University of St. Thomas grants the degrees Bachelor of Arts (B.A.), Bachelor of Science (B.S.) and Bachelor of Science in Mechanical Engineering (B.S.M.E.) to individuals who successfully complete its undergraduate degree programs. These undergraduate degrees have two components: the core curriculum and the major concentration.

To complete the core curriculum, a student takes courses in literature and writing, historical studies, moral and philosophical reasoning, faith and the Catholic tradition, natural science and mathematical and quantitative reasoning, social analysis, fine arts, language and culture, human diversity, and health and fitness. Students also need to demonstrate computer competency. These courses provide the student with a broad education and with the skills needed for further work in these or other areas. Additional general requirements for graduation are listed in the section on requirements for a degree.

A candidate for a degree completes a major concentration in one of the specific academic disciplines represented in the College; or a student may construct a major concentration to meet a specific need or interest, subject to the approval of the Committee on Studies. This major concentration component of a degree provides students with the opportunity to pursue a limited subject in depth and to prepare for a career.

If desired, a student may also complete one or more minor concentrations or an additional major concentration in an area of special interest.

## Majors

The following is a list of major concentrations or programs of study. Details are provided in the "Departments and Curricula" section in this catalog. Curricula involving other institutions in the ACTC are indicated by [ACTC]. Unless otherwise noted, the degree is a Bachelor of Arts (B.A.).

St. Thomas students may choose a major area of concentration not offered at St. Thomas at any of the other four institutions in the Associated Colleges of the Twin Cities (ACTC), which are Augsburg College, Hamline University, Macalester College and the College of St. Catherine. The student must be accepted into the major by the appropriate department chair at the school where the major is offered and the proposed program of study must be submitted to the Committee on Studies at St. Thomas for its approval.

An individualized major may also be proposed to the Committee on Studies for acceptance. Guidelines for such a proposal are available from the Office of the Academic Dean.

Actuarial Science (B.S.)  
 Art History  
 Biochemistry (B.S.)  
 Biology  
 Business Administration – Accounting

Business Administration – Communication  
 Business Administration – Entrepreneurship  
 Business Administration –  
     Financial Management  
 Business Administration –  
     General Business Management  
 Business Administration –  
     Human Resources Management  
 Business Administration –  
     International Business  
 Business Administration –  
     Legal Studies in Business  
 Business Administration –  
     Leadership and Management  
 Business Administration –  
     Marketing Management  
 Business Administration –  
     Operations Management  
 Business Administration –  
     Real Estate Studies (B.S.)  
 Catholic Studies  
 Chemistry  
 Chemistry (B.S.)  
 Classical Civilization  
 Classical Languages  
 Communication  
 Community Health Education  
 Criminal Justice  
 East Asian Studies [ACTC]  
 Economics  
 Economics (B.S.)  
 Elementary Education  
 English  
 English – Writing  
 Environmental Studies  
 French  
 Geography  
 Geology  
 German  
 Health Education  
 History  
 International Business – French Intensive  
 International Business – German Intensive  
 International Business – Spanish Intensive  
 International Studies  
 Journalism & Mass Communication –  
     Advertising  
 Journalism & Mass Communication –  
     Broadcast Journalism  
 Journalism & Mass Communication –  
     Media Studies  
 Journalism & Mass Communication –  
     Print Journalism  
 Journalism & Mass Communication –  
     Public Relations  
 Justice & Peace Studies  
 Latin  
 Literary Studies  
 Mathematics  
 Mechanical Engineering (B.S.M.E.)  
 Music  
 Music/Business

Music Education  
 Philosophy  
 Physical Education  
 Physical Education Health Promotion (B.S.)  
 Physical Education Health Promotion –  
     Science Emphasis (B.S.)  
 Physics  
 Physics (B.S.)  
 Political Science  
 Psychology  
 Psychology – Behavioral Neuroscience  
 Quantitative Methods and Computer Science  
 Russian  
 Russian, Central & East European Studies  
     [ACTC]  
 Social Sciences  
 Social Work  
 Sociology  
 Spanish  
 Theater  
 Theology  
 Women's Studies [ACTC]

### Co-Majors

The following sets of majors constitute a double major when taken together. They cannot be “stand-alone” majors.

Science and Mathematics for Elementary Education  
     (taken in conjunction with Elementary  
     Education)  
 Secondary Education and Communication Arts and  
     Literature  
 Secondary Education and Science – Chemistry  
 Secondary Education and Science – Earth Science  
 Secondary Education and Science – Life Science  
 Secondary Education and Science – Physics  
 Secondary Education and Social Studies  
 Secondary Education (taken in conjunction with a  
     major from the above list)

### Minors

Students may choose to complete a minor in addition to a major. A student may declare more than one minor.

A student may propose an individualized minor to meet a specific need or interest, subject to the approval of the Committee on Studies. Guidelines for such a proposal are available from the Office of the Academic Dean.

The following is a list of minor concentrations or programs of study. Details are provided in the “Departments and Curricula” section in this catalog. Curricula involving other institutions in the ACTC are indicated by [ACTC].

Aerospace Studies  
 American Cultural Studies  
 Art History  
 Biology  
 Business Administration  
 Catholic Studies

Chemistry  
 Classical Languages  
 Communication  
 Criminal Justice (Sociology)  
 East Asian Studies [ACTC]  
 Economics  
 Electronic Music Production  
 Engineering  
 English  
 English – Writing  
 Environmental Studies  
 Family Studies  
 Film  
 French  
 Geography  
 Geology  
 German  
 Greek  
 History  
 Japanese  
 Jazz Studies  
 Journalism & Mass Communication –  
     Advertising  
 Journalism & Mass Communication –  
     Broadcast Journalism  
 Journalism & Mass Communication –  
     Media Studies  
 Journalism & Mass Communication –  
     Print Journalism  
 Journalism & Mass Communication –  
     Public Relations  
 Journalism & Mass Communication –  
     Visual Communication  
 Justice & Peace Studies  
 Latin  
 Legal Studies  
 Mathematics  
 Music  
 Philosophy  
 Physics  
 Political Science  
 Psychology  
 Quantitative Methods and Computer  
     Science – Business  
 Quantitative Methods and Computer  
     Science – Mathematics  
 Quantitative Methods and Computer  
     Science – Science  
 Renaissance Program  
 Russian  
 Social Welfare  
 Sociology  
 Spanish  
 Theater History/Theory-Criticism  
 Theater Performance  
 Theology  
 Urban Studies  
 Women's Studies [ACTC]

### Aquinas Scholars Honors Program

The Aquinas Scholars Honors Program is the undergraduate honors program. Its purpose is to provide opportunities for motivated and curious students to deepen and enrich their undergraduate education.

Aquinas Scholars take a minimum of four honors sections of core curriculum courses. (Students admitted to the program with 45 or more credits completed take only three sections.) Limited to 20 students, the honors sections emphasize depth, not acceleration, and encourage discussion.

Aquinas Scholars are also required to complete a minimum of three interdisciplinary honors seminars (on standard grading system), which bring together instructors from two different departments and students from a variety of disciplines to approach a topic of intellectual interest. This seminar format provides students the opportunity to situate themselves within a broader intellectual community at a time when much of their other coursework is engaging them on a more focused level. Aquinas Scholars are not charged tuition for the honors seminars.

The Aquinas Scholars Honors Program also sponsors a variety of co-curricular and extracurricular activities. All St. Thomas undergraduate students are eligible to apply to the program. Continuing and transfer students should generally have at least a 3.3 grade point average, though the admissions committee reviews applications primarily for evidence of intellectual curiosity and academic motivation. Students need to apply to the program early enough to complete the course requirements.

For further information, contact the Aquinas Scholars Center, located in 101 Albertus Magnus Hall.

### Special Curricula

The College offers several programs that a student may pursue in addition to a major concentration. These include:

- Higher Education Consortium for Urban Affairs (HECUA)
- Pre-Health Professions
- Pre-Law
- Study Abroad Programs
- Superior Studies at Wolf Ridge
- Washington Semester

### Associated Colleges of the Twin Cities

The University of St. Thomas has joined with four other private colleges in the Twin Cities to form the Associated Colleges of the Twin Cities (ACTC), a legal entity designed to facilitate cooperative activities among the five benefiting institutions. Augsburg College in Minneapolis and Hamline University, Macalester College and the College of St. Catherine in St. Paul are the other institutions that make up this consortium with the University of St. Thomas. These colleges possess a long history of cooperative academic activity.

Presently, ACTC operates an inter-campus bus system that transports students among the colleges to take courses at schools other than their own. St. Thomas has approximately 250 students who take advantage of exchange courses each semester. In some cases, faculty members from one institution will teach a course on another campus. A comprehensive Class Schedule for the five institutions is published annually to facilitate the exchange of courses and students among the colleges.

Full-time, degree-seeking undergraduate students in the day division are eligible to register for exchange courses.

In addition to the course exchange, St. Thomas students may choose a major or minor area of concentration at any of the other four institutions. The student must be accepted into the major or minor by the appropriate department chair at the school where the program is offered. The proposed program must be approved by the Committee on Studies at St. Thomas.

### The 4-1-4 Calendar

The College follows a 4-1-4 calendar. This calendar consists of a fall semester during the months of September through December, a four-week January term, and a spring semester during the months of February through May. Each of the semesters consists of approximately 14 weeks of classes and a four-day examination period.

### Regular Semesters

During the fall and spring semesters, a student normally enrolls for sixteen credits.

### The January Term

Students may enroll for a maximum of four credits in a January term.

### Summer Sessions

The university offers two six-week sessions, one eight-week session and one twelve-week session during the months of June through August. A student may enroll for a maximum of eight credits in a given session, with a maximum of sixteen credits for the summer.

### School of Continuing Studies

The School of Continuing Studies recruits, mentors and provides academic support for part-time adult and other non-traditional students. It develops on- and off-campus undergraduate academic programs to serve the educational needs of the part-time adult population. The delivery and support of undergraduate courses and programs in the School uses innovative techniques and technologies. The School cooperates with graduate programs to coordinate and support programs offered at off-campus sites. It also develops and supports non-credit programs.

## Requirements for a Degree

To receive a bachelor's degree, a student must successfully complete a minimum of 132 credits and fulfill all degree requirements.

A minimum grade point average (GPA) of 2.00 must be achieved in all of the following categories:

- all credits presented for graduation (including transfer credits)
- all credits earned at St. Thomas
- all credits in the department (in the Division of Business for business majors) of the major field (including transfer credits)
- all credits in the department (Division of Business) of the major field earned at St. Thomas.

If the student has elected to declare a minor field, all credits in the department (Division of Business) of the minor (including transfer credits) and all credits in the department of the minor field earned at St. Thomas must have a GPA of 2.00.

In addition, the student must earn a minimum of 84 credits in areas outside the major field (for majors in areas of business, these credits must be outside the Division of Business).

No more than eight credits in Experiential Learning may be counted toward the minimum 132 credits for graduation.

No more than one-eighth of the courses taken at St. Thomas presented for graduation may be graded on the S-D-R system.

No two courses may be equivalent or overlapping. (Credit is not given for a course that overlaps a course previously taken. Such courses are indicated in the course descriptions by the number of the conflicting courses in parentheses following the title.)

The same course may be used to satisfy both a requirement in the core curriculum and in the major and minor fields.

Within the core curriculum, the same course may satisfy a core or core-area requirement and simultaneously satisfy the requirement in human diversity or computer competency.

Senior residency requires that a graduate have completed thirty-two of the final thirty-six credits at St. Thomas, at one of the other four ACTC colleges, or through an affiliated program.

## The Core Curriculum

All bachelor degrees awarded by the University of St. Thomas shall meet the core curriculum requirements of the College. The core curriculum is organized into nine curricular areas and two competency requirements.

Courses used to satisfy the requirement in a curricular area are of two types:

*core courses* – in which a specific course is designated as fulfilling a requirement; and

*core-area courses* – in which a selection is made from a list of courses designated as fulfilling the requirement.

### Curricular Areas

#### Literature and Writing

(8 credits)

This sequence of courses develops students' critical awareness of language by helping them to recognize the relationship between their own experience and the interpretive possibilities of literature. Attention is paid to the integration of the individual's composing process and the process of reading and understanding texts. These courses foster attentive reading, careful thinking, and effective writing. There are two ways to fulfill this requirement:

a) students enroll in these two core courses:

ENGL 111 Critical Reading and Writing I:  
Fiction and Nonfiction Prose

ENGL 112 Critical Reading and Writing II:  
Drama and Poetry

b) students with qualifying ACT scores enroll in

ENGL 190 Critical Reading and Writing:  
Major Genres

*plus*

one additional core-area course numbered above 200 with the exception of ENGL 251, 252, 253, 300, 305, 321, 322, 401, 480, 481.

#### Historical Studies

(4 credits)

Core-area courses in historical studies aim to increase students' knowledge of the history of the modern world and its origins. Each of these courses also provides an introduction to historical methods of inquiry and analysis. A third goal is to foster awareness of the diversity within human history. Students choose one of the following core-area courses:

HIST 111 Origins of the Modern World to 1550

HIST 112 The History of the Modern World since 1550

HIST 113 Early America in Global Perspective

HIST 114 The Modern U.S. in Global Perspective

#### Moral and Philosophical Reasoning

(8 credits)

What am I? How should I live? Philosophers throughout the centuries have pondered these questions which are of decisive importance for the whole of human life.

In the first course, students will study the elements of logic, the method of philosophy, and will read about the nature of the human person. In the second course, students will focus on questions of human conduct – questions about what is right and wrong, good and bad, in the lives of individual persons and human societies. These courses are not mere histories of philosophical opinion; they are substantive inquiries into the meaning of human life insofar as it can be grasped by reason alone.

## Requirements for Degree

Thus, they complement the courses students take in theology and in other areas.

The two core courses are:

PHIL 115 Philosophy of the Human Person

PHIL 214 Introductory Ethics

### Faith and the Catholic Tradition

(12 credits)

Certain questions continue to be of pervasive concern for human beings: the nature of the universe, the existence and nature of God, the nature of human beings, the proper relationship of a human being to his or her world, the source of evil and the possibility of redemption, to name but a few. This sequence of three courses aims to acquaint students with the nature and importance of these questions and will assist them in articulating for themselves responses which have been formulated in light of their knowledge of the Catholic tradition and the Christian faith.

The first, a core course, provides students with a theological framework within which individuals and groups have addressed questions of faith and human existence throughout Christian history.

The second set of core-area courses provides students with an opportunity to address these same questions of human existence in four themes: revelation, Christian anthropology, worship and cultural engagement.

The third set of core-area courses allow students both the opportunity to engage questions which relate to faith and culture and to integrate the knowledge with other disciplines.

Students select three courses as follows:

THEO 101 The Christian Theological Tradition

THEO 200-level course

THEO 300-level course

### Natural Science and Mathematical and Quantitative Reasoning

(12 credits)

Students are required to take a core-area course in natural science with a laboratory component, a core-area course in mathematics, and a third core-area course in natural science, mathematics, quantitative reasoning or computer science.

Core-area courses in natural science focus on the natural world and develop students' abilities to evaluate scientific arguments critically, and enhance their quantitative and analytical reasoning skills. The laboratory component of these courses is an inquiry-based approach with opportunities for students to refine their observational skills through the acquisition and organization of data, analysis and interpretation of data, and the presentation of conclusions orally or in writing.

Students select one of the following core-area natural science courses:

BIOL 101 General Biology

BIOL 102 Conservation Biology

BIOL 103 Nature and Society

BIOL 105 Human Biology

BIOL 201	Diversity and Adaptation
BIOL 202	Genetics and Population Biology
CHEM 100	Chemistry in Our World
CHEM 101	Environmental Chemistry
CHEM 111	General Chemistry I
CHEM 112	General Chemistry II
GEOL 102	Origins and Methods
GEOL 110	Geology of the National Parks
GEOL 111	Introductory Geology I
GEOL 112	Introductory Geology II
GEOL 211	Mineralogy
GEOL 252	Geomorphology
IDSC 150	Development of the Natural World
PHYS 101	General Physics for Liberal Arts Students
PHYS 103	Physics of Energy
PHYS 104	Astronomy
PHYS 105	Musical Acoustics
PHYS 109	General Physics I
PHYS 110	General Physics II
PHYS 111	Introduction to Classical Physics I
PHYS 112	Introduction to Classical Physics II

The core-area courses in mathematical reasoning include experience in the application of relevant knowledge to solve problems, promote the recognition and classification of numerical, geometrical, and relational patterns, enhance students' abilities to develop mathematical arguments, and to understand the connections between real-world data and mathematical models.

Students select one of the following core-area mathematics courses:

MATH 100	Mathematical Sampler
MATH 101	Finite Mathematics
MATH 109	Calculus With Review II
MATH 111	Calculus for Business and Social Science
MATH 113	Calculus I
MATH 114	Calculus II
MATH 121	Structures of Elementary Mathematics
MATH 128	Introduction to Discrete Mathematics

The third core-area courses allow students to broaden or deepen their exposure to natural science, mathematics, quantitative reasoning and/or computer science.

Students select a core-area course from the following list:

MATH 114	Calculus II
MATH 121	Structures of Elementary Mathematics
MATH 128	Introduction to Discrete Mathematics
QMCS 120	Computers in Elementary Education and LOGO
QMCS 220	Statistics I

or

a second natural science course from the first group

**Social Analysis**

(4 credits)

The goal of this requirement is to ensure that all students develop basic abilities to perform social scientific analyses of patterns of social interactions. Core-area courses in social analysis provide a broad introduction to the perspectives offered by one of the traditional social sciences. Courses will consider empirical and/or normative analysis, how social science knowledge differs from other kinds of knowledge, what constitutes data, the relationship between data and theory, and major conceptual perspectives. Where appropriate, courses will provide an understanding of and sensitivity to the diversity of American and/or other societies, an international perspective, and will address issues of social concern.

To meet this requirement, students must earn the equivalent of a full course in a single department. Students may not use fractional courses from multiple departments to meet the requirement.

Students choose one of the following core-area courses:

ECON 211	Current Economic Issues
ECON 251	Principles of Macroeconomics
ECON 252	Principles of Microeconomics
GEOG 111	Human Geography
GEOG 113	World Geography
POL 105	Politics and Government in Comparative Perspective
PSY 111	General Psychology
SOC 100	Introduction to Sociology
SOC 110	Social Problems

**Fine Arts**

(4 credits)

A core-area course in one of the fine arts aims to enhance students' understanding of and appreciation for one or more of the fine arts (art, music, or theater). Students gain an understanding of the role of the fine arts in expressing and maintaining, discovering and questioning a culture's dominant beliefs and ideals. The focus of these courses is broad enough to encompass different periods, cultures, and styles, but also allows an intensive scrutiny of the way in which the work of art, music, or theater is composed and created. Students have a variety of choices in fulfilling this requirement.

Students may choose one of the following core-area courses:

ARTH 151	Introduction to Art History I
ARTH 152	Introduction to Art History II
ARTH 159	Principles of Art History (2 credits)
ARTH 280	Sacred Architecture and Space
ARTH 285	Arts of Africa and the African Diaspora
ARTH 286	Women's Art in Cross-Cultural Perspective
ARTH 289	Asian Art
ARTH 291	Topics in Non-Western Art
ARTH 297	Topics

ARTH 300	Ancient Near East and Egypt
ARTH 305	Greek Art and Archaeology
ARTH 310	Roman Art and Archaeology
ARTH 320	Art and Culture of Colonial Mexico
ARTH 330	Churches and Mosques in the First Millennium
ARTH 335	Cathedrals, Monasteries, and Caliphates
ARTH 340	Southern Renaissance Art and Society
ARTH 345	Baroque and Rococo Art
ARTH 347	Golden Age of Spain
ARTH 350	19th Century: Neoclassicism to Symbolism
ARTH 355	20th Century: Cubism to Installation
ARTH 391	Native American Art
ARTH 392	American Art
MUSC 115	Understanding Music & Culture
MUSC 118	Understanding Music & Culture to 1850 (2 credits)
MUSC 119	Understanding Music & Culture 1850 to Present (2 credits)
MUSC 120	Orchestral Literature
MUSC 130	Introduction to World Music
MUSC 216	Jazz in America
MUSC 217	Music of the Americas
MUSC 218	Black American Music: An Historical Survey
MUSC 219	Music in the United States
MUSC 222	Theology of American Popular Music
MUSC 412	History & Literature of Music II
THR 111	Introduction to the Theater
THR 221	History of Theater I: Classical through 17th Century
THR 222	History of Theater II: 18th Century to Contemporary
THR 223	History of Theater III: American
THR 259	Film I: Introduction to Narrative and Non-Narrative World Cinema
THR 260	History of Film: The Silent Era
THR 261	History of Film: Sound Era, 1926 to Present Day
THR 297	Topics
THR 359	Film II: Film Theory and Criticism
THR 412	Drama: Theory and Criticism

Students may choose to participate for four semesters in one of the following music ensembles:

MUSN 140	Women's Choir
MUSN 142	Chamber Singers
MUSN 143	Liturgical Choir
MUSN 160	Concert Choir
MUSN 185	Symphonic Band
MUSN 186	Symphonic Wind Ensemble

*(a combination of four semesters in 142 and 160 or 185 and 186 will fulfill the requirement)*



**Language and Culture**

(12 credits)

A sequence of foreign language study aims to develop students' skills in using a foreign language in a variety of tasks, including conversing, reading, writing and listening with comprehension. The language is used as the essential vehicle for coming to a deeper understanding of other cultures. The courses guide students toward a realization that the study of a foreign language provides a comparative basis from which to analyze their own language and culture. Study of the language will allow students to relate course content with that of courses taught in other disciplines.

Students must complete the 111, 112, and 211 sequence in a particular language. All students with previous language experience must take a proficiency examination administered by the Department of Modern and Classical Languages. The student's previous work in the language will be considered. The Department of Modern and Classical Languages will make the final determination regarding the placement of students in foreign language courses.

Students whose primary language of communication is a language other than English and who have learned English as a second language are exempt from the foreign language requirement. It is the student's responsibility to present evidence to the chair of the department to support this exemption request.

**Human Diversity**

(4 credits)

Courses fulfilling this requirement assist students in understanding perspectives of the peoples and cultures being studied. The goal of these courses is to foster respect for the diversity of peoples and cultures within the fundamental unity of humankind.

Where appropriate, courses acknowledge ways in which privilege and power affect the ability to understand and respect diverse peoples and cultures. It is recognized that the experiences, beliefs, and values of any particular group of people studied are not monolithic, but may vary widely within the group.

Also included are indications of how the discipline involved contributes to an understanding of the groups under study or how the perspectives of these groups might expand understanding of the discipline itself. Courses focus on racial and ethnic minorities, class, gender, culture in a global perspective, or a combination of those areas.

The course chosen to fulfill this requirement also may fulfill another requirement of the core curriculum, or a requirement for a major or minor. The list of courses will be updated annually, and will be available from the Office of the Dean and the Office of Academic Counseling and Advising.

Courses available to fulfill the requirement are:

ACST 200 Introduction to American Cultural Studies

ARTH 151 Introduction to Art History I  
 ARTH 152 Introduction to Art History II  
 ARTH 285 Arts of Africa and the African Diaspora  
 ARTH 286 Women's Art in Cross-Cultural Perspective  
 ARTH 289 Asian Art  
 ARTH 291 Topics in Non-Western Art  
 ARTH 320 Art and Architecture of Colonial Mexico  
 ARTH 391 Native American Art  
 BLAW 352 Gender Issues and the Law  
 COMM 230 Intercultural Communication  
 COMM 340 Rhetorical Dimensions of Race, Class, and Gender  
 ECON 345 Economics of Development and Growth  
 ECON 346 The Russian Economy and the Former Republics  
 ECON 346 The Japanese Economy  
 EDUC 212 Human Relations and Multicultural Education  
 ENGL 218 Literature by Women: Critical History  
 ENGL 341 Literature by Women: Critical Questions  
 ENGL 395 Issues in Literature and Culture  
 GEOG 111 Human Geography  
 GEOG 113 World Geography  
 HIST 210 Modern Latin America, 1800 to Present  
 HIST 220 Introduction to Japanese History and Culture  
 HIST 340 Foundations of Chinese Civilization  
 HIST 341 The History of Modern China  
 HIST 345 Family and Women in Chinese History  
 HIST 347 The Modernization of Taiwan, Hong Kong, and China  
 HIST 366 The Catholic Church in the United States  
 HIST 368 Women in the United States  
 HIST 369 African-American History  
 HIST 372 The United States and Vietnam  
 IDSC 291 The Anatomy of Violence  
 JOUR 305 Gender, Race and Mass Media  
 JPST 250 Introduction to Justice and Peace Studies  
 MUSC 130 Introduction to World Music  
 MUSC 216 Jazz in America  
 MUSC 217 Music of the Americas  
 MUSC 218 Black American Music: An Historical Survey  
 POL 105 Politics and Government in Comparative Perspective  
 POL 352 Third World Politics and Government  
 PSY 151 Cross-Cultural Psychology  
 PSY 205 Psychology of Women  
 SABD *See the Office of International Studies for courses that have been approved*  
 SOC 110 Social Problems  
 SOC 251 Race and Ethnicity

SOC 255	Gender in American Society
SOC 301	General Anthropology
SOWK 340	Human Behavior and the Social Environment
THEO 305	Theologies of Justice and Peace
THEO 326	The Church in Latin America
THEO 331	Christianity and World Religions
THEO 332	Judaism
THEO 333	Contemporary Judaism
THEO 334	Islam
THEO 353	Women and the Old Testament
THEO 354	Women and the Christian Tradition
THEO 361	Black Religious Experience
UMAIE	<i>See the Office of International Studies for courses that have been approved</i>
WMST 205	Foundations in Women's Studies

### Competency Requirements

#### Computer Competency

Technology is very much a part of our world. The computer is the basic tool to much of this technology. The goals of the computer competency requirement are to:

1. Focus on the basic skills that all students, regardless of major, should have;
2. Be a building block upon which majors can add as appropriate;
3. Prepare students for the applications they are likely to encounter after graduation, in a modern technological society.

In order to accomplish 1. and 2. above, students need to demonstrate the following "first-year" competencies by the beginning of the third semester:

- basic microcomputer operation
- ability to use a word processing package
- ability to use telecommunication, at a minimum enabling use of electronic mail
- ability to access electronic information resources

Accomplishment of these competencies should be possible through specific computer competency training sessions, specific regular St. Thomas courses, individual tutoring, short courses or self-instructing tutorials. If this portion of the competency requirement is not completed by mid-term of the third semester, the student will lose priority for further registration.

To accomplish 3. above, students must demonstrate a "second-level" competency in one further area of computer application from the following list by the time of graduation.

Some major fields may also have specific requirements. The student's completion of this final component should be done in consultation with the major field adviser.

- Spreadsheets
- Data base management packages
- Programming
- Statistical packages
- Scientific data acquisition and interfacing packages

- "Computers in the arts" applications, e.g. notation, animation, graphic design, etc.
- Mathematical modeling and simulation
- Mathematical applications such as symbolic and numerical processing and matrix algebra
- Desktop publishing
- Advanced use of information retrieval systems (e.g. Lexis, Westlaw and advanced Internet and World Wide Web use)

The following sampling of courses contain computer components beyond the basic skills, and will satisfy the second-level Computer Competency.

BIOL 210	Introduction to Laboratory Research
BIOL 315	Biology of Plants
BIOL 333	Ecology
BIOL 354	Neurobiology
BIOL 415	Plant Physiology and Adaptation to Stress
CHEM 300	Quantitative Analysis
CHEM 331	Chemical Thermodynamics and Reaction Dynamics
CHEM 332	Quantum Chemistry and Molecular Spectroscopy
COMM 260	Audio Production
COMM 270	Videography: Television Production in the Field
COMM 370	Advanced Video Production
ECON 311	Forecasting
ECON 315	Empirical Methods in Economics
ENGL 380	Issues in English Studies
ENGL 480	Literary Magazine Practicum
ENVR 151	Humans and the Environment
GEOG 221	Computer Skills in Geography
GEOG 222	Geographical Analysis
GEOG 321	Geographic Information Systems
GEOG 421	Advanced Geographic Information Systems
HLTH 440	Health Education: 5-12 Curriculum, Assessment and Administration
HLTH 464	Critical Issues in Health Education
JOUR 220	Design Concepts of Communication
JOUR 225	Writing and Designing for the Web
JOUR 350	Public Relations Writing
JOUR 410	Advanced Reporting
MATH 108	Calculus with Review I
MATH 109	Calculus with Review II
MATH 113	Calculus I
MATH 114	Calculus II
MATH 200	Multi-Variable Calculus
MATH 210	Linear Algebra and Differential Equations
MATH 303	Statistics for the Applied Sciences
MATH 313	Probability
MUSC 150	MIDI Studio (2 credits)
MUSC 180	Multi-track Recording (2 credits)
MUSC 220	Digital Recording and Sampling (2 credits)
MUSC 240	Music/Audio Post Production (2 credits)
MUSC 303	Music Notation on Computer (2 credits)

## Requirements for Degree

PHYS 105	Musical Acoustics
PHYS 111	Introduction to Classical Physics I
PHYS 112	Introduction to Classical Physics II
PHYS 225	Introduction to Modern Physics I
PHYS 226	Introduction to Modern Physics II
PHYS 399	Advanced Physics Laboratory I
PHYS 400	Advanced Physics Laboratory II
POL 205	Introduction to the American Public Policy Process
QMCS 110	Introduction to Information Processing
QMCS 120	Computers in Elementary Education and LOGO
QMCS 215	Rapid Application Development
QMCS 220	Statistics I
QMCS 230	Software Design Using the JAVA Language
QMCS 238	Software Design using Business Programming Languages
QMCS 281	Object-oriented Design and Programming
QMCS 300	Computer Organization
QMCS 342	Computer Applications in Experimental Sciences
QMCS 410	Operations Research I
SOC 220	Sociological Analysis
SOWK 380	Social Research: Designs and Statistical Applications

### Health and Fitness

(0 credit)

The course in health and fitness provides students with the knowledge, skills, attitudes, and techniques necessary to become a physically-educated person: persons who are able to design and maintain a lifestyle of fitness and wellness. As students complete this competency curriculum, they should develop a knowledge and understanding of the role of physical activity in their lives, and how it contributes to lifelong health and wellness; and they should have a better understanding of the extent to which physical activity contributes to all dimensions of an individual's life. Students who cannot demonstrate proficiency in swimming 50 yards must take beginning swimming as one of their activities.

It is strongly recommended that this requirement be completed by the end of the freshman year, or at least by the end of the third semester. If this requirement is not completed by mid-term of the fourth semester, the student will lose priority for further registration.

Students enroll in the following core course:

PHED 100 Foundations for Fitness

## Major Requirements

### Regular Majors

After a student has completed 48 semester credits, a student must apply to be admitted to a major in his or her chosen field. Admission to a major field is necessary to allow the student the opportunity to

continue registering with his/her class.

A student must complete one of the regular major concentrations described in the section on Departments and Curricula with a grade point average of 2.00 or better in courses taken in the department of the major (or Division of Business) required for the major. (See section on Academic Programs for a list of these majors.)

A major in a Bachelor of Arts degree program consists of 28 to 44 credits in the area of concentration plus allied courses as specified by the department (or Division of Business) in which the major is offered. No more than 48 semester credits in the department of the major field (or Division of Business) may be counted toward the 132 credits required for a degree.

A major in a Bachelor of Science degree program (or an Engineering program) may require more than 48 semester credits in the field of the major.

At least 84 credits must be presented that are not in the department (Division of Business) of the major for all baccalaureate degrees.

Students with transfer courses in the major must also attain a 2.00 grade point average for the courses taken in the department of the major (or Division of Business) at St. Thomas. (See section on Requirements for a Degree.)

If major field requirements or courses specified in the catalog are no longer available, the chair of the appropriate department will designate acceptable substitutes for the major program.

The department has the right to specify how many courses in the major field (and at what level) must be taken at St. Thomas. Students may earn more than one major.

Procedures for applying to a major are available from the Office of the University Registrar.

### Majors at other ACTC Institutions

A student wishing to complete a major offered at one of the ACTC schools (and not offered at St. Thomas), must file a petition with the Committee on Studies for approval. In the petition, the student should indicate his/her acceptance for the major by the chair of the department at the other institution, the list of courses that will need to be completed at that institution, and the name of a St. Thomas faculty member in a closely-related field who will act as an adviser. Core curriculum requirements for St. Thomas and any prerequisites for courses in the major program offered at St. Thomas will be taken on the home campus.

### Individualized Majors

A student may pursue a major other than one of the regular majors described in the section on Departments and Curricula. A student who plans to pursue a special major must contact the Associate Academic Dean no later than the end of the sophomore year.

An individualized major requires the selec-

tion of a faculty adviser, a proposal explaining the rationale for the selection of courses (which should include lower- and upper-division courses), a number of credits in accordance with the guidelines for a regular major, and approval by the Committee on Studies.

## Minor Requirements

### Regular Minors

A student is not required to complete a minor. A minor consists of 20 to 26 credits in the area of concentration including all prerequisites and allied courses as determined by the department or program offering the minor.

A minimum grade point average of 2.00 is required for the courses in the minor. Transfer students must also attain a minimum grade point average of 2.00 for minor courses taken at St. Thomas.

The department has the right to specify how many courses in the minor field (and at what level) must be taken at St. Thomas.

A student may earn more than one minor.

### Minors at other ACTC Institutions

A student wishing to complete a minor offered at one of the ACTC schools (and not offered at St. Thomas), must file a petition with the Committee on Studies for approval. In the petition, the student should indicate his/her acceptance for the minor by the chair of the department at the other institution, and the list of courses that need to be completed.

### Individualized Minors

Students wishing to declare an individualized minor should contact the Office of the Associate Academic

Dean. A faculty adviser should be chosen for the minor. Individualized minors must be approved by the Committee on Studies.

## Senior Residency Requirement

Thirty-two of the last 36 credits that a student takes for the degree must be taken through the University of St. Thomas. Credits earned at ACTC colleges and through affiliated programs are considered exchange credits and count toward the residency requirement.

## Addition of major, minor, or degree after graduation

A student who has been graduated from the University of St. Thomas may add an additional major by fulfilling all the remaining requirements of the major. The 32-credit senior residency requirement need not be met a second time. No more than one additional transfer course may be used to meet major and allied requirements.

A student who has been graduated from the University of St. Thomas may add a minor by fulfilling all the remaining requirements of the minor. The 32-credit senior residency requirement need not be met a second time. No more than one additional transfer course may be used to meet minor and allied requirements.

A student who has been graduated from the University of St. Thomas may add a second degree (such as a B.S. added to the original B.A.) by fulfilling all the remaining requirements of the degree. The 32-credit senior residency requirement need not be met a second time. The second degree may not be in the same discipline as the original degree.

## The Undergraduate Program

All matters pertaining to the undergraduate curriculum are under the jurisdiction of the undergraduate faculty. Administration of the undergraduate core curriculum and departments in the College is under the jurisdiction of the dean of the College.

## Courses

A "full" course is equivalent to four semester credits. If a particular course carries more than four or fewer than four credits, it is so noted in the description.

Each course is assigned a subject area code consisting of three or four letters, which designates the department or discipline, followed by a three-digit number. For example, ENGL 111 is the English course numbered 111.

Courses with numbers having either 1 or 2 as the first digit are lower division courses, and those having 3 or 4 as the first digit are upper division courses.

Lower division courses are designed to give students a broad general liberal arts education, preparing them for the more specialized education offered at the upper division level.

When students become juniors, they generally pursue upper division courses. Upper division courses are designed to acquaint students with the content and methodology of a particular field.

The number of class meetings for a course varies with the nature of the course. The annual Class Schedule indicates the days and times each class meets.

## Course Load

The normal course load is 16 credits. During the first semester at the university, a freshman is limited to 17 credits plus a physical education activity course. Students may take no more than 21 credits without special permission from the Dean of the College.

Freshmen may not register for courses numbered 300 or above without permission from the department chair (except for foreign language courses when they have already completed a fourth semester of the language or its equivalent).

Students on academic probation may not register for more than 16 credits.

## Final Examinations

Each of the semesters ends with a final examination period. A two-hour session is scheduled for the final examination in each course in regular semesters.

Final examinations are not administered other than during the final exam week. However, if it is agreeable to students and the instructor to hold the final examination at a time other than the time scheduled, the exam may be held at another time within the final exam week.

Instructors will determine the final examination times for January term and summer session courses.

## Registration

A student must register for a course before attending, and will not receive credit unless registered.

Students must attend the first day of class in order to secure their place in the course. The instructor has the *option* to drop a student from the class roster who has not attended on the first day of the session. To officially withdraw from the class, the student must file a *Change in Registration* Form with the Office of the University Registrar, or through the automated MURPHY systems.

Before the beginning of each semester, students consult with their advisers to determine the courses they should pursue. This would include any courses at the four other cooperating colleges in the ACTC: Augsburg, Hamline, Macalester, and St. Catherine. Registration for exchange courses must be completed through the Office of the University Registrar.

There are two concurrent registration periods – summer sessions and fall semester in April; January term and spring semester in November. Each student is scheduled to register after a specific date and time, based on his/her number of earned credit hours and an alphabetical rotation of surnames.

Each student is required to meet with his/her adviser to begin the registration process each semester.

## New Student Scheduling

Registration for new freshmen and entering transfer students is coordinated by the Office of Academic Counseling and Advising.

Freshmen who begin their studies at the university in the fall receive a pre-registration packet containing course information and a description of the registration process which occurs during Summer Orientation.

New transfer students meet individually with an academic counselor to interpret their transfer credit evaluation and select appropriate courses related to their interests.

Upper division transfer students are encouraged to declare a specific major field. Separate summer orientation programs are held for new freshmen and transfer students. All new students are assigned faculty advisers.

## Exchange Courses

Courses taken by undergraduate day, degree-seeking St. Thomas students at Augsburg College, Hamline University, Macalester College and the College of St. Catherine are called exchange courses. These courses may be substituted for courses at the University of St. Thomas, subject to the following conditions:

1. the course is not one specified by a specific course number in the list of core curriculum requirements; and
2. the student has the written permission of the department chair of the major or minor if the course is in the major or minor concentration

- and taken to satisfy a particular requirement for that major or minor; and
- the student consults the University Registrar before registering for more than one course at Augsburg, Hamline, Macalester or the College of St. Catherine during one semester. This one course limit does not apply to students pursuing a major or minor at these schools.

Additional restrictions may apply. See the ACTC *Class Schedule* for additional restrictions.

For exchange courses in the fall and spring semesters, St. Thomas students register at St. Thomas. Grades for these courses are automatically recorded on the St. Thomas transcript.

For exchange courses during the summer sessions, students register at the college offering the courses and have a transcript of the completed work sent to St. Thomas.

Exchange courses may be used to fulfill the degree residency requirement.

Grades for exchange courses are included in the computation of the St. Thomas GPA.

Courses taken at Augsburg, Hamline, Macalester and St. Catherine by a student before he or she matriculates at St. Thomas or while the student is not an active student at St. Thomas are treated as transfer courses.

### Transfer Courses

Courses taken at regionally accredited institutions of higher learning other than the University of St. Thomas and accepted for credit by St. Thomas are called transfer courses. Exchange courses, as described above, are not transfer courses.

Students who are seeking admission to the University of St. Thomas must have transcripts of all previous college work sent to the Office of Admissions.

Current St. Thomas students must have transcripts of work at other schools sent to the Office of the University Registrar if they are seeking transfer credit.

The university registrar, using official transcripts provided by the student's previous schools, will assist the faculty to determine which courses may be used to fulfill St. Thomas degree requirements. Students may be asked to provide additional materials supporting the use of transfer courses. The university may require transcripts from foreign schools to be submitted to an evaluation service for processing before considering them. A fee may be charged for this service.

### Generic Courses

A series of courses with numbers common to all departments and programs are called generic courses. These include Topics courses, Experiential Learning (which is usually an internship), Seminars, Research, and Individual Study. These course numbers may be taken more than once provided the title is different. See the beginning of the Departments

and Curricula section of this catalog for a description of these courses.

### First-day Attendance

Students are expected to attend the first class meeting of a course for which they are registered.

Thereafter, regular attendance at classes is expected. Attendance regulations for specific courses are determined by the instructor for that course. Students who are absent for a prolonged period of time due to illness should contact the Office of Academic Counseling and Advising.

Students not attending class on the first day of a session may be dropped from the course at the discretion of the instructor. Students should not assume that non-attendance of a class on the first day of the session will automatically result in their being dropped from the class. Students who wish to drop a course should do so by officially withdrawing from the class at the Office of the University Registrar, or on the automated MURPHY systems.

### Audit

A student may choose to audit a course rather than take it for credit. If attendance is satisfactory, the course number, title and the audit designation will appear on the transcript. If attendance is not satisfactory, the course will not appear on the transcript. In no case may a student receive credit for a course that was audited unless the course is retaken for credit.

### Changes in Registration

Students who have received their official schedule of classes may change that schedule by observing the following procedures:

Changes in registration can be made on the automated MURPHY systems until the published deadline for adding and dropping courses. After that time, all changes are made by using the *Change in Registration Form* which is available at the Office of the University Registrar. Students should consult the university calendar in this catalog for the specific deadlines for making these changes.

Courses may not be added after the tenth class day in any semester. (Students should consult the appropriate course schedule for January term and summer session deadlines.)

First-semester freshmen must have the approval of their faculty adviser for all changes in registration. All students are required to meet with their faculty advisers before beginning registration for any semester.

Full refund of tuition and fees is made for courses dropped through the tenth class day of fall and spring semesters. Refunds for courses dropped after this period are described in the brochure *Summary of Financial Procedures* for the current academic year. Students should consult the appropriate schedule of classes for refund deadlines for January term and summer sessions.

Courses may be officially dropped, but with-

## Registration Information

out refund, up to one week after mid-semester grades are available. The grade of F (or R) is recorded for any course dropped after this time. The grade of F (or R) is likewise recorded when a student ceases to attend a course but does not officially withdraw from it. For courses dropped between the tenth class day and the last day to withdraw a class without a grade of F or R, the student will receive a grade of W for that course. A grade of W is an official grade and is posted on the permanent record, with no credit value.

### Withdrawal from a Course

The mark of W is assigned to a course from which a student withdraws after the tenth day of classes but before the deadline for withdrawing. This deadline occurs shortly after students receive their mid-semester grades and is announced on the academic calendars. A student withdrawing after this deadline receives a grade of F or R as prescribed above.

### Retaking of Courses

A student may repeat a course if her or his grade or mark is F, D+, D, D-, R or W with only the higher grade used to compute the GPA. Credit will not be given more than once for the same course. Both notations, however, will remain on the transcript.

A student may repeat a University of St. Thomas course only at St. Thomas. A student who transfers to the University of St. Thomas and wishes to repeat a course taken elsewhere must receive permission from the university registrar to do so.

### Withdrawal from the University

Students begin withdrawal from the university by completing the *Official Interruption Form* available at the Office of the University Registrar. Students who withdraw must return identification cards, keys, and other items that belong to the university. Resident students must check out with the floor resident assistant.

Refunds are determined by the date on which the student completes the withdrawal process at the Office of the University Registrar.

## Grades

At the end of each semester or term, each student who is registered for a course receives either a grade or a mark in that course. In each case, the grade or mark is one of the following letters: A, B, C, D, F, I, R, S or W. At the discretion of the instructor, the grade A may be followed by a minus, as A-, and the grades B, C, D may be followed either by a plus, +, or a minus, -.

### Regular Grades

The grades A, B, C, D, either alone or followed by a plus or minus, and the grade F are called regular grades. With each of these grades there is associated a grade point value.

A	4.0	B-	2.7	D+	1.3
A-	3.7	C+	2.3	D	1.0
B+	3.3	C	2.0	D-	0.7
B	3.0	C-	1.7	F	0.0

Regular grades have the following characterization:

- A Excellent work.
- B Very good work.
- C Satisfactory work.
- D Poor but passing work.
- F Failing work.

The use of plus and minus indicates performance levels between those suggested by these characteristics.

### S-D-R Grading

To encourage a wider choice of courses by lessening the student's concern for the grade point average (GPA), selected courses may be taken using the S-D-R grading option, where "S" represents a satisfactory grade (the student would have received a letter grade of A, B, or C); "D" is the same as the letter grade of D; "R" represents unsatisfactory (failing) performance. The following rules apply to courses taken on this basis:

1. The S-D-R grading option is not available for courses taken to fulfill a requirement in the core curriculum.
2. No more than one-eighth of the credits taken through the College may be taken on the S-D-R grading option.
3. A student must fill out a form at the Office of the university registrar for any course to be taken on this basis. The exact deadline date is posted at the beginning of each term. If the course is part of the major or minor program, the form must be signed by the department chair, as it is generally not advisable to take a major or minor field course or an allied requirement S-D-R.
4. If a student receives a letter grade of C- or above, the mark of S (satisfactory) and credit will be given. If the grade of D, D+, or D- is received, the student has the option of: (1) accepting a mark of R with no effect on the GPA and no credit earned, or (2) earning the credit with the grade of D, D+, or D- being recorded and used in computing the GPA.

### S-R Grades

1. All Experiential Learning courses are marked with S for satisfactory work and R for unsatisfactory work.

2. For Individual Study or Research courses, the mark of S is given for satisfactory work and the mark of R for unsatisfactory work. If a student wishes to be graded according to the regular system (A, B, C, D, F), this choice must be approved by the appropriate faculty supervisor and the department chair. In addition, this choice must be indicated on the form used to outline the individual study project.
3. Several other courses in various departments are routinely marked with S for satisfactory and R for unsatisfactory work. Examples of these courses are PHED 100 and ENGR 150. The grading system for these courses is indicated as part of the regular course description.
4. Courses which are routinely graded on the S-R system are not counted among the one-eighth of a student's courses for which the S-D-R grading system may be selected.

### Assignment and Removal of Incomplete (I) Marks

The mark of I is used if the student has not completed the work of the course, has good reason for delay, and has made arrangements with the instructor before the date grades for the course are due to be submitted. Ordinarily, good reason will involve matters not wholly within the control of the student, such as illness. The mark of I is not to be used to allow a student to improve a grade by additional work over and above that ordinarily expected for the course or by repetition of work already submitted to the instructor. The mark of I should not be used without prior arrangement between instructor and student.

An instructor reporting a mark of I will complete an *Assignment/Change of Mark of Incomplete* form. One copy is to be given to the student as an indication of the terms under which the work is to be completed. When the student has completed the work, the instructor will send a copy of the form to the Office of the University Registrar with the final grade filled in.

The student must complete the designated work and submit it to the instructor by May 1 for an I received in fall semester or January term; by December 1 for an I received in spring semester or a summer session (unless an earlier deadline has been required by the instructor).

In the absence of a final grade report on or before the deadline, the mark of I will be changed by the university registrar to a grade of F or R. The deadline may not be extended. The instructor may change a resulting F or R by means of university grade change policies and procedures.

### Change of Grade

An instructor may change a grade if there has been an error in the computation, transcription, or reporting of the grade. Instructors may also change grades of F which resulted from the lapse of Incomplete notations. Changes may not be made on

the basis of additional work completed by a student unless all members of the class had the option to submit additional work. The instructor must submit the changes to the Office of the University Registrar using the *Official Change of Grade Form*.

### Grade Reports

A final grade report is issued at the end of each semester or term, and is mailed to the student's permanent address of record. Final grades can be accessed by the student through MURPHY On-Line.

### Grade Point Total and Grade Point Average

Grade points are assigned as indicated above. Note that marks of W, R, and S have no grade point value.

The grade point total is the sum of grade points (multiply each grade point value by the number of credits for the course) for all courses with grade point value.

The grade point average (GPA) is determined by dividing the grade point total by the number of credits with grade point value.

For example, using a standard four-credit course as a basis, if a student received two A's (32 points), one B- (10.8 points), and one C+ (9.2 points) divided by 16 (the number of credits), the GPA would be 3.25. If the student received a grade of F (0 points) in a course, the grade point total would still be divided by 16 credits, but the GPA obviously would be lower.

## Progress toward a degree

### Student Classification

A degree student is one who takes classes for credit toward a degree at the university.

A student who takes courses for credit but without expectation of a degree is called a non-degree student. An auditor is a student who takes courses without expectation of credit.

A degree student who takes 12 or more credits during a semester is called a full-time student. A degree student who takes fewer than 12 credits for credit is called a part-time student.

A degree student who has completed fewer than 28 credits is called a freshman.

A student becomes a sophomore upon successful completion of 28 credits as a degree-seeking student.

A student who has successfully completed 60 credits is called a junior. A student who has successfully completed 92 credits is called a senior.

### Date of Graduation

A student who completes all requirements for a degree between February 1 and June 30 will receive a diploma dated May.

A student who completes all requirements for a degree between July 1 and August 31 will receive a diploma dated July. A student who completes all requirements for a degree between September 1 and



January 31 will receive a diploma dated December.

To be considered completed, the record of work must be submitted to the Office of the University Registrar.

A student must reapply for graduation if for any reason the student does not graduate on the date originally selected.

### Transcripts

A transcript of a student's academic record will be issued only upon receipt of a written request from the student. Requests should be directed to the university registrar. Transcripts will not be issued to students whose accounts are delinquent.

A \$3.00 processing fee is charged for an official transcript.

### Academic Probation

A student who has attempted twelve credits or more at the University of St. Thomas and has not achieved a cumulative grade point average of 2.00 or better is put on academic probation.

Each student who is placed on probation will receive a letter from the Office of the University Registrar informing that student of her or his probationary status and identifying both the implications of probation and the conditions under which probation will be lifted.

The student will be required to discuss her or his situation with an academic counselor or faculty adviser.

### Academic Suspension

A student is suspended from the university for one semester (not a January term or summer session) if he or she is on academic probation and one or both of the following occurs:

1. the student has not achieved a University of St. Thomas semester grade point average of at least 1.75 for courses taken during a fall or spring probationary semester.
2. the student has twice not achieved a University of St. Thomas semester grade point average of at least 2.00 for courses taken during a fall or spring probationary semester.

Each student suspended will receive a letter from the university registrar identifying the nature of the suspension and the events leading up to it. A student may re-enroll following a semester of suspension.

### Academic Dismissal

A student is dismissed from the College if one or both of the following occurs:

1. the student has not achieved a University of St. Thomas semester grade point average of at least 1.75 for courses taken during a fall or spring probationary semester following Academic Suspension.
2. the student has twice not achieved a University of St. Thomas semester grade point average of at least 2.00 for courses taken during a fall or spring probationary semester following Academic Suspension.

Each student dismissed will receive a letter from the university registrar identifying the nature of the dismissal and the events leading up to it.

Students who are dismissed may petition the Committee on Studies for readmission. A dismissed student may not register for summer school, or any other term.

### Readmission after Suspension or Academic Dismissal

Academic suspension applies only to fall and spring semesters. After the semester of suspension, the student is free to register for the following term, upon consultation with an academic adviser in the Office of Academic Counseling and Advising. This semester becomes a probationary semester and is subject to the conditions listed above under Academic Dismissal.

If a student is readmitted to the university by the Committee on Studies after Academic Dismissal, the conditions of readmission will be stated by the Committee.

### Committee on Studies

The Committee on Studies is charged with interpreting the general academic requirements of the undergraduate College and has the authority to grant exceptions and waivers when warranted. It is composed of four elected faculty members and two students appointed by the All College Council. The associate academic dean serves as chair of the committee.

Requests should be made in writing and presented to the chair. The student should also fill out a *Committee on Studies Petition Form* available from the Office of the Academic Dean. Details regarding the petition process and the signatures required for various types of petitions are contained on the form.

Requests concerning major or minor field requirements should be addressed to the appropriate department chair.

**FERPA Policy**

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the university receives a request for access.
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the university to comply with the requirements of FERPA.
5. Directory information may be released without the written consent from the student, unless the student specifies to the contrary as described below.

To withhold certain categories of directory information from the public, the student must file a form available in the Office of the University Registrar within one week from the beginning of the fall semester (or the semester in which the students enters). The order for withholding will remain in effect until the student rescinds it in writing. The form for withholding directory information will inform the student of some possible consequences. For example, if the student's name is withheld, he or she cannot participate in intercollegiate athletics where team rosters are published, or commencement ceremonies.

The complete FERPA policy is available at <http://department.stthomas.edu/regs/policies/privacy/annualnotice.htm>

## Academic Honors

### Aquinas Scholars

The Aquinas Scholars Program is the honors program of the College. It is designed to assist students in developing their intellectual talents, character and interests while pursuing an education of considerable depth and breadth.

See the Academic Information section of this catalog for a description of the program.

### Dean's Honor List

A student who attains a grade point average of 3.50 or more at the end of a semester in which he or she has taken at least twelve credits for regular grades (A, B, C) will be placed on the Dean's Honor List if there are no grades of D or F or marks of I or R. The list is made public and the student receives a letter of commendation.

### Delta Epsilon Sigma

Delta Epsilon Sigma, a national honor society for students enrolled in Catholic colleges and universities, was established at St. Thomas in 1941. Students become eligible for membership in their junior year. St. Thomas students are accepted into the national organization of Delta Epsilon Sigma after they have been accepted into the University of St. Thomas Alpha Sigma chapter and are nominated for membership in the national organization.

Senior candidates must have earned a cumulative grade point average of 3.50, while junior candidates must have a cumulative 3.75 grade point average. Graduate students are eligible for membership upon completion of one-half of their master's degree requirements. Alumni are eligible if they have been graduated with honors or have received a graduate degree.

Student members receive the *Delta Epsilon Sigma Journal* published by the national society three times each year. In addition, student members may submit articles for publication to the Journal, and apply for senior year and graduate school scholarships. Induction ceremonies are held at the beginning of fall and spring semesters each year.

Members enjoy the following privileges: no restriction on class loads; no tuition charges for courses above the normal 16-credit semester load; attendance as guests of the university at special academic functions; and, at the instructor's option, exemption from final examinations for St. Thomas courses at the end of the semester or term in which the student graduates.

### Department Honor Societies

A number of departments offer membership in an honor society for the particular discipline. Each of these is explained in more detail in the description of the department's offerings in the *Departments and Curricula* section of this catalog.

#### Biology Honor Society

Beta Beta Beta, the national biology honor society,

chartered the Gamma Tau chapter at St. Thomas in 1990.

#### Communication Honor Society

Lambda Pi Eta, the National Communication Honor Society, chartered the St. Thomas Beta Chi chapter in 1994.

#### Drama Honor Society

Pi Epsilon Delta was chartered in 1942.

#### Economics Honor Society

Omicron Delta Epsilon, the international fraternity in economics, was organized at St. Thomas in 1967.

#### English Honor Society

Sigma Tau Delta, the national English honor society, formed a chapter at St. Thomas in 1988.

#### National Collegiate Foreign Language Honor Society

Alpha Mu Gamma, the National Collegiate Foreign Language Honor Society, was organized at St. Thomas in 1980.

#### Geography Honor Society

A St. Thomas chapter of the national geography honor society, Gamma Theta Upsilon, was established in 1995.

#### History Honor Society

A campus chapter of Phi Alpha Theta, the national honor society in history, was established at St. Thomas in 1950.

#### Philosophy Honor Society

Phi Sigma Tau is a society which serves students having a personal interest in philosophy.

#### Political Science Honor Society

Pi Sigma Alpha, the national political science honor society, established the Chi Theta chapter at St. Thomas in 1999.

#### National Honor Society for Religious Studies and Theology

Theta Alpha Kappa is devoted to encouraging and rewarding excellence in theology and the study of religion.

#### Social Work Honor Society

Beta Epsilon, the campus chapter of Alpha Delta Mu National Social Work Honor Society, was established at the University of St. Thomas and the College of St. Catherine in 1980.

#### Sociology Honor Society

The Iota Chapter of Minnesota of Alpha Kappa Delta, the international sociology honor society, was chartered at the University of St. Thomas in 1991.

## Latin Honors

Three types of academic honors are conferred upon graduates of the undergraduate College. The following criteria apply to students who matriculated at St. Thomas from fall semester 1998 onward.

All students considered for graduation with Latin honors have a minimum of 52 credits taken for letter grade (A, B, C, D) at the University of St. Thomas.

All students eligible for Latin honors who have applied for graduation will be informed by the Office of the Academic Dean before mid-term of their final semester that they are eligible for this honor.

### *Cum Laude*

A student whose overall cumulative grade point average *and* St. Thomas grade point average are *both* between 3.500 and 3.699 receives the baccalaureate degree *cum laude*.

### *Magna Cum Laude*

A student whose overall cumulative grade point average *and* St. Thomas grade point average are *both* between 3.700 and 3.899 receives the baccalaureate degree *magna cum laude*.

### *Summa Cum Laude*

A student whose overall cumulative grade point average *and* St. Thomas grade point average are *both* 3.900 or higher and who is judged to be outstanding by members of an Honors Oral Examination Committee receives the baccalaureate degree *summa cum laude*.

The student has the responsibility to arrange a summa examination, in consultation with the chair of the major department or director of the interdisciplinary program.

The chair/director, in consultation with the student, shall then appoint an oral examination committee of at least three faculty members, one of whom shall be from the student's major department or program. The examiners shall represent at least three departments and at least two academic divi-

sions of the College.

The faculty member from the student's major department or program shall act as chair of the examination committee. A student with multiple majors shall designate one of the majors as the major department or program for purposes of this examination.

The examination should have a central theme so that continuity can be maintained throughout the questioning. The student, in consultation with the chair of the committee, takes the initiative in determining this theme, and conveying it to the other examiners.

Further details concerning the examination will be sent to eligible students and the chairs of their departments by the Office of the Academic Dean.

If a student's performance is judged not outstanding by the examination committee, the chair of the committee shall, with the concurrence of the student, reconvene the examination committee at a later time for the purpose of re-examination. The examination committee for the re-examination will consist of the original members. Should the candidate's performance be judged not outstanding at this second examination, or should the student choose not to be re-examined, the student will graduate *magna cum laude*.

If the candidate for *summa cum laude* is also a candidate for departmental honors that involve an oral defense of an honors thesis, this defense may be substituted for the *summa* honors examination, provided that the examination committee represents at least three departments and two academic divisions of the undergraduate College and that the student's performance is judged to be outstanding by the members of the committee following the same guidelines as set forth for the *summa* honors oral examination.

If the student who is eligible for graduation *summa cum laude* chooses not to take the Honors Oral Examination, the student will be graduated *magna cum laude*.

## International Education

To meet the challenge of preparing liberally educated students for an interdependent world, the University of St. Thomas is committed to teaching with a global perspective and to providing its students with global literacy.

Therefore, the undergraduate College has undertaken to strengthen international academic programs and to develop new programs and learning opportunities with international dimensions.

These programs are designed to enhance the traditional liberal arts education, to prepare students for careers with international responsibilities, and to provide an educated citizenry with international understanding.

See Study Abroad Programs in the "Affiliated Programs" section in this catalog.

## Renaissance Program

The Renaissance Program is one way the University of St. Thomas responds to the challenge of offering students a liberal arts education as well as career preparation.

See Renaissance Program in the "Interdisciplinary Minors" section in this catalog.

## Preparation for the Roman Catholic Priesthood

Students considering a commitment to the Roman Catholic priesthood may major in a variety of fields. However, they must complete certain prerequisites in philosophy, theology and classical languages.

In addition to the usual major field and graduation requirements for the University of St. Thomas that provide in large measure the balance needed for the study of theology, St. John Vianney students will be expected to complete the following academic requirements as part of their pre-ministry preparation. In compliance with the Program of Priestly Formation:

Twenty-four credits of philosophy

Sixteen credits of theology from the following areas:

Introduction to Old and New Testaments

Introductory Theology

Christian Morality

Language Requirements:

Twelve credits in Latin and eight credits in Greek or their equivalent as determined by the student's diocese.

Preparation for entering a postgraduate seminary takes place best in a college level seminary. St. John Vianney college seminary, located on the University of St. Thomas campus, provides an integrated program of spiritual and apostolic formation, along with the academic course work available through the college. Interested students should contact the rector, Rev. William Baer, at St. John Vianney Seminary ([www.vianney.net](http://www.vianney.net)).

## Parents-on-Campus Program

Parents of full-time students in the undergraduate day program are eligible to take undergraduate courses on a space-available basis in fall and spring semesters without tuition charge. The following requirements must be met:

The daughter/son is a full-time day student taking at least twelve credits. Parents of students in the School of Continuing Studies are not eligible for this program.

Graduate courses, courses at ACTC schools, courses taught in January term or summer sessions, and courses in the HECUA program are not part of this program.

Parents may audit courses or take them for credit. Parents may be non-degree or degree-seeking students. If the parent chooses to become a degree-seeking student, an application must be made through the Office of Undergraduate Admissions.

Fees will be charged for books, music lessons, laboratory charges, individual studies, and experiential learning.

Further information on the program can be obtained from the Office of the University Registrar.

## Academic Counseling

Academic counselors register all new undergraduate students and counsel students with special registration problems.

Counselors also work with students who are experiencing academic difficulties including test anxiety and other academically related problems.

The staff assists the students with their educational goals, helps students evaluate their achievement, and offers encouragement and support.

The Office of Academic Counseling serves as a resource for faculty advisers and their advisees.

## Faculty Advisers

Full-time faculty members serve as advisers to all students. During their freshman and sophomore years at St. Thomas, faculty advisers assist students in their academic orientation and in planning their class schedules each semester.

Major field advisers guide their advisees' progress toward a degree by reviewing grade reports and degree audits, and helping students solve academic problems.

## Academic Development Program

The Academic Development Program (ADP) is a team-taught combination of courses designed to help incoming freshmen develop proficiency in reading, writing, library and learning skills necessary for college success.

Students are invited to participate in this program if high school records and entrance exams (such as the ACT) indicate weakness in the areas of reading and writing.

Participants in the program register for 12 credits in fall semester: ENGL 110 Intensive Writing; a companion course covering one of the core curriculum requirements; and one additional course of the student's choice.

ADP students are required to participate in seminars offered by the Reading and Study Skills Center.

## Academic Preparation Program

The Academic Preparation Program (APP) is a mandatory two-semester support system. The St. Thomas office of Admissions identifies students for the APP based on their potential, desire, and motivation to complete a baccalaureate degree.

After being contacted by the office of Admissions, students may apply to this program by submitting a letter of application accompanied by two letters of recommendation, at least one which must come from a high school teacher. Applicants are also interviewed by program faculty and administrators.

Upon admission to the APP, students register for twelve credits during the fall semester: ENGL 110 Intensive Writing; a companion course which fulfills one of the university's core curriculum requirements; and one additional course chosen by the student in consultation with an academic adviser.

Program participants are also required to attend a specially designed non-credit reading and study skills seminar and a non-credit mathematics laboratory.

During spring semester, students normally register for ENGL 111 Critical Reading and Writing, and two or three other courses selected in consultation with the student's academic adviser.

At the successful completion of this program, the student will be officially admitted to the university by the dean of the College.

Questions about the Academic Preparation Program should be addressed to the director of admissions or the associate dean for academic advising.

## Mathematics Resource Center

The Mathematics Resource Center (MaRC) provides a variety of resources, most at no cost to students of mathematics. These resources include a tutoring staff, placement testing, independent study/review programs, math videos, and general mathematics advising. Also available from the MaRC is a list of private tutors, whose rates are subject to individual negotiations.

Students must satisfy all prerequisites in order to enroll in a math course. Most entry-level math courses require an appropriate Math Placement Code (MPC) derived from an ACT math score or from a UST Math Placement Exam, which may be taken in the MaRC during regular hours. Students whose MPC is NONE can prepare for Math 100 or Math 101 by taking the Basic Math Skills review course (Math 005) during the January term or summer session. The course has a nominal registration fee.

Website: [http://www.stthomas.edu/www/marc\\_http/marc.htm](http://www.stthomas.edu/www/marc_http/marc.htm) for more information and for the link to practice problems for the Math Placement Examination.

## Reading and Study Skills Center

The Reading and Study Skills Center (RSSC) provides academic support through tutoring and referral services, individual assistance in study skills improvement, test taking preparation, college reading techniques, college survival skills, and campus seminars and workshops.

All services are confidential and free of charge.

## Enhancement Program - Services for Students with Learning Disabilities

The University of St. Thomas offers services for students with learning disabilities, psychiatric disorders, Attention Deficit Disorder, and traumatic brain injuries. Services are offered under the philosophical premise that qualified students with disabilities can succeed academically if given appropriate programming and adequate support. All accommodations, auxiliary aids, and services are offered through the Enhancement Program.

## Academic Support Programs

Qualified students with disabilities are responsible for identifying themselves and making all requests for accommodations and aids or services to the staff of the Enhancement Program.

Support services are provided to enrolled students and based on assessed needs. These services include screening interviews and referral services, accommodation and academic assistance service, interagency coordination and advocacy services.

For more information, contact the Enhancement Program Office, in Aquinas 110.

### Specialized Services - Services for Students with Physical Disabilities

The office of specialized services provides reasonable and appropriate accommodations to qualified students with physical disabilities. To be eligible for these services, documentation from a licensed professional is required. The documentation should state the nature of the disability and the types of accommodations recommended by the licensed professional.

Support services are provided to enrolled students and based on assessed needs. These services include counseling, identification and referral services, accommodation and academic assistance service, interagency coordination and advocacy services.

Students with physical disabilities should contact the coordinator of specialized services.

Website: [department.stthomas.edu/sps](http://department.stthomas.edu/sps)

### Writing Center

Undergraduate and graduate students at all levels of experience and expertise across the university use the Writing Center. In intensive one-on-one hourly sessions, students typically work on issues such as developing ideas, creating a focus, organizing materials, and clarifying sentences. Most students work on course assignments, but may work on graduate school and job applications.

The Center is staffed by peer writing consultants who are selected through a rigorous application and interview process conducted each spring semester. The staff does not offer an editing service, but instead provides the much more valuable service of working collaboratively with students to help them best express what they want to say in their writing.

Services are free. Computers are available to work on during a session with most software for IBMs available.

### Major Field Advisers

After a student has completed 48 semester credits, the student fills out a major field card and applies to be accepted as a major in his or her chosen field.

When the student has been accepted as a major in a particular department the guidance of her or his program is then transferred from the freshman/sophomore faculty adviser to a departmental major field adviser.

### Instructional Support Services

To meet the requirements of faculty and students for use of instructional technology, the university pro-

vides materials, equipment and professional support through Instructional Support Services (ISS). From the main office located in Room 14 of O'Shaughnessy Educational Center, ISS provides a variety of support services.

More detailed information is available for each of the services listed below on the ISS Website: [www.iss.stthomas.edu/iss99/](http://www.iss.stthomas.edu/iss99/)

#### *Classroom Services*

University-owned audio visual equipment including projectors, recorders, cameras and other equipment is available from ISS for use on campus by faculty, staff, and student organizations. Also available are over 4000 instructional films and videotapes from the university's collection, which is located in Room 13 OEC. Students can view programs of their choice in the Learning Center. Materials are also available from area CLIC colleges, and from film/video rental libraries nationwide.

#### *Media Acquisition*

ISS provides research assistance for both faculty and students to determine availability of titles not found in the ISS Media Catalog. At the request of faculty, titles are purchased for inclusion into the Media Catalog.

#### *Graphic and Photographic Services*

ISS can provide services for the production of print materials (signs and posters) for faculty, staff and student organizations.

#### *Audio and Video Production Services*

This division of ISS focuses primarily on the production of audio and video materials and the support of audio/video production classes. In addition to providing production support to faculty and staff, facilities are made available to students to produce and edit their own audio and video materials for course related projects.

#### *Learning Center*

Located on the lower level of the O'Shaughnessy Educational Center, the Learning Center is equipped with more than 100 PC and Macintosh work stations, as well as audio, video and digital media for production and playback.

#### *Minneapolis Campus ISS*

Located on the lower level of the 1000 LaSalle building, the ISS office in Minneapolis is a microcosm of the ISS main office in St. Paul.

### Computing and Communications Services Center

Computing and Communication Services provides computing and telecommunications (telephone) services to students, faculty and staff. All computing facilities are available to students for classroom, tutorial and research applications free of charge. Long distance telephone services and voice mail are available to on-campus students for a nominal fee.

## Student Life

Students will find that there are many cultural events to attend, many activities in which they may participate and many organizations that will welcome their active involvement on the St. Thomas campus. Students are invited to participate fully, according to their interests, for a spirited college experience.

## All College Council

The All College Council (ACC) is the student government of the College, representing undergraduate students. All student organizations and clubs fall directly under the Council. STAR (St. Thomas Activities and Recreation) and the ACC operations are financed by an activity fee assessed each full- and part-time student each semester.

Membership in the All College Council consists of six executive officers, two Off-Campus representatives, two Residence Hall Association representatives, the class president and two representatives from each class, one International Student representative, one HANA student representative, one Resident Assistant representative, one STAR representative, one St. John Vianney representative, one student organization's representative, and an adviser, who is the director for Student Leadership and Activities.

The ACC functions in an advisory capacity to administrative and faculty decision making.

## Participation in College and Faculty Committees

Students of the College work cooperatively with the faculty and administration on six committees: the College Life Committee, the Grievance Committee, the Committee on Discipline, the Educational Policy Committee, the Committee on Studies, and the Budget Advisory Committee.

The function and authority of these committees may be found in the *Student Policy Book*.

## Student Organizations and Clubs

There are approximately 85 clubs organized on campus for a variety of purposes including social, athletic and academic. All student organizations are governed by the student government (the All College Council). Some of these clubs are organized around the career objectives of their members or according to their major field of interest; others are organized according to common interests. Some professional, service and social fraternities have chapters on campus.

A description of all the clubs, organizations, and other types of involvement on campus is available to all students in the *Student Planner*. An Activities Fair is held at the beginning of each semester to allow interested students to learn more about the clubs.

## Intercollegiate Athletics

The intercollegiate athletic program includes twenty-one varsity sports and several junior varsity programs.

Men's varsity sports are soccer, cross country, football, hockey, basketball, swimming, wrestling, baseball, golf, tennis and track. Junior varsity schedules are played in cross country, football, basketball, hockey, tennis, soccer and baseball.

Women's varsity sports are volleyball, hockey, cross country, basketball, swimming, soccer, softball, tennis, golf and track. Junior varsity programs exist in cross country, volleyball, basketball, and tennis.

## Intramural Activities

Numerous intramural activities are offered throughout the academic year for men and women.

During the fall semester activities include: flag football, whiffle ball, 4-on-4 basketball, racquetball, coed soccer and volleyball.

During the spring semester the offerings include 5-on-5 and 3-on-3 basketball, floor hockey, sand volleyball, ultimate frisbee and softball. Several aerobic classes are also offered and students are encouraged to use the recreational facilities for leisure enjoyment. All leagues are free and open to students, faculty, staff and alumni. Sign-up forms are available at the cage in O'Shaughnessy Hall.

## Student Publications

Each student publication has a faculty adviser, or a managing editor, but the university delegates editorial freedom and responsibility to the editors, giving them latitude to carry out editorial responsibilities. The university is the official publisher of all student publications which, in turn, are governed by the Board of Student Media.

The photo staff consists of student photographers who work throughout the year taking pictures for the publications. The staff is supervised by student editors and publication advisers.

### The Aquin

The *Aquin* is the student-edited newspaper at St. Thomas. Its primary purpose is to serve as a voice of the St. Thomas community. Opinions, ideas and information are welcomed from students, faculty, administrators and staff. The paper is published every week during the fall and spring semesters. Applications for *Aquin* photographers and editors are made to the Department of Journalism and Mass Communication.

### The Aquinas

The *Aquinas* is the university yearbook, and its student editors capture the school year's events in words and pictures. The yearbook is distributed at no cost to all full-time undergraduate students at the end of each year. Applications for *Aquinas* photographers and editors are made to the Center for Student Leadership and Activities.



### **The Summit Avenue Express**

The *Summit Avenue Express* is the student literary and visual arts magazine of St. Thomas. Designed and edited by students, the magazine publishes student poetry, fiction, photography, drawings, and other visual art. Work on the magazine begins in early fall, with a submissions deadline in December and a mid-April publication date.

### **Musical Organizations**

Student musical ensembles appear regularly in concerts on campus, in the Twin Cities area, and tour nationally and internationally.

Instrumentalists and vocalists with diverse interests can choose from a selection of large and small ensembles – bands, orchestra, choirs, jazz ensembles (both vocal and instrumental), ensembles for pianos, guitars, woodwinds, brasses, strings, percussion, and music theater productions. Membership in most of these organizations is by audition. For details consult the *Handbook for Music Students* available from the Department of Music.

### **Theater**

The combined St. Thomas/St. Catherine Department of Theater presents a number of productions throughout the year. The productions range from the classics to the latest Broadway musicals. All students are eligible to take part regardless of major. Casting is by open audition.

Performances are presented in O'Shaughnessy Auditorium and Frey Theater at St. Catherine and in Foley Theater at St. Thomas. Admission to plays is free of charge for students.

### **Film Forum**

The Film Forum is co-sponsored by the Department of Theater and the CSC and UST Centers for Women. Films being screened locally in the Twin Cities are selected monthly for discussion. Special interest films on a variety of topics are screened as well at the Women's Centers. Upcoming films are advertised through posters, bulletins, and e-mail. The Forum is open to everyone.

### **Dean of Student Life Office**

The Dean of Student Life Office assists and supports students in achieving their academic and personal goals. They are available to answer questions, to help resolve issues or concerns, and to refer students to the appropriate department, office or community resource.

The staff members of the Dean of Student Life Office provide a variety of programs and services for undergraduate and graduate students. These include new student orientation, student advocacy services, students' rights and responsibilities information, judicial services, emergency loans, and the publication of the *Student Planner*, the *Student Policy Book*, and the student directory.

### **The Student Planner & Student Policy Book**

The *Student Planner* is a complimentary planner produced and distributed each year by the Dean of Student Life Office. It includes an academic calendar as well as an easy resource guide providing information about the over 85 student organizations on campus and ways to become involved in campus life.

The *Student Policy Book* is published by the Dean of Student Life Office and contains information regarding the Student Code of Conduct and all expectations, guidelines and policies that govern student life. All students are responsible for familiarizing themselves with the expectations outlined in the *Book* and will be held accountable for upholding the university's policies.

## Campus Ministry

Campus Ministry believes that the depth of our faith powerfully affects the way we live and what we become. Christ affects us by giving our lives meaning and purpose. But faith can be especially challenged in college. It is in response to this challenge that Campus Ministry invites students, faculty and staff to explore their faith more fully through worship, service and personal growth.

In addition to seven full-time professionals, Campus Ministry employs a team of residence hall chaplains, a deacon, a secretary, and 17 peer ministers. The staff coordinates the religious life of the campus and offers a variety of programs.

In the area of worship, there are daily and special community masses, penance services, evening prayer, and ecumenical services. Students can participate in worship through the Liturgical Ministers Program, Chapel Singers and the Liturgical Choir.

In the service area, Campus Ministry sponsors the Volunteers in Action program, VISION J-term and spring break volunteer service trips, and the Student Coalition for Social Justice.

To inspire personal growth, Campus Ministry has a number of programs, including Bible study, prayer groups, retreats, pastoral counseling and referral, marriage preparation, crisis intervention, special groups for support (e.g., Faith in Action – a chapter of Courage ministry for those dealing with sexual orientation issues), grief group, vocation inquiry, special seminars on different aspects of Christian life, and Common Ground – a house of hospitality where students gather to relax, pray, study, and meet new people.

Campus Ministry also offers a yearlong program, the Rite of Christian Initiation for Adults (RCIA) to those who are preparing for baptism, confirmation or initiation into the Catholic Church.

The Campus Ministry Center is located in Murray-Herrick Center.

## Personal Counseling and Testing

Personal Counseling is available to help students deal with a wide variety of concerns from the problems of daily living to problems of a more serious nature. In addition to the professional counselors and psychologists employed by the university, outside referral sources are also available. Personal Counseling also provides groups, workshops, seminars and consulting services on a variety of topics. Walk-in hours are available every day and are listed in the *Electronic Daily Bulletin*. Complete confidentiality is maintained in accordance with legal requirements and the professional code of ethics.

### Testing Services

Personal Counseling Office offers a full range of services including personality assessment and career testing.

## Career Services

Career Services provides career development expertise and job-search assistance. The department gives individual help and easy access to quality resources. Services are available to St. Thomas students and alumni.

Individual counseling, seminars and a variety of resources are offered to assist in:

- Self-assessment and vocational testing
- Career choice and transition
- Major-field choice and change
- Research for specific careers and employers
- Job search services for full-time, part-time, summer and student employment opportunities
- Use of technology in job search and career development
- Job-search support groups
- Career management
- On-campus interviewing
- Job displacement
- Classroom instruction

## Career Resource Center

The Career Resource Center offers students access to written materials including literature from employing organizations. A computerized career exploration system and Career Information Network (CIN) are other valuable resources. Career Assistants are available to assist students on a walk-in basis.

Individual appointments are available on both the Minneapolis and St. Paul campuses. Scheduled individual appointments are encouraged to ensure staff availability.

### Career Counseling

Confidential, individual appointments and workshop presentations are used to assist students with skill building and career planning. Students explore their interests, values and abilities to determine possible career options.

## Multicultural Student Services

Multicultural Student Services provides a variety of services for Latino/Chicano/a, African American, Native American and Asian Pacific Islander students functioning as a means of networking and advocacy. Initiatives addressing academic support, mentoring support, student programs and leadership development are designed to complement university services.

HANA, the multicultural student organization comprises four ethnic peer associations that provide peer support, leadership opportunities and service to the campus and Twin Cities communities.

In addition to others available through the university, Multicultural Student Services offers several scholarships for American students of color. Information about these and other funding opportunities can be obtained from Student Financial Services.

## International Student Services

International Student Services provides advising and programming to support international students as they pursue their educational, career, and personal goals. This includes promoting the full integration of international students into the university community and intercultural training for students, faculty and staff.

International Student Services provides the following services and programs:

- Orientation programs (2-4 days) for new students to academic, cultural, legal, and practical life at a US university
- Immigration advising for all nonimmigrant students and documentation for F-1 and J-1 students
- Counseling and advising on academic, cultural, financial, health, practical and personal matters
- Mentor Program: US and international students are hired and trained to serve as guides and helpers to new students
- Monthly International Student Newsletter
- A Website with information on programs and services, immigration rules, activities and programs, and the newsletter:  
<http://department.stthomas.edu/inte>
- Monthly International Tuesday Forums on international intercultural topics for U.S. and international students, staff & faculty
- Close cooperation with the Globally-Minded Student Association, with US and international members, which promotes interaction and interchange of ideas through social and cultural activities
- Cultural and educational programming

## Housing

The University of St. Thomas has accommodations for approximately 1,880 students in its residence halls, apartments, and other university-owned housing.

The residence halls – Brady, Cretin, Dowling, Grace, Ireland, John Paul II, Murray – are managed by professional staff and undergraduate resident advisers. Apartments in Morrison Hall, 2171 and 2175 Grand Ave are also managed by the university Residence Life Office. St. John Vianney Hall is the college seminary residence.

The residence halls have computer rooms, laundry rooms, study lounges, fitness center, snack food outlet, and recreation rooms. Koch Commons has a fitness center and a snack food outlet, the Pit Stop. Some sports equipment, tools, cleaning equipment and games are available for student use.

Upon admission to the College, each student will receive an *Application for On Campus Student Housing*. New students desiring space in the residence halls must complete the application and return it to the Office of Admissions with a \$100 room deposit which is credited to the student's room and board charges during the first semester of residence. These applications are considered on the

basis of date received. Students currently living in university housing must complete the *Application for On Campus Student Housing* by the date established by the Office of Residence Life for the coming academic year.

For specific financial information, each student should refer to the *Residence and Food Service Agreement*, and the Summary of Financial Procedures for the current year. Both are available from the Office of Residence Life, Koch Commons. With the exception of the Grand Avenue apartment residents, and juniors and seniors in Morrison Hall, all students living on campus must purchase one of the available options for a meal contract.

Students who will be residents should bring their own sheets, pillows, blankets, towels and washcloths. They also should bring their own desk accessories. Laundry rooms with automatic washers and dryers are available for student use.

Each student is provided with a bed, dresser, closet space, desks, desk chair, and lounge chair. Rooms in John Paul II and Murray Hall are provided with lamps and tables. John Paul II, Murray, and Grace Halls are also carpeted and have private bathrooms. Morrison Hall includes furnished living rooms, bedrooms, full bathrooms and kitchenettes.

Each student room has telephone service at no cost except for long distance charges, and voice mail. An Internet and cable TV connection is available in each room.

Additional information regarding residence hall life is contained in the *Resident Student Handbook*.

## Dining Facilities

All food locations accept Flex or Express dollars and cash.

### St. Paul campus

Murray-Herrick Center houses a number of dining areas designed to meet the needs of various segments of the student population.

The *Food Court* is on the second floor, along with several areas used for special dining and catered events. The Food Court dining area is used for students on the board plan, although anyone may eat in the facilities.

The *Grill* is located on the main floor. Besides its main function of serving food – breakfast through dinner – the Grill provides a central gathering place for students.

*Scooter's*, located on the lower level, features pizza, gourmet burgers, Dunn Brothers coffee, espresso, various snack and beverage items. It has a dance floor, a stage for live entertainment, a large screen TV and special sound equipment.

The *C-Store* is located adjacent to Scooter's on the lower level. Assorted snacks and sundries are available.

The *Pit Stop*, is located on the lower level Koch Commons between Brady and Dowling Residences. It provides deli sandwiches, Freshens®

smoothies, frozen yogurt, Pretzel Logic large fresh baked pretzels with various toppings, and snack items.

The *Binz Refectory* is located on the south campus adjacent to the soccer field. Students who have a food service contract, commuter students and guests may dine in the west dining room.

The *Binz Cafe* is located in the same building for those who wish to select refreshments, grill items and snacks.

*Beakers* is located on the second floor in the Owens Science building. It features Dunn Brothers coffee and espresso, deli Express Sandwiches, and various snack and beverage items.

### Minneapolis campus

*Food for Thought* restaurant is located on the second floor of the 1000 LaSalle building, offering grilled items, salad bar, soups and a variety of other food, snacks and beverage selections.

The *Coffee Cart* is located on the first floor next to the bookstore lounge area. It features Dunn Brothers coffee and espresso, pastries and snack items.

*Scholar's* is located on the skyway level in Opus Hall. It features deli sandwiches, Freshëns® smoothies, frozen yogurt, Pretzel Logic large fresh baked pretzels and various snack and beverage items.

## Health Service

A modern health center, located in Brady Hall, handles the medical needs of both resident and day students. The center is equipped to handle most minor illnesses and accidents. A physician holds regular office hours Monday through Friday. Please call for appointment times. Appointments are encouraged, but walk-ins will also be seen. A nurse practitioner staffs the health service from 8 a.m. to 4:30 p.m. and is able to handle concerns of the young adult.

Most services of the center are provided free of charge. In cases of a serious illness, students will be transferred to one of the area hospitals where they will be treated at their own expense.

In conjunction with a national insurance company, the university offers a plan of health and medical care insurance to U.S. citizens on an optional basis. Foreign students are required to participate. The policy is designed to be a low-cost health plan for students. Information on these policies is sent to returning students and incoming freshmen every year.

All students must submit a physical and health record attested to by their primary care physician, if they are going to participate in sports, study abroad, or use the health service as their primary care clinic during their college career.

All students born after 1956 who are enrolled in a Minnesota public or private college or university are required by Minnesota law to be immunized against diphtheria, tetanus, measles, mumps, and rubella. These immunizations must have been done

within a certain time frame. Questions about this requirement and exemptions allowed for by the law should be addressed to the Health Service. A *Record of Immunization* form is available from the Office of Admissions or the Health Service.

## Wellness Center

Through educational programs, services, and resources, the Wellness Center seeks to improve UST as a "well" organization, and empower students, staff, and faculty to live healthier lives. Programs have included aerobic classes, stress management, massage, relaxation, diet analysis, walking/running, sexual health, quit smoking, alcohol education, yoga, and healthy relationships. Pamphlets, books, audio and video tapes are available on a variety of topics.

The Wellness Center is located in Koch Commons.

## Public Safety and Parking Services

The Department of Public Safety and Parking Services is located on the first floor of Morrison Hall and is open 24 hours a day, 7 days a week for the community's convenience. Public Safety officers are always on duty to answer questions or assist in whatever way possible.

### Escort Service

The escort program provides a welcome and worthwhile service to people who want to be walked to their cars, night classes or locations within a six-block radius of the St. Paul campus, or a one-block radius of the Minneapolis campus.

### Parking

parking lots on University of St. Thomas property are open to vehicles with the appropriate UST parking permit. Faculty, staff and students must have a permit to park on campus.

Permits may be purchased at the Department of Public Safety and Parking Services, or at designated locations throughout campus during the first week of the fall semester.

Visitors to the University of St. Thomas St. Paul campus may park in the Morrison Hall ramp, the parking meters, or in Lot T with a south campus visitor permit.

Resident students are required to enter a permit lottery in order to be eligible to purchase a parking permit. Lottery forms may be picked up from Public Safety and Parking Services during spring semester for the following fall.

In order to purchase a parking permit, a UST identification card and accurate license plate number of the car are required. Persons purchasing a parking permit will receive a parking map indicating the lots available for the type of permit purchased, and a book of rules and regulations regarding parking.

## Chapels

### St. Thomas Aquinas Chapel

The present Chapel of St. Thomas Aquinas was built in 1917. E.L. Masqueray, who also designed the St. Paul Cathedral and the Basilica of St. Mary, Minneapolis, was the architect. The university's chapel is an excellent example of the classicized mode of design that emanated from the Ecole des Beaux Arts during the early years of the twentieth century.

The luminous stained glass, designed by Chester Leighton of Minneapolis, and the paintings containing sacred and secular details by Joseph Capecci and Carl Olson, were installed in the 1940s. The chapel was renovated in 1987.

In 1987, a three-manual 56-rank mechanical action pipe organ, designed and built by Gabriel Kney of London, Ontario, was installed.

### St. Mary's Chapel

St. Mary's Chapel of The Saint Paul Seminary was begun in 1901 and consecrated on May 24, 1905. Designed by Minnesota architect Clarence H. Johnston in the basilica style, it blends Romanesque and Byzantine architecture. Artist Bancel LaFarge of New Haven, Connecticut, completed the installation of the stained glass and murals in the 1930s.

The chapel was renovated in 1973, and more extensively in 1988. This project was undertaken with the assistance of liturgical consultant Frank Kacmarcik. A new sanctuary area was created in the north end of the chapel allowing the apse area to become the environment of the baptismal font and new access to the chapel.

In the spring of 2000 a two-manual, 20-stop mechanical action pipe organ designed by Noack Organ Company of Georgetown, Massachusetts, was installed.

### St. John Vianney Chapel

The college seminary chapel was redesigned in 1998 by the Rev. Peter Christensen, the rector at that time. The theme of the chapel is "The Tree of Life." The chapel, an adjoining Eucharistic chapel, and an adjacent prayer room, replicating a medieval monastic cloister, are open for anyone wishing to use them. The seminary has become a focal point for contemporary religious art, including the iconic triptych in the foyer and the mosaic behind the altar.

### Florance Chapel

The Florance Chapel is the lower chapel in the St. Thomas Aquinas Chapel. An award-winning design in its renovation, it incorporates modern furnishings in the prairie school style of Frank Lloyd Wright along with some of the oldest sacred sculptural artwork owned by the university.

## University Libraries

The University of St. Thomas libraries contain more than 458,000 book volumes, 2,295 periodical subscriptions and numerous electronic databases.

### O'Shaughnessy-Frey Library

The O'Shaughnessy-Frey Library Center is the principal library on the main campus, housing (in addition to the general and reference collections) the university Archives and Special Collections Department. The latter contains the Celtic Collection, one of the most outstanding collections of its type in this country, and a notable collection of Hilaire Belloc and G.K. Chesterton.

### Archbishop Ireland Memorial Library

The Archbishop Ireland Memorial Library, located on the south campus, is the graduate theological library which primarily serves The Saint Paul Seminary School of Divinity.

### Charles J. Keffer Library

The Charles J. Keffer Library, located in Opus Hall on the Minneapolis campus, is the library for the School of Education and supports students, faculty and staff involved in other courses offered on that campus.

### CLIC

Cooperating Libraries in Consortium (CLIC) allows students to obtain books and periodical articles from other CLIC libraries. CLICnet, the computerized public access catalog, serves Augsburg College, Bethel College, Concordia College, Hamline University, Hamline Law School, Macalester College, Northwestern College, the College of St. Catherine, and the University of St. Thomas. Interlibrary loans for materials not owned by the university are available within the CLIC institutions.

Another cooperative venture, MINITEX (The Minnesota Interlibrary Telecommunications Exchange) links the university with more than 200 libraries throughout Minnesota, Wisconsin, and North and South Dakota. Periodical holdings for all MINITEX member libraries are listed in the Minnesota Union List of Serials (MULS) and are available at the reference desk as well as the necessary request forms.

National interlibrary requests are available and further information about this can be obtained from the ILL Office.

The library staff offers a wide range of services to support coursework and research. Reference librarians provide individual help as well as classroom instruction in the use of library materials. A copy center is located on the Lower Level of the O'Shaughnessy-Frey Library. Group study rooms are available throughout the library, and a limited number of individual study carrels are assigned for a semester at a time.

Website: [www.lib.stthomas.edu](http://www.lib.stthomas.edu).

## Computer Labs

The Learning Center, on the lower level of O'Shaughnessy Educational Center, is the central computer lab and media facility at the university. IBM, Macintosh, and Alpha networks are available, plus audio and video playback and editing systems.

Computer labs are available in the Christ Child Building, McNeely Hall, and the Frey Science and Engineering Center. Some departments also have labs for use by their students.

The Department of Mathematics and Center for Applied Math have two computer labs which are open to all students enrolled in mathematics courses.

## The Luann Dummer Center for Women

The Luann Dummer Center for Women was established in 1993 by a special bequest from the estate of Dr. Luann Dummer, longtime member of the Department of English and founding director of the Women's Studies Program at the university.

The center aims to foster the intellectual, spiritual and personal development of women. The center serves as a meeting place for women to share their expertise and experience and provides opportunities for students to interact with women role models. Although the center is dedicated especially to women, it is committed to the service of the entire campus community within the context of its mission.

The center sponsors a number of grants to support students, faculty and staff. These include a scholarship for a Women's Studies major, research grants for undergraduate and graduate students, professional development grants for staff and faculty, a curriculum development grant, and a leadership award to undergraduate students for participation in programs that will enhance their leadership skills, especially in programs which are directed toward public service.

## Science Facilities

The Frey Science and Engineering Center, comprising the O'Shaughnessy Science Hall and the Owens Science Hall, houses the classrooms, instructional and research labs, and faculty/staff offices for the departments of biology, chemistry, engineering, geology, mathematics, Center for Applied Mathematics, physics, and quantitative methods and computer science. It also houses special support facilities such as an attached greenhouse and one-third of the university's computer terminals.

## Theater and Auditoriums

Productions by the UST/CSC Joint Department of Theater are presented in Foley Theater.

The O'Shaughnessy Educational Center (OEC) auditorium hosts a number of guest lectures, teleconferences and student assemblies.

The Baumgaertner Auditorium in Brady Educational Center (BEC) is used for musical performances and community events. Musical concerts

are also presented in the St. Thomas Aquinas Chapel.

The 3M Auditorium, located in the Owens Science Building, is technologically advanced and hosts a number of course lectures, teleconferences and community events.

The Thornton Auditorium, located in the 1000 LaSalle Building at the Minneapolis campus, serves as the site for a number of lectures and presentations.

## Athletic Facilities

The athletic facilities at the university provide for student participation in a variety of varsity, intramural and recreational sports.

The 30,000-square-foot Coughlan Field House contains a running track, five volleyball courts, one collegiate-size and four intramural-size basketball courts, four tennis courts and six racquetball courts.

The adjacent Schoenecker Arena accommodates varsity basketball and volleyball and various recreational sports.

Weight-training and aerobic-training facilities are housed in O'Shaughnessy Hall, in addition to a pool, squash courts, wrestling facility, a multi-purpose gymnasium and a fully-equipped training room. An aerobic-training fitness center is located in the Koch Commons.

Outdoor facilities include a 5,000-seat stadium for football, soccer, and track. The track is an eight-lane poured polyurethane surface.

A 400-seat baseball diamond is located on the north field.

Additional recreational facilities are located on the south campus. McCarthy Gymnasium has a gymnasium, pool, and four racquetball courts. Six tennis courts, soccer and softball fields provide additional outdoor facilities.

A telephone hotline is provided to keep students informed of the availability of recreational facilities on a day-to-day basis.

## University Bookstores

The St. Paul campus Bookstore is located in the Murray-Herrick Campus Center. The store sells new and used textbooks, tradebooks, school and office supplies, computers and computer supplies, insignia clothing and gifts, candy, jewelry, tapes and CDs, cards, gifts and magazines.

The Minneapolis campus Bookstore, located in the 1000 LaSalle building, sells textbooks for classes taught on that campus. It also carries many of the same items mentioned above.

Call each store for hours of service.

## Schools and Graduate Programs

An overview of the various graduate degrees, programs, and non-credit offerings is available in the *Graduate Catalog* which may be requested from the office of the associate vice president for academic affairs.

All graduate programs publish detailed catalogs or brochures describing the offerings.

### School of Education

Undergraduate courses and curricula for elementary and secondary teacher licensures may be found in the Department of Teacher Education section of this catalog.

Graduate study leading to certificates, educational specialist, master's, and Ed.D. degrees is also offered. Graduate programs include athletic administration, police leadership, administration and education, community education administration, curriculum and instruction, educational leadership, gifted, creative and talented education, human resource development, learning technology, special education, and teacher education.

Graduate programs can be designed to provide licensure for teaching, administrative, and other education positions. Course work is open to degree and non-degree students.

Doctoral programs include Educational Leadership, Critical Pedagogy, and Organization Development.

### School of Social Work

Undergraduate courses and curricula for Social Work may be found in the Departments and Curricula section of this catalog.

The Master of Social Work program is designed to provide advanced professional study in social work. The program prepares social work practitioners for clinical social work practice and leadership with a focus on direct clinical services or clinical services supervision. The MSW program is offered jointly with The College of St. Catherine. Advanced standing is available for students with an undergraduate degree in social work from a CSWE accredited program. The program is accredited by the Council on Social Work Education.

A dual degree program between the School of Social Work and Luther Seminary, the Department of Theology at The College of St. Catherine, or The St. Paul Seminary School of Divinity, is also available.

### Graduate School of Applied Sciences and Engineering

The Graduate School of Applied Sciences and Engineering has programs in manufacturing systems engineering and in software engineering.

#### Graduate Programs in Manufacturing Systems

The University of St. Thomas offers four master degree programs and a graduate credit certificate program in the manufacturing field. These offerings

are: the ABET accredited Master of Manufacturing Systems Engineering, a Master of Science in Manufacturing Systems, a Master of Business Administration with a manufacturing concentration, a Master of Science in Technology Management, and a certificate in manufacturing systems.

The programs are designed for executives, managers and professionals in technology, engineering and manufacturing who desire to improve their skills and learn new engineering, manufacturing and technology management methods.

The department also offers short courses, seminars and mini-series for technical and non-technical professionals.

#### Graduate Programs in Software

Graduate Programs in Software offer three masters degrees: Master of Software Design and Development, Master of Science in Software Engineering, and Master of Software Systems. Three graduate credit certificates are also offered: Software Design and Development, Advanced Study, and Information Systems.

These programs are designed for systems as well as applications software engineers, analysts, specialists and user liaisons. This program emphasizes the application of theory to a workplace environment. The department also offers seminars and a mini-series (12 evening lectures for CEU credit) for technical persons and one for non-technical professionals.

### Graduate School of Arts and Sciences

The Graduate School of Arts and Sciences offers the following Master of Arts degrees: Art History, Catholic Studies, English, and Music Education.

#### Graduate Program in Art History

The Master of Arts in Art History is a two-year course of advanced study designed to provide comprehensive and intensive training in the history of art and its methodologies as professional preparation for academic, museum, and teaching careers.

The program combines in-depth research and theoretical scholarship with opportunities for practical training in museum studies and other arts-related fields. The broad-based curriculum reflects the interdisciplinarity and culturally diverse expertise of the faculty, and emphasizes the contextual exploration of visual and material culture.

A total of 36 credits, a qualifying paper, an oral examination, and reading knowledge of one foreign language are required for the degree.

#### Graduate Program in Catholic Studies

The Master of Arts in Catholic Studies is a two-year comprehensive, interdisciplinary course of study for those seeking an understanding of the Catholic intellectual tradition as it has permeated disciplines and cultures throughout history. Encouraging critical reflection and debate on contemporary and cross-cultural issues related to Catholicism, the pro-

gram promotes dialogue between faith and reason that leads to a higher synthesis of knowledge.

The curriculum includes courses in Catholic theology, philosophy, and history, and explorations into Catholicism's contributions to world literature, art, music, architecture, law, political systems, and the social and natural sciences. Students may design a unique course of study to meet their educational and personal goals. Students of all faiths and of no faith are welcome in the program.

A total of 30 credits and an interdisciplinary master's essay are required for the degree.

### **Graduate Program in English**

The Department of English offers the Master of Arts degree. The program is a flexible one that allows students to develop a concentration specific to their needs and interests. Possible concentrations include English and American literature, creative writing, expository writing, multicultural literature, rhetoric and writing pedagogy. A master's essay is required.

### **Graduate Programs in Music Education**

The Master of Arts in Music Education serves an international group of professional music educators with concentrations in the areas of general music (Orff and Kodály), instrumental and choral music. Courses are taught in summer and on Saturdays during fall and spring semesters by a distinguished guest faculty, many of whom regularly teach children.

The program's content highlights both theory and application; teaching practice is addressed through analysis of a required videotape of classroom work and courses in the field of concentration. Artistic musicianship is demonstrated in the required performance audition, entrance examination and core courses in music history, literature and theory. The final thesis is a research project guided by a faculty adviser with a public defense. A total of 33 credits are required for the degree.

### **Graduate School of Business**

The Graduate School of Business offers a variety of degree and certificate programs to help students enhance their careers. Programs are designed to meet the needs both of working adult students and full-time day students. Classes include a blend of theory and application, faculty members have academic credentials and business experience, registration policies and procedures are hassle-free, and classes are offered weekdays, evenings and Saturdays at several locations.

Nine degree programs are offered: Master of Business Administration (MBA), Executive MBA, Master of International Management, Master of Business Communication, Accounting MBA, MBA in Medical Group Management, MBA in Human Resources Management, Day MBA, and an M.S. in Real Estate Appraisal. Students, advisers and faculty work in close conjunction to find a tailored program that meets individual student needs.

The Graduate School of Business is also home to a variety of centers offering credit and non-credit seminars and continuing education programs: the Global Leadership Seminar Program, the Management Center, the Center for Ethical Business Cultures, the Center for Health and Medical Affairs, the John M. Morrison Center for Entrepreneurship, the Center for Family Enterprise, the Institute for Franchise Management, the Institute for Strategic Management, the Center for Nonprofit Management, the Center for Real Estate Education, the Small Business Development Center, and the Institute for Creativity and Innovation.

### **The School of Divinity**

The School of Divinity was established in 1986 through the affiliation of the seminary with the university, marking a reunion of the two institutions founded by Archbishop John Ireland in the 19th century. A singular factor that inspired this reunion of the university and seminary was Vatican Council II with its expanded vision of ministry and commitment to mission. The seminary, building on its record of excellence in preparing men for the priesthood, began to make its theological and spiritual resources available to the laity – both men and women.

The School of Divinity offers the following graduate degrees: Master of Arts in Pastoral Studies, Theology (in conjunction with the undergraduate Department of Theology), Religious Education (in conjunction with the School of Education), Master of Divinity, and Doctor of Ministry (in conjunction with the Minnesota Consortium of Theological Schools).

The School of Divinity also offers a two-year pre-theology program for priesthood candidates who require additional preparation in undergraduate philosophy and theology before beginning a masters program of studies. This period of study gives participants an opportunity to gain insight into the meaning of a vocation to the priesthood.

### **Law School**

The University of St. Thomas Law School was reopened in 1999 after a 66-year hiatus. The first class of students will be accepted in fall 2001. The Law School will be located at the Minneapolis campus.

### **Graduate Department of Professional Psychology**

Degrees offered in the Graduate Department of Professional Psychology are a master of arts in counseling psychology and a doctor of psychology. Completion of the master's program provides students with minimum qualifications for licensure in the state of Minnesota as a psychological practitioner. Completion of the doctorate in professional psychology provides students with academic qualifications for licensure as a "licensed psychologist."



**Course Offerings**

The courses listed in this section of the catalog are arranged by subject area in alphabetical order within four categories: departments, interdisciplinary programs, interdisciplinary minors, and affiliated programs. Each listing includes a description of the course, and an indication of any prerequisites. Numbers which appear in parentheses next to a course title refer to courses whose content overlaps with the course described. Students may not receive credit for both of the courses in such cases.

**Course Unit**

The basic unit of instruction is a four-credit course. The ordinary academic load for a student during one semester is sixteen credits. Courses that carry more or fewer credits than four are noted in the listing.

**Generic Courses**

Some courses are offered under the same numbers in all or most academic departments. Since the particular subject matter changes, these course numbers may be taken more than once in a given department. Departments may choose to place limitations on these courses, or may have additional requirements. Additional information will be found in the departmental listings. Generic courses include Topics, Experiential Learning, Seminars, Research, and Individual Study.

**Topics Courses**

The subject matter of the course, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses.

295 Topics 2 credits

This number is assigned if the course also fulfills a requirement in the core curriculum.

296 Topics 2 credits

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

297 Topics 4 credits

This number is assigned if the course also fulfills a requirement in the core curriculum.

298 Topics 4 credits

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

487 Topics 2 credits

This number is assigned if the course also fulfills a requirement in the core curriculum.

488 Topics 2 credits

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

489 Topics 4 credits

This number is assigned if the course also fulfills a requirement in the core curriculum.

490 Topics 4 credits

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

**Experiential Learning**

The College will grant credit for experience to a registered student if the student's proposal for the work (to include the method of evaluation of the learning that occurs) receives prior approval of the department involved, and the student successfully completes the experience agreed upon. The most common type of experiential learning is an internship.

Credit granted in this way is graded on an S/R basis. A maximum of eight credits of Experiential Learning may be counted toward the 132 credits required for graduation. The regular tuition for the number of credits is charged.

Prior to the occurrence of the experience for which credit is being sought, a student makes a formal request for four credits or two credits. This request includes:

- a detailed description of the experience for which credit is sought and a statement of its academic significance and validity in the student's program;
- an indication of any supplementary academic requirements to be fulfilled: papers, reports, etc.;
- the name of the person at the University of St. Thomas who will approve the proposal, maintain periodic contact with the off-campus supervisor and student and corroborate the evaluation of the experience;
- an outline of the evaluation procedures to be used.

Students requesting credit for Experiential Learning usually will have attained junior or senior status. The request must be approved by the chair of the department in which credit will be awarded.

The minimum number of hours of on-site work (usually 100 hours for two credits; 200 hours for four credits), meetings with St. Thomas faculty, meetings with the on-site supervisor, and evaluation of the project will be determined by the department.

Forms for requesting credit for Experiential Learning are available from the chair of the department involved. These must be completed, obtaining signatures from the faculty member, the chair of the department, and the dean. The form is then presented to the registrar at the time of registration.

When, in the view of the department, supervision and evaluation of the experience are provided chiefly by a person at the University of St. Thomas, the student should seek credit by means of Individual Study.

**475 Experiential Learning** **2 credits**

This number is assigned if the course also fulfills a requirement in the core curriculum.

**476 Experiential Learning** **2 credits**

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

**477 Experiential Learning** **4 credits**

This number is assigned if the course also fulfills a requirement in the core curriculum.

**478 Experiential Learning** **4 credits**

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

### **Seminars**

Seminars are offered in a number of departments. With the exception of Honors Seminars in the Aquinas Scholars program, regular tuition is charged.

**483 Seminar** **2 credits**

This number is assigned if the course also fulfills a requirement in the core curriculum.

**484 Seminar** **2 credits**

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

**485 Seminar** **4 credits**

This number is assigned if the course also fulfills a requirement in the core curriculum.

**486 Seminar** **4 credits**

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

### **Research**

Some departments offer the opportunity to do research in the discipline. Research involving human subjects may not begin prior to review and approval by the Institutional Review Board (IRB) for the Protection of Human Research Subjects. Student researchers are advised to consult with a faculty adviser and secure the needed forms and other information from the IRB Web site (<http://www.stthomas.edu/irb>) early in the research planning process. Regular tuition is charged.

Grading is on an S/R basis.

**491 Research** **2 credits**

This number is assigned if the course also fulfills a requirement in the core curriculum.

**492 Research** **2 credits**

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

**493 Research** **4 credits**

This number is assigned if the course also fulfills a requirement in the core curriculum.

**494 Research** **4 credits**

This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

### **Individual Study**

Individual Study refers to a type of learning contract in which a registered student and/or professor have the responsibility for defining, organizing and evaluating a special project of limited scope (limited in content and in the time designated for its completion). Individual Study provides an opportunity for students (usually at jun-

## Departments

ior or senior status) to receive one-to-one instruction and guidance, while pursuing a subject of special interest. It also allows instructors to share their continuing personal study and to foster the abilities manifested by their students. This work is completed independently under the instructor's personal direction.

Students interested in pursuing Individual Study should discuss their plans with the appropriate faculty member. When the project has been determined, the faculty member will provide the Individual Study contract forms. These must be completed prior to registration. The Individual Study contract must be approved by the supervising faculty member, the chair of the department, and the dean of the College.

The grading for Individual Study may be standard (A,B,C, etc.) or Pass/Fail (S/R). This selection and a statement of explanation justifying the choice must be indicated on the Individual Study contract when it is presented to the registrar. (If the course is in the major field, grading must be on the standard system.)

Individual Study may be pursued for either two or four credits. Determination of the amount of credit awarded is at the discretion of the department, but should reflect an academic rigor commensurate with a regularly-offered course for the same amount of credit. Regular tuition is charged.

495 Individual Study 2 credits  
This number is assigned if the course also fulfills a requirement in the core curriculum.

496 Individual Study 2 credits  
This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

497 Individual Study 4 credits  
This number is assigned if the course also fulfills a requirement in the core curriculum.

498 Individual Study 4 credits  
This number is assigned for courses within the department which do not fulfill a requirement in the core curriculum.

## Accounting

*See Division of Business – Department of Accounting*

## Actuarial Science

*See Interdisciplinary Programs*

## Advertising

*See Department of Journalism and Mass Communication*

## Aerospace Studies (AERO)

Furs (chair), Helt, McGarvey

Aerospace Studies is the official designation of the Air Force Reserve Officer Training Corps (AFROTC) program of instruction. Aerospace Studies is a dynamic college discipline designed to give female and male students an opportunity to concurrently complete ROTC coursework with degree coursework so that participants qualify for commissions in the United States Air Force as they complete their bachelor's degree requirements. Cadets are commissioned as second lieutenants upon graduation. Coursework offers students the occasion to widen their perspective; sharpen their sense of responsibility; develop their ability to organize, motivate, and lead others; and acquire a maturity of judgment that can be a source of strength and self-confidence throughout their careers.

The Aerospace Studies program does not require a student to major in any certain field, but rather, complements the academic major of choice. It is possible to minor in Aerospace Studies and use Aerospace Studies courses as elective credits. These courses are offered at St. Thomas, but students at any of the five Associated Colleges of the Twin Cities (ACTC) consortium – St. Thomas, St. Catherine, Augsburg, Hamline, and Macalester – may take the courses. Through crosstown agreements, students at Bethel, Concordia, North Central University, Northwestern, William Mitchell, Anoka-Ramsey, Inver Hills, Century, Normandale, North Hennepin, and the University of Wisconsin-Stout may also take aerospace studies courses.

The aerospace studies curriculum is divided into two phases: the General Military Course (GMC) in the freshman and/or sophomore years, and the Professional Officer Course (POC) in the junior and senior years. Cadets in the GMC have no service commitment whatsoever, unless they receive an Air Force ROTC scholarship. Students must voluntarily apply for the POC. Currently, all POC cadets are obligated to serve as an officer for a minimum of four years on active duty after commissioning, depending on the career field to which they are assigned.

An integral part of all aerospace studies classes is Leadership Laboratory. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop leadership potential. Leadership Laboratory involves a study of Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of an Air Force junior officer. Leadership potential is developed in a practical, supervised laboratory.

The Air Force offers four-, three- and two-year college scholarships. See "Scholarships not awarded by the university" in the Financial Services section of this catalog.

Most students complete Air Force ROTC via the four-year program, during which both the GMC and the POC are completed. If a student does not enroll in the freshman year, both the freshman and sophomore classes can be taken during the sophomore year. This is followed by a four-week field training session at an active-duty Air Force base, normally between the sophomore and junior years. Students in the program receive a salary and room and board while at field training.

In the summers between the freshman and sophomore, and the junior and senior years, the student may opt to go on an internship in a chosen career field at an active Air Force base. All advanced training is paid by the Air Force.

If the student does not enroll in Air Force ROTC until spring semester of the sophomore year, a commission can be earned through the two-year program. However, the student will attend a five-week field training session instead of the four-week session. The extra week provides the academic training that would have been received in the GMC. Upon successful completion of the five-week field training session, the cadet may enter the POC to complete the remaining two years. The student is still eligible for the internships and advanced training in the junior year, and can compete for a scholarship. To apply for the two-year program, the Department of Aerospace Studies must receive a completed application package no later than February 1 of the sophomore year. Note: The application process usually takes five weeks.

St. Thomas offers its students who are winners of Air Force ROTC scholarships up to full subsidy (room and board and remaining tuition) on almost every Air Force ROTC scholarship awarded. For information call the AFROTC Unit Admissions Officer at 651-962-6329.

The Minor in Aerospace Studies is open to all undergraduate students at the University of St. Thomas. Students need not also enroll in Air Force ROTC. If they choose to take AERO classes without also enrolling in Air Force ROTC, they are not eligible to take the second option listed below. Also, these students are excused from the accompanying Leadership Laboratories. However, a student who enrolls in AERO courses without also enrolling in Air Force ROTC may participate in Leadership Laboratory if s/he would otherwise be eligible for Air Force ROTC, with approval from the department chair. Further, if a student did not complete the Leadership Laboratories and later wished to enroll in AFROTC, s/he must make up the missed Leadership Laboratories.

While the courses are intended to be taken sequentially, students may complete the minor by taking more than one AERO class per term, with the permission of the department chair.

All of the coursework generally contributes to and enhances the human diversity objectives of the university. Additionally, AERO 321, 322, 421, and 422 also enhance the university's computer competency goals, particularly in their requirement for submission of written papers and verbal presentations requiring visual aids (computer generated, for the most part).

### Minor in Aerospace Studies

Student must complete twenty credits. This requirement must be accomplished by completing one of the following sequences:

- 111 Foundations of the United States Air Force I (1 credit)
- 112 Foundations of the United States Air Force II (1 credit)
- 211 Evolution of USAF Air and Space Power I (1 credit)
- 212 Evolution of USAF Air and Space Power II (1 credit)

or

- 250 Five-Week Field Training\*
- \*Open only to students enrolled in Air Force ROTC

Plus:

- 321 Air Force Leadership Studies I
- 322 Air Force Leadership Studies II
- 421 National Security Affairs I
- 422 National Security Affairs II

**111 Foundations of the United States Air Force I** 1 credit  
This course introduces students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

**112 Foundations of the United States Air Force II** 1 credit  
Continuation of 111  
Prerequisite: 111 or permission of instructor

**211 Evolution of USAF Air and Space Power I**

1 credit

This course examines general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. The course also examines several fundamental truths associated with war in the third dimension: e.g. Principles of War and Tenets of Air and Space Power. As a whole, this course provides the students with a knowledge level understanding for the general element and employment of air and space power, from an institutional, doctrinal and historical perspective. In addition, the students will continue to discuss the importance of the Air Force Core Values with the use of operational examples and with historical Air Force leaders and will continue to develop their communication skills. One class-hour per week, plus a weekly 1.5 hour Leadership Laboratory consisting of Air Force customs and courtesies, Air Force environment, drill and ceremonies, and field training orientation.

Prerequisite: 112 or permission of instructor

**212 Evolution of USAF Air and Space Power II**

1 credit

Continuation of 211

Prerequisite: 211 or permission of instructor

**250 Five-Week Field Training (111, 112, 211, 212)**

Training and evaluation on an Air Force base during the summer. Training is designed 1) to fulfill the course goals of the General Military Course (GMC) normally taken during the regular school year; 2) the experience is designed to develop military leadership and discipline, provide AF officership training, orientation and motivation, and determine officer potential. These objectives are provided to conform to the standards of a structured military environment as well as teach the participant how an Air Force base operates. The syllabus provides a minimum of 370 hours of scheduled activities – 170 hours of total core curriculum hours consisting of Air Force orientation, leadership training, and officership training. Additional hours are required for Flight Training Officer Time (FTOT) and cadet meetings, etc. Required for all two- and one-year program cadets prior to entry into 321.

**321 Air Force Leadership Studies I**

This course is a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course.

Prerequisite: 212 or 250

**322 Air Force Leadership Studies II**

Continuation of 321.

Prerequisite: 321 or permission of instructor

**421 National Security Affairs I**

This course provides future Air Force officers with a background in the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. A mandatory Leadership Laboratory complements this course by providing advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course.

Prerequisite: 322 or permission of instructor

**422 National Security Affairs II**

Continuation of 421.

Prerequisite: 421

**Cadet Internship Program**

Offered during the AERO 422 semester, students can participate in an internship program with the 934th Airlift Wing, Air Force Reserve Command. This internship program's purpose is to demonstrate leadership and management skills through advanced leadership experiences. The students are matched with mentors from the 934th Airlift Wing and assigned specific projects, usually in career fields the students are most interested in pursuing in the active duty Air Force. This is a 40-hour program that replaces Leadership Laboratory credit for the semester; participation is limited and strictly voluntary.

The following courses allow students to gain credit for certain non-classroom experiences. Permission of department chair is required. A maximum of three credits may be applied, two of which must be from 450, Four-Week

Field Training (FT), except for cadets participating in 451, Cadet Training Assistant (CTA), who are able to accrue a maximum of five credits of non-classroom experiences toward the 132 credits required for graduation. Graded on S-R basis.

**450 Four-Week Field Training** 2 credits  
 Training and evaluation on an Air Force base during the summer. The experience is designed to develop military leadership and discipline, provide AF officership training, orientation and motivation, and determine officer potential. These objectives are provided to conform to the standards of a structured military environment as well as teach the participant how an Air Force base operates. The syllabus provides for a minimum of 270 hours of scheduled activities—157 hours of total core curriculum hours consisting of Air Force orientation, leadership training, and officership training. Additional hours are required for Flight Training Officer Time (FTOT) and cadet meetings, etc.  
 Prerequisite: 212

**451 Cadet Training Assistant (CTA)** 2 credits  
 A cadet who previously completed Field Training and who successfully competes to be assigned as a staff member in a 4- or 5-week field Training. Discharges staff responsibilities to meet the objectives described in AERO 450.

**452 Professional Development Training (PDT)** 1 credit  
 The objective of PDT is to provide opportunities to cadets to gain knowledge and appreciation for the human relations and leadership challenge encountered by junior Air Force officers. Further, the program is designed to motivate cadets in their pursuit of an Air Force career. Normally open to junior and senior contracted cadets who have completed Field Training. However, selected AERO 100 cadets may participate in some of the PDT programs.

## American Cultural Studies

*See Interdisciplinary Minors*

## Art History (ARTH)

Webster (chair), Stansbury-O'Donnell, Swanson; Nordtorp-Madson, Prestegard, Sheehy, Welch

The visual arts constitute the physical legacy of past as well as present civilizations. Whether in the form of painting, sculpture, architecture, pottery, textiles, photography, or other media, they express the myths, beliefs, and structures of society, allowing us to glimpse the vision of the individuals and culture who created the works. Understanding the art and artifacts of earlier times and of other cultures gives us greater insight into our own culture and its legacy.

The art history program offers a comprehensive, chronological and geographical exploration of the arts and architecture of the western and non-western worlds. Courses include an emphasis upon the critical evaluation and analysis of works of art, and exploration of the cultural, social, political, and religious contexts behind the arts, and an examination of the broader relationships between different arts and cultures.

With its interdisciplinary approach, an undergraduate art history major is an important part of liberal arts studies. It includes a wide-ranging knowledge of mythological and religious beliefs and draws parallels to historical, literary, theological, and technological developments of a period. It also develops analytical thinking and writing skills through research papers and projects.

Students graduating with a major in art history should have a broad and general knowledge of the history of art, including western and non-western cultures. They should be able to define and carry out a major research project. They should be able to present an art historical topic in an oral format.

The liberal arts and interdisciplinary nature of the major can be combined with other majors such as theology, history, philosophy, or English, or with other programs emphasizing professional skills, including journalism, communication, or elementary education.

With careful planning of one's program of studies along with an internship in one of the metropolitan area museums, galleries, or corporate collections, this major can lead to entry level employment related to the visual arts. It can also prepare students for graduate study of art history, which in turn can lead to academic or professional museum positions.

The department offers a number of courses for the non-major to fulfill the Fine Arts component of the core curriculum.

### Major in Art History

- 151 Introduction to Art History I
- 152 Introduction to Art History II
- 211 Methods, Approaches, and Problems in Art History
- 480 Senior Presentation and Paper

## Departments

*Plus four credits from each of the following areas:*

Ancient Art (300, 305, 310, or equivalent)

Medieval Art (330, 335, or equivalent)

Renaissance & Baroque Art (320, 340, 342, 345, 347, or equivalent)

Modern Art (350, 355, 392, 450, or equivalent)

Non-Western Art (285, 286, 289, 291, 320, 391, or equivalent)

Media Studies (architecture and media other than painting and sculpture – 280, 285, 286, 391, or equivalent)

A single course may fall into more than one area, but may only be applied to a single area. Students taking courses abroad may also substitute one course taken abroad for one of the advanced studies course areas (with the exception of Non-Western Art) with prior approval of the chair of the department.

*Plus four credits meeting one of the following criteria:*

- a second course in one of the above six areas
- an internship or other form of experiential learning, including research and preparation of exhibits
- an art history course taken abroad
- a studio art course

*Allied requirements*

*Eight credits, chosen from the following four options:*

A second course in History or a fourth course in one foreign language

Four credits total in Music or Theater

COMM 160 Electronic Media Production

JOUR 220 Design Concepts of Communication

### **Minor in Art History**

151 Introduction to Art History I

*or*

152 Introduction to Art History II

*Plus:*

Sixteen credits chosen with the approval of the department chair or a department adviser.

#### **151 Introduction to Art History I**

An introduction to the development of architecture, sculpture, and painting from prehistoric times to about 1400. Includes ancient and medieval European, Near Eastern, Chinese, Japanese, South Asian and pre-Columbian art. Particularly recommended for non-art majors. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

#### **152 Introduction to Art History II**

An introduction to the development of architecture, sculpture, and painting from about 1400. Includes Renaissance, Baroque, and Modern European art, as well as Chinese, Japanese, African and Native American art and considers the role of women in art. Particularly recommended for non-art majors to fulfill the fine arts requirement. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

#### **159 Principles of Art History**

**2 credits**

This course will introduce and familiarize students with the stylistic and formal qualities of art through lecture, discussion, and field trips. The course will cover certain themes such as the human figure from a historical and contextual perspective. Students will be required to analyze art in these terms in discussions, tests, and papers in the class. This course partially fulfills the Fine Arts requirement in the core curriculum.

#### **211 Methods, Approaches, and Problems in Art History**

An introduction to the methods and problems of art history, including the theoretical approaches to art and its history, the examination and analysis of the work and its medium, the role of the museum and gallery in the study of art, and bibliographic tools of the different disciplines of the field.

Prerequisite: 151 or 152 or permission of chair.

#### **280 Sacred Architecture and Space**

Throughout history, humans have set aside spaces for religious purposes. Frequently these are the most visible remains or representatives of a culture and are keys to understanding the place of humans within the world and universe. This course examines sacred architecture and spaces from a variety of perspectives, including materials and structure, ritual function and liturgy, decoration, symbolism, physical context, and social/religious context. The course will examine not only Christian churches, but will also examine non-Christian and non-western traditions of religion and architecture. This course fulfills the Fine Arts requirement in the core curriculum.

**285 Arts of Africa and the African Diaspora**

The continent of Africa presents a world of contrasts: from the powerful trading empires of the Sahel to the small scale, nomadic societies of the Kalahari. This course will survey the arts and cultures of Africa, drawing on recent breakthroughs in archaeology, anthropology, and art history to explore the diversity and creativity of past and present African artists. In addition, the course will address the expansion of African culture to the New World, a process that began tragically in the Middle Passage, but emerged triumphantly in the artistic traditions of the Diaspora peoples. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

**286 Women's Art in Cross-cultural Perspective**

What is "women's art"? Is the definition of women's art consistent across cultures? What are the conditions of women's artistic practice, and how do women address vital social, spiritual, and political issues through their art? These are the questions to be addressed in this course, an interdisciplinary study of women's art that focuses on case studies in Africa, the Americas, the Pacific, and Asia. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

**289 Asian Art**

This course is a survey of South and East Asian art, from its beginnings in the Bronze Age until the present. The course will emphasize regional characteristics as well as cross-cultural influences of Asian art in a variety of media, including architecture, painting, calligraphy, sculpture, and pottery. The course will also examine the impact of social class on artists and patronage and upon the influence of Hinduism, Buddhism, Confucianism, Taoism, and Shintoism play in the form and function of Asian art. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

**291 Topics in Non-Western Art**

This course number covers a range of offerings in the art and architecture of Asia, Africa, Oceania and Latin America. Offerings will vary from year to year, but will usually provide a comprehensive survey of the arts of a wide region such as Asia or Africa or of a major religion such as Buddhism or Islam. A more detailed examination of a single country such as China or Mexico may also be included among offerings. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog. Topics listed under 297 fulfill the Fine Arts requirement in the core curriculum.

**300 The Ancient Near East and Egypt**

A survey of the arts of the Stone and Bronze Ages, including the civilizations of Mesopotamia, the Indus Valley, Egypt, the Near East, and the Aegean Sea. The use and problems of archaeology in the understanding of ancient cultures will be discussed. This course fulfills the Fine Arts requirement in the core curriculum.

**305 Greek Art and Archaeology**

A survey of the art and architecture of ancient Greece from the fall of the Bronze Age civilizations to the end of the Hellenistic period. Particular attention will be given to sculpture, vase painting, and the relationship of art to the broader culture, to the art of the ancient Near East and Egypt, and to gender relations in ancient Greece. This course fulfills the Fine Arts requirement in the core curriculum.

**310 Roman Art and Archaeology**

A survey of the art of the Roman Republic and Empire to the emperor Constantine in the early fourth century C.E. Issues include the use of art and architecture as an expression of imperial political programs, the creation of urban architecture and the everyday environment of the Romans, and Rome's relationship to Greece and the Near East. This course fulfills the Fine Arts requirement in the core curriculum.

**320 Art and Culture of Colonial Mexico**

In 1521, the Spaniard Hernando Cortés and his army conquered the Aztec city of Tenochtitlan and assumed control of a land that later came to be known as Mexico, initiating a period of transformation, innovation, and synthesis called the Colonial era (1524 to ca. 1810). The art and architecture created during this time reflects the processes of conflict, resistance, and adaptation that ensued as a result of the collision of two cultures. This course surveys the historical context in which the painting, sculpture, and architecture of Mexico were created, from the conquest to the rise of the independent Mexican nation. A knowledge of major works and monuments will be stressed; however, the emphasis of this course is placed on an understanding of the general concepts and issues that affected art and culture in the Colonial era. Both Spanish and pre-Columbian art and culture will be investigated in order to understand the unique context and characteristics of the visual culture of Mexico during this formative period. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.



**330 Churches and Mosques in the First Millennium**

This course examines the formation and development of the first Christian and Islamic art and architecture during the first millennium C.E. of Europe and the Mediterranean. The class will examine the development of religious structures for these new religions, the role of visual images in both religious and secular contexts, and the influences that these cultures exerted on each other. Areas to be covered include: the Early Christian period; the Germanic, Celtic, Anglo-Saxon, Scandinavian cultures of the sixth to eighth centuries; the Carolingian and Ottonian periods; Byzantine art and architecture; Islamic art and architecture. This course fulfills the Fine Arts requirement in the core curriculum.

**335 Cathedrals, Monasteries, and Caliphates**

A survey of the arts in Europe during the Romanesque and Gothic periods, c. 1000-1400. Emphasis will also be given to contemporaneous currents in Byzantine and Islamic art and their influence on the art of the West. This course fulfills the Fine Arts requirement in the core curriculum.

**340 Southern Renaissance Art and Society**

A survey of the art and architecture of Italy, Spain and Portugal from the fourteenth through the sixteenth centuries. The course will focus on issues of style, patronage and iconography. This course fulfills the Fine Arts requirement in the core curriculum.

**342 Renaissance and Reformation in Northern Europe**

A survey of the art and architecture of northern Europe from the fourteenth through the sixteenth centuries. This course will examine the impact of the Protestant Reformation on the art of this era, and examine issues of style, patronage and iconography.

**345 Baroque and Rococo Art**

A survey of the art and architecture of western Europe in the seventeenth and eighteenth centuries. Emphasis will be given to issues of iconography, patronage, and style. This course fulfills the Fine Arts requirement in the core curriculum.

**347 Golden Age of Spain**

The sixteenth and seventeenth centuries were an age of great triumph for the kingdom of Spain. For a brief but glorious era, the Spanish empire was the most powerful force in the western world. Suffused in gold and riches from its colonies in the New World, Spanish culture prospered and flourished. It was during this intoxicating "Golden Age" that Spain's greatest artistic masterpieces were produced. This course explores the historical development of Spanish painting, sculpture, and architecture, focusing on the social, political, and religious issues that affected artistic production. Particular emphasis is placed on the key figures in the history of Spanish art: El Greco, Zubarán, Ribera, Velázquez, Murillo, Martínez Montañés, and Pedro Roldán. The art of Spain's New World colonies is also examined. This course fulfills the Fine Arts requirement in the core curriculum.

**350 Nineteenth Century: Neoclassicism to Symbolism**

A survey of the art of the nineteenth century in Europe, beginning with the study of the Neoclassical movement. The course will examine issues of patronage as well as stylistic and thematic aspects of and economic, political and sociological influences on the successive movements of Romanticism, Realism, Impressionism, Symbolism and Post-Impressionism. This course fulfills the Fine Arts requirement in the core curriculum.

**355 Twentieth Century: Cubism to Installation**

Twentieth Century art will examine the stylistic, thematic and iconographic aspects of the modern movements in Europe, beginning with Fauvism and other manifestations of European Expressionism, Cubism, Orphism, Futurism, De Stijl, Dada, Surrealism, Art Informal and Tachisme, Optical and Pop Art, Photo-Realism, Conceptual Art, and Neo-Expressionism. This course fulfills the Fine Arts requirement in the core curriculum.

**391 Native American Art**

An examination of the art of the Native Americans from the prehistoric period to the present within the context of distinct geographical regions: Woodlands, Plains, Plateau, Northwest, and Arctic. This course fulfills the Fine Arts and Human Diversity requirements of the core curriculum.

**392 American Art**

A survey of the painting, sculpture and household objects in the United States from the colonial period to the present time. Relationships to European and indigenous movements will be traced. This course fulfills the Fine Arts requirement in the core curriculum.

**450 Modern Scandinavian Art History**

The golden age of Scandinavian art history witnessed the establishment of national art academies and museums in the nineteenth century and the amassing of *avant garde* collections of European masters and non-Western art in the twentieth, along with the emergence of prize-winning Nordic designers in industrial settings. Although on the periphery of Europe, Scandinavian masters' art reflected contemporary styles but also displayed the aus-

terity and fantasy of traditional folk designs which evolved out of the poverty and isolation of its largely rural population in the centuries before the modern era. The art of the five Nordic countries provides a model for examining the integration of ethnic folk art motifs with mainstream European styles as well as the acceptance of both fine and applied arts as equal in importance. In addition, indigenous art of the Sami and the Greenlandic Inuit enriched folk and international design motifs. The art of those artists who participated in the great emigration of Scandinavian peoples to North America in the late nineteenth into twentieth centuries will also be examined in relation to the influences of mother country and the American artistic mainstream.

Prerequisite: one ARTH course or permission of instructor

#### 475, 476, 477, 478 **Experiential Learning**

These courses allow students to gain credit for certain non-classroom experiences. (These do not include studio art courses.) Normally open to junior and senior students. Permission of the department chair is required. Credit for experience is normally sought prior to its occurrence. See the complete description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisite: previous course or courses in art history

#### 480 **Senior Presentation and Paper**

0 credit

During the senior year or earlier, art history majors are expected to write a major research paper with an abstract and to describe the results of their research in a short oral presentation. The purpose of this paper and presentation is to allow the student to demonstrate competency in art historical methodology and to gain some experience from presenting the results to a group of peers.

Normally, this requirement is done in lieu of the regular paper assignment for one of the upper-level courses. The topic should be chosen in consultation with the instructor of the course by the end of the second week of the semester and should be completed no later than six weeks prior to graduation. In addition, students will present a short oral report on their research to a departmental symposium to be held prior to graduation. Registration for 480 should be made during the semester that the student anticipates writing the paper. A mark of pass or fail will be assigned upon completion.

#### 483, 484, 485, 486 **Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 487, 488, 489, 490 **Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 491, 492, 493, 494 **Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 495, 496, 497, 498 **Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog. Prerequisite: permission of the instructor or supervisor and previous work in art history

### **Athletic Training Certification**

See *Department of Health and Human Performance*

### **Behavioral Neuroscience**

See *Department of Psychology*

### **Biochemistry (B.S.)**

See *Interdisciplinary Programs*

### **Biology (BIOL)**

DeJong (chair), Chaplin, Cruise, Emms, Evarts, Hartung, Manske, Nelson, Sherer, Sullivan, Verhoeven; Lewno, Schroeder, Trost, Wilson

Modern biology encompasses an extraordinary range of disciplines, from molecular genetics at one end of the spectrum to global ecology at the other. The biology curriculum at St. Thomas reflects this diversity, providing the breadth of experience that students need in their freshman and sophomore years with the depth that they value as juniors and seniors. Courses at all levels of the curriculum emphasize two fundamentals: mastering the essential material of each discipline and developing the intellectual skills needed to do science – asking the right questions, developing methods to answer these questions and critically evaluating the results of these investigations. As well as providing a broad-based liberal arts education in the biological sciences, the biology program serves as an excellent basis for students planning careers in academia, agricultural and forest science, bioinfor-

## Departments

matics and genomic research, biotechnology, biomedical research, conservation biology, environmental science, forestry and wildlife management, medicine, dentistry, and other health professions, and veterinary medicine.

The curriculum for a major in biology is divided into three tiers, offering increasing levels of challenge, greater emphasis on independent work, and more extensive use of the primary literature. All biology majors take an introductory series of fourteen credits (201, 202, 204 and 206) in the first of these tiers. These core courses cover the central concepts of modern biology and provide a foundation for more specialized study at higher levels of the curriculum.

The second-tier courses (301-399) build on this foundation and offer a broad range of topics at an intermediate level. Some second-tier courses may be taken by students prior to completion of BIOL 204 and/or 206.

All third-tier courses (401-498) require the completion of specific second-tier courses and involve advanced scholarship, independent research projects, and extensive use of the primary literature. Research courses (491-494) are available to students wishing to pursue in-depth studies in laboratory and/or field situations. Individual Study courses (495-498) allow for tutorial study in a specialized subject area of the student's choosing that is not otherwise available. Additional offerings in the form of Seminar (483-486) or Topics (487-490) courses are available from time to time. Courses numbered between 483-498 may, with approval of the department chair, be used to fulfill the 400-level requirement for the major.

Courses numbered 101-199 are intended for non-biology majors and cannot be used to fulfill either the major or minor requirements in biology. All of these courses fulfill the laboratory science requirement in the core curriculum.

Students planning to enter graduate school or a professional program after leaving St. Thomas should consult the entrance requirements of these programs while planning their choice of undergraduate courses. Students are strongly encouraged to consult with their biology adviser while making these plans.

Courses taken at other colleges by students already matriculated at St. Thomas may be credited toward the requirements of the major only with prior and explicit written approval of the departmental transcript evaluator. Approval will be granted only to reconcile schedule conflicts which otherwise would be unavoidable, to provide opportunities to enroll in appropriate courses that are not available in the St. Thomas curriculum, or to rectify problems arising from other special circumstances. These limitations apply to all requirements of the major, including courses in the allied requirements.

Transfer students desiring credit toward the major for work completed prior to matriculation at St. Thomas should contact the transcript evaluator in the Office of the University Registrar before seeking departmental approval.

All biology coursework to be credited toward the requirements of the major must be evaluated using the standard grading system. Prerequisites for all courses BIOL 204 and above must be completed with a minimum grade of C-.

A principle objective of the Department of Biology is to provide students with an excellent preparation for post-graduate pursuits. Graduates of the program command an understanding of core concepts in biology as well as an ability to design and implement studies of biological questions. The department evaluates its success in achieving these objectives using several tools, including assessments of seniors and alumni.

### Departmental Participation

Students are encouraged to further engage the discipline of biology by participating in various departmental activities. Valuable experiences in the department include both paid and volunteer roles as research assistants (with ongoing faculty projects), teaching assistants, lab preparators, biology tutors and summer research or teaching assistants. Together with off-campus internships, membership in the Biology Club and the Beta Beta Beta National Biology Honor Society, as well as the Biology Seminar Program and various special events, these opportunities offer many ways to explore the vast discipline of biology and become better acquainted with faculty members and other students.

### Biology Honor Society

Beta Beta Beta, the national biology honor society, chartered the Gamma Tau chapter at St. Thomas in 1990. The purpose of this organization is to recognize and encourage excellence in the study of biology, and to sponsor events and services of interest to biology students. The organization has a particular interest in promoting and recognizing student research, and encouraging students to consider vocations in the field of biology. Beta Beta Beta provides opportunities for presenting and publishing student work on a regional and national level.

Students are eligible for full membership when they have completed twelve credits in the department, with at least four credits at the 300-level, and have a grade point average of 3.0 or better in biology department courses. Associate membership in the chapter is available to all interested students.

### Biology Honors Program

Candidates for graduation with honors in biology must complete four credits in 400-level biology Research (491-494), present and defend a thesis based on their work; achieve a final cumulative grade point average of at least 3.50 in biology department courses, 3.25 in biology and allied courses and 3.00 overall; and present their research at a scientific meeting beyond the St. Thomas community.

**Interdisciplinary Programs**

The Departments of Biology and Chemistry jointly offer a biochemistry major leading to a Bachelor of Science degree that draws upon the faculty and courses of both departments.

Students interested in concentrating in biology in an Environmental Studies major listed in this catalog should consult with a Department of Biology adviser to select appropriate courses.

**Pre-Health Professions Programs**

Students interested in a career in the health professions should consult the university's pre-health professions adviser in the Office of Academic Counseling. See Pre-Professional Programs in this catalog for coursework suggestions, internships, and other information.

**Major in Biology**

- 201 Diversity and Adaptation
- 202 Genetics and Population biology
- 204 Cellular and Molecular Biology
- 206 Global Ecology (2 credits)

*Note:* The normal expectation is that students will complete BIOL 201, 202, 204, and 206 by the end of their sophomore year.

*Plus twenty-two credits, at least four of which must be in courses numbered 400-498, from:*

- 210 Introduction to Laboratory Research (2 credits)
- 211 Introduction to Field Research (2 credits)
- 291-298 Topics
- 302 Animal Diversity
- 315 Biology of Plants
- 330 Animal Behavior
- 333 Ecology
- 349 Comparative Anatomy and Physiology I
- 350 Comparative Anatomy and Physiology II
- 353 Microscopic Anatomy
- 354 Neurobiology
- 356 Microbiology
- 360 Genetics
- 371 Cell Biology
- 391, 392 Research (2 credits)\*
- 415 Plant Physiology and Adaptations to Stress
- 430 Behavioral Ecology
- 434 Field Biology
- 435 Aquatic Biology
- 462 Molecular Biology
- 463 Immunology
- 465 Developmental Biology
- 471 Evolution
- 483, 484 Seminar (2 credits)
- 485, 486 Seminar
- 487, 488 Topics (2 credits)
- 489, 490 Topics
- 491, 492 Research (2 credits)\*
- 493, 494 Research\*
- 495, 496 Individual Study (2 credits)\*
- 497, 498 Individual Study\*
- CHEM 440 Biochemistry I\*\*

\*A maximum of eight credits in Research and/or Individual Study will be credited toward the requirements of the major.

\*\*CHEM 440 may be counted toward the major as a 300-level elective course.

*Allied requirements*

- CHEM 111 General Chemistry I
- CHEM 112 General Chemistry II
- CHEM 201 Organic Chemistry I

*Plus one of:*

- MATH 303 Statistics for the Applied Sciences
- QMCS 220 Statistics I

*Note:* The normal expectation is that students will complete the above allied requirements by the end of the sophomore year.

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*Plus at least two of the following selected in consultation with the departmental adviser:*

CHEM 202 Organic Chemistry II

MATH 109 Calculus with Review II or MATH 113 Calculus I

PHYS 109 General Physics I or PHYS 111 Introduction to Classical Physics I

*Note:* Alternative course combinations to satisfy elective allied requirements may be proposed by majors subject to prior approval by the departmental curriculum committee.

### **Major in Biochemistry (B.S.)**

*See Interdisciplinary Programs*

#### **Teacher Licensure**

Elementary Education with a Co-major in Science and Mathematics for Elementary Education

Elementary Education with a Specialty in Science (5-8)

Co-major in Science (5-8) – Life Science (9-12) and a Co-major in Secondary Education

*See Department of Teacher Education*

#### **Minor in Biology**

201 Diversity and Adaptation

202 Genetics and Population Biology

*Plus:*

Twelve additional credits in biology courses numbered 200 or above, selected in consultation with a biology faculty member.

##### **101 General Biology**

Emphasizing biology as a creative, investigative process and its relevance in today's world, this course provides an overview of cell biology, genetics, physiology, and human impact on the environment. Two laboratory hours per week. Not open to biology majors, pre-professional students, or students who have completed BIOL 105.

##### **102 Conservation Biology**

An introduction to the basic concepts of conservation biology, including the history of conservation, the value of biological diversity, threats to biodiversity, conservation at the population, species, and community levels, and applications to human activities. Laboratories will emphasize data collection and analysis, and the practical application of conservation practices. This course is designed to meet the needs of the Environmental Studies major for a core course in environmental biology. Two laboratory hours per week.

##### **103 Nature and Society**

Exploring the natural systems and laws that led to the development of life on earth and are essential for the continuing support of that life; how human activities and social structures may alter this natural support system; basic principles underlying the use of natural resources that can explain the presence or absence of ecological problems. Two laboratory hours per week.

##### **105 Human Biology**

An introduction to cells, genetics, development and the human body, and the impact of humans on the environment. Laboratories will emphasize investigative scientific problem solving and creative thinking. Does not fulfill entrance requirements for some health professions programs. Pre-health professional students should consult the Health Professions Adviser. This course is designed to meet the need of social work and psychology majors. Two laboratory hours per week. Not open to biology majors, or students who have completed BIOL 101.

##### **201 Diversity and Adaptation**

A survey of living organisms with emphasis on their origins, relationships, and adaptation to their environment. An examination of structural and functional bases of adaptation. Laboratory work will emphasize hypothesis testing, experimental design, data collection and analysis. Three laboratory hours per week.

Prerequisite: Concurrent registration in CHEM 111 strongly recommended.

##### **202 Genetics and Population Biology**

A consideration of the mechanisms of heredity, evolution, and population ecology, using a problem-solving approach. Topics include: Mendelian genetics, genetic mapping, population genetics, selection theory, speciation, and the growth and regulation of populations. Laboratory work will emphasize techniques for data analysis. Computer simulation will be employed. Three laboratory hours per week.

Prerequisite: 201; concurrent registration in CHEM 112 strongly recommended.

##### **204 Cellular and Molecular Biology**

An examination of structure and function emphasizing unifying principles and regulatory mechanisms in cells.

Coverage includes biologically important molecules and macromolecules, organelles and organellar systems, growth, metabolism, gene expression, and cellular differentiation. Laboratory work emphasizes experimental methods and data-based reasoning. Four laboratory hours per week.

Prerequisites: 202, CHEM 112, and concurrent registration in CHEM 201

### 206 Global Ecology

2 credits

A study of ecological processes operating at the community, ecosystem, and global level. Case studies will be used to integrate cellular, organismal, and ecological approaches to understanding these processes, and to explore the effects of human activities on the global environment. Classes will meet weekly and will combine lecture material with student presentations and discussion of reading assignments. Assessment will be based on the quality of these presentations, contribution to class discussions, and written assignments chosen by the faculty members reaching each section.

Prerequisites: 201 and 202; 204 and CHEM 101 or 111 strongly recommended

### 210 Introduction to Laboratory Research

2 credits

An introductory experience in the pursuit of laboratory based research problems in biology. Students work in teams to perform experiments designed to answer questions in a specified area of biology, maintain a journal of these experiments and their observations, and study and discuss pertinent literature. Emphasis on the application of the scientific method to biological problem solving, the role of research teams in science and the communication of findings to others as the end product of science. Area of investigation varies with the research interests of the instructor(s) for the course. Offered only in January term.

Prerequisite: Open to biology majors or prospective majors; BIOL 201. Preference given to students in their first or second year of study in the discipline.

### 211 Introduction to Field Research

2 credits

An introductory experience in field-based research problems in biology. Students will work individually or in small teams to define appropriate questions, design research methods, collect and analyze data, and present oral and written reports. Emphasis is on the application of the scientific method to biological problem solving and the communication of findings to others as the end product of science. Areas of investigation vary with the interests of the students and instructors and with the availability of research organisms. Generally offered in January term. Field trip of 2-3 weeks to a tropical site (Mexico, Belize, Ecuador, Jamaica, or Costa Rica) and additional fees required.

Prerequisites: Open to biology majors or prospective majors; BIOL 201. Preference given to students in their first or second year of study in the discipline.

### 215 Regions Hospital Volunteer Program

0 credit

Students volunteer for four hours a week at Regions Hospital in St. Paul serving in various patient care areas. Included in this year-long program, the student will have experience with the emergency room, the burn center, physical and occupational therapy, nursing stations specializing in orthopedics, pediatrics, surgery, medicine and obstetrics. This service gives the students the opportunity to test their interest in health care, obtain knowledge, gain experience, and provide service to the community.

### 216 Nursing Skills Training Program

0 credit

Volunteers who have completed 215 are eligible for the Nursing Assistant Training Program offered at Regions Hospital in St. Paul. Topics include hospital organization, patient care techniques, CPR, sterile techniques, medical ethics and patient communication. Students will also become eligible to apply for paid positions as patient-care assistants at the hospital. Offered in January term.

Prerequisite: 215

### 217 Students and Physicians Program

0 credit

The Students and Physicians Program at St. Joseph's Hospital provides students who are nursing assistants with the opportunity to accompany a physician during his/her duties at the hospital. This one-on-one experience allows students the opportunity to observe the daily work of physicians and to discuss with them the nature of a medical career. Offered in January term.

Prerequisite: 216

### 218 Pre-dental Internship Program

0 credit

The Pre-dental Internship Program, a cooperative program between the university, the School of Dentistry at the University of Minnesota, and the American College of Dentists, provides students with the opportunity to learn about the dental profession through observation at a variety of dental practices. The program also includes seminar sessions at which students learn about the business and management sides of dentistry, admissions procedures for dental school, trends in the dental profession, different models for establishing a dental practice, etc.

### 291, 292 Topics without laboratory

Same as 295-298 except that these courses do not have a laboratory component.

Prerequisite: Permission of the instructor

## Departments

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. Courses in this category may be credited toward the requirements of the major depending on appropriateness of content, and with prior and explicit written approval of the instructor and the department chair. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisite: Permission of the instructor

### 302 Animal Diversity

This course emphasizes the variety of morphological and physiological solutions that have evolved to satisfy the requirements of life as an animal in water and on land. Primary focus is on invertebrates. Students have access to marine and freshwater aquaria and to natural habitats for class study and individual projects. Three laboratory hours per week.

Prerequisite: 202 and CHEM 111

### 315 Biology of Plants

This course explores the biology of plants from several perspectives. Major topics include the evolution and diversity of plants, plant structure and physiology, as well as an introduction to local flora. Special topics may include such areas as the history of agriculture and the impact of genetic engineering on modern agriculture. Four laboratory hours per week. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 202; completion of or concurrent registration in CHEM 111, or permission of instructor

### 330 Animal Behavior

The study of animal behavior from an evolutionary perspective. The adaptive value of behaviors such as display, habitat selection, foraging pattern, and mating system is examined. Theoretical analyses of sexual selection and the evolution of cooperation and altruism are considered. Laboratory work emphasizes the measurement and analysis of animal behavior under natural conditions. Three laboratory hours per week.

Prerequisite: 202; QMCS 220 or MATH 303 recommended

### 333 Ecology

An exploration of the major concepts in modern ecology, including ecophysiology and adaptation, population growth and regulation, community and ecosystem ecology, and biodiversity and conservation biology. Laboratory and field work will complement these topics and will emphasize careful experimental design and statistical analysis of data. Four laboratory hours per week. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 206; QMCS 220 or MATH 303 recommended

### 349 Comparative Anatomy and Physiology I

Examination of the functional morphology of the vertebrate skeletal, muscular, nervous, endocrine and reproductive systems. Emphasis will be placed upon the evolution, development and function of these systems as well as the control and integration of all organ systems in vertebrates. This course may be taken as part of a two-semester sequence with BIOL 350 but may also be taken alone. Four laboratory hours per week.

Prerequisite: 204 or permission of instructor

### 350 Comparative Anatomy and Physiology II

An examination of the functional morphology of the vertebrate cardiovascular, respiratory, renal, and digestive systems, including control and integration of organ systems, adaptation to environment, and evolutionary development in vertebrates. Laboratory work will emphasize functional comparisons of vertebrate organ systems and an experimental approach to physiological problems. Four laboratory hours per week.

Prerequisite: 204; QMCS 220 or Math 303 strongly recommended

### 353 Microscopic Anatomy

Microscopic anatomy of the basic tissue types and selected organ systems of vertebrates, stressing relationships between structure and function. Emphasis is on humans and other mammals. Laboratory work includes preparation of fresh tissues for microscopic study. Four laboratory hours per week.

Prerequisite: 204

### 354 Neurobiology

An introduction to the study of neuroscience from the cellular, systems, and behavioral perspectives. Topics will include how information is carried by neural tissues, the ionic basis for neuronal potentials, neurotransmitters and synaptic transmission, sensory and motor systems, and the neural mechanisms of learning, memory and behavior. Psychology and Behavioral Neuroscience students not meeting the prerequisites are encouraged to discuss enrollment with the instructor. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 204; completion or concurrent enrollment in CHEM 202, or permission of instructor

**356 Microbiology**

An in-depth study of the biology of microorganisms directed at gaining an understanding of the mechanisms that underlie the functions of bacteria and viruses. The importance of microorganisms as they relate to human disease, industry and the environment will be explored through lectures, readings from the literature and discussions. Laboratory includes an independent research project done in collaboration with the professor and peers. Four laboratory hours per week.

Prerequisite: 204; completion of or concurrent registration in CHEM 202

**360 Genetics**

Detailed consideration of specific topics in transmission, molecular, and population genetics. Eukaryotic and prokaryotic systems discussed. Genetic reasoning and analysis will be emphasized. Three laboratory hours per week.

Prerequisite: 204; CHEM 202

**371 Cell Biology**

An advanced investigation of topics in cell structure and the regulation of cellular activities, including signal transduction, protein transport, cell-cycle regulation, and cellular movement, emphasizing molecular mechanisms, current concepts and their experimental basis. Includes significant use of the primary literature. Four laboratory hours per week.

Prerequisites: 204 and CHEM 202

**391, 392 Research****2 credits**

Original laboratory, field, library or other analytical investigation under the direction of a member of the biology faculty, culminating in either a written research paper or an oral presentation. Upper-class standing not required.

Prerequisite: 201

**415 Plant Physiology and Adaptations to Stress**

An examination of fundamental principles in plant physiology, such as photosynthesis and plant water transport. In addition, special focus will be given to understanding how plants survive and adapt to adverse environmental conditions, e.g. drought, nutrient limitation, and extreme temperatures. Four hours laboratory per week. The laboratory will include an independent research project. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 315

**430 Behavioral Ecology**

The influence of natural selection on behavior in relation to ecological conditions. Emphasis is on integration of theoretical and experimental methods. Includes critical reading of papers from the primary literature and completion of a significant independent research project. Four laboratory hours per week.

Prerequisite: 330 or 333

**434 Field Biology**

Principles of ecology applied to the study of plant and animal communities. Use of recent primary literature to learn and evaluate field techniques, data collection and data analyses. The laboratory includes a class research project as well as a significant individual research project. Four laboratory hours per week.

Prerequisite: 330 or 333

**435 Aquatic Biology**

Characteristics of lakes, streams and other aquatic habitats; including plant and animal communities, water chemistry and productivity. Use of recent primary literature to learn and evaluate field techniques, data collection and data analyses. Both individual and class research projects focus on aquatic systems. Four laboratory hours per week.

Prerequisite: 330 or 333

**462 Molecular Biology**

An investigation of current concepts in molecular biology including gene expression and its regulation, the organization of genetic information, recombinant DNA techniques, oncogenes and genetic engineering. The laboratory consists of a collaborative research project. Four laboratory hours per week.

Prerequisite: 360 or 371

**463 Immunology**

A study of the mammalian immune system emphasizing the genetic and cellular basis of the immune response. Basic immunological concepts will be used to explore the mechanisms of transplantation rejection, autoimmunity, AIDS and other topics of interest. Laboratory will consist of an independent research project done in collaboration with the professor and peers. Four laboratory hours per week.

Prerequisite: 360 or 371



## Departments

### 465 Developmental Biology

Examination of the mechanisms which underlie the structural and functional development of animal embryos, including nucleocytoplasmic interaction, tissue interaction, and differential gene expression. Laboratory work emphasizes an experimental approach to the study of living organisms. Four laboratory hours per week.

Prerequisite: 360 or 371

### 471 Evolution

An advanced exploration of the major concepts in modern evolutionary biology, including adaptation and natural selection, evolutionary genetics and microevolution, paleontology and macroevolution, and molecular evolution. No formal laboratories, but students will be expected to attend bi-weekly tutorials and complete four substantial essays based on library research.

Prerequisites: 204; 330 or 333 or 360; QMCS 220 or MATH 303 recommended

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 483, 484, 485, 486 Seminar

Investigation of selected problems in biology at an advanced level, involving student presentations based on the primary literature. The subject will vary and will be announced in the annual *Class Schedule*. These courses may, with approval of the department chair, be used to fulfill the 400-level requirement for the major. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisite: Upper-class standing and permission of the instructor

### 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. Courses in this category may be credited toward the requirements of the major depending on appropriateness of content, and with prior and explicit written approval of the instructor and the department chair. These courses may also, with approval of the department chair, be used to fulfill the 400-level requirement for the major. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisite: Permission of the instructor

### 491, 492 Research

2 credits

Same as for 493 and 494, except that written research paper is not a formal research paper.

### 493, 494 Research

Original laboratory, field, library, or other analytical investigation under the direction of a member of the faculty, culminating in the writing of a formal research paper in standard scientific format that incorporates a review of the appropriate literature. Oral presentation of the work at a research symposium required. These courses may, with approval of the department chair, be used to fulfill the 400-level requirement for the major.

Prerequisite: Upper-class standing and permission of the instructor and the department chair

### 495, 496 Individual Study

2 credits

### 497, 498 Individual Study

These courses provide a means for obtaining credit on a tutorial basis for courses not otherwise available at UST or other institutions in the ACTC consortium, and are intended to satisfy unusual needs and circumstances. Students interested in Individual Study should discuss their plans with the faculty member most likely to be their tutor. Individual Study contract forms must be completed and approved by the faculty member, the department chair, and the dean of the College prior to registration. These courses may, with approval of the department chair, be used to fulfill the 400-level requirement for the major. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisite: Permission of the instructor, department chair, and dean of the College

## Business

### Division of Business

W. Raffield, director; Fisher, director of student services

The programs in Business Administration offer the opportunity to acquire an excellent understanding of the processes, organizations, and decision-making inherent in today's business environment. Students begin by building a foundation of basic knowledge and skills with courses in economics, statistics, mathematics and communication. They then take a series of core courses that span the functional areas of business. These areas include accounting, legal studies in business, finance, management, and marketing. These courses form a foundation upon which students can build a greater knowledge in several different concentrations. These concentrations are listed below. Students who wish to combine a major in business administration with extensive work in another

area (economics, music, foreign language, or computer science for example), may consider a general business concentration with either a major or minor in another field. There is a plan of study for students interested in both a B.A. in Business Administration and a B.S. in Mechanical Engineering. See the Department of Engineering section of this catalog for the curriculum or contact the Division of Business for further information.

The emphasis of St. Thomas business programs is on combining a thorough academic preparation with realistic practical experience. Significant numbers of students participate in consulting projects developed through the Small Business Institute. Many students also take advantage of internships and other opportunities to work with businesses in the Twin Cities during their time at St. Thomas.

The faculty in the Division of Business combine excellent academic credentials with a wealth of practical experience in industry.

All students who major in Business Administration must take a minimum of 24 credits in Division courses at the University of St. Thomas; at least 16 of these 24 credits must be from courses in the department of the student's major concentration. All course work applied to a business major must be equivalent to current Division courses.

Credits for Division courses taken more than eight years ago (or more than five years ago for credits in a major concentration) will be accepted but will not fulfill current requirements.

### Major in Business Administration (B.A.)

One of the business concentrations

#### Concentration in General Business Management

ACCT 205	Introduction to Accounting
BUS 200	Community Service (0 credit)
BUS 201	Ethics and Practice: Foundations of Business
FINC 321	Financial Management
MGMT 301	Management of Organizations and Processes
MGMT 480	Integrative Issues of Business and Organizations
MKTG 300	Principles of Marketing

*Plus one of:*

BLAW 301	Legal Environment of Business
BLAW 303	International Business Law

*Allied requirements*

ECON 251	Principles of Macroeconomics
ECON 252	Principles of Microeconomics
QMCS 220	Statistics I

*Note:* QMCS 220 should be completed by the end of the sophomore year. Transfer students who have not had an equivalent course must complete this course by the end of their first semester, junior year.

*Plus one of:*

MATH 101	Finite Mathematics
MATH 109	Calculus with Review II
MATH 111	Calculus for Business and Social Science
MATH 113	Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus one of:*

COMM 100	Public Speaking
COMM 105	Communication in the Workplace
COMM 230	Intercultural Communication
ENGL	200 or above
JOUR 215	Journalistic Writing in the Workplace
JOUR 311	Persuasion in Writing

#### Concentration in Business Communication

ACCT 205	Introduction to Accounting
BUS 200	Community Service (0 credit)
BUS 201	Ethics and Practice: Foundations of Business
FINC 321	Financial Management
MGMT 301	Management of Organizations and Processes
MGMT 480	Integrative Issues of Business and Organizations
MKTG 300	Principles of Marketing

## Departments

### *Plus one of:*

- BLAW 301 Legal Environment of Business
- BLAW 303 International Business Law

### *Plus one from each of the following:*

- COMM 100 or 105 Public Speaking or Communication in the Workplace
- COMM 220 or 320 Small Group Communication or Organizational Communication

### *Plus eight additional credits:*

- COMM 200 or above

### *Allied requirements*

- ECON 251 Principles of Macroeconomics
- ECON 252 Principles of Microeconomics
- QMCS 220 Statistics I

*Note:* QMCS 220 should be completed by the end of the sophomore year. Transfer students who have not had an equivalent course must complete this course by the end of their first semester, junior year.

### *Plus one of:*

- MATH 101 Finite Mathematics
- MATH 109 Calculus with Review II
- MATH 111 Calculus for Business and Social Science
- MATH 113 Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

## **Concentration in International Business**

International Business is an interdisciplinary major concentration dedicated to gaining an understanding of how and on what rules the international business community is based. To gain such an understanding requires study in courses taken in areas of study such as communication, economics and foreign language as well as business. An underlying assumption is that the student must first develop an understanding of the domestic business core before knowledge of the international sector is developed.

Of particular importance to this concentration is an understanding of a second language. International Business students must spend at least one semester abroad in a country where the language matches the student's language emphasis. Students who are not U.S. citizens may count their time at St. Thomas as their study abroad experience.

Specific courses taken in a foreign university may substitute for St. Thomas requirements. See the director of the International Business program or the director of Student Services to discuss those possibilities.

- ACCT 205 Introduction to Accounting
- BLAW 303 International Business Law
- BUS 200 Community Service (0 credit)
- BUS 201 Ethics and Practice: Foundations of Business
- FINC 321 Financial Management
- MGMT 301 Management of Organizations and Processes
- MGMT 430 International Management
- MGMT 480 Integrative Issues of Business and Organizations
- MKTG 300 Principles of Marketing
- MKTG 330 International Marketing

### *Plus:*

Two courses (minimum of six credits) in international business courses taken abroad with the approval of the student's business adviser. The course content must address transnational business issues in accounting, finance, or international political science. These courses will transfer to St. Thomas as two of the following:

- IBUS 450 Transnational Business Issues in Management, Marketing, or Business Law
- IBUS 460 Transnational Business Issues in Finance or Accounting
- IBUS 470 Transnational Issues in International Business

### *Allied requirements*

- COMM 230 Intercultural Communication
- ECON 251 Principles of Macroeconomics
- ECON 252 Principles of Microeconomics
- ECON 348 International Economics
- LANG Three semesters beyond 211\*
- QMCS 220 Statistics I

\*Students for whom English is a second language will take three semesters of ENGL numbered 200 or higher.

*Plus one of:*

- MATH 101 Finite Mathematics  
 MATH 109 Calculus with Review II  
 MATH 111 Calculus for Business and Social Science  
 MATH 113 Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

*Recommended:*

If the student has available electives, ECON 346, POL 105, or a country-specific GEOG course is strongly recommended.

**Major in Real Estate Studies (B.S.)**

The Bachelor of Science degree in the multidisciplinary field called real estate finds an ideal foundation in a liberal arts education. It provides a quality real estate program with a core in the general functional and operational areas of business. The program is designed to develop students as better citizens able to make responsible decisions benefiting society. Employers prefer to hire student who are knowledgeable of their discipline and operate within a moral and ethical framework of values. Graduates of the program can find employment as mortgage loan officers, appraisers, commercial/investment brokers and property managers.

- ACCT 205 Introduction to Accounting  
 BLAW 304 Real Estate Law  
 BUS 200 Community Service (0 credit)  
 BUS 201 Ethics and Practice: Foundations of Business  
 FINC 200 Real Estate Principles  
 FINC 321 Financial Management  
 FINC 360 Real Estate Property Management  
 FINC 460 Real Estate Finance and Investments  
 FINC 461 Real Estate Appraisal  
 FINC 470 Real Estate Development  
 MGMT 301 Management of Organizations and Processes  
 MKTG 300 Principles of Marketing

*Allied Requirements*

- ECON 251 Principles of Macro-Economics  
 ECON 252 Principles of Micro-Economics  
 ECON 333 Regional and Urban Economics  
 QMCS 220 Statistics I

*Plus one of:*

- MATH 101 Finite Mathematics  
 MATH 109 Calculus with Review II  
 MATH 111 Calculus for Business and Social Science  
 MATH 113 Calculus I

*Plus one of:*

- COMM 100 Public Speaking  
 COMM 105 Communication in the Workplace

*Plus:*

Eight credits chosen from the following lists in consultation with the Real Estate adviser.

**General Real Estate (apply to all areas)**

- COMM 220 Small Group Communication  
 COMM 222 Interpersonal Communication  
 COMM 240 Persuasion  
 COMM 325 Nonverbal Communication  
 ENTR 200 Foundations of Entrepreneurship  
 ENTR 252 Creating the 21st Century  
 ENTR 360 Creativity and Change  
 MKTG 310 Professional Selling

**Brokerage/Investment**

- QMCS 215 Rapid Application Development

**Mortgage Finance**

- FINC 430 Financial Intermediaries

## Departments

### Appraisal

- ECON 311 Forecasting
- MKTG 340 Marketing Research
- QMCS 215 Rapid Application Development

### Property Management

- ECON 311 Forecasting
- GEOG 221 Computer Skills in Geography
- GEOG 321 Geographic Information Systems
- GEOG 330 Geography for Business and Planning
- GEOG 430 Urban Geography
- MKTG 360 Retailing and Retailing Services

### Development

- ECON 311 Forecasting
- GEOG 221 Computer Skills in Geography
- GEOG 321 Geographic Information Systems
- GEOG 330 Geography for Business and Planning
- GEOG 430 Urban Geography
- MKTG 340 Marketing Research
- MKTG 360 Retailing and Retailing Services
- SOC 332 Urban Sociology

### Minor in Business Administration

- BUS 200 Community Service (0 credit)
- BUS 201 Ethics and Practice: Foundations of Business

#### *Plus one of:*

- ECON 251 Macroeconomics
- ECON 252 Microeconomics

#### *Plus:*

Sixteen credits selected from the Division of Business with approval of the Business Minor adviser. Approval must be on file before the minor is official.

*Note:* Students must complete a minimum of 12 credits in Business Administration beyond BUS 201 at St. Thomas. Coursework transferred to St. Thomas must be equivalent to St. Thomas coursework. All pre requisites for courses selected for the minor must be satisfied.

## Business (BUS)

### 200 Community Service

0 credit

This co-curricular experience is required of all Division of Business majors. The course follows the Statement of Purpose of the university to "develop morally responsible individuals who combine career competency...while fostering in the student a tradition of service to the public welfare." Students will develop an awareness of the challenges and responsibilities in meeting the diverse, changing needs of the community while experiencing personal growth and awareness. Students will choose from a variety of volunteer direct-service activities that follow the mission of the university. BUS 200 sections are:

- 01 Economically disadvantaged
- 02 Physical/developmentally disabled
- 03 Environmental issues
- 04 Children and youth
- 05 Service to the elderly

This course is graded S/R; it is suggested that this experience be completed by the end of the student's first semester, junior year.

### 201 Ethics and Practice: Foundations of Business

An introduction to the various functions, organizational structures, social responsibilities, and ethical and professional challenges of business in current practice and in history. Students are expected to fully integrate the business concepts discussed with basic themes in business ethics. The final exam for this course will be administered at a common time to all students enrolled. This time will be announced at the beginning of each term. The common final is an integral part of this course, and is mandatory for all students.

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**470 Small Business Institute Project**

2 credits

A Small Business Institute project course not associated with any specific discipline, which will provide an opportunity for undergraduate students of any major to transfer their classroom knowledge to a "real world" situation through the use of a professional consulting activity as outlined by SBA rules and procedures.

Prerequisites: Senior standing

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**International Business (IBUS)****450 Transnational Business Issues in Management, Marketing, or Business Law**

This course is to be taken abroad. It is strongly suggested that this course be taken in the language of the country. Final determination as to the specific course and language will be decided before the course is taken in consultation with the international business adviser.

Prerequisite: Approval of international business adviser

**460 Transnational Business Issues in Finance or Accounting**

This course is to be taken in the country of choice. International accounting and finance practices are significantly different from those in the U.S. Therefore, the student should be extremely careful in choosing the course. Selection will be made only in consultation with the international business adviser.

Prerequisite: Approval of international business adviser

**470 Transnational Issues in International Business**

This course is to be taken abroad and may include an internship. Students incorporating an internship experience in this course must have prior approval from the international business adviser. If the student is working for an American company, s/he must work in a section of the company where the student's second language is required.

Prerequisite: Approval of international business adviser

**Accounting (ACCT)**

Sathe (chair), Callander, Coglitore, Haag, Hartman, J. Mason, McGowan, Minars, Polejewski, J. Raffield, Stoffel, Wilson; Bly, Hopkins, Loes, Sharockman, Stoller

This program meets the educational provisions set by the Minnesota Board of Accountancy for licensure in Minnesota. Curricular alternatives are available to meet the provisions of other state's boards of accountancy.

**Concentration in Accounting**

ACCT 205	Introduction to Accounting
ACCT 311	Intermediate Accounting I
ACCT 312	Intermediate Accounting II
ACCT 314	Business Taxation
ACCT 316	Auditing
ACCT 317	Cost Accounting
ACCT 410	Advanced Accounting
BLAW 302	Business Law for Accounting
BUS 200	Community Service (0 credit)
BUS 201	Ethics and Practice: Foundations of Business
MGMT 301	Management of Organizations and Processes
MKTG 300	Principles of Marketing

## Departments

### *Allied requirements*

- ECON 251 Principles of Macroeconomics  
ECON 252 Principles of Microeconomics  
QMCS 110 Introduction to Information Process and Programming  
QMCS 220 Statistics I

*Note:* QMCS 220 should be completed by the end of the sophomore year. Transfer students who have not had an equivalent course must complete this course by the end of their first semester, junior year.

- QMCS 419 Accounting Information Systems

### *Plus one of:*

- MATH 101 Finite Mathematics  
MATH 109 Calculus with Review II  
MATH 111 Calculus for Business and Social Science  
MATH 113 Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

### *Plus one of:*

- COMM 100 Public Speaking  
COMM 105 Communication in the Workplace  
JOUR 215 Journalistic Writing in the Workplace

### **205 Introduction to Accounting**

An introduction to the uses of financial and managerial accounting information. Topics include the use of cost management, budgeting, and cost-volume-profit analysis for decision-making, as well as an emphasis on reading and understanding basic financial statements.

Prerequisite: BUS 201 or concurrent registration with BUS 201 upon completion of 36 credit hours; sophomore standing

### **311 Intermediate Accounting I**

The theory of accounting is studied as it relates to the external financial reporting requirements of profit-oriented businesses. Major subjects include review of the basic financial statements, time value of money concepts and valuation of most assets.

Prerequisite: ACCT 205

### **312 Intermediate Accounting II**

A continuation of 311. A study is made of the remaining balance sheet accounts with special emphasis on the capital structure of corporations. In addition complex accounting matters such as tax allocation, pension applications, lease capitalization and current value accounting concepts are reviewed.

Prerequisites: ACCT 311

### **314 Business Taxation (ACCT 419)**

A study of the principles of business taxation. This course will deal primarily with the federal tax laws as they apply to sole proprietorships, corporations, and partnerships. Additional topics will include MACRS, ACRS, property transactions, and the corporate AMT. Tax research will be integrated throughout the course.

Prerequisite: ACCT 205

### **315 Individual Income Tax**

A study of the fundamentals of federal income tax law as it applies to individuals. Topics include: filing status, dependents, gross income, itemized deductions, tax credits, cost recovery, property transactions, and the alternative minimum tax.

Prerequisite: Junior standing

### **316 Auditing**

Studies the basis for the auditor's report. Emphasis is on risk analysis, internal control review, audit evidence and procedures, and sampling. Case analysis is used to develop analytic and judgment skills and to enhance communication skills.

Prerequisite: ACCT 312

### **317 Cost Accounting**

A rigorous study is made of the elements of product costs, including job, process, standard, and variable costing systems and procedures. A managerial emphasis is added through inclusion of cost-volume-profit relationships, budgeting techniques, and other selected topics.

Prerequisites: ACCT 205

### **410 Advanced Accounting**

The special accounting considerations of nonprofit organizations, the formation and operations of a partnership,

home and branch office reporting systems and the preparation of consolidated financial statements.

Prerequisite: ACCT 312, Senior standing or permission of department chair

**417 Advanced Accounting Theory** 2 credits

Considers the relevant aspects of the accounting environment and the history of the development of the conceptual framework of accounting with heavy emphasis on current accounting pronouncements.

Prerequisite: ACCT 312 or permission of instructor

**418 Controllership** 2 credits

An examination of the controller function. This course will examine, through case study, how a controller assembles financial and other information for operating managers. Topics might include product line analysis, variance analysis, use of accounting data for planning, supervision of budgeting process, and analysis of internal statements.

Prerequisite: ACCT 317

**419 Advanced Income Tax (ACCT 314)** 2 credits

A study of the basic principles of business taxation using a code section approach. This course deals primarily with the federal tax law as it relates to corporations and partnerships. The study of S corporations is included in this course.

Prerequisite: ACCT 315

## Entrepreneurship (ENTR)

Cornwall (chair), Carlock, Carter, Riebe; Ayres, Babcock, McCloskey, Sarafolean, Thorndyke, Walker

The concentration in entrepreneurship is designed for students who are considering owning their own business at some point in their career, are interested in working in a small or family-owned business, or are interested in working in corporate ventures.

Students completing a concentration in entrepreneurship will have the skills necessary to start a business venture within five years of graduation. They will have the skills necessary to play a meaningful role in the management of a small or family-owned business or corporate venture, and in their communities.

### Concentration in Entrepreneurship

ACCT 205	Introduction to Accounting
BUS 200	Community Service (0 credit)
BUS 201	Ethics and Practice: Foundations of Business
ENTR 200	Foundations in Entrepreneurship
ENTR 450	Entrepreneurship: Management and Strategy
FINC 321	Financial Management
MGMT 301	Management of Organizations and Processes
MKTG 300	Principles of Marketing

*Plus one of:*

BLAW 301	Legal Environment of Business
BLAW 303	International Business Law

*Plus three of:*

ENTR 348	Franchising Management
ENTR 349	Family Business Management
ENTR 360	Creativity and Change
ENTR 370	Entrepreneurial Financial Resource Management
ENTR 380	Entrepreneurship in Practice
ENTR 390	Diversity in Entrepreneurship

*Note:* With permission of the program adviser, one of the following courses may be substituted for one of the three required electives: ENGR 360, MGMT 345, MGMT 346

*Allied requirements*

ECON 251	Principles of Macroeconomics
ECON 252	Principles of Microeconomics
QMCS 110	Introduction to Information Processing
QMCS 220	Statistics I

*Note:* QMCS 110 and 220 should be completed by the end of the sophomore year. Transfer students who have not had an equivalent course must complete this course by the end of their first semester, junior year.

*Plus one of:*

MATH 101	Finite Mathematics
MATH 109	Calculus with Review II



## Departments

MATH 111 Calculus for Business and Social Science

MATH 113 Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus one of:*

COMM 100 Public Speaking

COMM 105 Communication in the Workplace

COMM 230 Intercultural Communication

ENGL 200 or above

JOUR 215 Journalistic Writing in the Workplace

JOUR 311 Persuasion in Writing

### 200 Foundations of Entrepreneurship

Introduces the basic elements of cash flow management and the business plan. Prepares students for the more advanced presentation of these concepts offered in the General Business core, Entrepreneurship electives, and the capstone Entrepreneurship course. Students will learn the concepts of opportunity scanning and opportunity recognition. Students will conduct a self-assessment to help them better understand their personal values and aspirations to help guide their entrepreneurial career. Students will be exposed to the variety of types of entrepreneurial ventures.

Prerequisite: sophomore standing

### 252 Creating the 21st Century

The exploration and investigation of processes of higher order thinking as they relate to changes and trends that signal the transition to a global society. Students will engage in learning experiences that integrate perceptions of the future of business with issues of change in the social, technological, environmental, economic and political arenas.

Prerequisite: sophomore standing

### 300 Entrepreneurship for Non-majors

this course focuses on the functional skills and knowledge that are necessary in the smaller business growth and development. It also will help the student develop an understanding and awareness of the way the critical areas of law, management, finance, accounting and marketing need to be integrated and applied for successful small business management.

Prerequisite: junior standing

### 348 Franchising Management

This course examines several of the most important aspects of starting and managing a franchise business. Specific attention is placed on the following: the characteristics of the franchiser and franchisee; evaluation of franchising opportunities; legal concerns of franchising; the development of appropriate franchising strategies; and the successful planning, implementation, and launching of a new business.

Prerequisites: ENTR 200 and junior standing

### 349 Family Business Management

This course will explore the challenges and opportunities facing individuals and families involved in business relationships. Topics addressed will include family-business culture, entrepreneurial influences, key issues and conflicts, career planning, succession and strategic planning, counseling and consulting, professional support relationships and survival skills as a son or daughter in the family business. Parents or other significant family members are invited to audit this course with their son or daughter.

Prerequisites: ENTR 200 and junior standing

### 360 Creativity and Change

This course will acquaint students with theories and strategies for exercising the creative process. Leadership and change will also be examined to help the student understand how to effectively introduce and implement new and creative ideas.

Prerequisites: ENTR 200 and junior standing

### 370 Entrepreneurial Financial Resource Management

Students will learn a broad array of tools to more efficiently manage scarce resources in a new venture. Bootstrapping techniques in marketing, administration, fixed assets, and many other areas will be examined. Students will learn applied approaches to current asset and liability management. Students planning to start their own business within the first year or two of graduation will benefit most from this course.

Prerequisites: ENTR 200, ACCT 205, and junior standing

### 380 Entrepreneurship in Practice

Students will integrate experiences from placements in entrepreneurial companies with required readings, class discussion, and class assignments related to their placement experience. Students will complete 100 hours of

work in the placement. They will perform appropriate, significant and relevant tasks directly under the supervision of either the lead entrepreneur or a key member of the entrepreneurial team. In addition, students will meet regularly during the semester in a classroom setting to share their experiences and learn from classmates in other placements. Finally, the instructor will also hold regular one-on-one sessions with students to provide overall supervision for the placement experience and to assure that the student is integrating classroom learning with the placement experience.

Prerequisites: ENTR 200, junior standing, and permission of instructor

### 390 Diversity Issues in Entrepreneurship

Women and minority entrepreneurs face specific issues relating to access and equity in their efforts to establish new ventures. This course will examine these issues from both a public policy perspective and from an applied management perspective.

Prerequisites: ENTR 200 and junior standing

### 450 Entrepreneurship: Management and Strategy

This is the capstone course in entrepreneurship. It will include guest speakers from the entrepreneurial business world, extensive case analysis of entrepreneurial ventures and intensive personal business plan development.

Prerequisites: One ENTR elective, FINC 321, MKTG 300, MGMT 301, and QMCS 110

## Finance (FINC)

Vang (chair), Beckmann, Daugherty, Jithendranathan, Palmer, Williams

Students who concentrate in finance receive preparation for the financial service industries or for financial departments of non-financial corporations. Financial service industries would include banks, insurance companies, and investment firms. In addition to meeting needs for specific preparation, the study of finance is really applied microeconomics.

Students completing this concentration will have a knowledge of the time value of money, the use of a financial calculator, the use of a spreadsheet for modeling, and will possess good writing skills.

### Concentration in Financial Management

ACCT 205	Introduction to Accounting
BUS 200	Community Service (0 credit)
BUS 201	Ethics and Practice: Foundations of Business
FINC 321	Financial Management
FINC 324	Corporate Finance
FINC 325	Investments
MGMT 301	Management of Organizations and Processes
MKTG 300	Principles of Marketing
QMCS 110	Introduction to Information Process and Programming
QMCS 220	Statistics I

*Plus two of:*

FINC 410	Derivatives
FINC 430	Financial Intermediaries
FINC 440	Advanced Investments
FINC 450	International Financial Management
FINC 480	The Chief Financial Officer

*or*

Eight credits from the list above plus an additional four credits at the 300- or 400-level in the Division of Business not listed above, selected in consultation with a business adviser.

*Plus one of:*

BLAW 301	Legal Environment of Business
BLAW 302	Business Law for Accounting
BLAW 303	International Business Law

*Allied requirements*

ECON 251	Principles of Macroeconomics
ECON 252	Principles of Microeconomics

*Plus one of:*

MATH 109	Calculus with Review II
MATH 111	Calculus for Business and Social Science
MATH 113	Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

## Departments

### *Plus one of:*

ECON 311	Forecasting
ECON 315	Empirical Methods in Economics
ECON 335	Money, Financial Markets and Economics
ECON 348	International Economics

### *Plus one of:*

COMM 100	Public Speaking
COMM 105	Communication in the Workplace
ENGL	200 or above
JOUR 215	Journalistic Writing in the Workplace
JOUR 311	Persuasion in Writing

### **200 Real Estate Principles**

Explores the theories and practices of real estate with emphasis on the “why” and “how” of buying, financing, owning and selling real estate. Real estate brokerage, property management, mortgage finance, appraisal, investment and development are examined within a legal, economic and social context. Open to non-majors.

### **300 Finance for Non-Business Majors**

Introduction to the concepts of finance in analyzing decisions. Topics include how to determine the economic value of a company’s investment projects, the value of financial securities, the cost of funds used to purchase assets, and the overall management of the firm’s assets and liabilities. This course may not be used to meet any requirement for a business major.

Prerequisite: Junior standing

### **321 Financial Management**

An examination of the elements of the finance function of the organization as well as the financial analysis of decisions. Topics include working capital management, acquisition of capital, capital budgeting, cost of capital, theories of valuation, and present value.

Prerequisites: ACCT 205, BUS 201, QMCS 220, ECON 251, 252, and junior standing

### **324 Corporate Finance**

Scope and objectives of financial management in the corporate setting at an advanced level. The course will explore working capital management, risk, valuation, capital structure theory, capital budgeting and other current topics in finance. It will utilize computer-based financial modeling and forecasting.

Prerequisites: FINC 321, MATH 109 or 111 or 113 (may be taken concurrently), and QMCS 110

### **325 Investments**

The focus of this course is to provide an overview of investment concepts and an exposure to a broad range of investment alternatives. The principle concern of the course is to develop skills necessary to make prudent investment decisions.

Prerequisites: FINC 321 and QMCS 110

### **360 Real Estate Property Management**

Owner, management and tenant relations within context budgeting, marketing and management planning is examined. Management for multi-family, office, retail and industrial property differentiated. Entrepreneurial roles of managers for finding tenants and conducting lease negotiations is explored.

Prerequisites: FINC 200 and junior standing

### **410 Derivatives**

This is a mathematically-oriented course which gives an introduction to the theory of derivative contracts such as futures and options. Issues of valuation, arbitrage pricing, trading strategies, and hedging strategies will be covered. The course will include elements of stochastic calculus and other mathematical techniques needed for understanding the derivative pricing. Among the applications to be explored are uncertainty in commodity prices, stock prices, exchange rates and interest rates.

Prerequisites: FINC 325, MATH 109 or 111 or 113

### **430 Financial Intermediaries**

Concepts, practices and organization for financial management of various financial intermediaries. Asset-liabilities management, duration, swaps, hedges and other concepts will be covered. Banks will be the primary area for study, but the course also will look at other institutions including insurance, funds and thrifts. The course will be based on text, lectures, guest speakers, computer modeling, a bank simulation and examination.

Prerequisites: FINC 324 or 325, MATH 109 or 111 or 113

### **440 Advanced Investments**

The focus of this course is to provide an overview of investment concepts and an exposure to a broad range of investment alternatives. The principle concern of the course is to develop skills necessary to make prudent invest-

ment decisions.

Prerequisites: FINC 325, MATH 109 or 111 or 113

#### 442 Fixed Income Securities

This mathematically-oriented course provides extensive coverage of a wide range of fixed income securities, investment strategies and the interest rate environment. General determinants of value on standard instruments and analysis of the newer instruments including zeroes, mortgages derivatives, interest rate swaps, and structured notes will be covered. Necessary mathematical concepts covered in this course will include stochastic calculus and differential calculus.

Prerequisites: FINC 325, MATH 109 or 111 or 113

#### 450 International Financial Management

The management of foreign and multinational financial operations. On the basis of international finance theory, students will learn foreign exchange risk management, foreign investment analysis, the financing of foreign operations, comparative accounting, international banking and international tax management.

Prerequisites: FINC 324, MATH 109 or 111 or 113

#### 460 Real Estate Finance and Investment

Examines mortgage, lease, contract and construction financing with related underwriting standards and analytical techniques. Integrates the role of banks, pension funds, insurance companies with government, secondary mortgage markets, and purpose, function and operation of the U.S. financial and federal reserve systems. Acquisition and disposition analysis of income producing real property including tax liability and strategy. Market, feasibility and income analysis integrated with profitability and rate of return measures pertaining to investments with optimal financing.

Prerequisites: FINC 200 and 321

#### 461 Real Estate Appraisal

Valuation of residential and commercial real estate using the cost, market and income approaches to value. Professional ethics and standards of professional appraisal practice explored. Professional quality narrative appraisal with comparable sales, depreciated cost and discounted cash flow analysis required.

Prerequisites: FINC 200 and 321

#### 470 Real Estate Development

Capstone course integrating all functional areas of real estate for production of housing, commercial and industrial real estate. Use of market research, feasibility studies and market analysis in contract negotiation for project construction, marketing and management.

Prerequisites: FINC 460 or 461, ECON 333

#### 480 The Chief Financial Officer

Case studies on the control and treasury functions, and an examination of the information gathering, analytical and decision-making process required of the CFO. Students prepare case briefs for class discussions and formal presentations. Case assignments require students to write extensively and challenge their analytical ability. It is recommended that finance majors take this course in their final semester.

Prerequisites: FINC 324, MATH 109 or 111 or 113

### Legal Studies in Business (BLAW)

Erstling (chair), Kunkel, Malone, Marsnik; Brimmer, DeCourcy, Maccabee, Magidson, Vigil

Business law plays an increasingly prominent role in the workplace. The proliferation of laws, regulations, and legal decisions determining the limits of appropriate business behavior makes an understanding of law and legal process vital to the business professional.

Students graduating with a concentration in Legal Studies in Business will have explored in depth the nature of the legal environment of business and the ways in which legal rules and processes affect business decision making. Students will have developed critical-thinking and problem-solving skills by fostering an awareness of legal reasoning and legal analysis.

This concentration is relevant to all business administration students, but it is particularly appealing to those students interested in the more highly regulated fields of business and/or the role and nature of the legal process. While the concentration is not designed to be a pre-law program, it is attractive to students considering legal careers.

The concentration is structured to ensure that students receive both a solid grounding needed for the B.A. in Business Administration and an additional focus in business law.

#### Concentration in Legal Studies in Business

ACCT 205 Introduction to Accounting

BLAW 401 Legal Research, Advocacy, and Dispute Resolution

## Departments

BUS	200	Community Service (0 credit)
BUS	201	Ethics and Practice: Foundations of Business
FINC	321	Financial Management
MGMT	301	Management of Organizations and Processes
MGMT	480	Integrative Issues of Business and Organizations
MKTG	300	Principles of Marketing

*Plus one of:*

BLAW	301	Legal Environment of Business
BLAW	302	Business Law for Accounting
BLAW	303	International Business Law

*Plus three of:*

One additional course from BLAW 301/302/303 not taken previously

BLAW	304	Real Estate Law
BLAW	351	Environmental Law
BLAW	352	Gender Issues and the Law
BLAW	402	Law of Electronic Commerce

One course numbered 300 or above (not previously taken) in ACCT, ENTR, FINC, MGMT, MKTG

*Allied requirements*

ECON	251	Principles of Macroeconomics
ECON	252	Principles of Microeconomics
QMCS	220	Statistics I

*Plus one of:*

MATH	101	Finite Mathematics
MATH	109	Calculus with Review II
MATH	111	Calculus for Business and Social Science
MATH	113	Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus one of:*

COMM	100	Public Speaking
COMM	105	Communication in the Workplace
COMM	230	Intercultural Communication
ENGL		200 or above
JOUR	215	Journalistic Writing in the Workplace
JOUR	311	Persuasion in Writing

### 301 Legal Environment of Business

An examination of the business law rules and principles of particular relevance to entrepreneurship, finance, management, and marketing. Subjects include contracts, negligence, products liability, and warranty, intellectual property, employment law, securities regulation, as well as general notions of legal reasoning and legal process. Prerequisite: Junior standing

### 302 Business Law for Accounting

An examination of the business rules and principles of particular relevance to the accounting profession. Subjects include the law of contracts, the Uniform Commercial Code, the law of debtor-creditor relations, the legal structure governing the formation and operation of business organizations (agency, partnership, and corporations), as well as general notions of legal reasoning and legal process. Prerequisites: Junior standing and ACCT 205

### 303 International Business Law

An exploration of the international legal environments and some of the legal issues and problems that confront businesses as they cross international boundaries. Topics include international trade, foreign investment, transfer of technology, international dispute resolution, and the role of multinational enterprises. Prerequisite: Junior standing

### 304 Real Estate Law

Principles of law regarding real property with emphasis on contracts, sales and secured transactions regarding transfer of ownership, mortgages, land use, development, rental and professional liability. Prerequisites: FINC 200 and junior standing

### 351 Environmental Law

Environmental law will survey relevant federal and state statutes and case law to examine how well they serve to

maintain and improve the quality of the air, water, soil and life, and strike an appropriate balance between the present consumption of resources and their maintenance for future generations. The course also will explore emerging environmental trends and the formulation of environmental policy.

Prerequisite: Junior standing

### 352 Gender Issues and the Law

This course will explore the principle that men and women stand as equals before the law. It will examine the ways in which courts and legislatures have interpreted the principle of equal opportunity to resolve gender issues in the workplace, as well as in other aspects of society that affect access to the workplace, including education, marriage, and the family. It also will provide an historical overview of the law of equal opportunity and will touch upon modern notions of feminist legal theory. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: Junior standing

### 401 Legal Research, Advocacy, and Dispute Resolution

An examination of the nature of legal process and of the means the legal system adopts to resolve business disputes. The course will follow a problem-solving approach emphasizing critical thinking and oral and written legal advocacy skills. Topics include an overview of jurisprudence, the sources of law, business and the Constitution, the regulatory process, judicial and alternative dispute resolution, and the basics of legal research and written and oral advocacy.

Prerequisite: BLAW 301, 302, or 303

### 402 Law of Electronic Commerce

An exploration of the evolving legal environment that shapes business strategy for conducting business online. Topics include global e-commerce regulatory schemes, issues of privacy, security and data protection, online payment and banking regulation, intellectual property considerations, and censorship and defamation concerns.

Prerequisite: BLAW 301, 302, or 303

## Management (MGMT)

Anderson, (chair), Elm, Goodpaster, R. Kennedy, Knauff, A.T. Mason, McNamara, Militello, Nyquist, Owens, W. Raffield, Sheppeck, Woodhouse, Young; Burns, Cohen, Gillman, Gorski, Green, Novaczyk, Witte

Students completing a concentration in the Department of Management will develop a systems thinking perspective as they view organizations; will develop a competitive perspective as they work with organizations; will become problem-solvers; will value diversity in all its forms; and will master managerial skills.

### Concentration in Human Resources Management

Human Resources Management emphasizes the behavioral aspects of management in preparing students for careers in managing. It attracts students whose interests gravitate toward personnel activities. Those activities would include recruiting; wage and salary administration, training and development, labor relations, and collective bargaining.

ACCT 205	Introduction to Accounting
BUS 200	Community Service (0 credit)
BUS 201	Ethics and Practice: Foundations of Business
FINC 321	Financial Management
MGMT 301	Management of Organizations and Processes
MGMT 380	Organizational Change and Development
MGMT 390	The Environment of Human Resources Management
MGMT 420	Performance Assessment, Development, and Career Management
MGMT 460	Current Issues in Human Resources Management
MGMT 480	Integrative Issues of Business and Organizations
MKTG 300	Principles of Marketing

#### Plus one of:

BLAW 301	Legal Environment of Business
BLAW 303	International Business Law

#### Allied requirements

ECON 251	Principles of Macroeconomics
ECON 252	Principles of Microeconomics
QMCS 220	Statistics I

*Note:* QMCS 220 should be completed by the end of the sophomore year. Transfer students who have not had an equivalent course must complete this course by the end of their first semester, junior year.

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### *Plus one of:*

- MATH 101 Finite Mathematics
- MATH 109 Calculus with Review II
- MATH 111 Calculus for Business and Social Science
- MATH 113 Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

### *Plus one of:*

- COMM 100 Public Speaking
- COMM 105 Communication in the Workplace
- COMM 230 Intercultural Communication
- ENGL 200 or above
- JOUR 215 Journalistic Writing in the Workplace
- JOUR 311 Persuasion in Writing

### *Plus two of:*

- CATH 306 Christian Faith and the Management Professions
- COMM 320 Organizational Communication
- PSY 111 General Psychology
- SOC 100 Introduction to Sociology
- SOC 251 Race and Ethnicity
- SOC 365 Social Psychology
- THEO 306 Christian Faith and the Management of Wealth

## **Concentration in Leadership and Management**

This concentration is designed for students majoring in business administration who are not interested concentrating their studies in a particular discipline of business (e.g. entrepreneurship, finance, marketing), but want more focus than the General Business concentration provides. The student choosing this concentration will develop his/her managerial skills for application across all aspects of a business enterprise. Given the frequency of career change for today's college graduates, this concentration will provide them with an understanding of how to be able to manage effectively within any discipline or functional area of a business enterprise or organization.

- ACCT 205 Introduction to Accounting
- BUS 200 Community Service (0 credit)
- BUS 201 Ethics and Practice: Foundations of Business
- FINC 321 Financial Management
- MGMT 301 Management of Organizations and Processes
- MGMT 380 Organizational Change and Development
- MGMT 382 Management and Leadership
- MGMT 384 Project Management
- MGMT 480 Integrative Issues of Business and Organizations
- MKTG 300 Principles of Marketing

### *Plus one of:*

- BLAW 301 Legal Environment of Business
- BLAW 303 International Business Law

### *Plus:*

Four additional credits in the Division of Business

### *Allied requirements*

- ECON 251 Principles of Macroeconomics
- ECON 252 Principles of Microeconomics
- QMCS 220 Statistics I

*Note:* QMCS 220 should be completed by the end of the sophomore year. Transfer students who have not had an equivalent course must complete this course by the end of their first semester, junior year.

### *Plus one of:*

- MATH 101 Finite Mathematics
- MATH 109 Calculus with Review II
- MATH 111 Calculus for Business and Social Science
- MATH 113 Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus one of:*

COMM 100	Public Speaking
COMM 105	Communication in the Workplace
COMM 230	Intercultural Communication
ENGL	200 or above
JOUR 215	Journalistic Writing in the Workplace
JOUR 311	Persuasion in Writing

*Plus two of:*

COMM 220	Small Groups Communication
COMM 320	Organizational Communication
HIST 363	Business in American Life
PSY 342	Industrial/Organizational Psychology
SOC 341	Work and Occupations
SOC 365	Social Psychology
SOC 386	Organizations in Society
Elective approved by adviser	

**Concentration in Operations Management**

The operations management concentration is concerned with the management of people, material, equipment, information, and other resources used in the production of goods and services by an organization. This concentration includes both behavioral and quantitative aspects of management. Emphasis in this area prepares students for analytical and supervisory positions in areas such as purchasing, materials management, transportation, inventory control, operations scheduling, operations cost control, quality control, and systems and methods analysis.

ACCT 205	Introduction to Accounting
BUS 200	Community Service (0 credit)
BUS 201	Ethics and Practice: Foundations of Business
FINC 321	Financial Management
MGMT 301	Management of Organizations and Processes
MGMT 345	Operations Management
MGMT 346	Materials Management
MGMT 347	Systems and Theories in Operations Management
MGMT 445	Advanced Operations management
MGMT 480	Integrative Issues of Business and Organizations
MKTG 300	Principles of Marketing

*Plus one of:*

BLAW 301	Legal Environment of Business
BLAW 303	International Business Law

*Allied requirements*

ECON 251	Principles of Macroeconomics
ECON 252	Principles of Microeconomics
QMCS 220	Statistics I

*Note:* QMCS 220 should be completed by the end of the sophomore year. Transfer students who have not had an equivalent course must complete this course by the end of their first semester, junior year.

*Plus one of:*

MATH 101	Finite Mathematics
MATH 109	Calculus with Review II
MATH 111	Calculus for Business and Social Science
MATH 113	Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus one of:*

COMM 100	Public Speaking
COMM 105	Communication in the Workplace
COMM 230	Intercultural Communication
ENGL	200 or above
JOUR 215	Journalistic Writing in the Workplace
JOUR 311	Persuasion in Writing

**300 Management for Non-Business Majors**

This course presents a theory of management. Starting with the functions of management (planning, organizing, staffing, directing, and controlling), it examines the nature of structure, authority, accountability, responsibility,



## Departments

motivation and the concept of leadership, and the role of the professional manager. Offered in spring semester.  
Prerequisite: Junior standing.

### 301 Management of Organizations and Processes

The objectives of this course are to develop the analysis skills, perspectives and techniques useful for managing organizations in today's competitive environment. The course provides students the opportunity to practice and develop skills in the following: formal group reports, group process skills, project management, and the analysis of an actual organization. This course includes lectures, group work done outside class and a strong fieldwork component. A significant amount of preparation and work is expected to be done outside the classroom.

Prerequisites: BUS 201 and junior standing

### 345 Operations Management

An examination of the concepts and techniques utilized in the management of manufacturing and service operations. The focus is on the tactical tools of operations management systems. Topics covered include the management of process, technology, production, quality, inventory, workforce and facilities in operating systems. Offered in fall semester.

Prerequisite: MGMT 301

### 346 Materials Management

This course provides the conceptual and analytic framework for the materials management function of businesses. It focuses on the development and the implementation of the materials portion of the operations system. Many of the topics will require the use of computers and the use of operations management software. Offered in fall semester.

Prerequisite: MGMT 301

### 347 Systems and Theories in Operations Management

This course emphasizes operations systems and theories found in today's businesses. It provides both the conceptual frameworks for these systems and theories, and requires the students to experience real work examples via plant tours and on-site visits. Topics may include theory of constraints, supply chain management, value chain management, distribution and logistics, lean/agile/flexible operations systems, philosophy and techniques of JIT and other current inventory management techniques. Offered in spring semester.

Prerequisite: MGMT 301

### 380 Organizational Change and Development

Organizational change is a constant reality for any enterprise. Uncontrolled change often leaves the organization fighting for its continued existence. Well-managed change can assure that the firm adapts positively to internal and external threats, while maintaining its identity and benefiting its stakeholders. This course examines how to manage rapidly changing environments and technologies within an organizational setting. This focus is on how to lead change through an organization while managing the fears, apathy, and politics associated with the new system or requirements. Course methodology includes lectures and discussion, combined with application of concepts via case studies and activity-based exercises. Offered in spring semester.

Prerequisites: BUS 201 and junior standing

### 382 Management and Leadership

This course explores the concepts and skills involved in exercising effective leadership from both an organizational and individual perspective. The course covers the concepts of leadership in diverse cultures, how organizational conditions affect competent leadership, and the actual work of leadership in organizations. Concepts such as shared-leadership and rotating leadership are explored. Warren Bennis stated that managers do things right and leaders do the right things. The study of leadership and management in organizations is far more complex than this simple aphorism. This course examines the complexity of business leadership through a review of the key theories of leadership and their managerial applications using a combination of methods. These include self-assessment and feedback, case studies, role-plays and discussion of the application of concepts. Emphasis is placed on combining theoretical foundations and practical skills that develop more effective and ethical approaches to leadership in a variety of settings. Offered in fall semester.

Prerequisites: BUS 201 and junior standing

### 384 Project Management

Projects and dynamic teaming are the primary vehicles for managing work processes in organizations today. This course presents the concepts, techniques, software tools, and behavioral skills needed for managing projects effectively. It introduces the students to a project's life cycle (from project definition and goals to completion of the project) and the behavioral dynamics that need to be managed to achieve success. The use of project management skills as applied to new product launches (e.g., marketing) or installation of software information systems is explored. The multiple roles of the project manager are examined. These include being a team leader responsible for delivering the project on time, within budgets and to desired specifications while managing individuals with temporary allegiance to the project. The technical and human aspects of project management will receive approx-

imately equal focus. Course methodology includes lectures and discussion, case studies, and activities designed to apply the concepts to management of a "live" project (e.g., an SBI project). Offered in fall semester.  
Prerequisite: MGMT 301

### 390 The Environment of Human Resources Management

This course deals with concepts involved in human resources administration in various types of organizations. Key topics include human resource planning, staffing, performance appraisal, compensation and benefits, training, employee/labor relations and career development. Offered in fall semester.

Prerequisites: BUS 201 and junior standing; MGMT 380 (may take concurrently). (Sociology majors may substitute SOC 386 for MGMT 380.)

### 420 Performance Assessment, Development, and Career Management

This course focuses on theories, practices, and issues dealing with the management of human performance, potential, professional growth, and career development in various types of organizations.

Prerequisites: MGMT 301, MGMT 380 (may be taken concurrently). Sociology majors may substitute SOC 386 for MGMT 380)

### 430 International Management

Managers operating in a global environment need to manage the differences in doing business with people from other cultures. This goes beyond knowing that people have different customers, goals, and thought patterns. Today's managers need to be able to understand the cross-cultural subtleties imbedded in any interpersonal working relationships, regardless of whether operating in a foreign location, interacting with foreign nationals from a distance, or working with a culturally diverse American workforce. A manager's ability to understand, accept, and embrace these differences is critical to his or her success. This course is designed to address the complexities of intercultural management and facilitate the student's ability to manage successfully in a cross-cultural environment. Topics include intercultural ethics, intercultural negotiations, and American work values.

Prerequisites: FINC 321, MGMT 301, MKTG 300

### 445 Advanced Operations Management

This course focuses on the current issues that are salient to the operations function. It examines current views as to the analysis and synthesis of complete operations systems. It includes recent theories and experiments aimed at improving long/short run productivity and competitiveness. It serves as an integrator for the courses that have preceded it by giving the students the opportunity to integrate and refine the knowledge, skills, and attitudes obtained from their previous courses. It stresses the practical application of operations management concepts and theories. Offered in spring semester.

Prerequisites: MGMT 301 and senior standing

### 460 Current Issues in Human Resources Management

This course provides the student with an understanding of important current issues regarding the utilization of people in organizations and how the human resources function operates in various types of organizations. Students will engage in discussions with senior human resources managers and complete a field project. This course serves as the capstone for the Human Resources concentration and contains the Small Business Institute field project. Offered spring semester.

Prerequisites: MGMT 380, 390, 420 and senior standing

### 480 Integrative Issues of Business and Organizations

This course examines organizational issues from an integrative perspective. It draws on concepts from the entire business curriculum to view the organization as a whole. It examines the development of core competence and a sustainable competitive advantage as part of an organization's strategic planning process.

Prerequisites: MGMT 301, FINC 321, MKTG 300, and senior standing

## Marketing (MKTG)

Lundsten (chair), Brennan, E. Kennedy, Lawton, Liu, Rexeisen, Rudelius, R.Sauter, Spriggs, R. Sullivan; Anderson, Burns, Hollie, McAllister

Career options in marketing include marketing research and planning, advertising and public relations, business logistics and physical distribution, retailing, product management and new product development, and sales management.

Students completing the concentration in marketing will be able to critically evaluate the global marketing environment, identify opportunities and problems and be able to understand and apply appropriate concepts and terminology.

## Departments

### Concentration in Marketing Management

ACCT	205	Introduction to Accounting
BUS	200	Community Service (0 credit)
BUS	201	Ethics and Practice: Foundations of Business
FINC	321	Financial Management
MGMT	301	Management of Organizations and Processes
MKTG	300	Principles of Marketing
MKTG	430	Marketing Management

*Plus one of:*

MKTG	340	Marketing Research
MKTG	345	Marketing Analysis and Presentation

*Plus two of:*

MKTG	310	Professional Selling
MKTG	320	Promotion Management
MKTG	330	International Marketing
MKTG	350	Marketing Channels and Distribution
MKTG	360	Retailing and Retail Behavior
MKTG	370	Buyer Behavior

*Plus one of:*

BLAW	301	Legal Environment of Business
BLAW	303	International Business Law

*Plus:*

Four additional credits within the Division of Business (may be a MKTG course)

*Allied requirements*

ECON	251	Principles of Macroeconomics
ECON	252	Principles of Microeconomics
QMCS	220	Statistics I

*Note:* QMCS 220 should be completed by the end of the sophomore year. Transfer students who have not had an equivalent course must complete this course by the end of their first semester, junior year.

*Plus one of:*

MATH	101	Finite Mathematics
MATH	109	Calculus with Review II
MATH	111	Calculus for Business and Social Science
MATH	113	Calculus I

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus one of:*

COMM	100	Public Speaking
COMM	105	Communication in the Workplace
ENGL		200 or above
JOUR	215	Journalistic Writing in the Workplace
JOUR	311	Persuasion in Writing

*Plus two of:*

ECON	335	Money, Financial Markets, and the Economy
ECON	348	International Economics
ENVR	151	Humans and the Environment
GEOG	113	World Geography
HIST	363	Business in American Life
POL	225	Introduction to World Politics
PSY	111	General Psychology
SOC	100	Introduction to Sociology

### 300 Principles of Marketing

Concepts involved in marketing as a discipline approached from a managerial point of view. Attention is devoted to developing marketing strategies that focus on the needs and desires of customers. The various environmental forces affecting marketing such as the organizational, social, competitive, technological, economic, behavioral, and legal environments are discussed.

Prerequisites: BUS 201, ECON 252 (may be taken concurrently) and junior standing

**310 Professional Selling**

This course teaches an in-depth understanding of how individuals interact with other individuals in a competitive environment. Content of the course includes one-on-one selling techniques, persuasive communication, oral and verbal presentation skills for individuals to groups, and groups to groups. The end result will be that the student is capable of professional selling in both the industrial and consumer areas.

Prerequisite: MKTG 300

**320 Promotion Management**

Promotion Management is designed to develop an appreciation for the promotion mix (personal selling, advertising, public relations, sales promotion) by exploring how and why these elements are used by organizations to reach their goals and objectives. Concept fundamentals are explored then integrated into case analysis.

Prerequisite: MKTG 300

**330 International Marketing**

This course surveys basic concepts, principles and theories of international marketing, as well as the essential and complex problems encountered in the international marketplace. Emphasis is on problem solving and decision making within the international marketing environment.

Prerequisite: MKTG 300

**340 Marketing Research**

This course will focus on surveys, observations, experiments, and other tools for learning about customer characteristics and requirements. Topics include analytical techniques, data sources, research planning and costs. If the student is planning to take this course, it is strongly recommended that it be taken before MKTG 430.

Prerequisites: MKTG 300, MATH 101 or 109 or 111 or 113, QMCS 220

**345 Marketing Analysis and Presentation**

Marketing analysis and presentation covers the analytic and graphic skills needed to deal with assembling, analyzing and presenting data that is pertinent to marketing decisions. The focus in this course will be on company strategies, competitive intelligence, and secondary sources. The users of this data could be within the firm or external to it. The basis tools covered in the course will include the acquisition of pertinent secondary data from libraries, government, and commercial sources, internal data analysis and the reduction and refinement of data to produce presentations that are helpful in marketing decision making.

Prerequisites: MKTG 300, MATH 101 or 109 or 111 or 113, QMCS 220

**350 Marketing Channels and Distribution Systems**

This course is designed to provide relevant theories, concepts, and practices related to the flow of goods and services in and between organizations. Relevant material will be presented about the total distribution system, that is, information about the marketing and the logistics channels. The purpose is to provide an atmosphere where business students can think about and learn to create and integrate marketing and logistics strategy.

Prerequisites: MKTG 300 and QMCS 220

**360 Retailing and Retailing Services**

Principles and practices of retailing, non-store retailing services and direct marketing from a management perspective. Topics include: role in channel, demographics, consumer behavior, trends, strategy formulation in image and concept, ownership and formats, trade area and location, buying and sourcing, store design and visual merchandising, operations management promotion, service delivery, controls, non-store retailing, human resource and organization, database management, international.

Prerequisite: MKTG 300.

**370 Buyer Behavior**

This course is designed to examine both consumer and organizational buying behavior. Major theoretical contributions and empirical research findings from marketing and the behavioral sciences will be reviewed with particular attention given to applying this information to practical business and marketing situations.

Prerequisite: MKTG 300

**430 Marketing Management**

Managerial aspects of marketing, emphasizing modern marketing organizational structure, product planning, pricing policies, sales management and channel policies. Small Business Institute (SBI) cases are used.

Prerequisites: MKTG 340 or 345, one of MKTG 310, 320, 330, 350, 360, 370, and senior standing

**Catholic Studies**

*See Interdisciplinary Programs*

## Chemistry (CHEM)

Hartshorn (chair), Boyd, Brom, Glorvigen, Ippoliti, Longley, Mabbott, Olson, Roberts; Lane; Cain, Ojala, Ovechka

The Department of Chemistry offers two degree programs in the field of chemistry: a Bachelor of Science (B.S.) degree and a Bachelor of Arts (B.A.) degree. The department is on the list of schools approved by the American Chemical Society (ACS) for the professional training of chemists, and the B.S. degree is certified by the American Chemical Society. The B.S. has either a chemistry or a biochemistry concentration option. This degree is recommended for students who plan to pursue graduate study in chemistry in preparation for college teaching, or advanced research in academic, industrial or government laboratories.

The B.A. degree requires fewer chemistry courses and offers the possibility of completing a double major if students have a strong interest in another field. Both degrees offer some latitude in the selection of upper level courses, thus allowing the student some flexibility to pursue an interest in a particular area of chemistry. Students graduating with either the B.S. or the B.A. may also qualify for departmental honors.

Chemistry is an excellent major for students interested in biochemistry, food science, forensic science, medicine, medicinal chemistry, dentistry, pharmaceutical chemistry, pharmacology, patent law, polymer science, chemical engineering, environmental science, materials science and other interdisciplinary fields. The major is also suited to students with a complementary interest in other sciences, or in computers, education, economics or business.

Students graduating with a major in chemistry will have the necessary knowledge to prepare them for a career in chemistry or for graduate school, and the confidence and skill to succeed. They will have the ability to read, understand, write and speak with clarity and understanding in technical areas. They will constantly be applying critical thinking to their readings in the technical literature. They will have developed good laboratory skills and be familiar with modern instrumentation and with the use of computers in technical fields. They will have developed the skills necessary to analyze their data and to draw conclusions from it.

For students interested in teacher licensure, see the various combinations of science education in the Department of Teacher Education in this catalog.

All graduating senior majors are required to take an achievement test for purposes of assessment of the major and College accreditation.

In order to receive a degree in chemistry from the University of St. Thomas, transfer students must complete a minimum of sixteen credits in chemistry at the university in addition to the two-credit seminar sequence.

The department offers a number of courses for non-majors to fulfill the laboratory science component of the core curriculum.

### Graduation with Honors in Chemistry

Students graduating with a B.A. or B.S. degree in chemistry may also qualify for departmental honors. Students interested in this designation must consult with the department chair one year (or more) prior to their graduation date. Requirements include:

- 1) a minimum cumulative GPA of 3.25 and a major field GPA of 3.50;
- 2) completion of CHEM 493 or four credits (CHEM 491-492) in research; (participation in one summer of research in chemistry at St. Thomas may be applied in place of two credits; research must be completed at least one semester before graduation);
- 3) preparation of a written thesis in the format of the primary literature;
- 4) successful defense of the thesis before a panel composed of:
  - thesis director (chair of committee)
  - two additional UST chemistry faculty
  - one UST faculty member outside the chemistry department
  - one faculty member from another institution selected in consultation with the thesis adviser (while off-campus examiners are typically chemists, committee members from other disciplines such as biochemistry and physics may be employed when appropriate).
- 5) presentation of research at an off-campus meeting such as the Minnesota Section Undergraduate Research Symposium, Minnesota Academy of Sciences, NCUR, regional ACS meeting, or national ACS meeting.
- 6) All requirements must be completed by April 20 for spring commencement, or similarly early enough to allow for notification of the registrar and academic dean.

### Major in Chemistry (B.S.) (ACS-certified)

111	General Chemistry I
112	General Chemistry II
201	Organic Chemistry I
202	Organic Chemistry II
300	Quantitative Analysis

- 320 Instrumental Analysis
- 331 Chemical Thermodynamics and Reaction Dynamics
- 332 Quantum Chemistry and Molecular Spectroscopy
- 340 Organic Spectroscopy (2 credits)
- 400 Advanced Inorganic Chemistry
- 440 Biochemistry I
- 481-484 Seminar Sequence (2 credits)
- 491 Research (2 credits) (or a summer research project sponsored by the department)

*Plus four credits from:*

- 295 Topics (2-credit course offered in J-term)
- 420 Bioanalytical and Forensic Chemistry (2 credits)
- 430 Advanced Organic Chemistry (2 credits)
- 442 Biochemistry II\*
- 488 Topics (2-credit course offered in J-term)
- 494 Research

\*required for a B.S. in Chemistry with a biochemistry concentration, plus a research project in biochemistry

*Allied requirements*

- MATH 113 Calculus I
- MATH 114 Calculus II
- PHYS 111 Introduction to Classical Physics I
- PHYS 112 Introduction to Classical Physics II

*Strongly recommended:*

- MATH an additional course numbered 200 or above
- QMCS 230 Software Design Using the JAVA Language

**Course Sequence**

All chemistry majors are advised to take 111-112 and MATH 113-114 (Calculus) during the freshman year if at all possible. Then 201-202 and PHYS 111-112 (Introductory Physics) should be taken during the sophomore year. (Note that PHYS 109-110 is not acceptable for the chemistry major). Other sequences of math and physics are much less desirable. If necessary, MATH 113 can be started in the second semester of freshman year; then MATH 114 can be taken concurrently with PHYS 111 during first semester sophomore year.

**Major in Biochemistry (B.S.)**

*See Interdisciplinary Programs*

**Major in Chemistry (B.A.)**

The minimum requirement for a major is 38 credits as specified below; 30 credits (including seminar) comprise the core.

- 111 General Chemistry I
- 112 General Chemistry II
- 201 Organic Chemistry I
- 202 Organic Chemistry II
- 300 Quantitative Analysis
- 320 Instrumental Analysis
- 331 Chemical Thermodynamics and Reaction Dynamics
- 481-484 Seminar (2 credits total)

*Plus at least eight credits in courses chosen from the following list:*

Prior to registration for the second semester courses of junior year, each chemistry major should schedule a conference with the departmental adviser in order to plan and discuss course selection for the final three semesters of college. Discussion of post-college plans and goals will be an important factor in course selection.

- 332 Quantum Chemistry and Molecular Spectroscopy (strongly recommended)
- 340 Organic Spectroscopy (2 credits)
- 400 Advanced Inorganic Chemistry\*
- 420 Bioanalytical and Forensic Chemistry (2 credits)
- 430 Advanced Organic Chemistry (2 credits)
- 440 Biochemistry I
- 442 Biochemistry II
- 491 Research (1 credit)\*\*
- 492 Research (0 credit)\*\*

## Departments

493 Research (0 credit)\*\*

494 Research (1 credit)\*\*

\*Students should note that 332 is a prerequisite.

\*\*Many options are available to students interested in pursuing research. A full unit of research may be taken in one semester as 493 (a second full unit would be 494). A full unit also could be taken in two separate semesters as 491 followed by 492. It is even possible for a student to take one half-course of research through two one-quarter courses (391 followed by 392).

### *Allied requirements*

MATH 113-114 Calculus I and II\*

PHYS 111-112 Introductory Physics I-II

\*Students not placing into MATH 113 must take MATH 108, 109 and 114 in order to satisfy the overall calculus requirement.

*Note:* Math and physics requirements are as specified above plus MATH 200 and/or 201 are highly recommended. The ACS also requires familiarity with computer programming; although many chemistry courses make use of computers, the interested student is well-advised to take an additional course in quantitative methods and computer science.

### **Teacher Licensure**

Elementary Education with a Co-major in Science and Mathematics for Elementary Education

Elementary Education with a Specialty in Science (5-8)

Co-major in Science (5-8) – Chemistry (9-12) and a Co-major in Secondary Education

*See Department of Teacher Education*

### **Minor in Chemistry**

111 General Chemistry I

112 General Chemistry II

201 Organic Chemistry I

*Plus twelve credits from the following:*

202 Organic Chemistry II

298 Topics (2 credits)

300 Quantitative Analysis

320 Instrumental Analysis\*

331 Chemical Thermodynamics and Reaction Dynamics

332 Quantum Chemistry and Molecular Spectroscopy

340 Organic Spectroscopy\* (2 credits)

420 Bioanalytical and Forensic Chemistry\* (2 credits)

430 Advanced Organic Chemistry\* (2 credits)

440 Biochemistry I\*

442 Biochemistry II\*

491 Research (2 credits)

494 Research \*\*

\*These courses have prerequisites beyond the 12-credit core, or require permission of the instructor.

\*\*A student may take four credits of research for the minor with the approval of the department chair. No special approval is needed for 491 (2 credits).

### **100 Chemistry in Our World (111)**

An introduction to chemistry and its applications to modern society and personal life. The course is intended for non-majors and satisfies a general requirement for one semester of a laboratory science course. The chemistry studied includes the structure of matter, elements and compounds, chemical bonding, reactions, energy changes and an introduction to organic chemistry. The emphasis in the course is the relevance of chemistry in everyday life, and the applications studied will include various topics such as environmental problems, energy resources, chemistry and health, and consumer chemistry. Lecture plus three laboratory hours per week.

### **101 Environmental Chemistry**

An introduction to chemistry with particular emphasis on environmental science. Basic chemistry topics covered include the structure of matter, elements, compounds, reactions, energy and energy changes. These topics lead to studies of topical environmental problems and their proposed solutions, including the depletion of ozone in the stratosphere, the Greenhouse Effect and global warming, acid rain, smog, waste disposal, water pollution and the search for non-polluting energy resources. Lectures and laboratory. This course satisfies the lab science requirement for non-majors.

**111 General Chemistry I (100)**

This course and its sequence 112 provide a two-semester introduction to chemistry. Topics include atomic structure, molecular structure, chemical bonding, the periodic table, states of matter, reactions (types, energy changes, equilibrium and rates), properties of the common elements and their ions in aqueous solution, electrochemistry and nuclear chemistry. Lecture plus four laboratory hours per week.

Prerequisite: Math placement at 108 or above; if placement is lower than 108, registration must be for section 31 (extended)

**112 General Chemistry II**

This course continues the study of chemistry begun in 111. See 111 for topics. Lecture plus four laboratory hours per week.

Prerequisite: A minimum grade of C- in 111

**201 Organic Chemistry I**

Study of the various families of organic compounds. Emphasis is placed on structure determination, reaction mechanisms, stereochemistry and spectroscopy in addition to a survey of various reaction types. An introduction to biochemical topics is included. Lecture plus four laboratory hours per week.

Prerequisite: A minimum grade of C- in 112

**202 Organic Chemistry II**

Continuation of 201.

Prerequisite: A minimum grade of C- in 201

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**300 Quantitative Analysis**

An introduction to quantitative chemical analysis. Topics include sample treatment, the statistical handling of data, equilibria governing acid/base relationships, complexation and redox reactions and the fundamentals underlying titrimetry, spectrophotometry, luminescence and potentiometric methods of analysis. Lecture plus four laboratory hours per week. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: A minimum grade of C- in 112

**320 Instrumental Analysis**

Principles and techniques of operation of modern chemical instrumentation. Topics include the capabilities, limitations and data interpretation of HPLC, GC, capillary electrophoresis, voltammetry, and mass spectrometry. Fundamentals of signal processing, basic circuitry and optical components is also included. The laboratory consists of both structured exercises and a student designed project and report based on an analysis problem of interest to the student. Lecture plus four hours of lab each week.

Prerequisites: 202, 300

**331 Chemical Thermodynamics and Reaction Dynamics**

Physical chemical introduction to the fundamentals of kinetic-molecular theory, statistical thermodynamics, classical thermodynamics, and chemical reaction dynamics. Emphasis on the in-depth study of chemical reaction equilibria, phase equilibria, and chemical reaction kinetics in gaseous, liquid and solid systems. Laboratory work involves modern computational methods in physical chemistry, as well as physicochemical measurements related to thermodynamics and reaction dynamics. Lecture plus six laboratory hours per week. This course fulfills the second level Computer Competency requirement in the core curriculum.

Prerequisites: 202, MATH 114 and PHYS 111

**332 Quantum Chemistry and Molecular Spectroscopy**

Study of chemical systems from the point of view of molecular theory. Introduction to the fundamentals of quantum chemistry and atomic/molecular spectroscopy. Laboratory work involves computational methods in molecular quantum mechanics and spectroscopic measurements of atomic/molecular systems. Lecture plus six laboratory hours per week. This course fulfills the second level Computer Competency requirement in the core curriculum.

Prerequisites: 202, MATH 114 and PHYS 112

**340 Organic Spectroscopy**

2 credits

A more detailed study of various spectroscopic methods, especially as they are employed to determine structures of organic molecules. Coverage includes H-1, F-19, and C-13 NMR, mass spectrometry, ultraviolet and visible and infrared spectroscopies.

Prerequisite: A minimum grade of C- in 202



## Departments

- 391 Research** 1 credit  
Work on a problem under the direction of the staff. Primarily literature work.  
Prerequisite: Permission of the department chair
- 392 Research** 1 credit  
Work on a problem under the direction of the staff. Primarily laboratory work.  
Prerequisite: 391
- 400 Advanced Inorganic Chemistry**  
A study of the preparation, structure, bonding and reactions of inorganic compounds. Selected topics include group theory, periodicity, catalysis, bonding theories; main group, coordination, solid state and organometallic chemistry. Lecture plus four laboratory hours per week.  
Prerequisites: 202 and 332 or permission of the instructor
- 420 Bioanalytical and Forensic Chemistry** 2 credits  
The chemistry behind criminal investigations as well as some developments in analysis of biologically important molecules. Topics to be covered include enzyme and DNA analysis, the detection and identification of explosives and fire accelerants, methods of connecting the suspect to the scene of a crime (analysis of fingerprints, fibers, glass fragments, soil and gunshot residue), the analysis of drugs and poisons, and the detection of forgeries using ink, paint and materials analysis. The course is designed to have a lab component that uses both instrumental and "wet chemical" methods of analysis. The culminating examination is a mystery that the students will work in teams to solve. It requires some lab work as well as a written report that interprets the information for the "district attorney's office." Offered in January term in even years.  
Prerequisite: 202
- 430 Advanced Organic Chemistry** 2 credits  
A study of modern topics selected from physical organic chemistry, polymers, spectroscopic applications, orbital symmetry and pericyclic reactions plus other topics of the instructor's choice.  
Prerequisite: 202
- 440 Biochemistry I**  
The chemistry of biological molecules. Emphasis on the structure, energetics, kinetics and mechanisms of biologically important molecules. Topics include: protein structure; enzyme kinetics, mechanisms and regulation; anabolic and catabolic pathways; structure, organization and regulation of nucleic acids; bioenergetics; protein synthesis; and student-chosen special topics. Laboratory integrated with lecture topics: protein isolation; enzyme kinetics and mechanisms; DNA isolation, plasmid mapping, sequencing, protein synthesis and sequencing; lipids and vesicles; student chosen special projects. Lecture plus four laboratory hours per week.  
Prerequisite: 202
- 442 Biochemistry II**  
Continuation of Biochemistry I (440). Lecture plus four laboratory hours per week.  
Prerequisite: 440
- 475, 476, 477, 478 Experiential Learning**  
See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.
- 481, 482, 483, 484 Student Seminar**  
This sequence of courses is begun first semester of the junior year and progresses for a total of four semesters. The first (481) and last (484) courses are each one credit and are graded on the usual letter grade scale. The interior two courses (482, 483) are no credit and are graded on a pass-fail basis (S/R). Throughout all four courses meetings are held with seminars given by guest speakers. UST faculty also present seminars on their own research. In 481, juniors are introduced to the chemical literature and search techniques including use of computer databases and write a short paper based on literature research. In 483, seniors meet in small groups with faculty and discuss articles from the chemical literature. In 484, seniors research a topic from the chemical literature and present it in both written and oral formats. Required of all chemistry majors.
- 487, 488, 489, 490 Topics**  
The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.
- 491, 492, 493, 494 Research**  
See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.
- 495, 496, 497, 498 Individual Study**  
See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Classical Civilization**

*See Interdisciplinary Programs*

**Communication (COMM)**

Endres (chair), Armada, Bruess, Friedline, Petersen, K. Sauter, Scully

The Department of Communication fosters in students an understanding of the nature of human communication by examining the processes by which people create, send, receive and are affected by messages.

This is done by exploring and analyzing verbal and nonverbal communication in a number of settings including political campaigns, small groups, work and volunteer organizations, personal and family relationships and intercultural situations. Students analyze communication through the study of rhetorical theory and social science methodology, both developing their skills as communicators, and understanding ways to investigate how the communication process works.

The department also emphasizes the production of electronically mediated communication, looking at how to communicate effectively using mediated communication, as well as the ways in which mediated communication expands our communication options and influences our lives.

Students have the opportunity to study the art of audio and video production, and acquaint themselves with new electronic media technologies. They also study the television, radio, and corporate industries that have developed to support and distribute those messages. In keeping with the UST emphasis on diversity, the department seeks to integrate the issues of gender, race, and class into all communication studies.

The study of communication is at the forefront of a liberal education, preparing students to analyze carefully, to think creatively, critically, and ethically, and to develop skills that can be applied to a variety of careers.

Majors must complete a minimum of eighteen credits in communication at St. Thomas.

**Communication Honor Society**

Lambda Pi Eta, the National Communication Honor Society, chartered the St. Thomas Beta Chi chapter in 1994. The society recognizes communication majors who have demonstrated a commitment to the discipline. To be eligible, students must have completed 60 semester hours, 16 of those in communication; have an overall 3.00 GPA, with a 3.25 GPA within the major; and be a full-time student in good standing.

**Major in Communication**

100 Public Speaking

120 Communication Theories and Methods

140 Rhetorical Criticism

160 Electronic Media Production

*Note:* Two of the above four courses must be completed before taking additional courses within the major.

480 Capstone Course in Communication

*Note:* Thirty-two credits in the major must be completed prior to enrolling in 480. With 28 credits completed, one concurrent registration is allowed.

*Plus two of:*

220 Small Group Communication

222 Interpersonal Communication

230 Intercultural Communication

240 Persuasion

250 Argumentation and Advocacy

260 Audio Production

264 Electronic Media and Society

270 Videography: Television Production in the Field

320 Organizational Communication

330 Research Methods in Communication Studies

340 Rhetorical Dimensions of Race, Class, and Gender

350 Modern American Rhetoric

360 Television Criticism

370 Advanced Video Production

440 Classical Rhetoric

*Plus:*

Eight additional credits which may be in courses from the list above, or any other departmental offering, including individual study, internships, or topics courses. (105 is not an option for majors.)

**Teacher Licensure**

Elementary Education with a Specialty in Communication Arts and Literature (5-8)

Co-major in Communication Arts and Literature (5-12) and a Co-major in Secondary Education

*See Department of Teacher Education*

**Minor in Communication**

*Three of:*

- 100 Public Speaking
- 120 Communication Theories and Methods
- 140 Rhetorical Criticism
- 160 Electronic Media Production

*Plus:*

Eight additional credits in courses at the 200-level or higher, but not including 480.

**100 Public Speaking**

Preparation, presentation, and evaluation of original speeches by each student throughout the semester; special emphasis given to selecting and researching topics, organizing evidence, analyzing audiences, sharpening style and tone, communicating ethically and listening critically.

**105 Communication in the Workplace**

Introduction to basic communication theories and skills as they pertain to the business setting. Text, lecture, class discussion and exercises, and individual and group presentations will better prepare students to become more effective communicators at work. The course will focus on presentational skills, dyadic communication and interviewing, and group communication. This class is not open to Communication majors or minors.

**120 Communication Theories and Methods**

This course will focus on the differing methods used by communication scholars to ask and answer questions about the nature of human interaction. Emphasis will be on the process of symbolic message exchange as it intersects all communication contexts. Various approaches to conceptualizing and measuring communication acts will be addressed in topic areas such as: perceptions and attributions; creating shared meaning; linguistic and non-verbal message systems; persuasive and ethical dimensions of communication; and the nature of inquiry. While lecture oriented, the class also may participate in discussions, experiential exercises, and group projects.

**140 Rhetorical Criticism**

This course teaches students to become more critical consumers and producers of public messages. Students will examine a mix of historical and contemporary examples of persuasive communication in order to develop and awareness of the rhetorical power of messages in everyday life. Critical tools will be covered to help the student learn how to approach a communicative act systematically, identifying crucial interactions and suggesting ways of understanding how those interactions function. The emphasis on critical consumption also enables students to become more effective creators of public messages.

**160 Electronic Media Production**

Students will learn the process of producing electronically mediated messages in the studio and in the field. Students produce projects designed to develop their skills in the planning and execution of a variety of media genres. Students will operate studio and field equipment, act as talent, and do final editing of individual and team-produced work. Analysis and criticism of student produced programs is integral to the course.

**215 Oral Interpretation (THR 204)**

Sense and sound of literature; analysis of selected works and projection of their meaning to an audience. Includes public performance and attention to Reader's Theater.

Prerequisite: 100 or sophomore standing

**217 Survey of Communication Disorders**

A survey of diagnosis and current treatment of communication disorders such as delayed language development, stuttering, hearing loss, etc. Appropriate course for future teachers, especially those in elementary education, and majors in occupational therapy, nursing and psychology.

Prerequisite: 100 or sophomore standing

**220 Small Group Communication**

This course covers the theory and principles of communication in task-oriented small groups, including role emergence and functions, leadership development, stages of decision-making, and development and effects of group culture. Students apply theory through participation in small group class projects.

Prerequisite: 120 or sophomore standing

**222 Interpersonal Communication**

Theory and practice of interpersonal communication, including how self-concept, language, nonverbal communication, and relationships effect and are affected by communication. Common problems in interpersonal communication, options for managing these problems, and ethical issues in interpersonal communication are examined. Students apply theory and concepts through class exercises, simulations and individual projects.

Prerequisite: 120 or sophomore standing

**230 Intercultural Communication**

Study of the influence of cultural values on social behavior; examination of theories of intercultural communication; emphasis on effective intercultural interaction. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 120 or sophomore standing

**240 Persuasion**

Study of the various strategies used to influence choice in modern society, including sources, content (such as evidence and argumentation) and audience factors (such as beliefs, attitudes, and values) which influence the persuasive process. Current research about attitude change is examined. Students apply theory through analysis of contemporary discourse and preparation of original projects.

Prerequisite: 140 or sophomore standing

**250 Argumentation and Advocacy**

This course provides an introduction to practical reasoning in public controversy. Students will apply argumentation theories and methods to the analysis of public controversy and the development of their own oral advocacy skills. Topics include: Tests of evidence, invention, reasoning, oral presentation or arguments. Activities may include: Lecture, discussion, examinations, analysis papers, speaking assignments, small group discussion and presentation.

Prerequisite: 140 or sophomore standing

**260 Audio Production**

An introduction to radio production. Students produce projects designed to acquaint them with the genres, styles and production techniques of audio in various media, with particular attention to the radio industry. Pre-production planning, scripting, use of sound effects, field production, multi-track recording, mixing and editing are covered. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 160 or sophomore standing

**264 Electronic Media and Society**

A survey of the electronic media industry, providing a fundamental grounding in the history, regulation, programming strategies, advertising and rating systems of television, radio, and new forms of electronic media. The course will develop an increased awareness of the social, economic, and political roles that the electronic media play in our society.

Prerequisite: 160 or sophomore standing

**270 Videography: Television Production in the Field**

This course will examine the aesthetic and technical components associated with producing video projects outside of the television studio. Students will examine current theory and practice of field production and will engage in the conceptualization, execution and analysis of field-produced video. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 160 or permission of instructor

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**315 Media Communication Skills**

The components and requirements of effective media performance are addressed. Development of critical assessment skills is emphasized via the evaluation of news and informational broadcasts in both the audio and video media. Particular attention is given to the student's development of performance techniques. Application and evaluation of performance choices are achieved through the production of video and audio projects.

Prerequisite: 100 or junior standing

**320 Organizational Communication**

This course will examine organizational structures and the dynamics of the communication process. Major components of this class include the analysis of organizational communication including culture, socialization, roles, leadership, formal and informal communication structures, and issues of cultural diversity. Students will be involved in activities such as applying theories, examining case studies, and analyzing communication in real-life organizations.

Prerequisite: 120 or junior standing

**325 Nonverbal Communication**

Exploration of the types, purposes and significance of nonverbal behavior in human communication. Topics include use of voice, face, eyes, gestures, posture, physical appearance, use of space, architecture, decor, and time. Emphasis on various research methods for observing and understanding nonverbal communication.

Prerequisite: 120 or junior standing

### 330 Research Methods in Communication Studies

This course is designed to familiarize students with various methods of research utilized in the communication field. This includes: Developing an understanding of the purpose of research, research designs, and various forms of data collection. Students examine quantitative and qualitative methods and the process of determining appropriate strategies for specific research problems. Methods introduced will include survey research and experimental research, with emphasis on the skills required to design and successfully conduct research projects, how to develop and test hypotheses, and how to interpret and evaluate communication research using criteria including ethics in social research.

Prerequisite: 120 or junior standing

### 340 Rhetorical Dimensions of Race, Class, and Gender

Study of research and theories about the correlation between gender, race, class, and rhetorical practice, including the influence of historical and contemporary gender stereotypes and roles on rhetorical practice. Topics include the influence of gender stereotypes and roles on: credibility, legitimization, authority, "voice" in U.S. culture, and verbal and nonverbal behavior. Students are encouraged to analyze and evaluate their own rhetorical style in light of issues of race, class, and gender. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 140, junior standing, or permission of instructor

### 350 Modern American Rhetoric

This course focuses on the creation and use of rhetoric in public persuasion settings, including social movements and political campaigns. The diversity of rhetorical acts examined may include campaign ads, speeches, films, advertisements and nonverbal strategies. Topics of study include: The process by which rhetorical acts are created, ethical issues surrounding the creation and use of rhetorical acts, using rhetorical theory to inform rhetorical practice, and conducting rhetorical criticism to illuminate, analyze, interpret and evaluate a diversity of rhetorical acts.

Prerequisite: 140 or junior standing

### 360 Television Criticism

This course will provide students with the opportunity to understand television as a text situation in a cultural context. It will examine television from a critical perspective, review a wide variety of program genres and incorporate several theoretical orientations to the qualitative analysis of TV. Students, along with reading about and discussion of critical perspective, also may watch programs such as comedies, dramas, news, advertisements, miniseries, etc., and write several critical analyses of the programs.

Prerequisite: 160 or junior standing

### 365 The Documentary in American Television

A critical examination of the presence and prominence of the documentary as made for TV, from infancy of networks through the documentary renaissance of the 1970s and 1980s. This course will discuss and analyze the content, structure, style and journalistic integrity of video documentaries as well as the technological innovations which gave birth to an array of provocative, independent video documentaries. Emphasis on in-class viewing, critical discussion and guest lectures.

Prerequisite: 160 or junior standing

### 370 Advanced Video Production

This course offers students familiar with basic video production a chance to further develop their skills and to acquire a greater understanding of the video communication process. Students will plan, script, produce and edit pieces of extended length that combine studio and field production techniques. This course is for majors who have sufficient interest and prior experience in video production. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 160 and 270, or permission of instructor

### 425 Family Communication

Examination of communication dynamics within the family system. Patterns of interaction, message exchange, developmental stages, and satisfaction and stability will be explored in light of today's ever-changing family structure. Focus will include traditional (nuclear) and non-traditional family types.

Prerequisite: 120 or junior standing

### 440 Classical Rhetoric

In a seminar format the class studies the development of rhetorical theories and practice in ancient Greece and Rome, includes works by Plato, Aristotle, Cicero, Quintillian, St. Augustine, and modern commentators on classical ideals, emphasis on sharing oral and written presentations.

Prerequisite: 140 or junior standing

**455 Political Communication and Television**

Political communication and TV is a survey of how political candidates have used and continue to use television to communicate in the elections from 1952 to the present. This course looks at a particular communication setting which is important to us all. Class activities may include lecture, screening of sample ads, student oral presentation on newspaper editorials in national and local newspapers, and class discussion.

Prerequisite: 140 or junior standing

**465 Current Issues in Electronic Media**

A survey of recent developments in the field of electronic media. Some possible subject areas include: Regulation, programming, distribution systems, reception technologies, economic considerations and social implications.

Prerequisite: 160 and 264, or permission of instructor

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**480 Capstone Course in Communication**

The purpose of this course is to allow students to integrate what they have learned throughout their major and to provide them an appreciation of the work of other students in communication. The course will review foundational methods and perspectives of the field, and will focus on the development of a senior project by each student which will be shared with and discussed by the class. Other activities may include group discussions, in-class interviews, and assessment measures.

Prerequisites: Open to majors only who have taken the four 100-level core courses and at least three other communication courses.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Computer Science**

*See Department of Quantitative Methods and Computer Science*

**Criminal Justice**

*See Department of Sociology*

**East Asian Studies**

*See Interdisciplinary Programs*

**Economics (ECON)**

Kreitzer (chair), Alexander, Blumenthal, Fairchild, Fenn, Gray, Hartmann, Langan, Marcott, Papagapitos, Riley, Supel, Vincent, Walsh

The economics program develops a logical, consistent and rigorous method of thinking about the world and its problems. The economic way of thinking can be applied to a wide variety of topics including inflation, unemployment, international trade, poverty, income inequality, currency depreciation, monopoly power, bank failures, budget deficits and health-care costs.

The Department of Economics offers two majors and a minor in economics. All three programs are designed to provide excellent career-entry skills and those skills providing preparation for possible career shifts.

Whether a major or minor in economics is pursued, students are strongly encouraged to complement their studies with work in other fields. In recent years, for example, graduates have done complementary coursework in such fields as mathematics, foreign languages, business, environmental studies, computer sciences, international studies and English.

The choice of major and of a complementary field depends upon the path the student wishes to pursue. For example, students pursuing a liberal arts major, wishing to double major, or who are interested in continuing studies in professions other than economics would likely find the Bachelor of Arts (B.A.) best suited to their needs. Students wishing to engage the discipline at a much broader and deeper level would find the Bachelor of Science (B.S.) a better alternative.

## Departments

Students graduating with a major in economics will be able to integrate the tools and concepts of the discipline in the analysis of an economic issue. The background provided by this major should prepare the student for a sound preparation for career advancement.

The core for each degree consists of five economics courses and two allied requirements. The B.A. requires three additional elective of the student's choosing. The B.S. has three possible paths. Each path requires three specified electives, two additional electives of the student's choosing, and additional allied requirements.

Students wishing to pursue graduate study in economics should consider the path in Mathematical Economics. Students interested in international affairs should consider the path in International Economics. Students seeking an economics degree supplemented with additional technical skills and an introduction to the business field or who are looking towards an eventual MBA degree should consider the Business Economics path.

Majors must complete a minimum of twenty credits in economics at St. Thomas. Minors must complete a minimum of twelve credits in economics at St. Thomas.

### Economics Honor Society

Omicron Delta Epsilon, the international fraternity in economics, was organized at St. Thomas in 1967. Candidates must have completed at least sixteen credits in economics and have an average of 3.00 or better in both economics and their overall work.

### Economics Honors Program

Candidates for honors in economics must complete a research paper and an additional four credits in economics chosen in consultation with the department chair. The research papers of honors candidates are to be read by a committee of three faculty, appointed by the department chair. Each will determine if the paper is suitable for the honors requirement, with a majority rule determining honors designation. Candidates must achieve a grade-point average of 3.25 or higher in the major and 3.0 or higher overall.

### Major in Economics (B.A.)

- 251 Principles of Macroeconomics
- 252 Principles of Microeconomics
- 315 Empirical Methods in Economics
- 351 Macroeconomic Theory
- 352 Microeconomic Theory

*Plus:*

Twelve credits in courses numbered 300 and above.

*Note:* Students are strongly encouraged to take 315, 351 and 352 in their junior year.

### Allied requirements

One of:

- MATH 109 Calculus with Review II
- MATH 111 Calculus for Business and Social Science
- MATH 113 Calculus I

*Plus either:*

QMCS 220 Statistics I or MATH 303 Statistics for the Applied Sciences

*or*

MATH 313 Probability and MATH 314 Mathematical Statistics

### Major in Economics (B.S.)

- 251 Principles of Macroeconomics
- 252 Principles of Microeconomics
- 315 Empirical Methods in Economics
- 351 Macroeconomic Theory
- 352 Microeconomic Theory

*Note:* Students are strongly encouraged to take 315, 351 and 352 in their junior year.

*Plus:*

A set of courses in one of the three paths below.

### Allied requirements

One of:

- MATH 109 Calculus with Review II
- MATH 111 Calculus for Business and Social Science
- MATH 113 Calculus I

*Plus either:*

QMCS 220 Statistics I *or* MATH 303 Statistics for the Applied Sciences

*or*

MATH 313 Probability *and* MATH 314 Mathematical Statistics

### **Business Economics**

A path which emphasizes additional tools for analyzing business situations as well as incorporating a basic foundation in the field of business.

311 Forecasting

332 Industrial Organization

401 Managerial Decision Making

*Plus:*

ACCT 205 Introduction to Accounting

BUS 201 Ethics and Practice: Foundations of Business

*Plus one of:*

FINC 300 Finance for Non-Business Majors

FINC 321 Financial Management

### **International Economics**

A path which prepares students for careers in which an understanding of the complexities of cultural differences and international economic relationships is crucial.

345 Economics of Development and Growth

346 Country and Area Studies in Economics

348 International Economics

*Plus:*

Eight credits in elective economics courses numbered 300 or above (ECON 346 can only be included one time in fulfillment of the path requirement, and not as one of the additional electives)

*Plus:*

A minor in a foreign language or significant study abroad experience approved by the department chair

### **Mathematical Economics**

A path which prepares students for the core competencies necessary for graduate study in economics.

301 History of Economic Thought

418 Mathematical Economics

*Plus one of:*

337 Economics of the Public Sector

339 Labor Economics

348 International Economics

*Plus:*

Eight credits in elective economics courses numbered 300 or above

MATH 114 Calculus II

MATH 200 Multi-Variable Calculus

MATH 210 Linear Algebra and Differential Equations

*Note:* MATH 333 Applied Statistical Methods may be substituted for ECON 315

### **Teacher Education**

Elementary Education with a Specialty in Social Studies (5-8)

Co-major in Social Studies (5-12) and a Co-major in Secondary Education

*See Department of Teacher Education*

### **Minor in Economics**

251 Principles of Macroeconomics

252 Principles of Microeconomics

*Plus one of:*

351 Macroeconomic Theory

352 Microeconomic Theory

*Plus:*

Twelve credits in elective economics courses numbered 300 and above.



## Departments

### 101 The American Economy (251)

The organization and functioning of the American economy; the course is designed to provide general education in economics for the average citizen. Each semester, topics of current interest will be analyzed using the tools and viewpoint of economic theory and policies. Designed for non-economics and non-business students.

### 211 Current Economic Issues

Poverty, health care, tax reform, international trade, crime, income inequality, inflation, and business mergers are some of the contemporary topics that raise interesting questions for public policy and economic analysis. This course will focus on a series of these macroeconomic and microeconomic topics. The goal is to develop economic concepts and analytical tools within a context of direct application to economic issues. Consideration of equity or fairness will be included in discussions of public policy. Student preferences will be considered in selecting many of the issues. Not open to students who have completed 251 or 252. This course fulfills the Social Analysis requirement in the core curriculum.

### 251 Principles of Macroeconomics (101)

An introduction to macroeconomics: national income analysis, unemployment, price stability, and growth; monetary and fiscal policies; international trade and finance; application of economic theory to current problems. Students who enroll in this course are expected to be able to use high-school algebra. This course fulfills the Social Analysis requirement in the core curriculum.

### 252 Principles of Microeconomics

An introduction to microeconomics: theory of household (consumer) behavior, theory of the firm, market structures, market failures, economic efficiency, factor markets, and income distribution. Students who enroll in this course are expected to be able to use high-school algebra. This course fulfills the Social Analysis requirement in the core curriculum.

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 301 History of Economic Thought

A survey of the content and method of economics and an analysis of the theories of the great economists from the ancient Greeks to the present; mercantilism, physiocracy, the classical school and its critics, particularly Marx; the marginalist school; Alfred Marshall and Keynes, recent developments in economic thought.

Prerequisites: 251 and 252

### 311 Forecasting

An introduction to techniques used in forecasting with emphasis on analyzing economic and business data. The emphasis is on time-series data, although cross-sectional analysis is also covered. Techniques presented include variants of moving averages, variants of exponential smoothing, regression and ARIMA processes. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 251, 252 and QMCS 220

### 315 Empirical Methods in Economics

An introduction to the application of statistical models and methods to economic problems; simple and multiple linear regression models; generalized least-squares; model building and related topics. Emphasis is on use of econometric software to analyze data and to test hypotheses. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 251 and 252, QMCS 220 or MATH 303

### 321 Law and Economics

The relationship between legal and economic aspects of selected issues: property rights, liability laws, product-safety legislation, discrimination, crime control, and related topics.

Prerequisites: 251, 252 or permission of instructor

### 326 Industry Studies

This course provides an analysis of a particular industry or sector of the U.S. economy. Among the topics included in the analysis will be: identification and description of the industry in question, past and present performance of the industry, the importance of the industry within the national and global economy, the level of competition present in the industry, and the role of government in this industry. Among the anticipated course offerings are Agricultural Economics, Economics of the Arts, Economics of Sports, Economics of Health Care, and Transportation Economics.

Prerequisites: 251 and 252

**332 Industrial Organization**

Relationship between market structure, behavior and performance of business enterprises; government intervention and regulation; antitrust and other public-policy issues.

Prerequisites: 251 and 252

**333 Regional and Urban Economics**

Principles underlying the location of economic activity; land-use patterns; transfer cost; location and structure of urban areas; growth of cities and regions; urban and regional problems and policies.

Prerequisite: 252

**335 Money, Financial Markets, and the Economy**

The nature, evolution, and functions of money; the role of depository financial institutions; structure of financial markets; principles of central banking; monetary theory and monetary policy; introduction to international banking and finance.

Prerequisites: 251 and 252

**337 Economics of the Public Sector**

This course examines the role of government in a modern economy. It develops a set of concepts that will allow students to evaluate policy alternatives. The following are among the particular topics likely to be addressed: externalities and environmental protection, education, the redistribution of income, health care, social insurance, taxation and tax reform, cost-benefit analysis, fiscal federalism, and state and local government finance. In each case, the focus is on whether intervention by government is appropriate, what the most effective form of any such intervention is, and how alternative policy interventions affect the private decisions made by citizens and business firms.

Prerequisite: 252

**339 Labor Economics**

Labor supply and demand; determinants of the wage structure; education and training decisions; the role of labor unions; mobility and migration, discrimination; public policies in labor markets.

Prerequisite: 252

**345 Economics of Development and Growth**

Nature and measures of economic growth and development; theories of growth; developed and less-developed nations; economic planning; selection and financing of projects for economic growth and human development; environment, resources, and limits to growth. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: 251, 252

**346 Country and Area Studies in Economics**

An analysis of the economic system(s) of a particular country or region of the world. Among the topics included in the analysis will be: functioning of key sectors of the system; the role of government in the economy; the resource base; the income distribution; trade and financial relations with other countries; contemporary economic issues and policies; past and present economic performance. Course offerings are anticipated for Japan, Russia, European Union, Latin America and Australia. Students may take this course more than once provided the specific country/region is not duplicated. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: 251 and 252

**348 International Economics**

Analysis of trade between nations and regions of the world; trade and trade policy; economic integration; foreign-exchange markets; global financial system and world payments; cross-border movement of resources; economic interdependency of nations and regions; the economic system in a global framework.

Prerequisites: 251 and 252

**349 Comparative Economic Systems**

Analysis of the tools used to evaluate alternative economic systems; study of the structure and performance of laissez faire, centralized planning, democratic socialism and market socialism; historical evolution of economic systems; consideration of efficiency, growth, and social welfare; case studies: United States., CIS, China, the new market economies of Central Europe, others.

Prerequisites: 251 and 252

**351 Macroeconomic Theory**

Theories of money, interest, income and expenditure, employment, and inflation; monetary and fiscal policies; introduction to the theory of growth.

Prerequisites: 251 and 252

## Departments

### 352 Microeconomic Theory

Analysis of consumer behavior and demand theory; theory of production and costs; analysis of the firm and industry under various market structures; factor pricing; general equilibrium. Selected additional topics such as market failure, economics of information, welfare economics, income distribution.

Prerequisites: 251, 252 and MATH 109 or 111 or 113 or equivalent.

### 355 Game Theory

Game theory seeks to explain how rational people make decisions when outcomes are mutually interdependent. This course introduces the methods of game theory from a historical perspective with primary emphasis on applications to economics. Applications to the other social sciences, business and biology are also considered. Topics covered include: normal and extensive forms of games, strict and weak dominance, sub-game perfections, pure and mixed strategies, Nash equilibrium, bargaining, oligopoly, New Keynesian and Classical Economics, trade policy, environmental economics and conflict resolution.

Prerequisites: 251 and 252, plus completion of the core curriculum mathematics requirement.

### 360 Experimental Economics

Experimental economics refers to the practice of testing economic hypotheses by conducting controlled experiments rather than relying on more traditional econometric testing. This course provides a survey of experiments conducted by economists in a variety of areas. Discussion will focus on the basics of the theory being tested, the methodology employed, and the results for each experiment. In addition, attempts will be made to replicate some results by conducting these same experiments in the classroom. Topics may include experiments conducted in the theory of competitive markets, oligopoly markets, auctions, decision-making under risk and uncertainty, public good and search theory.

Prerequisites: 251, 252, and one additional ECON course numbered 300 or higher

### 370 Environmental and Natural Resource Economics

This course employs economic principles to analyze the problems of environmental pollution and natural-resource depletion. Economic systems, such as the private-market mechanism, are evaluated with respect to their effectiveness in the management of natural resources and the environment. Domestic and international environmental policies are examined and critiqued.

Prerequisite: 252

### 401 Managerial Decision Making

Microeconomic theory applied to business decision making. Emphasis on quantitative techniques applied to business decision making under uncertainty, demand and cost estimation, linear production models, pricing decisions, capital budgeting, inventory problems, and group decision making. Quantitative tools include linear regression, statistical decision analysis and linear programming.

Prerequisites: 352, and QMCS 220 or MATH 333 or permission of the instructor

### 418 Mathematical Economics

Introduction to a mathematical treatment of models of economic behavior; economic content includes consumer theory, theory of the firm and selected topics in macroeconomics.

Prerequisites: 351, 352, and MATH 200 or MATH 114 with permission of instructor

### 470 Research in Economics

The Research in Economics course deals with data collection and statistical analysis of economic hypotheses. It culminates in writing a research paper on a topic of the student's choosing.

Prerequisites: Senior standing and 315, or permission of the instructor

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Elementary Education

See *Department of Teacher Education*

## Engineering (ENGR)

Bennett (chair), Jalkio, Kumar, Zimmerman; Cottles, Frohrib, Jaedike, Sparrow, Walker  
Faculty from other departments and adjunct faculty from industry teach specialized courses.

The University of St. Thomas offers three tracks in engineering:

- A program in mechanical engineering
- A dual degree program in mechanical engineering and business
- A pre-engineering program.

### Engineering

The bachelor of science in mechanical engineering (B.S.M.E.) is an applied engineering program, blending theory and research with practical engineering fundamentals. The program is academically rigorous, following Accreditation Board for Engineering and Technology (ABET) guidelines and complemented with a full liberal arts curriculum. (Application for ABET accreditation will be made in 2000.)

The mechanical engineering curriculum combines the study of basic sciences, general engineering, design engineering and mechanical engineering with the study of the liberal arts. Emphasis is placed on applied engineering.

The curriculum provides for a foundation in: theoretical and applied mechanics, materials, electrical-electronic fundamentals, computer-aided design, automation systems, thermodynamics heat transfer/fluid flow, manufacturing processes and practical design.

Students graduating with a major in mechanical engineering will meet the program objectives and outcomes designed to exceed the requirements of ABET's *Engineering Criteria 2000*. These are a comprehensive set of criteria designed to provide graduates with the technical, ethical, attitudinal and communications skills required to be a productive contributor to society and to aggressively seek life-long learning experiences.

These program objectives and outcomes are designed to provide the graduate with a foundation for clear thinking and expression in a balanced liberal arts educational program. They will demonstrate competence in a variety of skills that enhance their ability to solve problems in diverse ways to meet the needs of the community through their work and in their lives, as agents of change in the world of the future. Graduates will also develop teamwork and communication skills while gaining a comprehensive understanding of the design and engineering system.

Graduates will be prepared for direct entry into an engineering position in industry or for advanced study in graduate school.

The dual degree program in Mechanical Engineering and General Business Management is designed for students with an interest in both engineering and business. The program combines the applied engineering concepts of mechanical engineering with knowledge of the financial, marketing and management disciplines of the business program. Students in this dual program will have skills to prepare them for a wide variety of opportunities in industry or advanced graduate education. The dual degree program requires approximately five years to complete.

### Dual Degree in Mechanical Engineering (B.S.M.E.) and General Business Management (B.A.)

- 150 Introduction to Engineering I (0 credit)
- 151 Introduction to Engineering II (1 credit)
- 171 Engineering Graphics
- 220 Engineering Mechanics I
- 221 Engineering Mechanics II
- 320 Machine Design and Synthesis
- 350 Electrical Engineering Principles
- 360 Manufacturing Processes
- 370 Engineering Materials
- 381 Thermodynamics
- 382 Heat Transfer and Fluid Flow
- 410 Control Systems and Automation
- 480 Engineering Design Clinic I
- 481 Engineering Design Clinic II

*Plus:*

eight credits of ENGR electives

## Departments

### *Plus:*

ACCT	205	Introduction to Accounting
BUS	200	Community Service (0 credit)
BUS	201	Ethics and Practice: Foundations of Business
FINC	321	Financial Management
MGMT	301	Management of Organizations and Processes
MGMT	480	Integrative Issues of Businesses and Organizations
MKTG	300	Principles of Marketing

### *Plus one of:*

BLAW	301	Legal Environment of Business
BLAW	303	International Business Law

### *Allied requirements*

CHEM	111	General Chemistry
COMM	105	Communications in the Workplace
ECON	251	Principles of Macroeconomics
ECON	252	Principles of Microeconomics
MATH	113	Calculus I
MATH	114	Calculus II
MATH	200	Multi-Variable Calculus
MATH	210	Linear Algebra and Differential Equations
MATH	303	Statistics for the Applied Sciences
PHYS	111	Introduction to Classical Physics I
PHYS	112	Introduction to Classical Physics II
QMCS	230	Software Design Using the JAVA Language

## **Pre-Engineering**

*See Affiliated Programs*

### **Major in Mechanical Engineering (B.S.M.E.)**

150	Introduction to Engineering I (0 credit)
151	Introduction to Engineering II (1 credit)
171	Engineering Graphics
220	Engineering Mechanics I
221	Engineering Mechanics II
320	Machine Design and Synthesis
350	Introduction to Electronics
360	Manufacturing Processes
370	Engineering Materials
381	Thermodynamics
382	Heat Transfer and Fluid Flow
410	Control Systems and Automation
480	Engineering Design Clinic I
481	Engineering Design Clinic II

### *Plus eight credits from the following:*

225	Kinematics and Mechanism Design (2 credits)
351	Electronic Instrumentation and Control Laboratory
385	Thermal Design (2 credits)
390	Packaging Fundamentals
420	Rapid Product Realization
430	Applications of Thermodynamics
440	Design with Plastics
450	Vibration and Control Theory
460	Engineering Economics and Project Management
470	Fundamentals of Mechatronic Engineering I
498	Individual Study

### *Allied Requirements*

CHEM	111	General Chemistry I
MATH	113	Calculus I
MATH	114	Calculus II
MATH	200	Multi-Variable Calculus
MATH	210	Linear Algebra and Differential Equations

- MATH 303 Statistics for the Applied Sciences  
 PHYS 111 Introduction to Classical Physics I  
 PHYS 112 Introduction to Classical Physics II  
 QMCS 230 Software Design Using the JAVA Language

### Minor in Engineering

- 150 Introduction to Engineering I (0 credit)  
 151 Introduction to Engineering II (1 credit)  
 171 Engineering Graphics  
 360 Manufacturing Processes

*Plus eight credits from the following:*

- 220 Engineering Mechanics I  
 221 Engineering Mechanics II  
 300 Manufacturing Management Systems  
 320 Machine Design and Synthesis  
 350 Introduction to Electronics  
 370 Engineering Materials  
 381 Thermodynamics  
 382 Heat Transfer and Fluid Flow  
 410 Control Systems and Automation

#### 150 Introduction to Engineering I 0 credit

This course introduces students to engineering fields, practicing engineers and hands-on engineering work. As they become acquainted with engineering occupations and experience their potential for creativity and fun, students will understand the value and applications of the required curriculum and be motivated and stimulated to pursue further engineering studies. Offered in fall semester.

#### 151 Introduction to Engineering Design II 1 credit

A continuation of ENGR 150, introduction to engineering, this course focuses on design as the central activity of engineering. Students learn a disciplined approach to design through case studies and open ended design experiences. Offered in spring semester.

Prerequisite: 150

#### 171 Engineering Graphics

Students will learn to read blueprints and working drawings and become familiar with computer-aided design (CAD) terminology and technology. Topics include the elements of drafting, including: the use of CAD software; principles of projection; and introductory methods of representation and constructive geometry, working drawings, conventions and standards.

#### 220 Engineering Mechanics I

This fundamental course addresses the essential engineering principles of statics, dynamics and deformable body mechanics. Offered in fall semester.

Prerequisites: MATH 114 and PHYS 111 (or concurrent registration in PHYS 111)

#### 221 Engineering Mechanics II

Continuation of 220. Offered in spring semester.

Prerequisite: 220

#### 225 Kinematics and Mechanism Design 2 credits

Analysis and design of linkages and other mechanisms including geometry of motion and force distributions. Computer aided analysis and design tools are used as well as mathematical techniques. Offered in J-term.

Prerequisite: 220

#### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 300 Manufacturing Management Systems I

Introduces engineering students to the basic management and economic concepts useful to practicing engineers working in manufacturing settings. This course covers basic principles of management, work design, work measurement, incentive plans, managing for quality, statistical quality control, manufacturing cost concepts and engineering economics. Offered in fall semester.

Prerequisite: MATH 303 or permission of instructor

**310 Manufacturing Management Systems II**

Introduces engineering students to manufacturing strategy and its relationship to the design of facilities, production systems and systems of management, planning and control. This course covers manufacturing strategy, basic types of production systems (such as job shop and assembly line), facility location, facility layout, materials handling systems, material management, inventory control, production planning and control, material requirements planning, the Just-In-Time philosophy, capacity planning and project management.

Prerequisite: 300 or consent of instructor

**320 Machine Design and Synthesis**

Machines are designed to transmit motion and energy between two sites and convert motion from one from to another. This course will develop the students creative skills in conceptualizing machines to met performance criteria. Machine designs will require the understanding and use of machine elements such as springs, screws, bearings and gears. The student will participate in concept feasibility evaluation as a method of understanding component operational principles and failure modes.

Prerequisite: ENGR 221

**350 Introduction to Electronics (PHYS 260)**

This course provides scientists and engineers with a background in electronics and electronic instrumentation. Topics include DC and AC circuit analysis, frequency response, filters, feedback. operational amplifiers, semiconductor devices, power supplies, oscillators, logic gates, codes for numbers and symbols, combinational and sequential digital logic design, timing, transducers, and analog-digital conversion. The course consists of lecture, demonstration, discussion, and laboratory.

Prerequisite: A minimum grade of C- in Physics 112

**351 Electronic Instrumentation and Control Laboratory**

Provides an understanding of the fundamentals of electrical engineering. The course covers principles and applications of transducers, instrumentation systems, amplifiers and signal conditioners, impedance matching, frequency, time response and elementary feedback systems.

Prerequisite: 350

**360 Manufacturing Processes**

Provides an understanding of the fundamental technologies of manufacturing processes. This course covers such basic principles of manufacturing processes as casting, heat treating, metal cutting, plastic molding and continuous processes. Offered in spring semester.

**370 Engineering Materials**

An introduction to materials and their properties. This course introduces students to the fundamentals of materials theory, properties and applications. Topics include properties and applications of metals, polymers, ceramics and composite materials. The course emphasizes characteristics of materials in manufacturing operations and service, including open-ended design issues. Offered in spring semester.

Prerequisites: CHEM 111 and PHYS 111

**381 Thermodynamics**

A study of thermal and mechanical energy and their applications to technology. First law of thermodynamics (energy conservation); second law of thermodynamics (restrictions on energy transformations). Thermophysical properties of substances. Power producing devices and heat pumping devices. Humidity, dew point and other characteristics of non-reacting mixtures. Reacting mixtures (combustion of fuels).

Prerequisites: PHYS 112 and MATH 114

**382 Heat Transfer and Fluid Flow**

Modes of heat transfer: convection, conduction, and radiation. Coupling of convective heat transfer with fluid flow. Fundamentals of fluid flow: statics, boundary layers, pipe flows, pressure drop, and friction factor. Convective heat transfer at external surfaces and internal surfaces. Fluid-to-fluid heat exchangers and their design. Conduction in solids of various shapes; use of heat-conducting fins to improve the performance of heat exchangers. Radiation heat transfer between surfaces.

Prerequisite: 381

**385 Thermal Design**

2 credits

Design of systems where the transfer of heat and/or the attainment of specific temperature levels are critical to the function of the system. Applications include heat exchangers, thermal climate control devices and a focused case study. Offered in J-term.

Prerequisite: 382

**390 Packaging Fundamentals**

Provides the student with firsthand knowledge of packaging principles and processes as they apply to the manufacturing operation. The course covers the functions of packaging, major materials used in packaging and their

properties and package-forming processes. Students will do hands-on work in package assembly and produce a computer-designed package as part of their lab work.

Prerequisite: Junior standing or consent of instructor

#### 410 Control Systems and Automation

An introduction to the scope of control systems in manufacturing and their implementation. The course focuses on analog and binary control loop theory, the use of transforms (Laplace and Z) to describe and solve analog control systems, and the use of Boolean algebra to describe and solve binary control systems. Simulation is emphasized as an important tool for plant design, layout and optimizing manufacturing methods.

Prerequisites: 350 and MATH 210

#### 420 Rapid Product Realization

Provides a basic understanding of computer-aided design and manufacturing (CAD/CAM) systems in modern manufacturing operations. Topics covered include solid modeling, computer simulation, and implementation of CAD/CAM systems.

Prerequisites: 171 and junior standing

#### 430 Applications of Thermodynamics

Introduction to principle industrial applications of thermodynamics. The course will cover theory of operation and design considerations of these systems as well as examples of thermodynamic engineering design. Topics include heating, ventilation, and air conditioning systems (HVAC), engines, and turbomachinery.

Prerequisite: 382

#### 440 Design with Plastics

The student will learn about the most common plastic compositions in industry along with their respective applications; understand the difference between injection and vacuum molding and what to look for using either; be able to match plastics with molding technology; learn about environmental and recycling issues surrounding the plastics industry.

Prerequisites: 171 and 370

#### 450 Vibration and Control Theory

This course offers fundamentals in the theory of vibrations and control of mechanical systems. The topics related to vibration include undamped and damped free vibration, forced vibration or continuous systems. The topics related to control theory include modeling of dynamic systems (mechanical, electrical, hydraulic, pneumatic and thermal), analysis of continuous time and discrete time systems, feedback control systems, and graphical design methods.

Prerequisite: 410

#### 460 Engineering Economics and Project Management

A practical look at the daily activities (including cost analysis and scheduling) and challenges of project managers in an engineering setting. Significant time will be devoted to personnel related topics such as conflict resolution, time management and leadership.

#### 470 Fundamentals of Mechatronic Engineering I

Introduction to basic electronic devices and microprocessor systems for measurements and control; electronic circuits; amplifiers; filters; logic gates and sequential logic applications: A/D and D/A conversion and interfacing; transducers; controllers; motors and actuators; microprocessor fundamentals and programming; data acquisition and feedback control.

Prerequisite: 410

#### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 480 Engineering Design Clinic I

Serves as the first capstone course. Student design teams, under the direction of a faculty coordinator, will develop engineering solutions to practical, open-ended design projects conceived to demonstrate the value of prior basic science and engineering courses. Ethical, social, economic and safety issues in engineering practice will be considered as well.

Prerequisites: Senior standing and permission of instructor

#### 481 Engineering Design Clinic II

The final capstone course for the application of previously learned engineering principles to the solution of real problems in an actual industrial setting. Student design teams will work under the direction of faculty advisers and industry liaisons. Opportunity will be provided for objective formulation, analysis, synthesis and evaluation of alternative solutions.

Prerequisite: 480



## Departments

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## English (ENGL)

Mikolajczak (chair), An, Bellamy, Callaway, Chowdhury, Clermont-Ferrand, Craft-Fairchild, Erdrich, Foy, Jordan, Larson, MacKenzie, May, L. Miller, R. Miller, O'Connor, O'Reilley, Otto, Piorkowski, Powell, Redshaw, Reichardt, Ringnald, Scheiber, Scheurer, Warren, Wellisch

The aims of the department are to:

help students gain mature skills in thinking, reading and writing;

extend to all interested students, regardless of their major, the opportunity for the self-enrichment which a study of language and literature affords;

provide students with a solid foundation for graduate study in English and other professional fields such as the law, the teaching of English in secondary and middle schools, and all careers that place heavy emphasis on analysis and communication.

To attain these goals, the major and minor programs outlined below focus on the different methodologies and approaches to the study of language, literature and writing while allowing students to pursue areas of particular interest.

The Department of English offers three emphases. They appear below in order of restrictiveness, from the least to the most.

1. The general major that allows students to take a variety of literature courses and to incorporate writing and cultural studies into their programs;
2. The writing emphasis that takes students through a graduated sequence of writing courses (200/300/400) built upon a foundation of literature courses. Students seeking this major should plan a schedule that allows for a 400-level course so as to get the best advantage of the program;
3. The Minnesota teacher licensure program in Communication Arts and Literature that prepares students for teaching elementary, middle, and secondary school. This program requires courses in linguistics, literature, writing, and writing pedagogy. It requires, therefore, early and careful planning. Students completing this program may complete a major in English.

Students graduating with a major in English will be able to write thoughtfully about literature and life, in forms that range from engaged responses, to close readings of primary texts, to critical papers using secondary sources. They will understand and practice writing as a process that involves substantial revision and be able to reflect thoughtfully upon the writing process that works best for them. They will demonstrate broad knowledge of American and British literature.

All students majoring in English must take a minimum of sixteen credits in English courses at the 200-level or above at St. Thomas.

All students minoring in English must take a minimum of eight credits in English courses at the 200-level or above at St. Thomas.

The department offers courses for non-majors to fulfill the Literature and Writing component of the core curriculum.

### English Honor Society

Sigma Tau Delta, the national English honor society, formed a chapter at St. Thomas in 1988. The honor society brings together students and faculty with a love of literature, language and writing; it sponsors a variety of scholarships, holds regional and national conventions, and provides a forum for both creative and critical writing. Students who have a grade point average of at least 3.0 in English courses, rank at least in the highest 35 percent of their class in general scholarship, and who have completed at least three semesters of college are eligible to apply for membership.

### Major in English

111 Critical Reading and Writing I: Fiction and Nonfiction Prose

112 Critical Reading and Writing II: Drama and Poetry

Qualified students may substitute 190 plus an additional upper-level course for 111 and 112

380 Issues in English Studies

*Plus thirty-two credits beyond the 100-level:*  
 minimum of 12 credits at 200-level  
 minimum of 16 credits at 300- and 400-level  
 minimum of 4 credits at 400-level

The following areas must be represented in these 32 credits (one course may satisfy more than one requirement):

- 4 credits on early literature*  
211, 214, 220, 221, 360, 361, 362, 364, 370, 371, and section 11 of 325, 390, 395
- 4 credits on American literature*  
214, 215, 370, 371, 372, 373, and section 21 of 217, 324, 325, 337, 341, 390, 395
- 4 credits on British literature*  
211, 212, 360, 361, 362, 364, 365, 366, 367, and section 31 of 324, 325, 341, 390, 395
- 4 credits on diversity literature*  
217, 218, 325, 337, 341, and section 61 of 325, 390, 395
- 4 credits on writing*  
251, 252, 253, 300, 321, 322, 401, 402, 403

### **Major in English with Writing Emphasis**

- 111 Critical Reading and Writing I: Fiction and Nonfiction Prose
- 112 Critical Reading and Writing II: Drama and Poetry  
Qualified students may substitute 190 plus an additional upper-level course for 111 and 112

*Plus sixteen credits from:*

- 251 Writing in the Academy
- 252 Writing Nonfiction Prose
- 253 Writing Poetry and Fiction
- 300 Theory and Practice of Writing
- 321 Writing Poetry
- 322 Writing Fiction
- 401 Advanced Poetry or Fiction Writing
- 402 Writing Literary Nonfiction
- 403 Analytical and Persuasive Writing
- 480 Literary Magazine Practicum

*Plus twenty additional credits not on the list above*

Students are advised to include a 400-level course in their program

### **Teacher Education**

Elementary Education with a Specialty in Communication Arts and Literature (5-8)  
 Co-major in Communication Arts and Literature (5-12) and a Co-major in Secondary Education  
*See Department of Teacher Education*

### **Literary Studies**

*See Interdisciplinary Programs*

### **Minor in English**

- 111 Critical Reading and Writing I: Fiction and Nonfiction Prose
- 112 Critical Reading and Writing II: Drama and Poetry  
Qualified students may substitute 190 plus an additional upper-level course for 111 and 112

*Plus:*

eight credits at the 200-level  
 eight credits at the 300-level

### **Minor in English with Writing Emphasis**

- 111 Critical Reading and Writing I: Fiction and Nonfiction Prose
- 112 Critical Reading and Writing II: Drama and Poetry  
Qualified students may substitute 190 plus an additional upper-level course for 111 and 112

*Plus one of:*

- 211 British Authors I
- 212 British Authors II
- 214 American Authors I

*Plus three of:*

- 252 Writing Nonfiction Prose
- 253 Writing Poetry and Fiction
- 300 Theory and Practice of Writing
- 321 Writing Poetry
- 322 Writing Fiction
- 401 Advanced Poetry or Fiction Writing
- 402 Writing Literary Nonfiction
- 403 Analytical and Persuasive Writing
- 484 Literary Magazine Practicum

### 110 Intensive Writing

The course provides students with intensive practice in writing, enabling them to adapt to the demands of differing rhetorical contexts. Emphasis on understanding writing processes and learning to respond thoughtfully to writing at various stages. Critical reading will be practiced as an integral part of the writing process.

Prerequisite: participation in the Academic Development Program or the Academic Preparation Program

#### *Critical Reading and Writing*

These courses develop students' awareness of language by helping them to recognize the relationship between their own experience and the interpretive possibilities of literature. Attention will be paid to the integration of the individual's composing process and the process of reading and understanding texts. These courses foster attentive reading, critical thinking and effective writing.

### 111 Critical Reading and Writing I: Fiction and Nonfiction Prose

Emphasis on reading and writing to explore ideas and to inform readers, with special attention to the writing process and to basic rhetorical concerns such as audience and purpose. Writing assignments will be linked to reading consisting primarily of prose fiction and nonfiction. This course fulfills the Literature and Writing requirement in the core curriculum.

### 112 Critical Reading and Writing II: Drama and Poetry

Emphasis on interpreting literary texts and writing about them persuasively, with special attention to close reading and to the use of textual evidence. Writing assignments will be linked to readings consisting primarily of drama and poetry. This course fulfills the Literature and Writing requirement in the core curriculum.

Prerequisite: 111 or permission of department chair

### 190 Critical Reading and Writing: Major Genres

This course for specially qualified students combines the study of composition with the study of literary readings drawn from fiction, drama, poetry and nonfiction prose. The course emphasizes responsive engagement with literature and provides instruction in writing ranging from the exploratory to the persuasive and analytical modes. This course, plus an additional upper-level course, fulfills the Literature and Writing requirement in the core curriculum. Offered in fall semester.

### 205 Literature in Perspective

This course, whose subject will change from year to year, will reflect particular interests in a given theme, genre, author, or period. Subjects will be announced in the annual *Class Schedule* and will not duplicate existing courses. The course is designed for non-majors, and credit may be earned more than once under this number for different emphases. Possible courses are: Madness in Literature, American Short Stories, Virginia Woolf, Holocaust Literature. Open to non-English majors only.

Prerequisites: 111 and 112 or 190

### 211 British Authors I

This course will focus on extensive reading of a broad selection of British authors from the medieval period through the eighteenth century. Students will engage in close analysis of literary texts by such authors as Chaucer, Shakespeare, Donne, Milton, and Behn, with some attention to historical and cultural contexts.

Prerequisites: 111 and 112 or 190

### 212 British Authors II

This course will focus on extensive reading of a broad selection of British authors from Romanticism to the present. Students will engage in close analysis of literary texts by such authors as Blake, Wordsworth, Tennyson, Conrad, and Woolf, with some attention to historical and cultural contexts.

Prerequisites: 111 and 112 or 190

### 214 American Authors I

The study of significant American authors from the beginnings of American literature to the turn of the twentieth century. This survey course will consider the diverse literary, cultural, and historical contexts from which the American literary tradition has arisen. Possible authors studied include Hawthorne, Douglass, Jacobs, Fuller,

Dickinson, Clemens, Jewett, Cooper, Wheatley, Whitman, and Native American voices.

Prerequisites: 111 and 112 or 190

### 215 American Authors II

The study of significant American authors from the turn of the century to the present. This survey course will consider the diverse literary, cultural, and historical contexts from which the American literary tradition has been formed. Possible authors studied include Hemingway, Faulkner, Hurston, Wright, Morrison, Cather, Wharton, Rich, and O'Neill.

Prerequisites: 111 and 112 or 190

### 217 Multicultural Literature

This course will focus on extensive reading of a broad selection of authors drawn from the literature of one of the following: (a) American communities of color; (b) postcolonial peoples; (c) diasporic peoples. Students will engage in close analysis of literary texts from at least one such literary tradition, with some attention to historical and cultural contexts. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: 111 and 112 or 190

### 218 Literature by Women: Critical History

This course will focus on the history of literature by women. It will concentrate on the traditions in Britain and America, but also will include some attention to non-Western women writers. It will address issues of canon formation, as well as the role of gender in the composition and reading of literary texts. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: 111 and 112 or 190

### 220 The Classical Tradition

Reading of representative masterpieces of Western literature in translation, from the Classical period through the Middle Ages. Authors will include Homer, Aeschylus, Sophocles, Virgil, Ovid and Dante.

Prerequisites: 111 and 112 or 190

### 221 The Modern Tradition

Reading, in translation, of representative masterpieces in the European tradition from the Renaissance through the 20th century, including such writers as Cervantes, Racine, Goethe, Flaubert, Dostoevsky, Kafka and Mann. Areas of inquiry also will include the mutual interactions of the European tradition with modern African, Latin American or Eastern literatures.

Prerequisites: 111 and 112 or 190

### 222 The Catholic Literary Tradition: Medieval to Modern (CATH 222)

This course surveys literary works with theological or spiritual themes that have contributed to the vitality of Catholic culture. The purpose of the course is to help students realize that Catholic culture has fostered a variety of literary expressions and has produced works that speak compellingly of human experience and sacramental life.

Prerequisites: 111 and 112 or 190

### 251 Writing in the Academy

This course focuses on principles of effective academic writing. Attention will be paid to strategies for development, patterns of organization, and rhetorical concerns such as voice, audience, purpose and style. Students will consider conventions of academic discourse, both as they are shared and as they vary across disciplines.

Prerequisites: 111 and 112 or 190

### 252 Writing Nonfiction Prose

This course will aim to develop fluency, voice and style in a range of rhetorical situations within the genre of non-fiction prose, including memoir, the informal essay, experimental nonfiction, review, and argument. Intended to prepare students for advanced courses in literary nonfiction and analytical and persuasive writing.

Prerequisites: 111 and 112 or 190

### 253 Writing Poetry and Fiction

This course introduces students to the skills necessary for writing literary fiction and poetry. It includes close readings of literary texts that model the basic techniques of imaginative writing, weekly writing exercises that encourage exploration and development of craft, and peer critique sessions to develop students' critical skills. This course will include instruction in imagery, figurative language, rhythm and sound patterns, tone, point of view, literary structures, character development, and style.

Prerequisites: 111 and 112 or 190

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisites: 111 and 112 or 190

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### 300 Theory and Practice of Writing

Working from a base of contemporary rhetorical theory, advanced writing students will write essays in a variety of forms. They will be encouraged to develop a vocabulary for talking about writing, as well as the ability to critique their own and others' work. Directed reading in contemporary writing pedagogy for the elementary and secondary composition teacher. Required for secondary licensure in communication arts and literature.

Prerequisites: 111 and 112 or 190; advanced writing skills

### 305 Linguistics: English Language

The study of the historical, structural, and semantic features of the English language; systems of English grammar.

Prerequisites: 111 and 112 or 190

### 321 Writing Poetry

This intermediate course explores traditional and innovative patterns of poetry writing. Emphasis on experimentation with a variety of techniques and development of individual voice. This course will include critique sessions, readings to broaden possibilities of form and subject, and individual instruction. Open to students with some previous experience in writing poetry.

Prerequisite: 253 or permission of instructor.

### 322 Writing Fiction

This intermediate course explores traditional and innovative patterns of fiction writing. Emphasis on experimentation with a variety of techniques and development of individual voice. This course will include critique sessions, readings to broaden possibilities of form and subject, and individual instruction.

Prerequisite: 253 or permission of instructor.

### 324 Genre Studies

This course will examine genre as an ordering principle in the study of literature. The particular genres to be studied will vary from year to year, namely, prose fiction, nonfiction prose, drama, and poetry. Credit may be earned more than once under this number for different emphases.

Prerequisites: 111 and 112 or 190

### 325 Special Studies in Genre, Region, or Theme

This course will offer an intensive focus on a body of literature defined by its association with a special genre, locale, or theme. Such specialized topics as the epic poem, contemporary autobiography, Minnesota literature, or Genesis in literature might be studied. Students will also consider relevant critical approaches and issues. Credit may be earned more than once under this number for different emphases.

Prerequisites: 111 and 112 or 190

### 334 Literature from a Christian Perspective (CATH 334)

This course examines methods of reading and literary texts from a Christian perspective. The general question of the course is, "how does a reader engage works of imaginative literature from an intellectually serious Christian perspective?" The course studies works of criticism representing a variety of Christian viewpoints and applies them to literary texts that are explicitly Christian in themes as well as those which invite, or are enriched by, a Christian perspective.

Prerequisites: 111 and 112 or 190

### 337 The Literature of Human Diversity

Offered with specific subtitles, this course provides an intensive focus on a selected body of literature concerning one of the following aspects of human diversity: race, ethnicity, class, gender, sexual orientation. Students will also consider relevant critical approaches and concepts. Credit may be earned more than once under this number for different emphases. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: 111 and 112 or 190

### 341 Literature by Women: Critical Questions

This course will offer an in-depth study of selected women's writing, organized by period, genre or theme. In any particular semester, the course might focus, for example, on 18th century women writers, contemporary women poets or marriage in women's literature. The texts will be approached with regard to questions of canon formation, women's history and cultural constructions of gender. Credit may be earned more than once under this number for different emphases. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: 111 and 112 or 190

### 360 Chaucer and the Medieval Period

This course offers an intensive focus on the literature and culture of the medieval period. Such authors as the *Pearl* poet, medieval dramatists, and Malory will provide a context for reading Chaucer's *Canterbury Tales*. Critical approaches and issues will also be studied.

Prerequisites: 111 and 112 or 190

**361 Shakespeare and the Early Modern Period**

This course offers an intensive focus on the literature and culture of the English early modern period. Such authors as Sidney, Spenser, Elizabeth I and Cary will provide a context for reading Shakespeare's works. Critical approaches and issues will also be studied.

Prerequisites: 111 and 112 or 190

**362 Milton and Seventeenth Century British Literature**

This course offers an intensive focus on the literature and culture of the British seventeenth century. Such authors as Donne, Lanyer, Wroth and Herbert will provide a context for reading Milton's *Paradise Lost*. Critical approaches and issues will also be studied.

Prerequisites: 111 and 112 or 190

**364 Eighteenth Century British Literature: The Age of Satire and the Novel**

This course offers an intensive focus on the literature and culture of eighteenth-century Britain. Such authors as Pope, Swift, Burney, and Johnson will be studied, along with critical approaches and issues relevant to the period.

Prerequisites: 111 and 112 or 190

**365 The Romantic Age in Britain**

This course offers an intensive focus on the literature and culture of the Romantic Age in Britain. Such authors as Austen, Blake, Wollstonecraft, Byron, and the Shelleys will be studied, along with critical approaches and issues relevant to the period.

Prerequisites: 111 and 112 or 190

**366 The Victorian Age in Britain**

This course offers an intensive focus on the literature and culture of the Victorian Age in Britain. Such authors as Tennyson, the Brownings, the pre-Raphaelites, Dickens, and Eliot will be studied. Special attention will be paid to the historical context, as well as to relevant critical approaches and issues.

Prerequisites: 111 and 112 or 190

**367 Twentieth Century British Literature**

This course offers an intensive focus on select aspects of the literature and culture of twentieth-century Britain. Such authors as Woolf, Joyce, Eliot, Lessing, and Walcott will be studied, along with critical approaches and issues relevant to the period.

Prerequisites: 111 and 112 or 190

**370 Colonial and Early-American Literature**

this course offers an intensive focus on selected aspects of American literature from its beginnings to approximately 1820. Attention will be given to the diverse literary, cultural, and historical contexts of the literature being studied, as well as to relevant critical approaches and issues. Possible authors studied include Bradstreet, Franklin, Wheatley, Irving, Native American voices.

Prerequisites: 111 and 112 or 190

**371 Nineteenth Century American Literature**

This course offers an intensive focus on selected aspects of American literature from the early Romantic movement (approximately 1820) to the turn of the century. Attention will be given to the diverse literary, cultural, and historical contexts that inform the literature being studied, as well as to relevant critical approaches and issues. Possible authors studied include Emerson, Fuller, Douglass, Clemens, Dickinson.

Prerequisites: 111 and 112 or 190

**372 Modern American Literature**

This course offers an intensive focus on selected aspects of American literature of the first half of the twentieth century, from approximately 1900 to 1945. Attention will be given to the diverse literary, cultural, and historical contexts that inform the literature being studied, as well as to relevant critical approaches and issues. Possible authors studied include Hemingway, Faulkner, Hurston, Eliot, Wharton, O'Neill.

Prerequisites: 111 and 112 or 190

**373 Contemporary American Literature**

This course offers an intensive focus on selected aspects of American literature from approximately 1945 to the present. Attention will be given to the diverse literary, cultural, and historical contexts that inform the literature being studied, as well as to relevant critical approaches and issues. Possible authors studied include Erdrich, Morrison, Bellow, Ginsberg, Tennessee Williams, Adrienne Rich.

Prerequisites: 111 and 112 or 190

**380 Issues in English Studies**

This course focuses on ideas and practices central to advanced work in the field of language and literature. In addition to refining students' facility with critical concepts and scholarly methodology, this course will explore

## Departments

a number of key questions for current work in the discipline: How do we define such concepts as literacy, literature, and interpretation? How do we understand the relationship between reader, writer, and text? How do such factors as gender, culture, and history affect our understanding of literature and of ourselves as writers and readers? This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 111 and 112 or 190; at least two courses in ENGL above the 100-level

### 390 Major Literary Figures

This course will study a significant body of work by a major writer or pair of writers. Typical offerings: Jane Austen, Charles Dickens, Hawthorne and Melville, T.S. Eliot. Credit may be earned more than once under this number for different emphases.

Prerequisites: 111 and 112 or 190

### 395 Issues in Literature and Culture

This course offers an intensive focus on a selected body of literature in relation to some significant "extraliterary" context, e.g., history, popular culture, other disciplines, other arts. The course will emphasize critical approaches and issues appropriate to this focus. The content of this course will vary from semester to semester. Some sections of the course may fulfill the Human Diversity requirement in the core curriculum.

Prerequisites: 111 and 112 or 190

*400-level courses have a prerequisite of 5 courses beyond the 100-level, plus additional prerequisites as noted.*

### 401 Advanced Poetry or Fiction Writing

This advanced course focuses on the student's development of a polished body of work in poetry and/or fiction. Students will review, revise and select writing they have done previously, as well as produce new work. Readings will include theoretical and creative texts.

Prerequisite: 321 or 322, or permission of instructor based on examination of a portfolio

### 402 Writing Literary Nonfiction

This advanced course will focus on the theory and practice of literary nonfiction, that is, the writing of prose drawn from personal experience, reflection, observation and analysis. Essays by such writers as E.B. White, Annie Dillard and Lewis Thomas will be considered as examples of the genre. For self-motivated writers who wish to develop voice, fluency and precision.

Prerequisite: 252 or 253 or 300 or consent of the instructor based on examination of a portfolio

### 403 Analytical and Persuasive Writing

Intended for the experienced writer, this course will emphasize the theory and practice of writing in analytical, persuasive and research-based rhetorical modes as preparation for advanced or professional writing in a variety of disciplines.

Prerequisite: 251 or 252 or 253 or consent of instructor

### 411 Criticism of Literature

Study in theoretical and applied literary criticism. Particular authors and works are closely examined in relation to various critical systems.

Prerequisites: 111 and 112 or 190 and 380

### 450 Advanced Literary Studies

This advanced course will focus on a closely defined group of literary and critical texts. Students will be asked to synthesize as they read and write, using extensive critical analysis to integrate their experience of literary texts with relevant critical insights and ongoing scholarship. Students will also be expected to take part in and lead discussion, and to write a substantial critical essay.

Prerequisites: 5 courses beyond the 100 level including ENGL 380. Open to limited graduate student enrollment by permission of instructor and the graduate program director. (Additional prerequisite 380)

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 480 Literary Magazine Practicum

Participants will study the history and character of literary magazines from 1912 to the present and apply their knowledge to editing the university's literary and visual-arts magazine. Editing activities include selection of material, copyediting, desktop publishing, book and Webpage design, and communication with publishing professionals. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: Permission of the instructor (arrange in early fall for course credit in the spring semester).

### 481 Senior Seminar

A seminar focused on the study of an issue or problem of literary significance. Through discussion and intensive reading, the seminar will consider common texts pertinent to an English major's whole curriculum. Each student

will execute and present a substantial critical or interpretive essay.

Prerequisites: completion of five English courses beyond the freshman level including 380; or, for non-majors, permission of the instructor and the department chair.

#### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisites: 111 and 112 or 190

#### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisites: 111 and 112 or 190

### Entrepreneurship

*See Division of Business*

### Environmental Studies

*See Interdisciplinary Programs*

### Family Studies

*See Interdisciplinary Minors*

### Film

*See Department of Theater*

### Financial Management

*See Division of Business*

### French

*See Department of Modern and Classical Languages*

### Geography (GEOG)

Werner (chair), Lorah, Filloon, Loesch

Geography is an interdisciplinary study that offers a rich body of knowledge about the character of diverse places in the world, their cultures and environments. Geography ranges from a broad and comprehensive understanding of the world to the specifics of computer-generated maps and geo-demographic analysis. Geographers make extensive use of computer skills to analyze a wide range of problems, from regional studies to urban structure and habitats.

With training in both the natural and social sciences, geographers have a wide range of careers in government, the private sector, and education. Geographers create digital maps, work with census data, help locate retail and service stores, work in local, state, and federal parks, analyze land use and urban planning, teach, and hold a wide variety of other jobs.

Students graduating with a major in geography will use the perspectives of many disciplines to demonstrate a general and comprehensive understanding of major world problems. They will be adequately prepared for a professional career that is related to geography.

#### Geography Honor Society

The honor society in geography at St. Thomas is Mu Alpha Pi. The purpose of the society is to further the professional development of geographers through research and academic experiences outside the classroom and laboratory. Students are eligible for membership when they have taken three courses in geography with at least a B average and rank in the upper 35 percent of their class.

#### Major in Geography

111 Human Geography

112 Physical Geography

113 World Geography

480 Seminar in Geography



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*Plus eight credits in methods courses:*

- 221 Computer Skills in Geography
- 222 Geographical Analysis
- 321 Geographic Information Systems
- 421 Advanced Geographic Information Systems

*Plus four credits in a topical course:*

- ECON 333 Urban and Regional Economics
- GEOG 230 Weather and Climate
- GEOG 330 Geography for Business and Planning
- GEOG 430 Urban Geography
- GEOL 252 Geomorphology

*Plus four credits in a regional course:*

- 240 Geography of East and Southeast Asia
- 340 Geography of the U.S. and Canada
- 384 Field Study in Geography

*Plus:*

Eight elective geography credits

### Teacher Licensure

Elementary Education with a Specialty in Social Studies (5-8)

Co-major in Social Studies (5-12) and a Co-major in Secondary Education

*See Department of Teacher Education*

### Minor in Geography

Eight credits in core courses

Eight credits in methods courses

Eight elective geography credits

#### 111 Human Geography

This course explores the effects of social, economic, environmental, political, and demographic change from a geographic perspective. It introduces students to a broad range of topics, including the effects of population growth, human impact on the environment, economic development, and globalization. Usually offered every semester. This course fulfills the Social Analysis and Human Diversity requirements in the core curriculum.

#### 112 Physical Geography

This course asks why the natural environment is the way it is and addresses the interrelationships between weather, soils, water, plants, animals and landforms. Because the "natural" environment includes people, the course looks at the role of humans in altering the environment. Usually offered spring semester.

#### 113 World Geography

A country-by-country study of the world. The goal of this course is to emphasize whatever best explains the character of each country. This may be population, economics, resources, or any aspect of nature or humanity that gives an insightful understanding of each country. Usually offered every semester. This course fulfills the Social Analysis and Human Diversity requirements in the core curriculum.

#### 221 Computer Skills in Geography

A course with an emphasis on useful computing, especially computer-generated maps. Topics include the basic operation of a computer, operating systems, spreadsheets, graphic representation of data, map projections and coordinate systems, thematic maps, and map design. An applications-oriented course using ArcView. This course fulfills the second-level Computer Competency requirement in the core curriculum. Usually offered fall semester.

#### 222 Geographical Analysis

This course uses quantitative methods to explore questions of geographic concern. It focuses on collecting, organizing, analyzing and presenting spatial data. Statistical methods are applied in a real-world context - in the spheres of population, production, pollution, and climate change. This course fulfills the second-level Computer Competency requirement in the core curriculum. Usually offered alternate years.

Recommended: 221 or consent of instructor.

#### 230 Weather and Climate

The causes and consequences of weather and climate, from global-scale processes of climate dynamics, the greenhouse effect and El Niño to regional and local-scale processes of fronts, thunderstorms, hurricanes and tornadoes.

Students are introduced to weather map analysis and simple forecasting and observational techniques.

#### 240 Geography of East and Southeast Asia

A regional study of East and Southeast Asian countries with special emphasis on China and Japan. The course examines the resources and physical geography but emphasizes the population, culture and economy in this dynamic region of the world. Usually offered alternate years.

#### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 321 Geographic Information Systems

A sequel to 221, the theme of this course is how to perform data analysis using vector-based geographic information systems. Specific topics include spatial database operations, buffers, map overlay and address matching. The course illustrates the principles of Geographic Information Systems using workstation ArcInfo and a variety of real-world applications from demography to environmental studies. This course fulfills the second-level Computer Competency requirement in the core curriculum. Usually offered spring semester.

Prerequisite: A minimum grade of C- in 221

#### 330 Geography for Business and Planning

Geographic techniques for business and planning applications include demographic analysis of customer characteristics, consumer's geographic behavior, trade areas, patterns of retailing, store location problems, site appraisals, optimal routing, and using census data.

#### 340 Geography of the U.S. and Canada

What does the notion of "America" mean? How is this different from other global regions? This course examines the historical creation and expansion of North America from European, African and Asian influences. It then explores the contemporary geography of the continent: different cultural regions, economic characteristics, political variations, and places both special and commonplace that help define the North American experience. Usually offered alternate years.

#### 384 Field Study in Geography

A geographic analysis through field experience. Includes study-abroad courses.

Prerequisite: consent of instructor

#### 421 Advanced Geographic Information Systems

A sequel to 321, this course uses Spatial Analyst to illustrate advanced uses of computers in raster-based spatial analysis. Principles of geographic information systems will be implemented in a wide variety of applications using Spatial Analyst. This course fulfills the second-level Computer Competency requirement in the core curriculum. Usually offered fall semester.

Prerequisite: A minimum grade of C- in 321

#### 430 Urban Geography

This course will focus on themes in the development of contemporary cities with special attention to patterns and trends within the Twin Cities metropolitan area e.g. ethnicity, housing, transportation, historical evolution, and urban growth. Usually offered alternate years.

Prerequisite: 111 or 113 or consent of instructor

#### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 480 Seminar in Geography

In this seminar, we will explore the nature of geography as a discipline. The areas to be covered: history of geographic thought, the position of geography relative to the arts and sciences, different ways of interpreting geographical phenomena, and geography as a vocational and academic career. Research projects will cover these themes and be tailored to the student's interests. Usually offered alternate years.

Prerequisites: four geography courses, including one methods course

#### 481 Advanced Field Study in Geography

A geographic analysis through field experience. Designed for advanced students in geography. Includes study-abroad courses.

Prerequisite: consent of instructor

#### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

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### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Geology (GEOL)

(chair to be appointed); Chaplin, director of Division of Natural Sciences and Mathematics

Geology is the science of the earth, and, like other disciplines, it is subdivided into specific studies. The department offers a variety of courses basic to an undergraduate geology curriculum in order to provide the student with a sound foundation.

Those majoring in geology are required to take courses in the allied sciences (biology, chemistry and physics) and in mathematics because of their importance to the study of earth science.

The aims of the Department of Geology are to provide a major program for students who will continue their study of geology in graduate school; to prepare students to do geological work in industry and government; to offer a program that prepares students to teach earth science at the secondary-school level; and to permit interested students to broaden their liberal arts education.

Students graduating with a major in geology will demonstrate a broad general knowledge of the fundamental principles of geology that will include, but not be limited to, the areas of physical, historical, and structural geology, mineralogy, petrology, geomorphology, and stratigraphy or geophysics.

The department also offers courses for non-majors to fulfill the laboratory science component of the core curriculum.

### Major in Geology

- 111 Introductory Geology I
- 112 Introductory Geology II
- 211 Mineralogy
- 252 Geomorphology
- 311 Petrology
- 322 Structural Geology
- 421 Geophysics

*Plus:*

- MATH 113 Calculus I
- MATH 114 Calculus II

*Plus two of the sequences:*

- BIOL 201 Diversity and Adaptation *and* 202 Genetics and Population Biology

*or*

- CHEM 111 General Chemistry I *and* 112 General Chemistry II

*or*

- PHYS 111 Introduction to Classical Physics I *and* 112 Introduction to Classical Physics II

The department recommends that students planning to do graduate work take additional courses in the allied sciences and in mathematics. The department also recommends that students take a summer field course at a recognized geology field camp, preferably between the junior and senior years.

### Teacher Licensure

Elementary Education with a Co-major in Science *and* Mathematics for Elementary Education

Elementary Education with a Specialty in Science (5-8)

Co-major in Science (5-8) – Earth and Space (9-12) and a Co-major in Secondary Education

*See Department of Teacher Education.*

### Minor in Geology

- 111 Introductory Geology I
- 112 Introductory Geology II
- 252 Geomorphology
- 322 Structural Geology\*

\*Prerequisite of 311 is waived for students minoring in geology.

Plus one of:

211 Mineralogy

311 Petrology\*

421 Geophysics

\*Prerequisite of 211 is waived for students minoring in geology.

### 102 Origins and Methods (111)

A study of the basic concepts of geology that were first developed by James Hutton in the late 18th century and their application today. This is an introductory science course specifically designed to reduce the mystique that often is associated with the scientific method. Following Hutton's example, the study will focus on the materials which make up the earth and on the geologic processes that operate on these materials. This course includes a four-hour-per-week laboratory component. Offered in January term.

### 110 Geology of the National Parks

The course begins with an examination of the national park system. A review of the conflicts associated with the use of public lands, including environment-influencing geological factors, follows. The next segment involves an overview of geologic concepts, processes and materials utilizing examples from the national parks. This course closes with a study of the specific geologic materials, natural processes, landforms and sequence of events responsible for the outstanding scenery in selected U.S. national parks. Laboratories will be integrated with lecture and will include study of the rocks common to the national parks; analysis of geomorphic, topographic and geologic maps of the national parks; environment-related geologic exercise and field studies of local sites. Lecture and two laboratory hours per week.

### 111 Introductory Geology I (102)

A study of the Earth's properties; the formation and classification of minerals, rocks, ore deposits, and fuels; and the nature and origin of the Earth's surface and interior. Emphasis will be placed upon a changing Earth, the constructive and destructive forces, and the geologic processes operating at the surface and in the interior. Lecture and two laboratory hours per week.

### 112 Introductory Geology II

The application of geologic principles to an interpretation of the physical and biological changes that have occurred on and within the earth. Lecture and two laboratory hours per week.

Prerequisite: 111

### 211 Mineralogy

A systematic approach to mineral study involving crystallography, analysis of physical and chemical properties, mineral formation, and methods of identification and classification. Lecture and three laboratory hours per week.

Prerequisite: 111

### 252 Geomorphology

The study of landforms, the geologic processes that produce them, their evolution, and their distribution over the Earth's surface. Aerial photographs introduced for purposes of geomorphic analysis. Lecture and three laboratory hours per week.

Prerequisite: 111

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 311 Petrology

A study of the physical and chemical factors that relate to the environment of formation for igneous, sedimentary and metamorphic rocks. A systematic approach to rock analysis, identification and classification. The petrographic microscope introduced in the laboratory. Lecture and three laboratory hours per week.

Prerequisite: 211

### 322 Structural Geology

An analysis of the structures within the Earth's crust, their origin and classification, the principles of rock deformation, and an introductory study of the Earth's mantle and core. Lecture and three laboratory hours per week.

Prerequisite: 311

### 421 Geophysics

Fundamental principles of geophysical methods commonly used for subsurface exploration, including: gravity, magnetic, seismic and electrical measurements. Emphasis on field procedures and interpretation techniques used for geologic investigations. Lecture and three laboratory hours per week.

Prerequisite: 311

## Departments

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## German

## Greek

See *Department of Modern and Classical Languages*.

## Health and Human Performance

Parsley (chair), Carey, Derry, Duoos, Grochowski; Andregg, Casey, Flood, Hodgson, Jones, Mathre, Ofstead, Rinehart, Skrypek, Stenzel, Sweeney, Tallman

The Department of Health and Human Performance offers the following undergraduate professional programs of study including a basic instructional program:

1. A major in physical education which leads to licensure at both the elementary and secondary levels;
2. A major in health education, which leads to licensure at the middle and secondary school levels;
3. A major in community health education, which prepares the student for work in community health;
4. A major in health promotion which prepares the student for work as a fitness specialist outside the school setting;
5. A major in health promotion science which prepares the student for entrance into a masters of physical therapy program;
6. A concentration in Athletic Training Internship Program which prepares the student for taking the NATA exam;
7. A non-teaching major in physical education for students who have career objectives other than teaching.
8. Individual programs that may be developed in consultation with the department chair.

The basic instructional program provides an opportunity for all students to develop a knowledge and understanding of the value and methods of obtaining and maintaining an appropriate level of physical fitness throughout one's lifetime.

Students graduating with a major in health education will be able to effectively apply the knowledge and skills required for conducting the teaching-learning process in health education.

Students graduating with a major in community health will be able to effectively apply the knowledge and skills required in community health education settings.

Students graduating with a major in health promotion will have had experience at a work site. They will demonstrate the skill and knowledge expected of the entry-level exercise science professional in the areas of fitness evaluation, exercise prescription and delivery of exercise programs to normal and special populations. They will effectively assess theory and interface it with practice.

Students graduating with a major in physical education will be able to effectively make application of the skills required for conducting the teaching-learning process in an extended practicum setting. They will effectively demonstrate the skill and knowledge to evaluate the teaching-learning process, the analysis of motor performance, and an assessment of theory to interface it with practice.

The department also offers a course to fulfill the Health and Fitness component of the core curriculum.

## Teacher Licensure

Major in Health Education (5-12)

Major in Physical Education (K-12)

See *Department of Teacher Education*

## Major in Community Health Education

HLTH 345 Nutrition for Health and Fitness

HLTH 350 Personal Health and Wellness

HLTH 353 Consumer, Community and Environmental Health

- HLTH 375 Lifelong Stress Management (2 credits)
- HLTH 400 Epidemiology
- HLTH 441 Community Health Education: Curriculum, Assessments, and Administration
- HLTH 451 Community Health Education: Methods, Resources, and Partnerships
- HLTH 462 Human Sexuality Education
- HLTH 464 Critical Issues in Health Education
- PHED 410 Human Anatomy and Physiology

*Plus one of:*

- HLTH 470 Health Internship
- HLTH 471 Health Internship extended (6 credits)

*Allied requirements*

- BIOL 101 General Biology
- PSY 111 General Psychology
- SOC 100 Introduction to Sociology
- SOWK 290 Death, Dying and Bereavement

*Plus one of:*

- CHEM 100 Chemistry in our World
- CHEM 101 Environmental Chemistry

*Plus one of:*

- COMM 100 Public Speaking
- COMM 105 Communication in the Workplace

*Recommended:*

*One of:*

- PSY 200 Psychology of Infancy and Childhood
- PSY 203 Psychology of Adolescence
- PSY 204 Psychology of Adulthood and Aging

**Major in Physical Education Health Promotion (B.S.)**

- HLTH 345 Nutrition for Health and Wellness
- HLTH 350 Personal Health and Wellness
- HLTH 375 Lifelong Stress Management (2 credits)
- PHED 113 Introduction to Health Promotion (2 credits)
- PHED 205 Principles of Strength Training (2 credits)
- PHED 206 Principles of Aerobic Training (2 credits)
- PHED 250 Emergency Care
- PHED 410 Human Anatomy and Physiology
- PHED 420 Kinesiology
- PHED 421 Athletic Training Techniques (2 credits)
- PHED 426 Biomechanics
- PHED 430 Measurement and Evaluation (2 credits)
- PHED 431 Exercise Physiology (2 credits)
- PHED 432 Advanced Exercise Physiology
- PHED 433 Exercise in Special Populations (2 credits)
- PHED 449 Health Promotion Seminar (2 credits)

*Plus one of:*

- PHED 450 Health Promotion Internship
- PHED 451 Health Promotion Internship extended (6 credits)

*Allied requirements*

- BIOL 101 General Biology
- BUS 201 Ethics and Practice: Foundations of Business
- CHEM 100 Chemistry in our World
- COMM 105 Communication in the Workplace
- MKTG 300 Principles of Marketing

*Plus one of:*

- ENGL 251 Writing in the Academy
- ENGL 252 Written Nonfiction Prose

*Note:* Eighty-four credits are required outside the areas of PHED and HLTH.

**Major in Physical Education Health Promotion – Science Emphasis (B.S.)**

This program is designed for students interested in applying to a masters of physical therapy (MPT) program. The University of St. Thomas has a cooperative program with the College of St. Catherine in that the College of St. Catherine holds two places per year for qualified UST students. Completion of this degree also enables students to apply to other MPT schools throughout the country. Students not accepted into a MPT program will be degreed and prepared to work in the field of Health Promotion.

- HLTH 345 Nutrition for Health and Fitness
- HLTH 350 Personal Health and Wellness
- PHED 113 Introduction to Health Promotion (2 credits)
- PHED 250 Emergency Care
- PHED 420 Kinesiology
- PHED 421 Athletic Training Techniques (2 credits)
- PHED 426 Biomechanics
- PHED 430 Measurement and Evaluation (2 credits)
- PHED 431 Exercise Physiology (2 credits)
- PHED 432 Advanced Exercise Physiology
- PHED 433 Exercise in Special Populations (2 credits)
- PHED 449 Health Promotion Seminar (2 credits)

*Plus one of:*

- PHED 450 Health Promotion Internship
- PHED 451 Health Promotion Internship—extended (6 credits)

*Allied requirements*

- BIOL 201 Diversity and Adaptation
- BIOL 202 Genetics and Population Biology
- CHEM 111 General Chemistry I
- CHEM 112 General Chemistry II
- PHYS 109 General Physics I
- PHYS 110 General Physics II
- PSY 111 General Psychology
- PSY 301 Psychopathology
- QMCS 220 Statistics I

*Plus:*

- MATH 113 Calculus I
- or*
- MATH 108 Calculus with Review I *and* 109 Calculus with Review II

*Plus:*

- BIOL 251C and 252C Human Anatomy *and* Physiology I and II (CSC)
  - or*
  - PHED 410 Human Anatomy and Physiology *and* BIOL 349 Comparative Anatomy and Physiology I
- Note:* Eighty four credits are required outside the areas of PHED and HLTH.

**Application Procedure for St. Catherine's MPT Program**

A minimum cumulative grade-point average of 3.00 for undergraduate course work is required. Completed applications for admission are due to St. Catherine no later than February 15. Deadline for special petitions is January 15.

To request an application, please contact Office of Admissions, College of St. Catherine, 2004 Randolph, St. Paul, MN 55105 or phone 651-690-6505. Applicants are informed of their status no later than May 1.

**Athletic Training Certification**

A student must have:

1. A high school diploma to begin accumulating directly supervised clinical hours that are to be used to meet requirements for the National Athletic Trainer Association Board of Certification (NATABOC) certification.
2. Proof of graduation (an official transcript) at the baccalaureate level from an accredited college or university located in the United States. Foreign-degreed applicants who wish to credit this degree toward a bachelor's degree requirement will be evaluated at the candidate's expense by an independent consultant selected by the NATABOC.
3. Proof of current American National Red Cross Standard CPR and First Aid Certification. Emergency medical technician equivalency will be accepted.

4. At the time of application all candidates for certification must verify that at least 25 percent of their athletic training experience hours credited in fulfilling the certification requirements were attained in actual practice or game coverage with one or more of the following sports: football, soccer, hockey, wrestling, basketball, gymnastics, lacrosse, volleyball and rugby.
5. Endorsement of certification application by an NATA certified athletic trainer.
6. Subsequent passing of the certification examination (written, oral practical, and written simulation sections).

#### Internship Section:

Each intern candidate must attain 1,500 hours of athletic training experience under direct supervision of an NATA certified athletic trainer. These hours must have been attained over a minimum of two calendar years and not more than five years. Of these 1,500 hours, at least 1,000 hours must be attained in a traditional athletic training setting within the confines of the University of St. Thomas training room, practice or game fields.

BIOL	101	General Biology
HLTH	345	Nutrition for Health and Fitness
HLTH	350	Personal Health and Wellness (or other HLTH course approved by the department chair)
PHED	250	Emergency Care
PHED	410	Human Anatomy and Physiology
PHED	420	Kinesiology
PHED	421	Athletic Training Techniques (2 credits)
PHED	422	Physical Examination of the Lower Extremity (2 credits)
PHED	423	Physical Examination of the Upper Extremity (2 credits)
PHED	424	Advanced Athletic Training (2 credits)
PHED	425	Therapeutic Modalities and Rehabilitation
PHED	431	Exercise Physiology (2 credits)
PHED	432	Advanced Exercise Physiology
PHED	433	Exercise in Special Populations (2 credits)
PSY	111	General Psychology

*Note:* Students who wish to pursue certification as an athletic trainer must consult the program coordinator about the specific requirements of the National Athletic Trainer Association, Inc.

#### Physical Education Courses (PHED)

**100 Foundations for Fitness** **0 credit**  
 This course seeks to improve the student's knowledge and understanding of the role of physical activity and how it contributes to one's lifelong health and wellness; and to develop personal fitness and sports-activity skills that will enable the student to effectively integrate physical activity into her or his lifestyle. The course includes lecture and discussion sessions, a battery of physical assessments, a wide choice of sports-skill activities (e.g. archery, racquetball, tennis) and a selection of higher-intensity fitness activities (e.g. aerobic dance, strength training, and jogging). Students choose from among the various sports skills and physical-fitness activity offerings with guidance from the physical education staff. Included in the course is a Fitness Unit which emphasizes discussion topics such as stress, nutrition, components of fitness, and drug and alcohol abuse.

The primary purpose of this course is to provide the student with the knowledge, skills, and techniques necessary to become a physically educated person; that is, a person who is able to design and maintain a lifestyle of fitness and wellness. Implied is the philosophy that students will learn to perform physical skills that contribute to personal participation in social and recreational activities – not the skills learned in competitive sports. St. Thomas graduates should not only be able to communicate the components of health-related fitness and wellness, but have the ability to assess, design, implement and maintain their personal fitness and wellness program. Ultimately, St. Thomas graduates should become advocates for the benefits of a healthy and active lifestyle. This course fulfills the Health and Fitness requirement in the core curriculum.

**110 Foundations and Skills for Majors** **2 credits**  
 Orientation to the physical education profession: the nature of the profession, professional opportunities, certification requirements, including current trends and research in elementary physical education. Skills include accelerated units of elementary physical education activities and the different methods of presenting activities. Students learn to perform and teach activities at each of the three developmental levels of elementary school children. This course plus PHED 111 fulfills the Health and Fitness requirement in the core curriculum.  
 Prerequisite: Prospective physical education major

**111 Foundations and Skills for Majors** **2 credits**  
 Similar to PHED 100 but emphasis is on the development of basic skills common to secondary school curricula and corporate-fitness programs. This course plus PHED 110 fulfills the Health and Fitness requirement in the core curriculum.  
 Prerequisite: Prospective physical education major



## Departments

### 113 Introduction to Health Promotion

2 credits

This course offers the learner opportunities to explore the field of Health Promotion. The learner will study the philosophies, theories, and current practices of Health Promotion as a means to gain a better understanding of the field.

### 200 Activities and Techniques

An introduction to the techniques of teaching activities common to the physical education curriculum at the elementary and secondary school levels. This course will consider the elements of effective instruction, methods of organizing for effective instruction, classroom management strategies, peer teaching – including self-evaluation, methods of creating a positive learning environment, and the teacher-induction process. Lecture and laboratory. Prerequisites: PHED 110 and 111

### 205 Principles of Strength Training

2 credits

This course provides an overview of the principles of strength training, strength acquisition and program design for diverse populations. Students will be provided with the opportunity to gain practical, hands-on experience in assessing, designing, implementing and evaluating strength training programs for a variety of clients. Additional topics to be discussed include equipment selection and maintenance, facility design, management and safety. Prerequisite: PHED 113

### 206 Principles of Aerobic Training

2 credits

This course provides an overview of the principles of aerobic conditioning and the various methods used to train diverse populations, i.e., children, adults, elderly, athletes, and non-athletes. Students will be provided with the opportunity to gain practical, hands-on experience in assessing, designing, implementing and evaluating cardiovascular training programs for a variety of clients. Prerequisite: PHED 113

### 210 Outdoor Education I

2 credits

Students will participate in and learn the following skills: climbing and rappelling, initiative tasks, outdoor cooking, and use of outdoor equipment. Students will study the natural environment in which these activities occur. The class will include a three-day camping trip (required) with emphasis on rock climbing. Emphasis of the course is group dynamics and personal awareness. Prerequisite: Prospective physical education major

### 211 Outdoor Education II

2 credits

Students will participate in and learn the following skills: initiative tasks, canoeing, camp cooking, and map and compass. Students will study the natural environment in which these activities occur. The class will include a three-day camping trip (required) with emphasis on group dynamics, camping, cooking skills, and canoeing. Emphasis of the course is group dynamics and personal awareness. Prerequisite: Prospective physical education major

### 212 Outdoor Education III

2 credits

Students will participate in and learn the following skills: initiative tasks, cold weather cooking, map and compass, winter survival skills (including clothing);camping skills, cross-country skiing and snow shoeing. Students will study the natural environment in which these activities are enjoyed. the class will include a three-day camping trip with emphasis on snow shoeing and cross-country skiing. Prerequisite: Prospective physical education major

### 215 Rhythms and Dance

2 credits

This course is designed to introduce future elementary and secondary physical education teachers to rhythms and dance education. Students will participate in and learn how to instruct rhythm activities, folk dance, square dance, creative dance, aerobic dance, and popular dance. Prerequisite: PHED 200

### 250 Emergency Care

This course is designed to develop the emergency-care skills and understanding currently considered to be within the scope of a first responder. Consists of classroom, laboratory and internship experience. Upon satisfactory completion of this course, students will be first responder certified.

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 310 History, Principles and Philosophy of Physical Education

2 credits

This course consists of two main areas of study: the historical background of physical education in the United States and throughout the world; and the philosophical basis for physical education programs throughout history.

- 311 Motor Development** 2 credits  
This course provides an overview of the principles of human growth and motor development and studies in depth the physical and psychological principles involved in the learning and performance of motor skills.
- 340 Physical Education at the Elementary Level**  
Curriculum analysis and supervised teaching in physical education at the elementary school level.  
Prerequisite: PHED 200
- 351 Teaching of the Special-Needs Student** 2 credits  
Education of special-needs students with particular reference to a legal basis, analysis of functional and organic disabilities, assessment procedures, class-activity modification, and mainstreaming principles as related to the role of school health and physical education programs.
- 356 First Aid and Safety** 2 credits  
American Red Cross standard first aid and CPR. School and community safety with emphasis on accident prevention. Students will receive American Red Cross certification in standard first aid and CPR upon successful completion of the course.
- 360 Curriculum Organization and Administration**  
A study of the skills necessary for future teachers to plan, write, teach, evaluate teacher and student behaviors, conduct self-evaluations for the improvement of instruction, and evaluate and revise curriculum to enhance the learning experience of children in the discipline of physical education.  
Prerequisite: PHED 200
- 402 Principle, Theory, and Technique of Athletic Coaching** 2 credits  
Analysis of the role of the head coach including interpersonal relationships with athletes, parents, faculty, school administration, coaching staff, news media, the State High School League and community groups. Special attention is given to motivation, ethics, scheduling, budgeting, legal implications and related administrative functions. Students complete a 40-hour supervised field experience in coaching a sport.
- 403 Theory and Techniques of Coaching** 2 credits  
Theory and techniques of coaching a specific sport. Students must select at least one of the sections listed below. It is strongly recommended that students choose a sport with which they have the least familiarity.
- |    |            |
|----|------------|
| 01 | Football   |
| 02 | Soccer     |
| 03 | Basketball |
| 04 | Hockey     |
| 05 | Baseball   |
| 06 | Volleyball |
| 07 | Track      |
| 08 | Softball   |
- 410 Human Anatomy and Physiology**  
A course of study designed to meet the needs of the student requiring fundamental knowledge of the structure and function of the body and its tissues and fluids. Special consideration is given to the physiological aspects of exercise and sports conditioning.
- 420 Kinesiology**  
Study of human motion, including anatomical foundations of the skeletal and muscular systems, mechanics and principles of human motion with application to motor skills and physical education activities.  
Prerequisites: PHED 410 or BIOL 251C and 252C
- 421 Athletic Training Techniques** 2 credits  
Prevention and therapeutic procedures in athletic training including conditioning of athletes, fitting of protective equipment, the sports-medicine team, strapping and bandaging, first aid and recognition of the more common injuries and illness sustained by the competitive athlete.
- 422 Physical Examination of the Lower Extremity** 2 credits  
The study of the commonly accepted techniques and procedures for clinical evaluation and recognition of common athletic injuries and illnesses including history, inspection, palpation, functional testing (range of motion ligamentous and capsular stress testing, annual muscle testing, sensory and motor neurological testing, etc.), and special evaluation techniques.  
Prerequisites: PHED 410 and 421

## Departments

- 423 Physical Examination of the Upper Extremity** 2 credits  
The study of the commonly accepted techniques and procedures for clinical evaluation and recognition of common athletic injuries and illnesses including history, inspection, palpation, functional testing (range of motion, ligamentous and capsular stress testing, annual muscle testing, sensory and motor neurological testing, etc.), and special evaluation techniques.  
Prerequisites: PHED 410 and 421
- 424 Advanced Athletic Training** 2 credits  
Application of the principles needed in planning, coordinating, and supervising all administrative components of an athletic training program for a high school, college and professional athletic organization including those pertaining to health-care services, financial management and public relations. Interpretation of the role of the certified athletic trainer as a health care provider, adviser and counselor on matters pertaining to the physical, psychological and emotional health of the student-athlete.  
Prerequisite: PHED 421
- 425 Therapeutic Modalities and Rehabilitation**  
Discussion of the primary components of a comprehensive rehabilitation program including determination of therapeutic goals and objectives, selection of therapeutic modalities and exercise, methods of evaluation and recording rehabilitation progress, development of criteria for progression and return to competition, and specific physiological effects and therapeutic indications and contraindications associated with the use of current therapeutic modalities. Role and function of commonly used pharmacological agents used in the medical treatment of athletic injuries and illnesses.  
Prerequisites: PHED 410 and 421
- 426 Biomechanics**  
Study of mechanics applied to the moving body. Principles of human movement, interaction with a sporting implement, observing and analyzing performance are stressed. Torque, angular momentum, projectiles, fluid forces, aerodynamics, hydrodynamics, body rotation, throwlike and pushlike movement patterns, data gathering, analysis and research in the field of sports biomechanics are introduced.  
Prerequisite: PHED 420
- 430 Measurement and Evaluation** 2 credits  
This course introduces basics of research, including issues of research and test validity and reliability. The course also includes basic statistical methods, test construction and evaluation, grading procedures, classroom and laboratory work in measurement of physical fitness, sports skills, motor ability and related functions.
- 431 Exercise Physiology** 2 credits  
Application of the principles of anatomy and physiology to the study of metabolic, respiratory, circulatory and nervous adjustments of the body resulting from physical activity.  
Prerequisite: PHED 410
- 432 Advanced Exercise Physiology**  
This course is designed to prepare the student for certification by the American College of Sports Medicine. Students will apply knowledge and skills of exercise physiology to the practical setting, including fitness assessment, body composition, flexibility, blood pressure measurement, EKG testing, and exercise prescription.  
Prerequisite: PHED 410 and 431
- 433 Exercise in Special Populations** 2 credits  
This course is designed to prepare students to evaluate fitness, assess risk factors, and write exercise prescriptions for special populations, including obesity, hypertension, coronary artery disease, and arthritis. Students completing this course will have the knowledge, skills and abilities to pass the American College of Sports Medicine Exercise Test Technologist Certification Examination.  
Prerequisite: PHED 431
- 449 Health Promotion Seminar** 2 credits  
This seminar course provides Health Promotion majors with opportunities to enhance their expertise in teaching, demonstration, assessment, prescription, program development and program evaluation as related to Health Promotion. Learners will be required to demonstrate the understandings and skills necessary to effectively work with diverse populations including children, youth, adults, and elders in the field of Health Promotion.  
Prerequisite: Junior standing and PHED 420, 430, 431 and HLTH 345, 350
- 450 Health Promotion Internship**  
The health promotion intern will obtain practical experience at the clinical, exercise, corporate health promotion, or community health promotion level. The internship will be under the supervision of an experienced exercise fitness specialist. Students will assist in the marketing and management of health promotion programs including the administration of a variety of assessments as prescribed by the exercise fitness specialist. Individual

research project(s) will be assigned. A minimum of 250 hours of clinical experience will be required in at least one or more of the following areas: 1) clinical exercise and fitness; 2) corporate health promotion; 3) health promotion and education. Grading will be on an S/R basis.

Prerequisites: Current CPR and first aid cards and permission of the instructor (6 months prior to registration)

**451 Health Promotion Internship – extended**

**6 credits**

The health promotion intern will obtain practical experience at the clinical, exercise corporate health promotion, or community health promotion level. The internship will be under the supervision of an experienced exercise fitness specialist. Students will assist in the marketing and management of health promotion programs including the administration of a variety of assessments as prescribed by the exercise fitness specialist. Individual research project(s) will be assigned. A minimum of 400 hours of clinical experience will be required in at least one or more of the following areas: 1) clinical exercise and fitness; 2) corporate health promotion; 3) health promotion and education. Grading will be on an S/R basis.

Prerequisites: Current CPR and first aid cards and permission of the instructor (6 months prior to registration)

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**Health Courses (HLTH)**

**345 Nutrition for Health and Fitness**

An examination of essential nutrients, energy balancing, metabolism, nutritional deficiencies and over-consumption, diet fads and fallacies, healthful eating patterns and nutritional needs throughout the life cycle. Individual nutritional analysis and prescription will be included.

Prerequisite: PHED or HLTH majors

**350 Personal Health and Wellness**

This course will entail an examination of the components of a healthful lifestyle. The interrelationship of physical, intellectual, spiritual and emotional health will be the focal point. Specific areas such as mental health, stress and coping, human sexuality, resiliency enhancement, disease prevention, aging, grief and loss will be addressed.

**353 Consumer, Community and Environmental Health**

Health education as it relates to the consumer, the community, and the environment. Units of study include: consumerism, quackery, control and prevention of infectious and non-infectious diseases, community health services and resources, and current environmental issues.

Prerequisite: Sophomore standing

**375 Lifelong Stress Management**

**2 credits**

This course is open to individuals from all fields. The focus is on exploration of effective, healthful strategies of stress management. This course is an opportunity to expand one’s understanding of how to redirect stress responses into positive sources of energy.

**400 Epidemiology**

Epidemiology provides an overview of the approaches used in epidemiological studies to measure the disease or health state in a population and to identify possible causes of a disease or health state. Included will be an examination of study designs, strengths and weaknesses of each. The ability to evaluate the findings from epidemiological studies will be emphasized. Learners will explore associations, correlations, between disease or health state and possible causes. The factors of bias, confounding or chance causes will be included. This course invites learners to study causality and criteria for assessing causality.

Prerequisite: One BIOL course

**440 Health Education: 5-12 Curriculum, Assessment and Administration**

Learners will explore effective strategies for development and evaluation of 5-12 health education curriculum with emphasis on comprehensive school health education concepts. This exploration will include growth and

developmental concerns, innovative learning theories, client-centered and proactive learning, dynamic partnerships with families and communities (including medical, business, and health agencies), interactive and interdisciplinary learning paradigms, global networking, appreciation for diversity, and current mind-body-spirit approaches to health care. There will be opportunities for learners to actively engage in review and development of authentic assessment strategies. Learners also will evaluate real-world health programs in the field and demonstrate effective in-service strategies and networking. Within this course, learners will engage in leadership approaches in enhancement of quality coordinated health education programs for families, schools, and communities. This course fulfills the second-level Computer Competency requirement in the core curriculum.

### **441 Community Health Education: Curriculum, Assessment and Administration**

Learners will explore effective strategies for development and evaluation of Community Health Education curriculum with emphasis on comprehensive health education concepts. This exploration will include growth and developmental concerns, innovative learning theories, client-centered and proactive learning, and dynamic partnerships with clients, work sites, and communities (including medical, business, and health agencies). There is an emphasis on interactive and interdisciplinary learning paradigms, global networking, appreciation for diversity, and current mind-body approaches to health care. There will be opportunities for learners to actively engage in review and development of authentic assessment strategies with emphasis on knowledge over information. Learners will also evaluate health delivery programs in the field and demonstrate effective in-service strategies and networking. Included in this course are opportunities to explore and assess various resources from medical, insurance, health agency, business and private organizations that could effectively be used in community health settings. Within this course, learners will engage in virtual administration and leadership approaches in the enhancement of total quality community health education programs. Off-campus observations and presenting of health issues in community settings are required. This course fulfills the second-level Computer Competency requirement in the core curriculum.

### **450 Health Education: 5-12 Methods, Resources and Partnerships**

Learners will identify, practice, and demonstrate effective methods of facilitating 5-12 health education. Off-campus observations and teaching of health lessons in elementary, middle and secondary school settings are included in the requirements. An off-campus tutorial experience with elementary or middle school aged learners is required. Learners will also explore and assess various educational resources from medical, insurance, health agency, business and private organizations that effectively could be used with 5-12 learners. This will include development of a professional telecommunications network. Learners will learn strategies for effectively using and evaluating telecommunications and interactive multimedia for 5-12 health education. Learners will also investigate and design active partnerships with parents/guardians and communities.

### **451 Community Health Education: Methods, Resources and Partnerships**

Learners will identify, practice, and demonstrate effective methods for facilitating community health education. Off-campus observations and presentations of health issues in community settings are required. Learners will explore and assess various resources from medical, insurance, health agency, business and private organizations that could effectively be used in community health settings. This will include development of a professional telecommunications network. Learners will learn strategies for effectively using and evaluating telecommunications and interactive multimedia in community health programs. In addition, learners will investigate and design active partnerships with clients, representatives of the medical field, health insurance agencies and business communities.

### **462 Human Sexuality Education**

The examination of the strategies and techniques for the development of human sexuality education for personal and professional needs. The course also addresses the needs of 5-12 students and concerns of the community. The nature of sexual functioning, sexual development, ethics and attitudes will be addressed with the cooperation of the nursing, theology and health education disciplines. Effective and appropriate teaching strategies reflecting approved educational guidelines will be examined and practiced.

Prerequisite: Sophomore standing

### **464 Critical Issues in Health Education**

An in-depth examination of relevant, critical health issues. Techniques for identifying and researching the issues plus appropriate teaching strategies will be addressed along with effective health and wellness promotional strategies. Examples of health issues include stress management, death education, HIV/AIDS, teen pregnancy, etc. Advanced helping skills will be included. Emphasis on mastery of telecommunication including: Web page design, Internet research, grant writing, and computer-enhanced presentations and teaching. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: HLTH 440 and 450 or HLTH 441 and 451 or concurrent registration or permission of instructor

### **470 Health Internship**

The community health education intern will obtain health education experience at a medical clinic, community center, or public health center. The internship is under the supervision of an experienced health education spe-

cialist and the course professor. Interns will engage in the development and delivery of health education programs. Each intern will complete an individual research project relevant to the clinic or center's clientele. The intern will complete a minimum of 250 internship hours.

Prerequisite: Permission of instructor

#### 471 Health Internship – extended

6 credits

The community health education intern will obtain health education experience at a medical clinic, community center, or public health center. The internship is under the supervision of an experienced health education specialist and the course professor. Interns will engage in the development and delivery of health education programs. Each intern will complete an individual research project relevant to the clinic or center's clientele. The intern will complete a minimum of 400 internship hours.

Prerequisite: Permission of instructor

#### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### Higher Education Consortium for Urban Affairs (HECUA)

*See Affiliated Programs*

### History (HIST)

Wright (chair), Chrislock, Delehanty, Fitzharris, Howe, Hwa, Klejment, Mega

The Department of History offers courses dealing with the principal periods and topics of American, European and ancient classical history, as well as in selected non-European/non-U.S. fields (such as Japan, Latin America, etc.). In these classes an effort is made not only to impart information but also to develop the habits of mind needed for the critical investigation and appreciation of the past.

The history major provides a concentration of courses useful as preparation for teaching, for further professional studies or for a variety of careers in business and government. Major requirements are designed to allow the history student the freedom to develop a substantial foundation in another field through elective courses.

Students graduating with a major in history will have knowledge in European, American, and non-Western history. They will demonstrate a proficiency in the methods and techniques of history. They will be conversant with the content of the history of at least one non-Western culture.

The department also offers courses for the non-major in fulfillment of the Historical Studies component of the core curriculum.

#### History Honor Society

A campus chapter of Phi Alpha Theta, the national honor society in history, was established at St. Thomas in 1950. Candidates must have completed three courses in history and meet high qualitative standards for membership.

#### Major in History

Forty-four credits in major, of which at least four must be from each of four areas:

- The Ancient and Medieval World
- Modern Europe since 1450
- The United States or its Colonial Antecedents
- The non-Western World

*One of:*

- 111 Origins of the Modern World to 1550
- 112 The History of the Modern World since 1550

## Departments

### *Plus one of:*

- 113 Early America in Global Perspective
- 114 The Modern U.S. in Global Perspective  
(no more than one additional 100-level course may be applied to major)

### *Plus one thematic course from:*

- 345 Family and Women in Chinese History
- 360 Early American Thought and Culture
- 361 American Thought and Culture Since the Civil War
- 363 Business in American Life
- 365 U.S. Constitutional History
- 366 The Catholic Church in the United States
- 368 Women in the United States
- 369 African-American History
- 371 History of U.S. Foreign Policy
- 382 Careers in History
- 384 Uses of History: Decision-Making
- 391 Development of Industrial Economies

### *Plus one limited period course from:*

- 314 Modern Europe since 1945
- 328 The French Revolution and Napoleonic Era
- 333 Eastern Europe, 1914 to the Present
- 347 The Modernization of Taiwan, Hong Kong, and China
- 353 History of the American Revolution
- 355 The Civil War Era
- 358 Twentieth-Century United States
- 372 The United States and Vietnam

### *Plus one of:*

- 463 Seminar in European History
- 465 Seminar in U.S. History

### *Plus:*

Twenty-four credits in history chosen in consultation with student's major adviser

## **Teacher Licensure**

Elementary Education with a Specialty in Social Studies (5-8)

Co-major in Social Studies (5-12) and a Co-major in Secondary Education

*See the Department of Teacher Education*

## **Minor in History**

Twenty credits in history, no more than eight of which may be at the 100-level and four of which must be a 400-level seminar (463 or 465). Selection of the specific courses to fulfill the requirements should be done in consultation with a member of the department faculty.

### **111 Origins of the Modern World to 1550**

Ancient origins of Eurasian traditions. The rise of Europe. Traditional societies in Europe and Asia. Foundations of modernization in Renaissance Europe. Africa and America before Europe's expansion. Europe and the wider world. This course fulfills the Historical Studies requirement in the core curriculum.

### **112 The History of the Modern World since 1550**

The Modern World Since 1550 surveys the sixteenth century European foundation and expansion throughout the world down to the end of the twentieth century. The course examines the resulting breakthroughs in communication and cultural exchanges between Western civilization and the Middle East, Asia, Africa, and Latin America. Emphasis is placed on the emergence of an interdependent global civilization. This course fulfills the Historical Studies requirement in the core curriculum.

### **113 Early America in Global Perspective**

Social, political, cultural, and economic history of the peoples of North America from the European-American encounter through the aftermath of the U.S. Civil War. Special emphasis is given to the relation of minority groups (American Indians, African Americans, Hispanic peoples, European immigrants, etc.) to the dominant culture. Major themes include: colonization, slavery, revolution, nation building, territorial expansion, industrialization, reform movements, nativism, sectionalism, and the Civil War. This course fulfills the Historical Studies requirement in the core curriculum.

**114 The Modern U.S. in Global Perspective**

Social, political, cultural, and economic history of the peoples of the United States from the Reconstruction period following the Civil War to the present. Special emphasis is given to the relation of minority groups (American Indians, African Americans, Hispanic peoples, Asian and European immigrants, etc.) to the dominant culture, and to the changing role of the U.S. within its larger global context. Major themes include: Reconstruction, domestic and overseas expansion, industrialization, racism and nativism, world wars, cold war, movements of liberation and reform, and other contemporary issues. This course fulfills the Historical Studies requirement in the core curriculum.

**210 Modern Latin America, 1800 to the Present**

A survey of the historical and cultural developments of Latin America from the movement for Latin American independence to the present. Selected topics include: the struggle for social justice, political instability, economic dependence, race relations, revolution, rural societies, militarism and the relationship between the United States and Latin American countries. This course fulfills the Human Diversity requirement in the core curriculum.

**220 Introduction to Japanese History and Culture**

An overview of Japanese history and culture from the beginning to the present day with particular emphasis on the period following initial contact with the West at the end of the 16th century. Topics of special emphasis will include: formative aspects of Japanese culture; the early history of Western influence and Christianity; the Tokugawa Period and centralized feudalism; the Meiji Era and renewed contact with the West; late 19th and early 20th-century development; the World War II and postwar occupation; and a look at contemporary Japan. This course fulfills the Human Diversity requirement in the core curriculum.

**230 Canadian History**

A survey of Canadian history from New France to the present. Emphasis will be on the history of English-speaking Canada since 1763. Topics will include: Canadian beginnings; Canada at the time of the American Revolution; 19th century political development and Confederation; western expansion; and Canada in the 20th century. Special emphasis will be given to the significant parallels and contrasts with the historical and political development of the U.S.

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**302 Classical and Early Hellenistic Greece**

The political vicissitudes of the Peloponnesian and Athenian Leagues in the fifth and in the earlier fourth century before Christ and the emergent dominance of Macedon in the later fourth century. The final topic is the new cosmopolitan order presided over by the immediate successors of Alexander. Attention is paid to the concurrent cultural developments.

**304 The Roman Republic and the Early Principate**

The rise of Rome from Etruscan tutelage to dominance over the Mediterranean world and over Western Europe, with special attention to the internal development of the Roman government from aristocratic collective rule to the new monarchic order of the Julio-Claudian dynasty. Concurrent cultural developments are noted.

**306 The World of Late Antiquity: A.D. 284-641**

An examination of the Roman Empire in its final centuries, in its prolonged "Indian Summer." Reorganization of the Empire after 50 years of chaos. Accelerating Christianization of the empire beginning with the reign of Constantine. Heretical dissent and political compulsion. The Golden Age of the Fathers. Recurrent danger from the Goths: invasions in the East and in the West. Fall of the Latin West to the barbarians. The Age of Justinian. The first flowering of Byzantine art. Passing of the old order in the Greek East with the Muslim conquest of Syria and Egypt.

**307 The Church in the Roman Empire to A.D. 395**

Internal development of the church from the beginnings to the reign of Theodosius I; interaction of the ideology and organization of the church with the political and cultural forces dominant in the Roman world.

**310 The Making of Europe: Middle Ages to 1215**

Origins of the middle ages: the late Roman Empire; Germanic migrations and settlements; the Christian church. Separation of western and eastern Mediterranean areas. Carolingian revival and decline. Economies and societies of rural Europe. Twelfth century Europe: economic and urban expansion; church reform and the papacy; schools and learning; the Crusades; kingdoms and their governance.



**311 The Dawn of a New Era: Europe from 1215 to 1450**

Medieval Christendom in the 13th century: papacy; mendicant orders; universities; heresy; Inquisition. Growth of secular culture. The western monarchies. Political and economic crises of the 14th century. Ecclesiastical crises of the late middle ages. Recovery and renaissance in the 15th century. Europe's medieval expansion.

**312 Early Modern Europe: 1450-1750**

Europe from the 15th century to the 18th century studied with particular reference to the background, development and results of religious reformations.

**313 Europe 1750 to 1945**

An examination of the 18th century legacies of competition for empire, the Enlightenment, and the French and Industrial Revolutions with emphasis on the emerging ideologies of the 19th century including nationalism. A study of imperialism leads to the origins and outbreak of World War I. Major themes of the 20th century include the Russian Revolution and the Soviet State, the rise of Fascism, politics of the inter-war period, and the origins, outbreak, and Holocaust associated with the Second World War.

**314 Modern Europe since 1945**

The Cold War; post-war reconstruction; the end of colonialism; West European prosperity and reform; the German Question; de Gaulle; Thatcherism; social movements; collapse of the Soviet Empire; European integration.

**322 Tudor and Stuart Britain**

England from the accession of the Tudor dynasty down to the Glorious Revolution. Modernization of English society and government. The English Reformation. Anglicanism. The Elizabethan period. Puritanism. Crown and Parliament in Tudor and Early Stuart times. Civil War, Revolution and Restoration. The Revolution of 1688.

**324 England, Scotland and Ireland Since 1688**

An examination of the British economy, society, politics and culture since 1688. The course surveys the rise of modern Britain through such developments as the Industrial Revolution, democratic government, the empire, the two world wars and post-1945 contemporary issues.

**326 English Law and Government Before the American Revolution**

Anglo-Saxon foundations of kingship and law. Norman and Angevin kingship. Origins of the Common Law. Limitation of monarchy. Maturing of the Common Law. Rise of the legal profession. Crown and Parliament in Tudor times. Seventeenth-century conflicts. The Revolution Settlement.

**328 The French Revolution and Napoleonic Era**

A background in the ancient regime and the Enlightenment. An examination of the origins and outbreak of the Revolution of 1789 and the collapse of the absolute monarchy. An emphasis on the Second French Revolution, the Terror in theory and practice, and the Thermidorian Reaction with a survey of the Directory and Napoleonic France and Europe.

**331 Eastern Europe, 1699-1914**

Internal developments and external pressures on Eastern Europe from the Treaty of Karlowitz to the outbreak of World War I. Decline of the Ottoman Empire; the Eastern Question; rivalries of the great powers; national revivals; cultural and political nationalism; emergence of East European states; diplomatic crises.

**333 Eastern Europe, 1914 to the Present**

International developments and external pressures on Eastern Europe from World War I to the present. World War I; 20 years of independence; World War II; sovietization; Stalinism; Titoism; national communism; collapse of communism; recent cultural developments. Emphasis may shift slightly from year to year.

**340 Foundations of Chinese Civilization**

This course introduces students to the formation and evolution of fundamental elements of Chinese civilization to about 1800. Topics include: major Chinese thought, Confucianism, Taoism and Legalism with special emphasis on how Confucianism became a prevailing influence on Chinese government, family and society; the development of the Chinese imperial government including the Civil Service Examination; the flourishing of Buddhism in a Confucian China; Chinese written characters, calligraphy and poetry; the cosmopolitan T'ang dynasty; the T'ang-Sung commercial transformation; the Mongol rule in China; and the state and society before encountering Western expansion. This course fulfills the Human Diversity requirement in the core curriculum.

**341 The History of Modern China**

This course studies the impact of Imperialism on Chinese state and society and China's subsequent transformation from about 1800 to the 1980s. Topics include: early Chinese and Western contacts; the Canton System; the Opium War and unequal treaties; China's reforms and domestic tensions – the Taiping Rebellion, the Boxer Uprising and the 1911 Revolution; the May Fourth cultural iconoclasm; Chiang Kai-shek and the Nationalist

government; the Sino-Japanese War; the nature of Mao Zedong's Communism; the Great Proletarian Cultural Revolution; Deng Xiaoping, revisionism and the democratic crackdown. This course fulfills the Human Diversity requirement in the core curriculum.

### 345 Family and Women in Chinese History

This course examines Chinese family and women prior to the early twentieth century. It studies the nature of the traditional Chinese family, the role of different women in the Confucian patriarchal family and how Confucian values affect their lives. Topics include Confucian ritual text concerning family and women; Confucian female educational text; women's marriage, life and work in the family; famous women in Chinese history; constraints on women's body and mind such as footbinding, widow chastity and concubinage; the social environment and women's own perceptions of themselves. The course is both topically and chronologically arranged to reflect changing perceptions and practices. This course fulfills the Human Diversity requirement in the core curriculum.

### 347 The Modernization of Taiwan, Hong Kong, and China

This course examines the unconventional patterns of economic modernization and political transformation of the Greater China Zone – Taiwan, Hong Kong and China. It studies Taiwan's transformation from a poor and embattled island in 1949 to a prosperous and democratic state. It traces Hong Kong's growth from a colonial port to a "special entity" within China, and it studies China's paradoxical development of both market economy and Socialism. It also examines the intricate political and economic relationships among Taiwan, Hong Kong and China, the issue of Taiwan independence or its unification with China and the concern over stability and balance of power in the Pacific region. This course fulfills the Human Diversity requirement in the core curriculum.

### 352 American Colonial History

An examination of several aspects of colonial history including the European background to colonization, and the political, economic and social development of British North American colonies to the end of the Seven Years War.

### 353 History of the American Revolution

A study of the American Revolutionary Period from the end of the Seven Years' War through the Constitutional Convention of 1787. Emphasis will be placed on the changes wrought by the Revolution in American society, politics and constitutional arrangements.

### 355 The Civil War Era

The American Civil War was a pivotal event, followed by incomplete efforts at changing the shape of the nation through Reconstruction. The causes of the war, its conduct on both sides, and the consequences of this "War of Rebellion," including Reconstruction, form the three parts of this course.

### 358 Twentieth-Century United States

An intensive study of 20th-century United States domestic history, with emphasis on homefront issues during World War I, World War II, the Cold War and the Vietnam War. Issues of social, political and intellectual history are considered.

### 360 Early American Thought and Culture

An examination of early American culture using examples drawn from the literature, music, art and political thought of the colonies and early national experience to 1865. Major topics dealt with will include: 17th-century Puritan and Quaker thought; the impact of the Enlightenment (Franklin and Jefferson); the Romantic movement and reform; the beginnings of American literature; and the development of an American folk tradition.

### 361 American Thought and Culture Since the Civil War

An examination of American culture from the Civil War to the present. A major theme will be the adjustment to an urban-industrial culture as reflected in literature, music, art and social thought. Specific topics examined will include: the impact of the theory of evolution, pragmatism, the Progressive Era, the Lost Generation, and the counterculture of the 1960s.

### 363 Business in American Life

This course examines the many relations between business and the larger American society since the first explorations of North America. Major topics include business structure and change, the great leaders of business, the interplay between business and the government and the people, and the global context and operations of American business firms and foreign firms doing business in America. A particular emphasis will be placed on using history in business.

### 365 U.S. Constitutional History

The origins and evolution of the American constitutional system from the colonial period to the present. Students explore the constitutional system created by Americans, and the way in which this system and its corresponding institutions have articulated Americans' constantly changing perception of the proper relationship between the people and their government.

**366 The Catholic Church in the United States**

An overview of the role of the Catholic Church from the early republic to modern times, with emphasis on the period from 1880 to the present. Topics include church and state, anti-Catholicism and nativism, the mission church, the immigrant church, the national church, the public role of Catholicism and Catholics, social issues, renewal, the charismatic movement and traditionalism. This course fulfills the Human Diversity requirement in the core curriculum.

**368 Women in the United States**

An overview of the changing social, cultural and political roles of women from the 17th century to the present. Topics include: family economy, industrialization of home and workplace, servitude and slavery, voluntary associations, women's rights, the development of women's professions, and an evaluation of various approaches to equalizing opportunity for women. This course fulfills the Human Diversity requirement in the core curriculum.

**369 African-American History**

A survey of the African-American experience from the beginnings of the trans-Atlantic slave trade to the present. Topics will include: African backgrounds and the origins of the slave trade; the history and development of slavery in the U.S.; the failure of post-Civil War Reconstruction and the rise of Jim Crow; the civil rights movement of the 1950s and 1960s; and contemporary issues in race relations and civil rights. Particular emphasis will be placed upon African-American contributions to American history and culture. This course fulfills the Human Diversity requirement in the core curriculum.

**371 History of U.S. Foreign Policy**

Historical analysis of principles and conduct of U.S. foreign policy; emergence of the United States as a world power; isolationism; interventionism; development of the cold war. Emphasis may vary from year to year.

**372 The United States and Vietnam**

The causes, events, personalities and consequences of U.S. involvement in the controversial Vietnam War. Background on Vietnamese culture, nationalism, colonial status under French and Japanese rule, and development of two distinct governments and societies. Role of culture, politics and military strategy in defining the U.S. commitment in Vietnam. Issues of controversy and role of media and public opinion in policy formulation. Historical models used in explaining the nature of the war. The aftermath of the war. Extensive use of documentary films and printed primary sources. This course fulfills the Human Diversity requirement in the core curriculum.

**376 Minnesota History**

Minnesota from the French explorations of the 17th century to the present, with an examination of political, social and economic development and with intensive research in selected topics of local history.

**377 The History of the Twin Cities**

This course explores the development of the Twin Cities metropolitan region from pre-European contact to the present. Emphasis is on the impact that increasing urbanization of the seven-county region has had on those who have lived, worked and played here.

**382 Careers in History**

This course is an introduction to the field of public history. It examines the various technical skills employed by public historians including collections management, preservation and conservation of historical resources, exhibiting purposes and techniques, archival management, and research and writing in the field of public history. Students in the course also examine career opportunities in public history, ranging from historical agency management to corporate historian and professional consulting.

**384 Uses of History: Decision-Making**

This course examines the uses of history. Government, business and the military all can and often do use the past in evaluating the present and planning for the future. Selected case studies will be used to investigate some of these possible uses and users of history.

**391 Development of Industrial Economies**

This course examines the development of the industrialized economies of Europe, the Americas, Russia and Japan from the mid-18th century. Several selected topics will be examined in depth, such as technological change or the agricultural revolution.

**398 History Internships**

Students in this course will be placed in apprenticeships in private businesses, public agencies or nonprofit historical agencies and museums. The apprenticeship will require 10 hours per week on site and a weekly seminar session.

Prerequisite: one history course or consent of the instructor.

**463 Seminar in European History**

History seminars involve students (primarily, though not exclusively, majors and minors) with the methodological and historiographical dimensions of research in the seminar's topic. Some topics may be drawn from existing 300-level courses; when this occurs students are able to earn credit for both courses. Students in the seminar will complete and present to other members of the class a significant research project. Majors normally will offer one of their seminar papers as their senior paper.

**465 Seminar in U.S. History**

History seminars involve students (primarily, though not exclusively, majors and minors) with the methodological and historiographical dimensions of research in the seminar's topic. Some topics may be drawn from existing 300-level courses; when this occurs students are able to earn credit for both courses. Students in the seminar will complete and present to other members of the class a significant research project. Majors normally will offer one of their seminar papers as their senior paper.

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Human Resources Management**

*See Division of Business – Department of Management*

**Interdisciplinary Studies (IDSC)**

Connery (dean), director

Interdisciplinary studies at the University of St. Thomas include a wide range of courses and programs.

*Interdisciplinary majors are available in:*

Actuarial Science (B.S.)

Biochemistry (B.S.)

Catholic Studies

Classical Civilization

East Asian Studies (ACTC)

Environmental Studies

International Studies

Justice and Peace Studies

Literary Studies

Russian, Central and East European Studies (ACTC)

Science and Mathematics for Elementary Education (Department of Teacher Education)

Social Sciences

Women's Studies (ACTC)

Descriptions of these majors may be found in the Interdisciplinary Programs section of this catalog.

*Interdisciplinary minors are available in:*

American Cultural Studies

Catholic Studies

East Asian Studies (ACTC)

Environmental Studies

Family Studies

Justice and Peace Studies

Legal Studies

Renaissance Program

Urban Studies

Women's Studies (ACTC)

Descriptions of these minors may be found either in the Interdisciplinary Programs or Interdisciplinary Minors section of this catalog.

**Interdisciplinary courses (IDSC)**

**150 Development of the Natural World**

This is an interdisciplinary course which examines our universe and integrates the sciences of biology, chemistry, physics, geology and astronomy. The nature of the cosmos and the Big Bang theory are first introduced, followed by a study of the basic principles of gravity, energy, thermodynamics, electromagnetic radiation, and the structure of matter, including chemical bonding and the Periodic Table. The nature and formation of the stars and planets is followed by a focus on the earth, including plate tectonics and geologic cycles. An introduction to biochemical systems includes a look at cells, biochemical molecules, genetics and evolution. An integrated unit on ecosystems ties together much of the previous work. The scientific method is emphasized throughout the course. The course consists of lecture, discussion and laboratory activities. This course fulfills the laboratory science requirement.

**180 English as a Second Language I**

Special and individual attention to speaking, writing, reading, listening and study skills. For students whose native language is not English. Offered in fall semester.

**181 English as a Second Language II**

Continuation of 180. Offered in spring semester.

Prerequisite: 180 or permission of instructor

**281 Topics in American Culture**

An interdisciplinary approach to a particular period in American life (the 1920s, the 1950s, etc.). Course will seek to isolate the basic themes that characterized the cultural life of the period and examine their manifestations in the art, music, literature and popular culture of the era. Particular emphasis will be given to the interdisciplinary perspective in approaching the topic.

**284 Introduction to Teach Religion**

**2 credits**

The course includes a six-hour seminar including at least three basic skills related to the act of teaching as well as a year of teaching in a local parish religious education program once a week. The teaching placement is done through consultation with each student and cooperating teachers who have a sound understanding of the life and ministry of teacher education in the church. Specific seminar content will enable students to do the following: define the term "concept" and explain how key concepts are developed by learners; explain the relationship of objectives to overall goals of religious education; define the term "strategy" and develop workable plans for teaching within a typical church/school setting.

Prerequisite: Acceptance into St. John Vianney Seminary

**291 The Anatomy of Violence**

The purpose of this course is to increase the knowledge and understanding of cultural, racial and interpersonal violence and develop a commitment to promoting a violence-free society. Emphasis is on exploration of the extent, causes and effects of violence and strategies for intervention on the micro and macro levels. Specific areas of study include domestic/partner abuse, child abuse/neglect, peer/date violence, elder abuse, sexual assault/sexual harassment, cultural violence, racism and other systemic oppression. This course fulfills the Human Diversity requirement in the core curriculum.

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**310 Washington Semester**

**16 credits**

The University of St. Thomas is affiliated with the American University's Washington Semester Program, Washington, D.C. Students selected to participate in the program have the option of studying one of the following: American Politics; Economic Policy; Education Policy and Special Education; Foreign Policy; International Business and Trade; International Environment and Development; Journalism; Justice; Peace and Conflict Resolution; Public Law; Transforming Communities; Visual and Performing Arts. The Washington Semester involves seminars, research and internships drawing on governmental and private organization resources in the Washington, D.C. area. Nominations to participate are made by the university, with final acceptance decided by American University.

**330 Renaissance Program Internship**

**0 credit**

Participants in the Renaissance Program complete one internship in a career-related field. Students are encouraged to be creative and to search for inventive ways of implementing a plan of practical work experience. A variety of options and opportunities is available through the Career Center.

**333 Renaissance Program Studies**

In accord with the Renaissance Program's commitment to foster the integration of theoretical and practical learn-

ing, the design of this course is to promote the investigation of some theme or problem having a particularly interdisciplinary focus. This course will rely upon concepts and models stemming from both theoretical and practical sources in an attempt to further integrate aspects of these distinct branches of higher learning. Among the types of issues or topics that could fall within the scope of this course are: the meaning and value of work; the nature and place of technology; the relationship of individual to community; views of self – as worker and theoretician; models and parameters of authority.

#### 340 Criminal Law and the Social Order

Sources of criminal law and traditions and values of society; characteristics of criminal law and an analysis of these characteristics; criminal responsibility and criminal intent; due process; the law at local, state and federal levels, with an emphasis on Minnesota statutes; public opinion regarding the law and its enforcement.

#### 395 Introduction to Pastoral Ministry

2 credits

This is a semester-long pastoral education program that provides for personal involvement and the practical exercise of pastoral ministry. Designed to implement the church's documents and the U.S. Bishops' Program for Priestly Formation, emphasis is placed on the future pastoral ministry of the student. Each student is placed in one of three broad areas of ministry: family crises; chemical dependency counseling; and death, dying and grief arenas. Training and on-going supervision by qualified professionals is provided.

Prerequisite: Acceptance into St. John Vianney Seminary

#### 466 City Arts: Reading Seminar (HECUA)

City Arts focuses on the arts, popular culture and social change. Seminar themes include arts, ideology and public opinion formation, the politics of art philanthropy, and approaches to community building and organizing. Students also complete a small group study project on topics chosen by the students.

#### 467 City Arts: Field Seminar (HECUA)

Students meet with a wide variety of local artists, community organizers and arts advocates to dialogue on program themes. The group also attends plays, films and visual installations as a way to connect the theories studied with actual practice in the field.

#### 468 City Arts: Internship (HECUA)

Each student works in a half-time internship, with a wide variety of placements available, including arts organizations, artistic groups, and community organizations using the arts in programs and service.

#### 469 City Arts: Internship Seminar (HECUA)

Students reflect on their internship experience with other students in the program and connect their real-life experience with the learning taking place in the reading and field seminars.

#### 471 MUST Seminar: Research on Urban Issues (HECUA)

MUST focuses on issues of poverty and inequality and ways to address these critical issues. Students explore key institutions that impact urban poverty and inequality, namely the economy, education and welfare. The role of urban sprawl, segregation and racial, class and gender discrimination are also analyzed. Students examine an array of strategies to rebuild the city more equitably.

#### 472 MUST Seminar: Field Studies in the Twin Cities (HECUA)

Students meet with a wide variety of community leaders, educators, urban planners, corporate executives and others as a way to connect the theories studied with actual practice in the field.

#### 473 MUST: Urban Studies Internship (HECUA)

Each student works in a half-time internship, with a wide variety of placements available, including public, private and community non-profit organizations working on urban issues.

#### 474 MUST: Urban Studies Internship Seminar (HECUA)

Students reflect on their internship experience with other students in the program and connect their real-life experience with the learning taking place in the reading and field seminars.

#### 475 Experiential Learning: Career Exploration Externship

2 credits

Students will be placed at work sites throughout the Twin Cities area and beyond where their career interests are matched with the cooperating company's wants and needs. Externs must report to their workplace on at least a half-day basis for four weeks during January term, a minimum of 80 hours "in-place" time on the job. Supervisors at the co-op company will assign specific tasks, duties and projects. The placements will provide students with opportunities to observe, experience and gain a better understanding of the "real world" as it relates to their own interests, values and objectives. Students will work under the direction of a faculty member and will be responsible for additional research and written assignments. This course is offered in January term and the first summer session. May be repeated for a maximum total of 4 credits.

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### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 479, 480 Honors Seminar

2 credits

These interdisciplinary seminars are intended to develop integrating insights through an analysis of topics chosen from different disciplines. Often they are taught by two faculty members or by a visiting lecturer who holds one of the endowed chairs at the university. Although these seminars are part of the Aquinas Scholars program, any student who receives the permission of the instructor(s) may enroll on a space-available basis. (IDSC 479 is used if the seminar has been approved to partially fulfill a requirement in the core curriculum.)

### 481 Seminar in International Studies

Directed readings and discussions on political, economic and historical aspects of the international system and the completion of a major research paper on a specific topic to be chosen in consultation with the instructor. The seminar will feature guest lecturers in political science, economics and history.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## International Business

*See Division of Business*

## International Business - Language Intensive (French, German, Spanish)

*See Department of Modern and Classical Languages*

## International Studies

*See Interdisciplinary Programs*

## Japanese

*See Department of Modern and Classical Languages*

## Journalism and Mass Communication (JOUR)

Craig (chair), Boros, Bunton, Gale, Iggers, Kanihan, Larson, Neuzil, O'Donnell, Steele

Journalism and mass media education equips students with the knowledge needed to understand the function of mass media and with the skills needed to work for the mass media. Students learn to gather and assess information; to write for, edit and design publications; to write and produce for broadcasting; and to use and take photographs. Students also acquire an understanding of the cultural role of mass media, as well as an appreciation of the social responsibility of the media.

Coupled with a firm foundation in the liberal arts, the department's courses provide a sound background in the ethical, legal, philosophical, political, social and historical principles that will enable students to interpret human affairs and communicate intelligently and effectively through the various forms of mass communication.

Courses in journalism and mass communication prepare students for a variety of careers with newspapers, magazines and other publications, with public relations and advertising agencies, with television and radio stations, with video companies, and with corporate and government communication departments.

All students take four core courses and follow one of five major tracks: Print Journalism, Broadcast Journalism, Public Relations, Advertising, and Media Studies. A student may also minor in one of those areas, or in Visual Communication.

Students graduating with a major in journalism and mass communication will be able to produce mass media messages clearly, accurately, and thoughtfully. They will understand how ethical principles apply to mass media messages and will realize that the mass media have a social responsibility to serve the common good, understanding that with first amendment freedoms come obligations.

Much of the work in the department's skills courses is done in a Macintosh computer lab. In addition, students who work on the school newspaper or the yearbook do all the writing, editing and design work on Macintosh computers. Other on-the-job training may be obtained in internships.

The department sponsors chapters of the Society of Professional Journalists, the Public Relations Student Society of America (PRSSA) and the American Advertising Federation.

**Major in Journalism and Mass Communication**

All journalism and mass communication majors must take these four courses:

- 100 Mass Communication and Society
- 105 Visual Communication
- 110 Media Writing and Information Gathering
- 480 Media Ethics

*Plus:*

One of the concentrations below

*Allied requirements*

All majors must also take a group of courses outside journalism and mass communication. These allied requirements can be fulfilled in various ways.

A student may take a minor, double major, or a mixture of six beginning, intermediate and advanced courses (24 credits) from two or more related disciplines.

The student has considerable freedom and flexibility in selecting courses or a minor to fulfill this requirement, but the department does have some recommendations based on the student's interests. Before choosing an option, students should consult with the department chair.

**Concentration in Print Journalism**

- 210 Reporting for Print Media
- 211 Editing
- 410 Advanced Reporting

*Plus two of:*

- 220 Design Concepts of Communication
- 225 Writing and Designing for the Web
- 311 Persuasion in Writing
- 370 Magazine Writing

*Plus one of:*

- 301 Journalism History
- 302 Literary Journalism
- 304 Media Law
- 305 Gender, Race and Mass Media
- 402 Society, Culture and the Media
- 404 Media Structure and Power

**Concentration in Broadcast Journalism**

- COMM 160 Electronic Media Production
- COMM 270 Videography: Television Production in the Field
- JOUR 260 Broadcast Reporting
- JOUR 460 Advanced Broadcast Reporting

*Plus one of:*

- COMM 365 The Documentary in American Television
- COMM 465 Current Issues in Electronic Media
- JOUR 301 Journalism History
- JOUR 303 Newsroom Management
- JOUR 304 Media Law
- JOUR 305 Gender, Race and Mass Media
- JOUR 402 Society, Culture and the Media
- JOUR 404 Media Structure and Power
- JOUR 410 Advanced Reporting

**Concentration in Public Relations**

- 250 Public Relations Principles
- 300 Mass Communication Research
- 350 Public Relations Writing
- 450 Advanced Public Relations



## Departments

*Plus one of:*

- 211 Editing
- 220 Design Concepts
- 225 Writing and Designing for the Web
- 305 Gender, Race and Mass Media
- 311 Persuasion in Writing
- 402 Society, Culture and the Media
- 404 Media Structure and Power

### **Concentration in Advertising**

- 240 Advertising Principles
- 445 Advertising Campaign Strategies

*Plus one of the following concentrations:*

#### **Creative**

- 340 Advertising Copywriting

*Plus two of:*

- 220 Design Concepts of Communication
- 225 Writing and Designing for the Web
- 420 Graphic Design Studio
- 440 Advanced Advertising Copywriting

#### **Account Services**

- 300 Mass Communication Research
  - 340 Advertising Copywriting
  - 345 Media Planning
- One course in Marketing

### **Concentration in Media Studies**

The Media Studies major provides students the opportunity to closely examine the social and cultural effects of mass media. The track is particularly suited for those more interested in graduate school or law school than in careers in the mass media.

- 300 Mass Communication Research
- 305 Gender, Race and Mass Media
- 402 Society, Culture and the Media
- 404 Media Structure and Power

*Plus one of:*

- 301 Journalism History
- 302 Literary Journalism
- 304 Media Law

### **Minor in Print Journalism**

- 100 Mass Communication and Society
- 110 Media Writing and Information Gathering
- 210 Reporting for Print Media
- 211 Editing

*Plus one of:*

- 301 Journalism History
- 302 Literary Journalism
- 304 Media Law
- 410 Advanced Reporting
- 480 Media Ethics

### **Minor in Broadcast Journalism**

- COMM 160 Electronic Media Production
- JOUR 100 Contemporary Mass Communication
- JOUR 110 Media Writing and Information Gathering
- JOUR 260 Broadcast Reporting
- JOUR 460 Advanced Broadcast Reporting

**Minor in Public Relations**

- 100 Mass Communication and Society
- 110 Media Writing and Information Gathering
- 250 Public Relations Principles
- 350 Public Relations Writing
- 450 Advanced Public Relations

**Minor in Advertising**

- 100 Mass Communication and Society
- 110 Media Writing and Information Gathering
- 240 Advertising Principles

*Plus one of:*

- 220 Design Concepts of Communication
- 340 Advertising Copywriting
- 345 Media Planning

*Plus one of:*

- 420 Graphic Design Studio
- 440 Advanced Advertising Copywriting
- 445 Advertising Campaign Strategies

**Minor in Visual Communication**

- 100 Mass Communication and Society
- 105 Visual Communication

*Plus two of:*

- 220 Design Concepts of Communication
- 225 Writing and Designing for the Web
- 230 Photojournalism

*Plus one of:*

- 330 Advanced Photojournalism
- 420 Graphic Design Studio

**Minor in Media Studies**

- 100 Mass Communication and Society
- 300 Mass Communication Research
- 402 Society, Culture and the Media
- 404 Media Structure and Power

*Plus one of:*

- 301 Journalism History
- 302 Literary Journalism
- 304 Media Law
- 305 Gender, Race and Mass Media
- 480 Media Ethics

**100 Mass Communication and Society**

Examines the nature of mass communication and the contributions of other disciplines to a knowledge of the media. Concentrates on newspapers, radio, television, magazines, and motion pictures for comparative functions and their influence on society.

**105 Visual Communication**

Introduction to the history, theory and principles of communicating visually through art, illustration, photography, design, typography, film, video and other visual forms.

**110 Media Writing and Information Gathering**

Basic techniques for gathering information and presenting it in writing for the various mass media. Strategies for gathering and assessing information, including use of databases, public documents, libraries and interviews. Writing news and feature articles, news releases, and newsletter, broadcast and ad copy.

Prerequisite: 100 and successful completion of departmental language-skills test

**210 Reporting for Print Media**

This course concentrates on print media reporting, emphasizing interviewing, sources and honing news judgment. Development of observational skills, story organization and clear writing. Students write complex news stories, and spot news and develop several major writing projects, including magazine articles.

Prerequisite: 110

**211 Editing**

Preparation of copy for publication; evaluation of news; headline writing; news display, including typography; picture editing; and editing magazines.

Prerequisite: 110

**215 Journalistic Writing in the Workplace**

The course focuses on the fundamentals of gathering and writing information through observation, interviews and research. The emphasis is on clear, concise and straightforward writing of news releases, reports, letters, office memoranda and other kinds of writing in a business setting. In addition, the course includes rewriting and editing of the student's own and others' work and preparation of copy for publication. For non-majors only.

**220 Design Concepts of Communication**

This course has been developed to provide students with an elementary understanding of graphic design elements and principles. Applied projects in typography and publication layout will be completed via the Macintosh. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 105 or ARTH 350 or ARTH 355 or permission of department chair

**225 Writing and Designing for the Web**

This course teaches students HTML and Web-page production. The goal is to help students develop strategies for writing, editing, designing and publishing a Website that meets professional standards. This course fulfills the second-level Computer Competency requirement in the core curriculum.

**230 Photojournalism**

An entry-level course on still photography as used in the mass media. Imparts mechanical skills to practice photography, creates an awareness of the aesthetics involved and introduces principles of communicating via photojournalism. Students supply own camera. Lecture and laboratory.

Prerequisite: 105 or permission of department chair

**240 Advertising Principles**

An attitudinal approach to the principles and practices of advertising in today's society. Correlation between advertising and sales, marketing, economics and research. Newspaper, magazines, radio, television and graphics as advertising channels.

Prerequisite: 100 or permission of instructor

**250 Public Relations Principles**

Public Relations in the modern world of communication, marketing, business and institutions. A case history approach to public relations as a career and how public relations fits into the total picture of communication.

Prerequisite: 100 or permission of instructor

**260 Broadcast Reporting**

The nature and execution of broadcast news, including the preparation and writing of news and features for broadcast, with special emphasis on writing and reporting for television.

Prerequisite: 110

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**300 Mass Communication Research**

This course examines theories and methodologies underlying mass communication research, including quantitative and qualitative approaches. Among the areas covered: public opinion research, content analysis, participant observation, historical and legal methods, and discourse analysis. Students will be expected to design and conduct a mass communication research project.

Prerequisite: 110 or permission of instructor

**301 Journalism History**

European background of the American press system; development of American journalism; historical relationship of the news media to political, social and economic trends; the news media as a cultural institution; rise of the broadcast media.

Prerequisite: Juniors and seniors only

**302 Literary Journalism**

A look at journalistic writing style as a literary prose form, with emphasis upon late 19th- and 20th-century American writing, and upon the tradition of literary journalism. Newspaper and magazine articles from both centuries and book-length works from the past 50 years will be read and discussed. Students will have the option of writing a research essay or a literary journalistic article for the final project.

Prerequisite: Juniors and seniors only

**303 Newsroom Management**

Examines the general economic realities of the media business, investigates the nature of relationships within the newsroom, explores priorities and goal-setting in the newsroom, reviews techniques and methods of managing and encouraging employees. The course also identifies the moral and legal dilemmas and guiding principles of newsroom managers.

Prerequisite: Seniors only or permission of department chair

**304 Media Law**

Freedom and responsibility of the news media viewed as public institutions; constitutional and legal developments with emphasis upon landmark court decisions; interpretation of current areas of tension.

Prerequisite: Juniors and seniors only

**305 Gender, Race and Mass Media**

This course examines two broad ways in which issues of gender and race intersect with U.S. mass media: employment in mass media and depiction in mass media. In examining media employment, the course considers questions such as the decision-making status of women and minorities in media organizations. In examining media depictions, the course examines such questions as how media depictions may stereotype and trivialize women and minorities, and what social and cultural values are reflected by these media portrayals. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 100 or permission of instructor

**311 Persuasion in Writing**

Effective writing based upon principles of rhetoric. Student writing directed to the execution of editorials, advertising copy and promotion.

Prerequisites: Juniors and seniors only; 110 or permission of instructor

**330 Advanced Photojournalism**

A realistic journalistic application of color and black and white 35 mm photography. Emphasis on original conceptualization and timely execution in the following subject areas: news, sports, feature, fashion and commercial illustrations using print and/or multi-media presentations.

Prerequisite: 230

**340 Advertising Copywriting**

The acquisition of advertising copywriting skills as applied to the creative advertising process. The dovetailing of creative copy with the marketing and media strategies. Execution of advertising copy.

Prerequisites: 110 and 240

**345 Media Planning**

Students will develop an understanding of the use of mass media as advertising vehicles, the language of media planning, key media information sources, and how to develop a media plan.

Prerequisites: 110 and 240

**350 Public Relations Writing**

This course provides practical experience in public relations writing including: news releases, position statements, brochure writing, features, query letters and a variety of other public relations writing forms. The emphasis is on weekly assignments which are critiqued by the instructor and discussed in class. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 110 and 250

**370 Magazine Writing**

Explores the nature of writing for magazines as a staff writer or free-lance writer. Students will write service articles, profiles, human interest pieces and in-depth issue articles common to both commercial and trade magazines.

Prerequisites: Juniors and seniors only; 110 or permission of instructor

**402 Society, Culture and the Media**

Society, Culture and the Media examines the role media play in social and cultural formations. The course looks beyond the media as transmitters of information to their broadest social and cultural effects. Students study media as agents of enlightened social modernism, as political and economic institutions, as purveyors of popular culture, and as aspects of cultural and subcultural rituals. History, political economy, critical studies, cultural

## Departments

anthropology, semiotics and sociology are among the areas from which approaches for studying the media are considered in the course.

Prerequisite: 300 or permission of instructor

### 404 Media Structure and Power

Examines recent changes in mass media structures. Readings focus on how changes in ownership, media regulation and new technology have affected media-organizations and their performance. Subjects and issues covered include: media ownership trends, including internationalization and their effect on content; media monopolies; the effects of new media technology; the effects of advertising on news; media choice in society; the media's role in the political system; and the increasing globalization of mass media.

Prerequisite: 300 or permission of instructor

### 410 Advanced Reporting

Refinement of reportorial and writing skills. Advanced work in interviewing, investigating, and use of public documents. Focuses on the development of news stories. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 210 and permission of department chair

### 420 Graphic Design Studio

Graphic Design Studio is an advanced graphic design course. Students study the history of graphic design and typography, the elements of fine typography, and produce a portfolio of graphic designs.

Prerequisite: 220 or permission of instructor

### 440 Advanced Advertising Copywriting

This course is highly selective and designed for those wishing to pursue advertising copywriting as a career. It builds on 340. It develops strengths in the team concept of creative advertising, refines skills used in evaluating the effectiveness of messages and strategies used in various media, and develops greater awareness of production skills used in copywriting. Students will develop a major, multimedia campaign and have it evaluated by advertising professionals.

Prerequisites: 340 and permission of department chair

### 445 Advertising Campaign Strategies

This course will study the role of the advertising campaign and media plan as key components in the analysis and planning of broad marketing strategies for various products. Students are involved in determining budgets, the role of advertising vs. sales promotion, diagnosing current advertising campaigns, and the theories and principles upon which they are based.

Prerequisite: 340 or 345 or 420 or permission of instructor

### 450 Advanced Public Relations

Emphasis upon public relations projects in which students engage in problem solving. The focus is on strategy, planning and public relations communications techniques – magazine article, position paper, news release, press kit, and other types of public relations writing.

Prerequisite: 350

### 460 Advanced Broadcast Reporting

This course builds on 260, Broadcast Reporting. It further develops the ability to gather information through interviews, background research, and use of public documents and reports. The entire broadcast story process is emphasized: story selection, reporting, taping, editing and writing.

Prerequisite: 260

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 480 Media Ethics

Communication study as ordered by moral and legal principles and their application to current problems of the major media. Individual term project.

Prerequisites: graduating seniors only and permission of instructor

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### **Justice and Peace Studies**

*See Interdisciplinary Programs*

### **Latin**

*See Department of Modern and Classical Languages*

### **Leadership and Management**

*See Division of Business – Department of Management*

### **Legal Studies in Business**

*See Division of Business*

### **Legal Studies**

*See Interdisciplinary Minors*

### **Literary Studies**

*See Interdisciplinary Programs*

### **Liturgical Music**

*See Department of Music*

### **Management**

*See Division of Business*

### **Marketing Management**

*See Division of Business – Department of Marketing*

## **Mathematics (MATH)**

Shakiban (chair), Dokken, Herman, Kemper, Kroschel, McLean, Scholz, Shemyakin, Shepard-Loe, Van Fleet, Yang, Youn; Komro, Sullivan

The Department of Mathematics offers a major that can satisfy a variety of student interests. Majors in mathematics can prepare themselves for graduate study in mathematics or related areas, for the teaching of mathematics at the secondary school level, for professional school in law or health science, or for the application of mathematics and statistics in science, business, industry and government.

Students majoring in mathematics are encouraged to use elective courses to broaden their background in mathematics or in a related area of special interest. Coursework in biology, chemistry, economics, finance, geology, physics, psychology and quantitative methods/computer science combines well with a major in mathematics.

Students graduating with a major in mathematics will be able to demonstrate an understanding of the fundamental notions of mathematics, including rigorous proof. They will be able to model and solve real-world problems arising in business and industry. They will be able to effectively communicate, both orally and in writing, mathematical concepts to their peers and to an audience of non-majors. They will be able to learn and apply mathematics on their own through independent study, research and participation in non-class-related lectures.

In all major programs, a student must successfully complete at least 16 credits in mathematics courses numbered 300 and above at the University of St. Thomas.

In addition to the mathematics programs described below, the department has programs to prepare students for careers in actuarial science (see Interdisciplinary Programs) or teacher licensure. A minor in mathematics is available to support majors in many other departments.

Students should see the chair of the Department of Mathematics for advice in selecting courses for a particular purpose. The department offers a number of courses for non-majors to fulfill the mathematics portion of the core curriculum.

### **Center for Applied Mathematics**

Within the Department of Mathematics, the Center for Applied Mathematics provides opportunities for students to work on significant mathematical problems of current interest to business, industry, and government.

### **Major in Mathematics**

113 Calculus I (or 108 and 109)

114 Calculus II

200 Multi-Variable Calculus

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- 210 Linear Algebra and Differential Equations
- 317 Real Analysis

*Plus one of the mathematics programs below:*

*Allied requirement for all programs*

QMCS 230 Software Design Using the JAVA Language

### Pure Mathematics Program

*One of:*

- 301 Abstract Algebra I
- 310 Modern Linear Algebra

*Plus one of:*

- 302 Abstract Algebra II
- 309 Discrete Mathematical Structures
- 385 Mathematical Methods of Numerical Analysis
- 400 Dynamical Systems and Chaos
- 419 Complex Variables
- 420 Topology

*Plus:*

eight credits of courses 300 or higher not already taken

*Plus one of the following sequences of applications of mathematics:*

ECON 351 and 352 and 418

MATH 315 and 316

MATH 325 and 450

MATH 313 and 314

PHYS 111 and 112

QMCS 410 and 411

### Applied Mathematics Program

- 300 Differential Equations and Applied Mathematics
- 310 Modern Linear Algebra
- 315 Applied Mathematics and Modeling I
- 316 Applied Mathematics and Modeling II

*Plus one of:*

- 303 Statistics for the Applied Sciences
- 313 Probability

*Plus one of:*

- 385 Mathematical Methods of Numerical Analysis
- 419 Complex Variables

### Statistics Program

- 310 Modern Linear Algebra
- 313 Probability
- 314 Mathematical Statistics
- 333 Applied Statistical Methods: Regression, Time Series, Forecasting
- 385 Mathematical Methods of Numerical Analysis

*Plus:*

QMCS 320 Statistics II

### Teacher Licensure

Elementary Education with a Co-major in Science and Mathematics for Elementary Education

Elementary Education with a Specialty in Mathematics (5-8)

Major in Mathematics with a Co-major in Secondary Education (5-12)

*See Department of Teacher Education*

### Minor in Mathematics

- 113 Calculus I (or 108-109)
- 114 Calculus II

*Plus at least one of:*

200 Multi-Variable Calculus

210 Linear Algebra and Differential Equations

*Plus:*

A minimum of twelve additional credits in courses numbered above 200 (or approved by the department chair)

A student minoring in mathematics must successfully complete a minimum of 12 credits in mathematics numbered 200 and above at St. Thomas.

### 005 Basic Math Skills

0 credit

This review of arithmetic and elementary algebra is designed to prepare the student to study MATH 100 (Mathematical Sampler) or MATH 101 (Finite Mathematics). The course is designed as a self-directed study experience, with lectures scheduled only during the J-term and summer offerings. The student will have access to textbook explanations and exercises, videos, CD-ROMs and tutors to gain mastery of the material. Appropriate testing is done with the tutors in the Mathematics Resource Center (MaRC). A nominal registration fee is charged.

### 100 Mathematical Sampler

This survey of basic mathematical concepts includes both modern and historical perspectives. Emphasis is on the development and appreciation of mathematical ideas and their relationship to other disciplines. Topics include, among others: mathematical problem-solving: sets; an introduction to randomness, probability and statistics (through application of the normal distribution); historical systems of numeration; mathematical techniques of counting (multiplication principle, Venn and tree diagrams, etc.); coordinate geometry; simple transformations; and patterns of symmetry. This course satisfies the general requirement for a course in mathematics and is also recommended as the first course in mathematics for prospective elementary teachers.

Prerequisite: A satisfactory score on the mathematics placement exam

### 101 Finite Mathematics

Elementary set theory, linear equations and matrices, linear programming, finite probability, applications primarily in business and the social sciences.

Prerequisite: A satisfactory score on the mathematics placement examination

### 105 Precalculus (108, 109)

The real numbers; basic algebra; analytical treatment of the elementary functions emphasizing the exponential, logarithmic and trigonometric functions and their graphs. (This course is intended as preparation for 113 and does not fulfill a general graduation requirement.)

Prerequisite: A satisfactory score on the mathematics placement examination

### 108 Calculus With Review I (105, 111, 113)

The first course of a two-course sequence designed to integrate introductory calculus material with the algebraic and trigonometric topics necessary to support that study. Review topics include: number systems, basic algebra, functions, the Cartesian coordinate system, graphing and inverse functions. Calculus topics include limits, continuity, derivatives for algebraic functions, applications of derivatives and more graphing. This course is intended only for students planning to take 109 and does not satisfy the mathematics requirement in the core curriculum. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: A satisfactory score on the mathematics placement examination

### 109 Calculus With Review II (105, 111, 113)

The second course of a two-course sequence designed to integrate introductory calculus material with the algebraic and trigonometric topics necessary to support that study. Review topics include: exponential and logarithmic functions, trigonometric functions and their inverses and associated graphs. Calculus topics include: derivatives of the transcendental functions, applications of those derivatives and an introduction to integration. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: a grade of C- or better in 108

### 111 Calculus for Business and Social Science (108, 109, 113)

An introductory course in calculus with motivation and examples drawn from business and the social sciences whenever possible. Does not include the calculus of trigonometric functions.

Prerequisite: a grade of C- or above in 105 or a satisfactory score on the mathematics placement examination. (Four years of high school mathematics, including college algebra, also are recommended as background for this course.) Students intending to continue in calculus are strongly advised to take 113.

### 113 Calculus I (108, 109, 111)

An introductory course in calculus: limits; derivatives and integrals of algebraic, exponential, logarithmic and trigonometric functions of one real variable; applications primarily in the natural sciences. This course fulfills the second-level Computer Competency requirement in the core curriculum.



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Prerequisite: a grade of C- or above in 105 or a satisfactory score on the mathematics placement examination. (Four years of high school mathematics, including college algebra and trigonometry, also are recommended as background for this course.)

### 114 Calculus II

Techniques of integration; applications of integration; infinite series; L'Hospital's rule; improper integrals. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: a grade of C- or above in 113 or 109 (or 111, with permission of the department chair)

### 121 Structures of Elementary Mathematics

An examination of the mathematical underpinnings of the elementary school curriculum with an emphasis on the understanding of mathematical concepts. Topics will include foundations of integer and rational arithmetic, notions of place-value and base, number sense and estimation, functions and their applications, Euclidean geometry, regular polygons and polyhedra, analysis and classification of patterns, mathematics of measurement, the use of models, the role of logic in mathematical discourse, and mathematical connections to other disciplines.

Prerequisite: 100

### 128 Introduction to Discrete Mathematics

A survey of basic discrete mathematical concepts. Topics include: Boolean algebra, logic, analysis of algorithms, mathematical induction and matrices. Focus on applications to computer science.

Prerequisite: 111 or 113 or 109 (may be taken concurrently with consent of the instructor)

### 200 Multi-Variable Calculus

Vector algebra in two and three dimensions, partial derivatives, multiple integrals, line integrals, surface integrals, Green's Theorem, Stoke's Theorem, divergence theorem. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: a grade of C- or higher in 114

### 210 Linear Algebra and Differential Equations

The course will introduce the student to linear algebra, differential equations and applications of linear algebra to differential equations. Topics to be covered will include: vector spaces, matrices, determinants, eigenvalues and eigenvectors, linear transformations, systems of ordinary differential equations, and applications to science and engineering. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: a grade of C- or higher in 114

### 259 Elements of Geometry and Statistics

Intended for elementary education majors who plan a specialization in mathematics for grades 5-8. Includes intermediate concepts in geometry and statistics essential for a middle school teacher of mathematics. Topics will include: axiomatic systems of geometry with emphasis on Books I and VI of Euclid's Elements; an introduction to non-Euclidean geometry; geometric and inductive reasoning, with applications; introduction to geometric probability and the geometric display of data; organization and analysis of data sets; statistical support of decisions, including applications in education; prediction; the role of randomness in both formal and empirical probability.

Prerequisites: 100 and 121

### 264 The Mathematical Theory of Interest (ACSC 264)

A survey of topics in the mathematical analysis of financial transactions which involve payments made over time. Specific areas of concentration will include the time value of money; the analysis of annuities; amortization and sinking funds; and the pricing and rates of return on investments. Both continuous time and discrete time problems will be considered.

Prerequisite: 114

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 300 Differential Equations and Applied Mathematics

Linear ordinary differential equations and systems; standard methods of solution; Laplace transforms; series solution; introduction to nonlinear differential equations and dynamical systems. Models and applications in the physical, biological, behavioral, and social sciences.

Prerequisites: 200 and 210 or permission of the department chair

### 301 Abstract Algebra I

Properties of sets, relations and mappings; introduction to groups, rings and fields. Offered in fall semester.

Prerequisite: 210

**302 Abstract Algebra II**

Topics in modern algebra with applications. Includes material selected from the theory of groups, rings, and fields; linear algebra; Boolean algebra and discrete structures. Offered in spring semester of even-numbered years.  
Prerequisite: 301

**303 Statistics for the Applied Sciences (313, 314)**

Probability, Estimation, Hypothesis Testing, Analysis of Variance, Regression Analysis, Topics selected from Experimental Design, Statistical Process Control, Non-Parametric Methods, Factor Analysis as time permits. This course fulfills the second-level Computer Competency requirement in the core curriculum.  
Prerequisite: 200

**309 Discrete Mathematical Structures**

An introduction to topics in discrete mathematics with applications, primarily to computer science. Topics include sets, counting, matrices, algorithms, graph theory, semigroups, logic and Boolean algebras, finite state machines and Turing machines. Offered in spring semester of odd-numbered years.  
Prerequisite: Programming experience and 301 or instructor's permission

**310 Modern Linear Algebra**

Linear algebra and applications. Topics include linear equations, matrix theory, linear spaces, linear mappings, canonical forms, and inner product spaces. Applications chosen from such topics as numerical linear algebra, least squares, hermitian and positive definite matrices, and electrical networks.  
Prerequisite: 210

**313 Probability (303)**

Probability theory in discrete and continuous sample spaces; random variables and distribution functions; moments; the moment-generating function; functions of random variables; law of large numbers; central limit theorem. This course fulfills the second-level Computer Competency requirement in the core curriculum. Offered in fall semester.  
Prerequisites: 200 and 210 or permission of department chair

**314 Mathematical Statistics (303)**

Populations and random sampling; sampling distributions. Theory of statistical estimation; criteria and methods of point and interval estimation. Theory of testing statistical hypotheses; non-parametric methods. Offered in spring semester.  
Prerequisite: 313

**315 Applied Mathematics and Modeling I**

This is a topics course in applied mathematics offered through the Center for Applied Mathematics (CAM). Course content will be drawn from areas of applied mathematics, including: mathematical analysis of data, database theory, discrete and continuous modeling, simulation, applied statistics, coding theory, expert systems, neural network analysis, signal processing, optimization theory, and wavelet theory. Students will work in teams on projects of current interest in applied mathematics.  
Prerequisites: 200 and 210, or permission of instructor

**316 Applied Mathematics and Modeling II**

This is a second topics course in applied mathematics offered through the Center for Applied Mathematics (CAM). It does not necessarily require 315 as a prerequisite. Course content will be drawn from the topics listed under MATH 315. Students will work in teams on projects of current interest in applied mathematics.  
Prerequisites: 200 and 210, or permission of instructor

**317 Real Analysis**

Topology of the real numbers. Functions of one real variable. Rigorous development of continuity and uniform continuity; differentiability; uniform convergence. Sequences and series. Offered fall semester.  
Prerequisites: 200 and 210

**325 Geometry**

Axioms for geometries; geometrical transformations and their invariants; non-Euclidean geometries; additional topics. Offered in spring semester.  
Prerequisites: 200 and 210 or permission of the instructor

**333 Applied Statistical Methods: Regression, Time Series, Forecasting**

Regression and exponential smoothing methods; Stochastic Time Series: auto- and cross-correlation, autoregressive moving average models; application to forecasting.  
Prerequisites: 303 and 314, or permission of instructor

**385 Mathematical Methods of Numerical Analysis**

Rigorous mathematical treatment of standard topics in numerical analysis including solutions to linear and non-

## Departments

linear systems, interpolation, numerical integration and differentiation, differential equations, and iterative techniques in matrix algebra. This course provides a theoretical foundation for the numerical solution of mathematical problems. Offered in spring semester.

Prerequisites: 317 and QMCS 230 or permission of instructor

### 400 Dynamical Systems and Chaos

An introduction to discrete and continuous dynamical systems and applications with topics including: iterated mappings in one and two dimensions, phase-plane theory, nonlinear differential equations, and chaos. Additional topics will be chosen from among bifurcations, stability, attractors, Lyapunov functions, Julia sets and Mandelbrot sets.

Prerequisite: 300 or 317 or permission of instructor

### 419 Complex Variables

Analytic functions; theorems of Cauchy; Laurent series; residue calculus; entire and meromorphic functions; conformal mapping.

Prerequisite: 317

### 420 Topology

Properties of Euclidean spaces; general spaces; mappings; separation properties; connectedness; compactness; metrizable spaces.

Prerequisite: 317

### 450 Advanced Mathematics from an Elementary Point of View

This course gives students a sense of the history, applicability and currency of one or more mathematical ideas and serves as a capstone mathematics course for students seeking to teach secondary mathematics. In the course, students make substantial oral and written presentations on topics carefully selected to have a strong relationship to secondary school mathematics. They use publications, e.g. The American Mathematical Monthly, Mathematics Magazine, Mathematical Intelligencer and Scientific American, as well as standard texts, as sources for their work.

Prerequisite: 301 and 317, senior or graduate standing and declared intent to complete secondary licensure in mathematics. Other students having the course prerequisites may be admitted, but it is their responsibility to determine the relationship of this course to their program of study

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Media Studies

*See Department of Journalism and Mass Communication*

## Modern and Classical Languages

Moorman (SPAN) (chair), Badessich (SPAN), Chew (LAT, GRK), Dziekiewicz (FREN), Feigenbaum (SPAN), Fullard (GER), Hundley (SPAN), Martín-Morán (SPAN), Raschio (SPAN), Sandmann (SPAN), Schons (GER), Wolsey (FREN); Gochberg (SPAN), Heberlein (JAPN), Pelletier-Skoog (FREN), Richmond (SPAN), Shambour (RUSS)

The Department of Modern and Classical Languages offers major and minor concentrations in classical languages, French, German, Latin and Spanish, with additional minors in Greek and Japanese. A Russian major and minor and a Japanese major are available through the Associated Colleges of the Twin Cities. In cooperation with the ACTC, courses also are available in Chinese and Italian.

The department also offers major concentrations in language with business (international business – language intensive) and language with English (literary studies).

Students graduating with a major in Classical languages will have acquired a working vocabulary and a

knowledge of the structures of Greek and/or Latin adequate to read the works of Greek and/or Latin authors. They will have gained experience in reading major authors in the languages, and will perceive the relationship between the authors and their cultural context.

Students graduating with a major in French will have a solid understanding of the French language and the ability to use the language effectively in speaking, comprehension, reading, and writing. They will have developed the skills necessary for the study, analysis, and interpretation of a wide range of cultural texts, including literary texts.

Students graduating with a major in German will have acquired a command of the German language for use in academic and/or professional life. They will have become acquainted with the culture of the German-speaking countries and with the role these countries and their culture have historically played and continue to play in the world today.

Students graduating with a major in international business – language intensive will be able to demonstrate a command of the appropriate language for use in business and professional life, will understand the historical and cultural development of the countries of that language, and will understand the business practices and economic structure of those countries.

Students graduating with a major in Spanish will have a solid understanding of the Spanish language and the ability to use the language effectively in speaking, comprehension, reading, and writing. They will have developed the skills necessary for the study, analysis, and interpretation of a wide range of cultural texts, including literary texts.

The department also offers courses for the non-major to fulfill the Language and Culture component of the core curriculum.

#### **National Collegiate Foreign Language Honor Society**

Alpha Mu Gamma, the National Collegiate Foreign Language Honor Society, was organized at St. Thomas in 1980. The aims of the society are to recognize achievement in the field of foreign language study and to encourage an interest in the study of foreign languages, literatures and civilizations.

Alpha Mu Gamma offers membership to outstanding students who have completed a third semester of college study of any modern or classical language. For details on membership consult the Department of Modern and Classical Languages.

#### **Teacher Licensure**

Elementary Education with a Specialty in World Languages and Cultures (K-8)

World Languages and Cultures (K-12) with a Major in French, German, or Spanish and a Co-major in Secondary Education

*See Department of Teacher Education*

### **Classical Languages**

This major engages students in the study of the languages, literatures and cultures of two ancient cultures that have left a lasting impact upon the modern world: classical Greece and Rome. This major prepares students to read both languages, introduces significant works of essential authors, and provides analytical tools for examining the relationship between language and the unique identity of different cultures.

#### **Major in Classical Languages**

Twenty-eight credits in Latin and Greek

*Plus:*

Twelve additional credits in Latin or Greek, ancient history, ancient philosophy, classical art, mythology, or classical literature in translation.

#### **Minor in Classical Languages**

Twelve credits in Latin

Twelve credits in Greek

### **Latin (LAT)**

The courses in Latin are offered with the following objectives:

1. To give students the necessary grasp of the language to read the works of Latin authors, and to read them with some degree of appreciation
2. To acquaint students with the unique character of Roman culture and its contribution to succeeding ages
3. To improve students' understanding of the structures of language.

These objectives are pursued with a view to the needs of students who are preparing to do graduate work in the field of Latin, who are preparing to teach Latin in secondary schools, or who are seeking a background for the study of theology, philosophy, history, law, science, English or the Romance languages.

The major engages students in the study of the language, literature and culture of ancient Rome. It pre-

## Departments

pares students to read Latin, introduces significant works of essential authors, and provides analytical tools for examining the relationship between language and the unique identity of different cultures.

### **Major in Latin**

Four years of high school Latin or the completion of 212 or 255

*Plus:*

Twenty-eight credits in Latin numbered above 255

*Plus:*

Eight additional credits in ancient history, ancient philosophy, classical art, mythology or classical literature in translation.

### **Minor in Latin**

Completion of twelve credits above 211

*Plus:*

Eight additional credits in ancient history, ancient philosophy, classical art, mythology or classical literature in translation.

#### **111 Elementary Latin I**

A beginning course, with emphasis on reading Latin prose in passages of increasing complexity. Introduction to essential forms, syntax and vocabulary. Practice in reading Latin aloud and composing simple sentences. Exploration of the social and cultural context of the Latin language.

#### **112 Elementary Latin II**

Continuation of 111. More graded readings, further mastery of forms, syntax and vocabulary.  
Prerequisite: 111 or equivalent

#### **211 Intermediate Latin I**

Readings of narrative prose. Review and further study of grammar.  
Prerequisite: 112 or equivalent

#### **212 Intermediate Latin II**

Selections from Vergil's epic poem, the Aeneid.  
Prerequisite: 211 or equivalent

#### **255 Latin Readings in the Old and New Testament**

Readings from St. Jerome's Latin translation of the Old and New Testament.  
Prerequisite: 211 or equivalent

#### **295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### **311 Latin Composition**

A thorough review of Latin grammar. Practice in the writing of continuous Latin prose.  
Prerequisite: 212 or 255 or equivalent

#### **325 Catullus and Horace**

Selections from the lyric poetry of Catullus and Horace. Poetic sources, influence, the principal lyric meters.  
Prerequisite: 212 or 255 or equivalent

#### **360 Philosophy in Latin Texts**

A survey of various kinds of treatises principally from the works of St. Thomas Aquinas for students who want to acquire a facility in reading philosophical and theological texts in medieval Latin.  
Prerequisites: Three courses in Philosophy and 211 or permission of the instructor.

#### **421 Vergil**

Reading of extensive selections from The Aeneid in Latin and of the entire poem in English translation. Discussion of the sources, themes and techniques of the epic.  
Prerequisite: 212 or 255 or equivalent

#### **430 Caesar and Cicero**

Extensive reading of the Gallic War and of the Orations of Cicero. A study of the character and career of each author.  
Prerequisite: 212 or 255 or equivalent

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Greek (GRK)**

Through courses in Greek, the student learns to read classical Greek, and at the intermediate level begins reading selections from ancient Greek authors. In addition to facility in reading classical Greek, the student gains an awareness of the unique character of classical Greek culture and its contribution to succeeding ages.

**Minor in Greek**

Sixteen credits in Greek language

*Plus:*

Eight additional credits in Greek, ancient history, ancient philosophy, classical art, mythology or classical literature in translation.

**111 Elementary Greek I**

A beginning course, with emphasis on reading classical Greek prose in passages of increasing complexity. Introduction to essential forms, syntax and vocabulary. Practice in reading Greek aloud and composing simple sentences. Exploration of the social and cultural context of the Greek language.

**112 Elementary Greek II**

Continuation of 111.

Prerequisite: 111

**211 Intermediate Greek I**

Selected readings in Greek prose; review of grammar.

Prerequisite: 112 or equivalent

**212 Intermediate Greek II**

Readings in classical Greek prose, particularly Plato.

Prerequisite: 211 or equivalent

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**342 Greek Reading and Exegesis: John**

Careful reading of the Gospel of John in Greek combined with theological commentary from the Greek text, adapted to intermediate-level Greek students.

Prerequisite: 112 or equivalent (Recommended: THEO 205 or THEO 210)

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

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### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog. The content of seminars, topics, and individual study courses will vary. Material will be chosen from Homer, Greek philosophers, tragedians or historians.

## French (FREN)

The primary goal of the department is to provide opportunity to its majors for acquiring:

- a. A solid command of the French language
- b. A thorough introduction to the literary and cultural origins of France and the role of French in today's world
- c. Enough diversity in courses to prepare for a variety of potential careers or possible co-careers for which their French skills will be of primary importance
- d. The intellectual background which characterizes those educated in a liberal arts setting.

### Major in French

Four years of high school French or the completion of Intermediate French II or its equivalent.

Each prospective major will present a program to the major French adviser for departmental approval. Two tracks are allowed: a literary track stressing courses needed for graduate study; and a general track stressing the cultural and communication skills necessary for double, combined or co-career majors. A minimum of 28 credits beyond 212 is required for a French major. At least twelve of these credits must be completed at the University of St. Thomas.

The major normally consists of eight credits in civilization or culture, eight credits in literature, and eight credits in advanced language study (grammar, composition or oral-intensive), plus elective courses at the 300-level or beyond.

Courses in a second foreign language are highly recommended.

The department strongly encourages all students planning a major in French to spend some time (a summer, a January term, a semester or an academic year) in a French-speaking country and to participate in a French course on campus upon their return.

### Minor in French

(A minimum of eight credits in FREN must be completed at St. Thomas.)

Completion of 212 or equivalent

#### *Plus:*

Four credits in French language study at the 300-level or beyond

Four credits in French literature

Four credits in French civilization

Four additional credits in FREN to be selected in consultation with the French faculty.

### 111 Elementary French I

Practice in understanding, speaking, reading and writing simple French for beginners. Use of cassettes in preparation of assignments.

### 112 Elementary French II

Continuation of 111.

Prerequisite: 111 or its equivalent

### 211 Intermediate French I

Introduction to cultural and literary materials along with rapid review of basic skills in reading, speaking, writing and understanding oral French.

Prerequisite: 112 or its equivalent

### 212 Intermediate French II

Continuation of 211 with emphasis on oral and written use of complex sentence structure.

Prerequisite: 211 or its equivalent

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**300 Advanced Oral and Written French I**

A course required for all potential majors or co-majors as a preliminary to the upper-division courses they may take, as well as for any student wishing to investigate fine points of grammar and inherently intricate areas of pronunciation and intonation.

Prerequisite: 212

**301 Chansons et Poesie**

Individualized and group exercise in oral expression and comprehension – beginning with song texts and moving to a study of the elements of French versification with intensive use of cassettes for transcription.

Prerequisite: 300 or equivalent

**302 Advanced Oral and Written French II**

Intensive practice in both oral and written French using selected materials to acquire a high level of oral comprehension and communication as well as competence in writing French.

Prerequisite: 300 or its equivalent

**309 Introduction to French Literature I**

Excerpts of French literature from the Middle Ages to the Age of Reason will be studied. Emphasis will be placed on reading skills and the tools for literary analysis. Recommended as a prerequisite for upper-level literature courses.

Prerequisite: 300 or equivalent

**310 Introduction to French Literature II**

Excerpts of post-revolutionary French literature. Emphasis will be placed on reading skills and the tools for literary analysis. Recommended as a prerequisite for upper-level literature courses.

Prerequisite: 300 or equivalent

**311 French Civilization I**

An introduction to the most significant historical, cultural, social, religious and economic realities of France from the prehistoric period through the middle of the 17th century.

Prerequisite: 300 or equivalent

**312 French Civilization II**

An introduction to the most significant historical, cultural, social, religious and economic realities of France from the 17th century to the present.

Prerequisite: 300 or equivalent

**370 French Phonetics**

2 credits

A course designed to improve pronunciation and intonation by means of phonetic transcription and language tapes. May be taken in conjunction with 371.

Prerequisite: 300 or equivalent

**371 Individualized French Conversation**

2 credits

Individualized French conversation practice in comprehension and speaking involving group and individualized activities. This course may be repeated.

Prerequisite: 300 or permission of instructor

**401 French Theater**

Intensive study of the trends in French theater with analysis and interpretation of selected works from the seventeenth century to the present.

Prerequisite: 300 or equivalent

**402 The French Novel**

In depth study of selected works of fiction primarily from the 19th and 20th centuries.

Prerequisite: 300 or equivalent

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.



## Departments

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## German (GER)

The department strives to offer a diversified program capable of accommodating a variety of student interests and professional goals connected with German studies. The aims of the department are:

1. To give a command of the German language for use in professional and academic life
2. To acquaint students with the history, literature and culture of the German-speaking countries
3. To familiarize students with the role these countries and their culture play in the world today.

Lectures, reports, and discussion in courses numbered above 300 will be conducted in German.

### Major in German

Four years of high school German or the completion of German 212

300 Introduction to German Studies

#### *Plus:*

Twenty-four additional credits numbered above 300

At least eight of these 28 credits must be completed at the University of St. Thomas.

At least eight of these 28 credits must be literature courses.

No more than 12 credits may be in the area of advanced language skills development.

Elective courses for the major in German should be selected in consultation with a member of the German faculty.

#### *Plus:*

Four credits in European history

#### *Recommended:*

Courses in a second foreign language.

The department strongly urges all students planning to major in German to spend some time, usually one semester, studying in a German-speaking country. See a member of the German faculty for information on study-abroad opportunities for St. Thomas students in Germany or Austria.

### Minor in German

Four years of high school German or the completion of 212 or equivalent

#### *Plus:*

300 Introduction to German Studies

#### *Plus:*

Eight additional credits numbered above 300

At least four of these 12 credits must be a literature course.

Elective courses for the minor in German should be selected in consultation with a member of the German faculty.

### 111 Elementary German I

Introduction to fundamentals of language structure and vocabulary. Practice in speaking, reading, writing and understanding.

### 112 Elementary German II

Continuation of 111.

Prerequisite: 111 or equivalent

### 211 Intermediate German I

Review of fundamentals. Study of cultural texts with practice in speaking, reading, writing and understanding.

Prerequisite: 112 or equivalent

### 212 Intermediate German II

Continuation of 211.

Prerequisite: 211 or equivalent

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog:

**300 Introduction to German Studies**

Intended as an introduction to more advanced work in German, this course, which is required of all majors and minors, will offer an overview of the evolution of German culture and civilization (society, politics, the arts) within an historical context. The course will also contain a review of advanced grammar and offer students an opportunity to improve their reading, writing, and speaking skills.

Prerequisite: 212 or equivalent

**311 Conversation and Composition**

Advanced practice in speaking and writing German in formal and informal situations. Instruction in the social patterns that govern language usage in various situations and discussion of contrasting linguistic and social practices among the German-speaking nations and among the regions within those nations.

Prerequisite: 300

**315 Influential Ideas in Non-fictional German**

A study of the initiation and development of influential ideas on the part of German-speaking thinkers such as Hildegard von Bingen, Luther, Angeles Silesius, Novalis, Büchner, Marx, Nietzsche and Freud. Works selected have had a profound impact not only in German-speaking areas, but also on a worldwide scale. In addition, students will read selections from the writings and speeches of influential German political figures, past and present.

Prerequisite: 300

**320 Contemporary Germany and Current Events**

Examinations of the development of the Federal Republic of Germany since 1949, and examination, evaluation and discussions of events as they develop during the course of the semester. Course materials include German pamphlets, newspapers, magazines, speeches by leading figures, and materials from the Internet. Attention is given to domestic developments in the Federal Republic of Germany as well as to international events as they concern Germany.

Prerequisite: 300

**341 Highlights of German Literature I**

A survey of German literature from 1770 to 1890. The course will focus on important works by Goethe and Schiller, German Romanticism, and the literature of the later-19th century.

Prerequisite: 300

**342 Highlights of German Literature II**

Continuation of 341 with emphasis on literary developments in the 20th century. The course will focus on the period preceding World War I, on literary developments during the Weimar Republic, and on the attempts by postwar German authors to deal with the legacy of the World War II. The course also will discuss more recent literature.

Prerequisite: 300

**345 Austria: The Golden Age**

The course will examine historical and cultural developments in Austria from 1815 to 1918 with special emphasis on the literature and culture of turn-of-the-century Vienna. Students will read works by important Austrian writers such as Stifter, Nestoy, Schnitzler, Hofmannsthal, Freud and Stefan Zweig; listen to music by composers such as Schubert, Mahler and Lehar; and discuss relevant topics such as the Habsburg Empire, Biedermeier culture, art nouveau and operetta.

Prerequisite: 300

**401 German Poetry**

A critical study of selections from important German poets.

Prerequisite: 300

**410 The German Opera**

Operas of the German masters from Mozart to Weill are studied. The primary emphasis is given to the German texts of the operas, but students are given the opportunity to listen to German language recordings of the operas and to investigate the unity of poetry and music. Attention is given to the literary trends of the times.

Prerequisite: 300

## Departments

### 440 Introduction to Business German and German Business

An introduction to the vocabulary of business and economics in German. A survey of German business structure, economic principles, business-government-union interrelationships and international trade status. Readings, discussions and tests are primarily in the German language.

Prerequisite: 300

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## International Business - Language Intensive

Students seeking a good mastery of a language (French, German, Spanish) and training in one or more business areas may enroll in this major which is administered by the Department of Modern and Classical languages.

A program of study abroad is strongly recommended.

### International Business - French Intensive

300 Advanced Oral and Written French

One course in French on contemporary France

#### *Plus:*

Twenty additional credits in French courses numbered above 300, including literature and civilization, selected in consultation with the French section coordinator

### International Business - German Intensive

300 Introduction to German Studies

440 Introduction to Business German and German Business

#### *Plus:*

Twenty additional credits in German courses numbered above 300

### International Business - Spanish Intensive

300 Oral and Written Spanish

320 Business Spanish

#### *Plus:*

Twenty additional credits in Spanish courses numbered above 300

#### *Allied requirements for all languages*

Twenty credits in business administration

#### *Plus:*

ECON 251 Principles of Macroeconomics

ECON 252 Principles of Microeconomics

ECON 348 International Economics

QMCS 110 Introduction to Information Processing and Programming

#### *Plus one of:*

MATH 101 Finite Mathematics

MATH 111 Calculus for Business or Social Science

MATH 113 Calculus I

#### *Other recommended courses:*

ECON 345 Economics of Development and Growth

ECON 349 Comparative Economic Systems

IDSC 481 Seminar in International Studies

JPST	250	Introduction to Justice and Peace Studies
POL	105	Politics and Government in Comparative Perspective
POL	326	International Law and Organizations
POL	350	Comparative Politics of the New Europe
THEO	325	The Catholic Social Traditions

## Japanese (JAPN)

Courses in Japanese are offered with the assumption that many of the students will be visiting Japan in the near future. Thus, the Japanese program strives to:

- lay a solid foundation in the areas of speaking, listening, reading and writing. All three writing systems (hiragana, katakana and kanji) are covered.
- give students basic language skills sufficient to manage day-to-day life in Japan
- promote interest in Japan, Japanese people, and their culture
- help students fulfill professional and personal endeavors at an international level
- eliminate fear of speaking Japanese in front of people.

### Minor in Japanese

Completion of 212 or equivalent

*Plus:*

Eight additional credits selected in consultation with the department adviser

#### 111 Elementary Japanese I

Mastering 46 hiragana alphabets. Introduction to basic sentence structures, particles, polite forms of verbs, and simple kanjis (Chinese characters). Students are encouraged to converse in given situations utilizing whatever has been learned in the class.

#### 112 Elementary Japanese II

Continuation of 111. Mastering 46 katakana alphabets. Further study of kanjis. Conjugation of adjectives, plain forms, te-forms. Noun modification. Action-in-progress as well as resultant-state forms of verbs. Main and subordinate clause construction. Daily free speaking in Japanese at simple level.

Prerequisite: 111 or placement test result

#### 211 Intermediate Japanese I

Continuation of 112. Some of the volitional forms, hypothetical forms, and desiderative forms are introduced. Continued study of kanjis. Daily free speaking. Introduction to the use of Japanese word processor.

Prerequisite: 112 or placement test result

#### 212 Intermediate Japanese II

Continuation of 211. Potential forms, transitive-intransitive verbs, respectful-humble forms, giving-receiving verbs, and some more hypothetical forms are introduced. Practice in situational and functional Japanese. Daily free conversation and further study of kanjis are continued.

Prerequisite: 211 or placement test result

#### 311 Advanced Japanese

In-depth study of sentence patterns. Additional kanji characters will be presented to increase reading skills.

Prerequisite: 212 or equivalent

#### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

Prerequisite: 311 or equivalent or permission of instructor

## Russian (RUSS)

The objectives of the Russian program are to provide students the opportunity:

1. To learn the basics of Russian language for reading and for communicating in everyday situations
2. To acquire an elementary knowledge of the culture of the people using this study of the language – at home or abroad – for purposes of business, government work, teaching, literacy or linguistic studies
3. To provide the foundation for earning a major or minor in the language

Four courses are currently offered (which fulfill the language requirement for the Russian, Central and East European area studies major). Classes meet three periods a week, with a flexible fourth period devoted specifically to oral proficiency taught usually by a native Russian speaker. Students with previous high school study of Russian will be tested for appropriate placement. Students wishing to major or minor in Russian may do so by

## Departments

special arrangement with Macalester College and approval of the St. Thomas ACTC Russian, Central and East European area studies representative.

### **Major in Russian**

Completion of 212 or equivalent

*Plus:*

Thirty-two additional credits in Russian and related courses, plus a study abroad program in Russia jointly approved by Macalester College and the University of St. Thomas

### **Minor in Russian**

Completion of 212 or equivalent

*Plus:*

Two advanced Russian language or literature courses

#### **111 Elementary Russian I**

Introduction to the Russian sound system and grammar encompassing reading, writing, speaking and listening skills. Some exposure to Russian culture. Offered in fall semester.

#### **112 Elementary Russian II**

Continuation of 111 with further development of same skills. Offered in spring semester.

Prerequisite: 111 or permission of instructor

#### **211 Intermediate Russian I**

Continuation of 112 expanding on the fundamentals, with more emphasis on listening and speaking skills needed in everyday situations in the culture, more reading of authentic short texts of various types. Offered in fall semester.

Prerequisite: 112 or permission of instructor

#### **212 Intermediate Russian II**

Further development of skills begun in 211 plus learning to translate and use more advanced grammatical forms (complex verbs of motion, participles, etc.) in written and oral presentations. Upon successful completion of this course, the student should be prepared to study in Russia. Offered spring semester.

Prerequisite: 211 or permission of instructor

## **Spanish (SPAN)**

The basic aim of the department is to give students a command of Spanish and a knowledge of Hispanic culture in order to fulfill professional and personal endeavors. This aim is pursued with a view to the needs of students who desire to do graduate work, enter international business, teach, travel or read great literature in the original.

Students majoring in Spanish must take a minimum of sixteen credits in Spanish at the 300-level or above at St. Thomas.

Students minoring in Spanish must take a minimum of eight credits in Spanish at the 300-level or above at St. Thomas.

### **Major in Spanish**

In consultation with their major field adviser, students must complete twenty-eight credits in courses numbered 300 and above with a minimum of six credits in each of the following areas:

- Oral and Written Spanish
- Culture/Civilization
- Literature

Students in teacher licensure programs should include a course in linguistics.

### **Minor in Spanish**

In consultation with their major field adviser, students must complete sixteen credits in upper-division courses (300 or above) including:

- Oral and Written Spanish
- Culture/Civilization
- Literature

#### **111 Elementary Spanish I**

Pronunciation, essentials of grammatical structures, aural-oral practice, writing, reading of simple Spanish prose, introduction to the culture of the Spanish-speaking world.

**112 Elementary Spanish II**

Continuation of 111. Emphasis on grammatical structure, aural-oral practice, writing, reading. Continuation of Hispanic culture.

Prerequisite: 111 or its equivalent

**211 Intermediate Spanish I**

Designed to increase listening, speaking, reading, and writing skills in Spanish. Intensive review of grammatical structures of Elementary Spanish I and II. Continued exposure to Hispanic culture.

Prerequisite: 112 or its equivalent

**212 Intermediate Spanish II**

Continuation of 211. Emphasis on Hispanic culture, conversation, writing, and expansion of vocabulary based on thematic discussions and cultural readings.

Prerequisite: 211 or its equivalent

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**300 Oral and Written Spanish**

Conversation and composition through the study of contemporary issues in Hispanic societies. Emphasis on review of basic structures and expansion of vocabulary. Writing of basic structures in expository prose.

Prerequisite: 212 or its equivalent

**301 Advanced Oral and Written Spanish**

Intensive practice in both oral and written Spanish using selected materials to acquire a high level of oral comprehension and communication as well as competence in writing Spanish.

Prerequisite: 300 or its equivalent

**305 Spanish Oral Expression**

The aim of this course is to develop aural and oral skills through the analysis and interpretation of representative cultural expressions of the Spanish-speaking world.

Prerequisite: 300 or its equivalent

**310 Advanced Spanish Writing**

This writing course aims to improve technique, expand syntactic depth and increase vocabulary. Students will write essays in a variety of forms. The goal of the course is to learn good writing through a process approach involving stages of idea development, re-evaluation of ideas and rewriting of the text.

Prerequisite: 300 or its equivalent

**315 Hispanic Linguistics**

An introduction to both contemporary and historical Hispanic linguistics. Descriptive Spanish phonetics and phonology. History of the Spanish language with emphasis on historical sound-change phenomena. Systematic study of dialectal variation in both Spain and Spanish America. Offered in fall semester.

Prerequisites: Eight credits numbered 300 or above

**320 Business Spanish**

Practice in the language skills and vocabulary needed to conduct business in the Hispanic world; an overview of political, economic, social and cultural factors which affect business in the Hispanic countries. Offered in fall semester.

Prerequisites: Eight credits numbered 300 or above

**330 Temas Hispánicos**

This course focuses on the integration of the various components that have forged the diverse Spanish and Spanish American cultures. Lectures and class discussions are based on major topics that relate to the foundations of the Hispanic world. This course meets the civilization distribution area for minors; it contributes to the language area for majors.

Prerequisite: 300

**331 Survey of Spanish Culture and Civilization**

A study of the evolution of the civilization of Spain from the time of early human settlements through the present. This course examines socio-economic developments, political movements and artistic creations within an historical context. Offered in fall semester.

Prerequisites: Eight credits numbered 300 or above

## Departments

### 332 Survey of Latin American Culture and Civilization

Physical and human geography. History of Latin America from pre-Hispanic civilizations through independence. Political problems. Rural Latin America. Latin American society, cultural values. Religion. Economic problems. Offered in spring semester.

Prerequisites: Eight credits numbered 300 or above

### 335 Introduction to Spanish Literature

An introduction to Spanish and Spanish American narrative, drama and poetry. Strongly recommended for students who minor in Spanish. The course is designed to teach students the skills of critical reading and literary analysis.

Prerequisites: Eight credits numbered 300 or above

### 340 Survey of Spanish Literature I

Readings in Spanish literature from the *Poema de Mio Cid* through the Golden Age.

Prerequisites: Eight credits numbered 300 or above

### 341 Survey of Spanish Literature II

Readings in Spanish literature from the 18th through the 20th centuries.

Prerequisites: Eight credits numbered 300 or above

### 380 Spanish-American Literature I

Readings in Spanish-American literature from the colonial period through the 19th century.

Prerequisites: Eight credits numbered 300 or above

### 381 Spanish-American Literature II

Readings in 20th century Spanish-American literature.

Prerequisites: Eight credits numbered 300 or above

### 385 Modern Spanish-American Short Story

Intensive readings in the modern Spanish-American short story from Horacio Quiroga to the contemporary period (Rulfo, Fuentes, Cortazar, Onetti, Borges, etc.).

Prerequisites: Eight credits numbered 300 or above

### 390 Contemporary Spanish-American Novel

Latin American society as reflected by a study of major contemporary Spanish-American novelists. Selected works from some of the following authors: Asturias, Cortazar, Carpentier, Fuentes, Garcia Marquez, Rulfo, Vargas-Llosa.

Prerequisites: Eight credits numbered 300 or above

### 405 Spanish Genre Studies

An examination of particular genres of Spain and Spanish America during defined literary periods. Topics will vary with each offering and may include the 19th-century novel, non-fictional prose and contemporary poetry, theater and narrative of Spain and Spanish America. Credit may be earned more than once under this number for different emphases.

Prerequisites: Eight credits numbered 300 or above

### 410 Hispanic Women Writers

An exploration of the writings of selected Spanish/Spanish American women authors, highlighting both their literary significance as well as their importance as an expression of the cultural milieu of their countries and times. Content of the course will vary with each offering.

Prerequisites: Two courses numbered 300 or above

### 440 Advanced Spanish Oral Expression

This course is intended to stimulate creative, critical thinking in Spanish through activities which require students to argue, persuade, analyze, and interpret other points of view. The course is geared toward the advanced level of the ACTFL guidelines for speaking.

Prerequisites: Eight credits numbered 300 or above

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

491, 492, 493, 494 **Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

495, 496, 497, 498 **Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Music (MUSC)**

George (chair), Banfield, Broeker, A. Bryan, M. Bryan, Callahan, Frazee, Gleason, Kachian, Korstvedt, Krebsbach, Scott; Allaire, Britton, Caviani, Dumas, Duna, Faricy, Garvin, Griffith, Haugen, Heberlein, Hejny, Jenkins, Lilienthal, Lorraine, Lund, Mensah, Sorenson, Strusinski, Titus, Van Nostrand; Brown, Brudnoy, Haagenson, Hauser, Jamieson, Jorstad, Keno, Kite, Livingston, McAfee, Merz, Morgan, Skaar, Strasser, Stuckey, Volpe

The faculty, students and staff of the University of St. Thomas Department of Music honor the innovations of the present and the traditions of the past by providing a vital, cohesive and creative environment by educating, facilitating and leading all individuals to realize their full potential in the development of their musical, artistic and career goals. Through performance, composition, research and teaching, the department enhances the cultural, spiritual and intellectual life of the university and the community.

Students majoring in music take courses in four areas: music theory, music history, performance studies, and ensembles.

Through the study of music theory, students develop an aural comprehension of tonal and non-tonal music, an understanding of the harmonic language and voice-leading principles of the "common-practice" style, and an understanding of the musical vocabulary, analytical systems, and structural and formal principles that apply to classical music since 1600. Students develop the necessary skills to read orchestral scores and to write in standard musical notation for the instruments of the orchestra. Students develop the ability to understand a wide range of musical traditions and cultural practices, ranging from the western classical tradition to the music of selected non-western cultures. Students will be able to discuss music critically, and will be prepared to engage in meaningful research in musical fields. Student performers will develop an expressive interpretation of solo repertoire through an understanding of compositional process and historical style with the necessary technical proficiency. Students will demonstrate advanced ensemble skills and contextual understandings of repertoire by artistically performing music representing a variety of genres, stylistic periods and cultures.

Students majoring in music may not have a letter grade lower than C- in a required music course.

The department offers minors for those students who have an interest in music, but do not wish to major in the field.

A variety of musical ensembles are available for instrumentalists and vocalists, regardless of major.

Individual instrumental, vocal, and composition lessons are available on a credit basis through the department, or on a non-credit basis through the St. Thomas Conservatory of Music.

More information concerning the department's offerings may be found in the *Handbook for Music Students*, which is available in the department office.

The department also offers a number of courses for non-majors that fulfill the Fine Arts, Human Diversity, and second-level Computer Competency components of the core curriculum.

The University of St. Thomas is a member of the National Association of Schools of Music.

**Major in Music**

MUSC 112	Introduction to Music (students testing out of 112 take MUSC 115)
MUSC 113	Theory I
MUSC 212	Theory II
MUSC 213	Theory III
MUSC 312	Theory IV
MUSC 411	History and Literature of Music I
MUSC 412	History and Literature of Music II
MUSN 1xx	Ensemble participation (see note below)
MUSP 102 or 103	Skills for Piano Proficiency
MUSP 2xx	Eight semesters of performance studies in the same performance medium (2 credits per semester)
MUSR 200	Piano Proficiency (0 credit)
MUSR 270	Level I Recital (0 credit)
MUSR 350	Level II Recital (0 credit)
MUSR 450	Level III Recital (0 credit)



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### *Guidelines for choosing an ensemble:*

Every music major is required to register for and successfully complete an ensemble during each semester of full-time enrollment. A minimum of eight semesters of ensemble participation is required for graduation regardless of full- or part-time status. (Students majoring in music register for ensembles on an audit basis.)

If principal instrument is:

*Piano* – at least two semesters in 171; at least two semesters in 172; at least two semesters in one of: 143, 160, 181, 185, 186, 190; two semesters may be in 161, 182, 183

*Voice* – at least eight semesters in choral ensembles (a maximum of six semesters in any one of: 140, 142, 143, 160; a maximum of two semesters in 190; Music/Business majors may have a maximum of four semesters in any one choir

*Woodwind, brass, or percussion* – at least eight semesters in 185 or 186

*Orchestral string* – at least eight semesters in 181

*Guitar* – at least six semesters in 173; at least two semesters in 174

*Other instruments* – at least eight semesters chosen from: 143, 160, 171, 172, 181, 185, 190

### *Allied requirements*

PHYS105 Musical Acoustics

Four credits in Art History or Theater

### **Concentration in Liturgical Music**

(Open only to students whose principal instrument is voice, keyboard, guitar, or by special permission of the chair.)

MUSC 112 Introduction to Music (students testing out of 112 take MUSC 115)

MUSC 113 Theory I

MUSC 212 Theory II

MUSC 213 Theory III

MUSC 312 Theory IV

MUSC 351 Introduction to Conducting (2 credits)

MUSC 411 History and Literature of Music I

MUSC 412 History and Literature of Music II

MUSP 231 Performance Studies (14 credits over seven semesters)

### *Plus ensemble participation for eight semesters (audit):*

MUSN 143 Liturgical Choir (six semesters)

MUSN 140/142/160 Women's Choir/Chamber Singers/Concert Choir (for voice majors)

MUSN 172 Accompanying ensemble (keyboard majors)

MUSN 173/174 Guitar Ensembles (guitar majors)

### *Plus four semesters (if principal instrument is not voice) (1 credit each semester)*

MUSP 133 Voice: Elective

### *Allied Requirements*

THEO 101 Christian Theological Tradition

### *Plus one of:*

THEO 205 Old Testament

THEO 210 New Testament

### *Plus one of:*

THEO 310 Christian Worship

THEO 313 Christian Sacramentality

### *Plus one of:*

THEO 356 Music and the Bible

THEO 357 Sacred Music of the Catholic Heritage

### *Plus:*

IDSC 478 Experiential Learning

PHYS 105 Musical Acoustics

### *Plus one of:*

ARTH 280 Sacred Architecture and Space

ARTH 335 Cathedrals, Monasteries, and Caliphates

ARTH 340 Southern Renaissance Art and Society

ARTH 342 Renaissance and Reformation in Northern Europe

*Recommended:*

MUSC 352 Choral Conducting

**Concentration in Music/Business**

This emphasis allows a person to have a solid music foundation while pursuing a related field in business. The seminar and internship included in this emphasis help the student focus on the type of music business that is of interest to him/her.

MUSC 112 Introduction to Music (students testing out of 112 take MUSC 115)  
 MUSC 113 Theory I  
 MUSC 212 Theory II  
 MUSC 213 Theory III  
 MUSC 312 Theory IV  
 MUSC 411 History and Literature of Music I  
 MUSC 412 History and Literature of Music II  
 MUSC 480 Music/Business Seminar  
 MUSN 1xx Ensemble participation (see note under Major in Music)  
 MUSP 102 or 103 Skills for Piano Proficiency  
 MUSR 200 Piano Proficiency  
 MUSP 2xx Six semesters of performance studies in the same performance medium  
 (2 credits per semester)  
 MUSR 270 Level I Recital  
 MUSR 350 Level II Recital

*Allied requirements*

ECON 252 Principles of Microeconomics  
 ENTR 300 Entrepreneurship for Non-majors  
 IDSC 475 Experiential Learning: Career Exploration Externship (2 credits)

*Plus:*

Sixteen additional credits in business courses chosen in consultation with the program adviser (all prerequisites for the courses selected must be satisfied)

*Plus:*

PHYS 105 Musical Acoustics  
 Four credits in Art History or Theater

**Major in Music Education**

Instrumental and Classroom Music (K-12)

Vocal and Classroom Music (K-12)

*See Department of Teacher Education***Minor in Music**

MUSC 112 Introduction to Music (students testing out of 112 take MUSC 115)  
 MUSC 113 Theory I  
 MUSC 412 History and Literature of Music II  
 MUSN 1xx Four semesters in appropriate ensemble for principal instrument  
 (see guidelines under Major in Music)  
 MUSP 1xx Four semesters (50-minute lessons) in same performance medium  
 (1 credit per semester)  
 MUSR 270 Level I Recital

*Plus one of the following:*

MUSC 212 Theory II  
 MUSC 411 History and Literature of Music I

**Minor in Electronic Music Production**

112 Introduction to Music (students testing out of 112 take MUSC 115)  
 113 Theory I  
 212 Theory II  
 150 MIDI Studio (2 credits)  
 180 Multi-Track Tape Recording (2 credits)  
 220 Digital Recording/Sampling (2 credits)  
 240 Musical Audio Post Production (2 credits)

## Departments

### *Allied requirement*

PHYS 105 Musical Acoustics

### **Minor in Jazz Studies**

MUSC 125 Jazz Theory I (2 credits)  
MUSC 126 Fundamentals of Jazz Musicianship I (2 credits)  
MUSC 216 Jazz in America  
MUSC 223 Jazz Arranging (2 credits)  
MUSC 226 Fundamentals of Jazz Musicianship II (2 credits)  
MUSP 1xx Four semesters of performance jazz studies (50-minute lessons)  
MUSR 290 Jazz Recital

### *Plus two of:*

MUSC 224 Jazz Composition/Song Writing (2 credits)  
MUSC 225 Jazz Theory II (2 credits)  
MUSC 228 Advanced Jazz Arranging (2 credits)

### *Plus four semesters in:*

MUSN 182 or 183 Instrumental Jazz Ensemble or Jazz Singers

### **Music Courses (MUSC)**

#### 112 Introduction to Music (115, 217, 219)

An introduction to the history, literature, and theory of music. This course establishes fundamental theoretical concepts and skills, provides an historical overview of western art music, and includes an introduction to world music. Meaning, expression, and music in culture are explored through discussion, critical listening, reading, and writing. Offered fall semester.

#### 113 Theory I

Basic materials and structures of music, approached through analysis and experience. The four-semester sequence integrates sight-singing and ear-training with the analysis of harmony, form and contrapuntal procedures from the 16th through the 20th centuries. Assignments will include the development of compositional and arranging skills including those skills needed to write for the standard instruments of the wind ensemble and orchestra. Lecture plus 100 minutes laboratory per week. Offered spring semester.

Prerequisite: 112

#### 115 Understanding Music & Culture (112, 118, 119)

This survey course explores the classics of European and American music in their historical, cultural and social contexts. It will investigate the many ethnic, religious, political, philosophical, economic and scientific influences that have shaped these traditions. This course is designed to enable students, regardless of musical background or ability, to increase their understanding of music. The listening skill and knowledge acquired will provide a foundation for students to become more critical and discerning listeners of music of all types. This course fulfills the Fine Arts requirement in the core curriculum.

#### 118 Understanding Music & Culture to 1850 (112, 115)

2 credits

The first half of 115, the general survey of music up to approximately 1850. This course partially fulfills the Fine Arts requirement in the core curriculum. Offered in January term.

#### 119 Understanding Music & Culture 1850 to Present (112, 115)

2 credits

The second half of 115, the general survey of music, beginning around 1850 and continuing the survey to the present. This course partially fulfills the Fine Arts requirement in the core curriculum. Offered in January term.  
Prerequisite: 118

#### 120 Orchestral Literature

This course presents an overview of orchestral and instrumental chamber music, combining a critical and historical study of music with the regular experience of hearing live music. The course includes preparation for seven Wednesday evening concerts at Orchestra Hall as well as in-class presentations which cover knowledge and appreciation of music, musical performance, and the creative process. This course fulfills the Fine Arts requirement in the core curriculum.

#### 125 Jazz Theory I

2 credits

This course will present a detailed exploration of the harmonic vocabulary used in jazz performance. The course will cover basic chord construction as well as chord extensions and alterations. The chords will be presented with their related modes and scales so the student may be able to analyze the relationship of melody to harmony. The student will learn several approaches to chord substitution including the chromatic dominant approach and substitution based on plurality.

Prerequisite: Ability to read music

- 126 Fundamentals of Jazz Musicianship I** 2 credits  
 This course is designed to give the student a working knowledge of the skills required for jazz performance and research of historical performance practice. Study will include rhythm (how to swing); melody (how to jazz it up); harmony (how to jazz it up part 2). All styles of jazz will be examined, beginning with blues, modal tunes and the study of jazz standards. A systematic approach to the art of improvisation with emphasis placed on ear training exercises, in-class improvisation and performance. This course is open to all instrumentalists and singers.
- 130 Introduction to World Music**  
 This course studies the phenomenon of music as an activity in people's lives. Students will be guided to think critically about music employing a multicultural perspective. Models will be presented to provide a context in which music serves as part of larger social ritual. The music of selected cultures such as Africa, the Middle East, China, Japan, India, Native American and American popular music in addition to European classical music will be covered. Designed for the non-major. This course fulfills the Fine Arts and the Human Diversity requirements in the core curriculum.
- 150 MIDI Studio** 2 credits  
 Work with synthesizers and record the results with a Macintosh computer in a state-of-the-art MIDI studio. Special emphasis is placed on sequencing techniques and music editing on multi-track arrangements. Basic-to-advanced MIDI functions will be explained and utilized in team studio sessions. This course partially fulfills the second-level Computer Competency requirement in the core curriculum.
- 176 German Diction for Singers** 1 credit  
 An introduction to German pronunciation, utilizing the International Phonetic Alphabet. A guide to the use of the dictionary in the language. Special emphasis on the problems encountered by the singer.
- 177 French Diction for Singers** 1 credit  
 An introduction to French pronunciation, utilizing the International Phonetic Alphabet. A guide to the use of the dictionary in the language. Special emphasis on the problems encountered by the singer.
- 180 Multi-Track Tape Recording** 2 credits  
 Students will learn to record and mix music in an up-to-date multi-track recording studio: effects processors, compressor/limiter, vocal booth, large console, 8-track deck and more. Add to the recording by synchronizing the Macintosh computer and sequenced synthesizers. Operation of a mixing board and stereo mixdown will be covered early in the semester. This course partially fulfills the second-level Computer Competency requirement in the core curriculum.  
 Prerequisite: 150
- 212 Theory II**  
 Continuation of 113. Offered in fall semester.  
 Prerequisite: 113 or successful placement test
- 213 Theory III**  
 Continuation of 212. Offered in spring semester.  
 Prerequisite: 212 or successful placement test
- 216 Jazz in America**  
 The origins and history of jazz in the United States. Various phases in the development of jazz style are discussed. Blues, ragtime, Dixieland, swing, bop, cool jazz, fusion, as well as other recent developments in jazz performances are investigated. An essential part of the course is the analysis and evaluation of recorded performances by outstanding jazz musicians. Designed for non-majors as well as an elective for music majors interested in jazz. Offered fall semester. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.
- 217 Music of the Americas (112)**  
 A survey of music from the sixteenth century to the present as found in the Western hemisphere. Primarily concerned with the European influence brought by the various colonizing nations, some time is spent with the folk music of Canada, the United States and Latin America. Music of non-Western cultures are discussed as they relate to the native American and African-American influences in the New World. Designed for the non-major. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.
- 218 Black American Music: An Historical Survey**  
 This course explores and examines the history and musical practices of Black American artists and music dating from Francis Johnson of the late 18th century to contemporary artists such as Prince, Sweet Honey in the Rock, and Wynton Marsalis. Styles examined and discussed begin with the formation of the spirituals, blues and jazz to contemporary concert composers (Anthony Davis, Tania Leon), to Motown, soul, rap, and other popular American music forms. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

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### 219 Music in the United States (112)

A survey of music heard in the United States from pre-Revolutionary days to the present, including discussions of the popular, folk and concert music. Particular emphasis will be given to forms of music which are unique to this country because of the diversity of its population. Designed for the non-major. This course fulfills the Fine Arts requirement in the core curriculum. Offered in fall semester.

### 220 Digital Recording and Sampling

2 credits

Recording music and sound effects into the Macintosh and combining the results with MIDI sequences will be covered in this course. Students will sample both live sounds and material from compact-disc libraries, then edit them and finally place them alongside instrumental MIDI tracks. Subjects covered: digital recording theory and practice, digital media, evolution of digital technology, new equipment, musical applications. This course partially fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 150

### 222 The Theology of American Popular Music

An examination of contemporary popular American music (spirituals, blues, jazz, rock, pop, and hip-hop) and discussion of the theological and artistic implications of these styles and traditions. The course will place an emphasis on their dual nature as cultural products expressing political and physical liberation as well as road maps for specific theological and spiritual world views. This course fulfills the Fine Arts requirement in the core curriculum.

### 223 Jazz Arranging

2 credits

The emphasis of this course is to introduce arranging concepts for instrumental and vocal applications. A basic overview of arranging materials (i.e. chord voicing, discussion of forms, music notation, ranges, vocal and instrumental differences, transpositions, rhythm section writing, and the construction of introductions and codas) will be covered. In addition, several scores will be discussed and analyzed.

### 224 Jazz Composition/Song Writing

2 credits

Introduces the concept of the nine basic chord families and the scales that play through each chord. Also covers polychords and their applications to conventional chord symbols. Study the craft of song and lyric writing.

Prerequisite: 125 or 126 or permission of the instructor

### 225 Jazz Theory II

2 credits

Continuation of 125. This course covers complex modes, altered scales, bitonality and advanced application of pentatonic scales. The student also will study tritonic and tetratonic scale structures and analyze selected jazz solos to understand their melodic and harmonic content.

Prerequisite: 125

### 226 Fundamentals of Jazz Musicianship II

2 credits

Continuation of 126. Further study of standards, including bebop, post bop, jazz-rock fusion and other contemporary styles.

Prerequisite: 126

### 228 Advanced Jazz Arranging

2 credits

Continuation of 223 with emphasis on both vocal and instrumental writing. The student will arrange selected jazz standards for the following ensembles: three horns with rhythm section, vocal jazz group (four voices, with and without rhythm section), and big band. The student also will study existing arrangements of Horace Silver, Duke Ellington, Manhattan Transfer and Gil Evans.

Prerequisites: 125 and 223 and 226

### 240 Music/Audio Post Production

2 credits

Emphasis is placed on the creation of soundtracks for video. Source material will come from taped television broadcasts, commercial tapes and in-house video productions. Elements of synchronization (VITC, SMPTE) will be explored. Writing musical soundtracks for advertisements and programs, students will have the opportunity to lay-in sound effects and dialogue using the Macintosh computer and digital recording and sequencing software and hardware. This course partially fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 220

### 281 Introduction to Accompanying

2 credits

This course focuses on topics related to the accompanying of singers and solo instrumentalists.

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will

not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**300 Introduction to Piano Pedagogy** 2 credits  
This class will survey methods and materials for piano study at various levels of advancement. Discussions will include principles of technique, learning theories, musicianship and performance skills. Class members will be required to observe piano lessons. Although the course is designed primarily for music majors (pianists), other qualified students may be admitted with the consent of the instructor.

**303 Music Notation on Computer** 2 credits  
Develop skills in using music publishing software. Intended for composers, music educators, choral and instrumental conductors and anyone interested in producing print-quality music using the Macintosh or IBM. This course partially fulfills the second-level Computer Competency requirement in the core curriculum.

**307 Guitar Pedagogy** 2 credits  
Historical overview of teaching methods beginning through advanced primers and student repertoire, exposure to all types of notational systems and discussion of professional teacher preparation.

**312 Theory IV**  
Continuation of 213. Offered in fall semester.  
Prerequisite: 213, or successful placement test

**318 Voice Literature**  
A survey of song literature by outstanding composers in Italy, France, Germany, Spain, Russia, Great Britain and America from 1800 to the present. Areas explored include performance, analysis of poetry and music, and comparison of nationalistic styles.

**319 Piano Literature**  
A survey of keyboard literature from the beginning of the 18th century to the present day. Primarily for the music major (pianist) but open to all interested in piano literature.

**320 Guitar Literature**  
A selected chronological survey of solo, ensemble and chamber ensemble literature for guitar from the 15th through the 20th centuries, including transcriptions from early music to popular.

**335 Topics in World Music** 2 credits  
Each time this course is offered, it presents an in-depth survey of the music of a particular culture, exploring the music of: East India, Java, the Orient, Africa, the Middle East, Native Americans, etc.

**351 Introduction to Conducting** 2 credits  
Content of the course includes basic conducting patterns and gestures, general knowledge of score types (choral, orchestral, band), score study and basic rehearsal planning. Practice in conducting small ensembles will be provided. Offered in fall semester of even-numbered years.

**352 Choral Conducting**  
Includes advanced choral conducting and rehearsal techniques, the study of performance practices, and a survey of choral literature appropriate for use in school or church choirs. Consideration is given to the daily rehearsal plan, rehearsal techniques and classroom management as these relate to the expected outcome of the entire unit. Laboratory method. Offered in spring semester of odd-numbered years.  
Prerequisite: 351

**353 Instrumental Conducting**  
As a continuation of 351, the conducting student will learn more complex conducting patterns and refined expressive gestures. A survey of the literature for orchestra and band with an in-depth study of selected pieces. An introduction to directing the jazz ensemble and marching band, including computer-assisted field show charting. Consideration also is given to the daily rehearsal plan, rehearsal techniques and classroom management as these relate to the expected outcome of the entire unit. Offered in spring semester of odd-numbered years.  
Prerequisite: 351

**411 History and Literature of Music I**  
A survey of Western European music to 1800: the medieval, Renaissance, Baroque and Classical periods. Historical development, social context, forms, styles and issues of expression are explored. Offered in fall semester.

**412 History and Literature of Music II**  
A survey of Western European music from 1800 to the present: the Romantic period and the twentieth century. This course includes traditional musics of the world and selected American popular styles. Emphasis is on social

## Departments

context and issues of meaning and expression. Continuation of 411. This course fulfills the Fine Arts requirement in the core curriculum. Offered in spring semester.

### 416 Orchestration

2 credits

Ranges, timbres, and performance characteristics of string, winds and percussion instruments in the western tradition. Scoring for small and large ensembles of such instruments.

Prerequisite: 200, 312

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 480 Music/Business Seminar

A course involving individual research that is shared among the participants. Guest speakers from various areas of music business, the electronic media industries and arts management make presentations to the seminar, which is under the direction of a faculty coordinator. A major research project is required.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Music Ensembles (MUSN)

Membership in music ensembles is based upon a successful audition. Students may register for the same ensemble in as many semesters as desired.

The Fine Arts requirement may be fulfilled by four semesters of participation in one of the following ensembles: 140, 142, 143, 160, 185, 186. A total of four semesters in 142 and 160 or 185 and 186 will also fulfill the requirement. Other combinations must be approved by the department chair. There is no tuition charged for ensemble registration.

Students majoring in music are required to register for and successfully complete an ensemble during each semester of full-time enrollment. A minimum of eight semesters is required for graduation regardless of full- or part-time status. (See specific ensemble requirements for various major emphases in the first part of the music section of this catalog, or consult the *Handbook for Music Students* available from the Department of Music office.) Music majors audit all ensembles.

### 140 Women's Choir

1 credit

A vocal ensemble that explores the wide variety of secular and sacred repertoire composed for women's voices. Choral literature performed includes unaccompanied works as well as works performed with a professional chamber orchestra. Major performances are given each semester and may include exchange/joint concerts with other choirs. Three rehearsals a week. Membership by audition. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.

### 142 Chamber Singers

1 credit

A mixed vocal ensemble of 20-30 members that will study and perform materials appropriate to the chamber ensemble; repertoire will include secular and sacred literature. Major performances are given each semester and may include exchange/joint concerts with other choirs. Three rehearsals per week. Membership by audition. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.

### 143 Liturgical Choir

1 credit

Liturgical Choir is an ensemble of students of varied faith and cultural backgrounds that sings for services in the UST chapel. Local, regional and international tours are part of the choir's ministry as well as concert performances with other Music Department ensembles. Two rehearsals a week plus bi-weekly Sunday chapel liturgies. Membership by audition. Four semesters of participation fulfills the Fine Arts requirement in the core curriculum.

### 151 Schola Cantorum

1 credit

This vocal ensemble focuses primarily on early Plainchant from the Gregorian chant tradition as well as contem-

porary chant repertoire. Historical and modern chant notations are studied and repertoire will be performed in the context of both liturgical service and concert. Membership by audition.

- 160 Concert Choir** 1 credit  
A mixed vocal ensemble that performs a variety of secular and sacred repertoire from the Middle Ages to the 20th century. Choral literature performed includes unaccompanied works as well as works with professional chamber orchestra. Major performances are given each semester and may include exchange/joint concerts with other choirs. Tours locally, nationally and internationally. Three rehearsals a week. Membership by audition. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.
- 161 String Ensembles** 1 credit  
Formation of string trios, quartets, quintets. Ensembles meet once a week and are coached by a member of the string faculty. Membership by audition.
- 162 Flute Ensembles** 1 credit  
Formation of trios, quartets and other small ensembles, dependent upon personnel available. Ensembles may include piccolo, soprano flutes, alto flute and bass flute. Ensembles meet once a week and are coached by a member of the woodwind faculty. Membership by audition.
- 163 Clarinet Ensembles** 1 credit  
Formation of small ensembles involving various members of the clarinet family. Ensembles meet once a week and are coached by a member of the woodwind faculty. Membership by audition.
- 164 Saxophone Ensembles** 1 credit  
Formation of small ensembles involving various members of the saxophone family. Ensembles meet once a week and are coached by a member of the woodwind faculty. Membership by audition.
- 165 Woodwind Ensembles** 1 credit  
Formation of mixed woodwinds and horn to form quartets and quintets. Ensembles meet once a week and are coached by a member of the woodwind faculty. Membership by audition.
- 166 Brass Choir** 1 credit  
Formation of small and large ensembles using only brass and sometimes percussion instruments. The choir, directed by a member of the brass faculty, gives regularly scheduled public performances. Membership by audition.
- 167 Percussion Ensembles** 1 credit  
A variety of mallet and stick instruments are used to form these ensembles. Ensembles meet once a week and are coached by a member of the percussion faculty. Membership by audition.
- 169 African Music Ensemble** 1 credit  
This course provides a non-Western music performance experience. The repertoire to be studied includes traditional genres such as Adowa, Agbadza, Gota, Kpanlogo, Boboobo, and includes contemporary compositions. Three main areas in the ensemble are drumming, flutes and vocal. No prior experience is necessary for this ensemble. An audition is required.
- 170 Handbell Choir** 1 credit  
This instrumental ensemble performs with both English and Dutch handbells. Repertoire consists of arrangements for two to five octaves from a variety of musical periods and styles as well as music composed specifically for the expanding contemporary handbell literature. Performances include monthly appearances in chapel liturgical settings as well as regular campus and public performances. No previous handbell experience necessary but ability to read music is required. Membership by audition or permission of instructor.
- 171 Piano Ensembles** 1 credit  
Study and performance of duets and two-piano music. One major performance per semester. Membership by audition.
- 172 Accompanying Ensembles** 1 credit  
Qualified pianists have the opportunity to accompany solo vocalists and solo instrumentalists. This is a one-on-one situation for the student and instructor. Membership by audition.
- 173 Guitar Ensemble** 1 credit  
Study, performance and recording of music for multiple guitars and bass from Renaissance through twentieth-century composers including American jazz and rock styles. Repertoire includes original works, transcriptions, and arrangements. Opportunities provided for students to learn improvisation, composition, and arrangement.



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- 174 **Guitar Small Ensemble** 1 credit  
The study and performance of music for guitar and diverse instruments, including bass and drums. At least one major performance per semester.
- 181 **Orchestra** 1 credit  
Study and performance of music from early Baroque through contemporary. Basic orchestral performance skills and player responsibilities are discussed for ensemble playing. Four major performances a year. Membership by audition.
- 182 **Instrumental Jazz Ensemble** 1 credit  
Study and performance of instrumental jazz in various styles with exposure to improvisation. Formal concert is presented each semester, and informal campus appearances occur on a regular basis. Membership by audition.
- 183 **Jazz Singers** 1 credit  
Study and performance of vocal jazz in various styles. Group is limited in size, thus allowing each member to develop independence in singing and microphone technique. Membership by audition.
- 185 **Symphonic Band** 1 credit  
Study and performance of original works for wind-band; transcriptions, manuscripts, and solo repertoire with band accompaniment. Three rehearsals per week; regular series of concerts, including regional, national and international tours. Private lessons recommended. Membership by audition. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.
- 186 **Symphonic Wind Ensemble** 1 credit  
This course is designed for the advanced woodwind, brass and percussion student. A select group of approximately forty musicians studies and performs music primarily written for the wind ensemble genre. Literature studied and performed comes from a diversity of cultures and style periods. The Wind Ensemble gives public performances on a regular basis throughout the school year including regional, national and international tours. Meets three times a week. Membership by audition. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.
- 190 **Music Theater Production** 1 credit  
Musical and dramatic preparation of a musical show or opera, leading to complete performance with costumes, set and orchestra. Participation by audition.
- 191 **Music Theater Scenes** 1 credit  
Musical and dramatic preparation of scenes from musical shows or operas. An informal performance may be presented. Participation by audition.
- 196 **Topics Ensembles** 1 credit  
The ensemble(s) will be announced in the annual *Class Schedule*. Content will vary but will not duplicate existing ensembles.

### Performance Studies (MUSP)

Performance studies are generally on an individual basis, although some group lessons are available.

A course fee is charged for all performance studies, based on the length of the lesson.

#### *Elective Level*

Performance studies on the elective level are available for all students. No audition is required for elective studies. These courses are designed for non-majors who are interested in beginning or continuing study on an instrument or voice. Students wishing to study piano, having little or no previous study on the instrument, are encouraged to register for group lessons. Half-hour or 50-minute lessons are available. Twelve lessons are scheduled each semester. A minimum of six hours a week practice is required. These courses must be taken for credit. They cannot be audited. Performance studies do not fulfill the Fine Arts requirement.

- 101 **Group Piano** 1 credit  
This course is designed for students who have little or no piano background. The small group setting includes work on keyboard technique, reading music, transposing, improvising, playing by ear and harmonizing melodies. Groups are limited to eight students and meet for an hour each week. This course may be repeated.
- 102 **Skills for Piano Proficiency (non-piano majors)** 0 credit  
This course teaches the skills required for the piano proficiency exam, which include basic keyboard technique, sight-reading simple melodies, basic accompanying, transposing and harmonizing melodies, scale and arpeggio technique. Students whose principal instrument is other than piano are required to enroll in this course.  
Prerequisite: Music major with principal instrument other than piano.

103	<b>Skills for Piano Proficiency (piano majors)</b>	0 credit
	This course is similar to 102, but designed for the piano proficiency exam required of music majors whose principal instrument is piano.	
106	<b>Class Piano</b>	1 credit
	Keyboard instruction in an electronic piano laboratory. Course designed for beginners or students with limited experience.	
108	<b>Class Voice</b>	1 credit
	Designed for non-music majors who wish to study voice and also for non-vocal music majors who wish to develop their singing in a class situation.	
110	<b>Digital Music Lessons</b>	1 credit
	These lessons focus on Hard-Disk Recording and MIDI-Sequencing and are designed with the modern musician in mind. Each week students witness the demonstration of professional recording techniques in one of the UST computerized recording studios. Then they apply their new skills to original compositions in scheduled studio sessions. Some of the subjects covered: Multi-tracking, Automation, Groove Quantizing, Harmonizing, Music Notation, and Miking. Students may have their choice of MIDI-controllers: guitar, keyboard, or drum-machine pads.	
	Prerequisite: Basic computer and music-making skills	
121	<b>Harpsichord: elective</b>	1 credit
122	<b>Lute: elective</b>	1 credit
128	<b>Recorder: elective</b>	1 credit
131	<b>Piano: elective</b>	1 credit
133	<b>Voice: elective</b>	1 credit
135	<b>Organ: elective</b>	1 credit
136	<b>Flute: elective</b>	1 credit
137	<b>Oboe: elective</b>	1 credit
138	<b>Clarinet: elective</b>	1 credit
139	<b>Bassoon: elective</b>	1 credit
141	<b>Saxophone: elective</b>	1 credit
144	<b>Trumpet: elective</b>	1 credit
145	<b>French horn: elective</b>	1 credit
146	<b>Trombone: elective</b>	1 credit
147	<b>Euphonium: elective</b>	1 credit
148	<b>Tuba: elective</b>	1 credit
149	<b>Percussion: elective</b>	1 credit
152	<b>Jazz/Pop Vocal: elective</b>	1 credit
	Covers techniques for communicative lyric singing, including repertoire from different eras of the American music spectrum. Considers stage presence, microphone technique, vocal inflection and communication with an accompanist or rhythm section. Improvisation may also be explored.	
153	<b>Jazz Piano: elective</b>	1 credit
	Individual studies with a jazz pianist, developing jazz style and working on improvisation.	
	Prerequisite: Some facility on the piano.	
154	<b>Violin: elective</b>	1 credit
155	<b>Viola: elective</b>	1 credit
156	<b>Cello: elective</b>	1 credit
157	<b>Double Bass: elective</b>	1 credit
158	<b>Guitar: elective</b>	1 credit

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- 159 Harp: elective 1 credit
- 168 African Drumming: elective 1 credit  
Study the art and techniques of both hand and stick drumming in West African traditions. Covers a wide variety of repertoire (Agbadza, Kpanlogo, Adowa, Gota, etc.), including those performed by the African Music Ensemble.
- 187 Electric Guitar: elective 1 credit  
Students will study basic to advanced plectrum and fingerstyle techniques as they apply to the amplified guitar. Other topics will include fretboard theory, improvisation, ensemble performance practice and current technologies in amplification and MIDI applications. Repertoire will include all American popular music styles .
- 188 Flamenco Guitar: elective 1 credit  
Students will study the techniques involved in picado, arpeggio, tremolo, and rasqueado. The course includes intensive study of various rhythms and styles including Sevillanas, Soleareas, Alegrias, Siguiryas, Tango, Bulerias, Tiento, etc., and an introduction to basic flamenco dance and song accompaniment. Students will learn about the Gypsy and Moorish influences on the history of this artform.
- Performance Level*  
Performance studies at the performance level are required of music majors on their principal instrument. An audition before the music faculty is required for performance-level studies. Qualified non-majors also may audition. Twelve 50-minute lessons are scheduled each semester. A minimum of 12 hours a week practice is required. These lessons provide an in-depth study of representative literature for the instrument. Juries and recitals are required of all students taking performance-level studies. See the *Handbook for Music Students*.
- 221 Harpsichord: performance 2 credits
- 231 Piano: performance 2 credits
- 233 Voice: performance 2 credits
- 235 Organ: performance 2 credits
- 236 Flute: performance 2 credits
- 237 Oboe: performance 2 credits
- 238 Clarinet: performance 2 credits
- 239 Bassoon: performance 2 credits
- 241 Saxophone: performance 2 credits
- 244 Trumpet: performance 2 credits
- 245 French horn: performance 2 credits
- 246 Trombone: performance 2 credits
- 247 Euphonium: performance 2 credits
- 248 Tuba: performance 2 credits
- 249 Percussion: performance 2 credits
- 254 Violin: performance 2 credits
- 255 Viola: performance 2 credits
- 256 Cello: performance 2 credits
- 257 Double Bass: performance 2 credits
- 258 Guitar: performance 2 credits
- 259 Harp: performance 2 credits
- 265 Music composition 1 credit  
The course aims at developing the student's own imagination and musical style, as well as providing studies for the developing of technical and notational skills. Individual guidance and group meetings. Half-hour sessions.  
Prerequisite: 212 and permission of instructor

- 266 **Music Composition** 2 credits  
 Same as 265, but 50-minute sessions.  
 Prerequisite: 212 and permission of instructor

### **Music Proficiencies and Recitals (MUSR)**

Piano proficiency is required in all of the major emphases.

Recitals are required in all major emphases and in some minor emphases.

Recitals and proficiencies carry no course credit. All MUSR courses are graded on an S-R basis.

- 200 **Piano Proficiency** 0 credit  
 Required of all majors, piano proficiency should be completed by the end of the second year of study. See the *Handbook for Music Students* for specific details of the proficiency examination.

- 270 **Level I Recital** 0 credit  
 A Level I recital can be given in any semester. It requires a minimum of 15 minutes of music. A student performing at this level usually will be presented on a program with two or three other students.

- 290 **Jazz Recital** 0 credit  
 A Jazz recital is required of all students in the Jazz Studies minor. A minimum of five songs is required with one from each of the following categories: standard; ballad; swing; bossa nova, samba or other Latin style; and bop. Brass, winds and singers must be accompanied by piano, bass and drums. Piano and guitar must be accompanied by bass and drums and play one selection as a soloist without the rhythm section. Bassists will be accompanied by piano and drums and must play the melody on all selections. Percussionists will appear with piano and bass, and will be required to play one selection on vibraphone.

- 350 **Level II Recital** 0 credit  
 A Level II recital can be given in any semester. It requires a minimum of 25 minutes of music. Students performing at this level usually will be presented with one or two other students in the recital.  
 Prerequisite: 270

- 400 **Festival Orchestra Honors Concert** 0 credit  
 This concert is presented in the spring semester. Professional musicians from the Twin Cities area are hired to form the orchestra, and students are auditioned in December to perform vocal or instrumental music that originally was intended to be presented with orchestra. Festival Orchestra auditions are open to all full-time St. Thomas undergraduate students and graduate students currently enrolled in performance studies. See the *Handbook for Music Students* for details.

- 450 **Level III Recital** 0 credit  
 A Level III recital usually is given in the last semester of the student's work. This is a solo recital and requires a minimum of 45 minutes of music.  
 Prerequisite: 350

### **Operations Management**

See *Division of Business – Department of Management*

### **Philosophy (PHIL)**

Atkinson (chair), Berquist, Brower, Clemenson, Coulter, Degnan, Heaney, Hubbard, Jack, Kemp, Kronen, Laumakis, Lemmons, Menssen, Sserwanga, Sullivan, van Ingen, Winter

The philosophy program offers students the opportunity to study principal figures in the major periods of the history of philosophy (ancient, medieval, modern, and contemporary). Special attention will be given to the thought of Aristotle and St. Thomas Aquinas.

Graduates with a major in philosophy should be able to present and defend philosophical positions using standard logical techniques, to formulate effective criticisms of opposing arguments, and to explain the relevance of such positions to broader questions in philosophy or related disciplines.

The two core curriculum requirements, Philosophy of the Human Person and Introductory Ethics, are intended to introduce all students to the fundamental philosophical questions about human nature and conduct, and to help them develop basic skills in critical reasoning.

### **Philosophy Honor Society**

Phi Sigma Tau is a society whose objectives are to serve as a means of awarding distinction to students having high scholarship and personal interest in philosophy; to promote student interest in research and advanced study in this field; to provide opportunities for the publication of student research papers of merit; to encourage a professional spirit and friendship among those who have displayed marked ability in this field; and to popularize interest in philosophy among the general collegiate public.

## Departments

Students are eligible for membership if they have a manifest interest in research and study of philosophy (having completed a minimum of eight semester credits in the field); hold a cumulative GPA of at least 3.00 in either philosophy or general courses; and have completed at least two semesters of college education.

### **Major in Philosophy**

- 115 Philosophy of the Human Person
- 214 Introductory Ethics
- 220 Logic

*Plus sixteen credits in Philosophy through the Ages*

- Four credits in ancient philosophy
- Four credits in medieval philosophy
- Four credits in modern philosophy
- Four credits in contemporary philosophy

*Plus:*

Sixteen additional credits in Philosophy, four of which must be at the 400-level. These 400-level courses may be taken more than once and are open to non-majors. Topics and prerequisites will be listed in the annual Class Schedule. These courses may meet a requirement in Philosophy Through the Ages, depending on choice of materials. All 400-level course require a major paper to be presented and defended in some public forum.

### **Minor in Philosophy**

- 115 Philosophy of the Human Person
- 214 Introductory Ethics

*Plus:*

Twelve additional credits in philosophy chosen in consultation with the chair of the department.

#### **115 Philosophy of the Human Person**

An examination of fundamental conceptions of the human person in ancient, medieval and modern philosophy. Possible topics include: the existence and immortality of the human soul, free will and determinism, the immateriality of the intellect, the relationship between mind and body, and the relevance of different conceptions of the human person for ethics and religion. Attention is given to relevant issues of human diversity. The development of logical and critical thinking receives special attention. This course, with PHIL 214, fulfills the Moral and Philosophical Reasoning requirement in the core curriculum.

#### **200 Ancient Philosophy**

A survey of the roots of philosophical inquiry in the classical period. The pre-Socratics, Plato, Aristotle, the Stoics. Satisfies requirement in ancient philosophy.

Prerequisite: 115

#### **202 Medieval Philosophy**

An investigation of major philosophical problems in their medieval context. Possible topics include: faith and reason, free will, the role of authority, and the existence of God. Satisfies requirement in medieval philosophy.

Prerequisite: 115

#### **204 Modern Philosophy**

An examination of major philosophers of the early modern period from René Descartes to Immanuel Kant, with emphasis on methodology and claims to knowledge. Satisfies requirement in modern philosophy.

Prerequisite: 115

#### **206 Continental Philosophy and Existentialism**

An examination of major Continental philosophies of the nineteenth and twentieth centuries, with special attention to existentialism and phenomenology. Satisfies requirement in contemporary philosophy.

Prerequisite: 115

#### **208 Indian Philosophy**

An examination of the primary texts and problems that form the basis of Hindu, Buddhist, or Zoroastrian thought. Metaphysical and ethical themes will be considered.

Prerequisite: 115

#### **210 Chinese Philosophy**

An examination of the primary texts and problems that form the basis of Confucianism, Daoism, or Chinese Buddhism. Metaphysical and ethical themes will be considered.

Prerequisite: 115

**214 Introductory Ethics**

An inquiry into the rational foundations and methods of ethics, with attention to the application of ethical principles to areas of personal conduct, institutional behavior and public policy, and diversity within and across cultures. This course, with PHIL 115, fulfills the Moral and Philosophical Reasoning requirement in the core curriculum.

Prerequisite: 115

**220 Logic**

This course provides students with skills for identifying, analyzing, and evaluating the sorts of reasoning encountered in natural language. Emphasis will be placed on attaining facility with different formal systems for representing and evaluating arguments – including propositional logic, Aristotelian syllogistic, first-order predicate calculus, and some of their simple extensions – as well as on acquiring the ability to apply these systems in the analysis and evaluation of arguments in ordinary and scientific discourse. Required of majors, recommended for minors.

Prerequisite: 115

**234 Love, Sex and Friendship (CATH 234)**

A philosophical examination of the nature of human love. Possible topics include reciprocity and permanence, fidelity, romantic love, human sexuality, kinds of friendship. Special attention will be given to the thought of John Paul II.

Prerequisite: 115

**240 Faith and Doubt (CATH 240)**

Philosophical arguments for and against the possibility of divine revelation. Special attention will be given to the claim that the faith of the Catholic Church is revealed. Possible topics include tests of alleged revelations and miracles, evil as a barrier to belief in revelatory claims, the compatibility of science and religion, the role of reason and faith in religious commitment, and personal decision-making in a state of doubt about evidence.

Prerequisite: 115

**250 Christian Mysteries from a Philosophical Viewpoint (CATH 250)**

A consideration of philosophical problems associated with Catholicism. Possible topics include divine providence, creation, the soul, freedom of the will, faith, the Eucharist, the Incarnation, and the variety of religious beliefs.

Prerequisite: 115

**260 Philosophy of Science and Nature**

An examination of central topics in the philosophy of science and nature. Possible topics include reductionism in science, the analysis of change, the nature of scientific explanation, causation and natural teleology, and the meaning of scientific theories. Attention will be paid to works in both the classical and contemporary periods. May satisfy a requirement in Philosophy through the Ages, depending on choice of materials.

Prerequisite: 115

**272 Evolution and Creation (CATH 272)**

A philosophical examination of the relation between the doctrine of creation and theories in the evolutionary sciences. The course will consider arguments concerning evolution and creation from a variety of disciplines (including philosophy, theology, and natural science). The course will also examine historical and philosophical aspects of the relation between science and religion on the origins of the material world and the human race.

Prerequisite: 115

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**320 Aristotelian Logic**

A study of Aristotle’s *Organon*, covering such topics as the categories, the nature of propositions, forms of argument. Emphasis on demonstration (proof of necessary truths) and its distinction from dialectical reasoning. Applications to philosophical texts. Satisfies requirement in ancient philosophy.

Prerequisite: 220

**325 Intermediate Symbolic Logic**

A study of developments in twentieth-century symbolic logic. Possible topics include axiomatic systems, set theory, extensions of predicate logic (such as predicate logic with identity, quantified modal logic, relevance logic, deviant logics), and metatheorems (such as soundness and completeness theorems).

Prerequisite: 220

## Departments

### 330 Philosophy of Mind

A study of central issues in the philosophy of mind and soul. Possible topics include the relation between mind and body; the senses, emotions, intellect and will; personal identity. Attention will be given to both the Aristotelian/Thomistic tradition and contemporary philosophy. May satisfy a requirement in Philosophy through the Ages, depending on choice of materials.

Prerequisites: 115 and either 200 or 202 Or 204 or 220

### 340 Thought of Thomas Aquinas

An examination of some major topics in the philosophy of Thomas Aquinas. Possible topics include: Aquinas' conception of philosophy and its relation to faith; God; and the destiny of the human being. Satisfies requirement in medieval philosophy.

Prerequisite: 214

### 350 Advanced Ethical Theory

An advanced treatment of central aspects in ethical theory. Possible topics include justification of normative theories (e.g., eudaimonism, deontology, consequentialism) and metaethical issues (e.g., the is/ought problem, moral realism, naturalism). May satisfy a requirement in Philosophy through the Ages, depending on choice of materials.

Prerequisite: 214

### 353 Machiavelli, Hobbes and Nietzsche

An examination of three central figures in the history of political theory, and the challenge each presents to the moral evaluation of the use of political power.

Prerequisite: 214

### 356 Contemporary Social Issues

An investigation into conceptions of the human person, ethics, and the law related to current issues with public policy implication. Issues chosen at the discretion of the instructor. Satisfies requirement in contemporary philosophy.

Prerequisite: 214

### 357 Political Philosophy

A study of the nature and justification of political authority. Possible topics include natural rights, liberty and equality, the common good and its relation to the individual good, the place of liberty and equality and the common good in justifying state action. Attention is given to both classical and contemporary authors. May satisfy a requirement in Philosophy through the Ages, depending on choice of materials.

Prerequisite: 214

### 358 Environmental Ethics (ENVR 301)

Consideration of the ethical issues arising from human interaction with the environment, including population pressure, pollution, conservation and preservation. Focus is on the grounds of our obligation to resolve such issues; the question of what persons and things are worthy of moral consideration; and the respective roles of individuals, organizations and government in addressing environmental problems. Case studies will be used to trace the implications of various ethical and political theories. Satisfies requirement in contemporary philosophy.

Prerequisites: 214 and ENVR 151

### 359 Philosophy of Law

A study of philosophical problems connected with human law and legal institutions. Possible topics include the nature and kinds of law, the relation of law and morality, analysis of legal concepts, the nature and justification of punishment, the principles of legal interpretation and reasoning. Attention will be given to both classical and contemporary authors. May satisfy a requirement in Philosophy through the Ages, depending on choice of materials.

Prerequisite: 214

### 360 Philosophy of Religion

This course examines such topics as the nature and existence of God, the problem of evil, the compatibility of free-will with divine foreknowledge, the rationality of religious belief, and the relation between morality and religion. Attention will be paid to main figures in the western tradition as well as to contemporary authors. May satisfy a requirement in philosophy through the Ages, depending on choice of materials.

Prerequisites: 115 and one other PHIL course

### 370 Twentieth-Century Analytic Philosophy

An introduction to the analytic tradition founded by Frege, Russell, and Wittgenstein, with special emphasis on the core areas of language and philosophy of logic. Possible topics include theories of truth, the meaning of "meaning," logical empiricism and recent criticisms, and logical paradox. Satisfies requirement in contemporary philosophy.

Prerequisite: 220

**380 Epistemology**

This course considers various accounts of the nature, origin, and limits of human knowledge. Attention will be paid to the main figures in the western tradition as well as to contemporary authors. May satisfy a requirement in Philosophy through the Ages, depending on choice of materials.

Prerequisite: 220

**390 Metaphysics**

This course examines the possibility of, as well as the need for, a general study of reality beyond that pursued by the particular science. Possible topics include the appearance/reality distinction, substance, the self, universals and particulars, unity, truth, goodness, beauty, and God. Attention will be paid to both classical and contemporary authors. May satisfy a requirement in Philosophy through the Ages, depending on choice of materials.

Prerequisite: 220

**410 Colloquium: Philosophical Research**

An advanced course in philosophical research, writing, and presentation. On a topic chosen in consultation with the instructor, students will submit at least two drafts of a substantial paper on a major problem or debate in philosophy. Students will be expected to meet every other week as a group to discuss the progress of their projects and critique preliminary drafts of one another's work. An oral presentation of the final draft is required.

Prerequisites: 214 and 220

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Physical Education****Physical Education Health Promotion****Physical Education Health Promotion - Science Emphasis**

*See Department of Health and Human Performance.*

**Physics (PHYS)**

Tommet (chair), Feng, Johnston, Lane; Blilie, Rada

Physics majors learn the fundamental laws that govern the physical universe, from the smallest subatomic particle to the largest galaxies to the very structure of space and time. Emphasis is placed on general understanding, problem solving, and the communication skills essential for success in a career grounded in science. In the laboratory, students use state-of-the-art instrumentation in applying physics to a wide variety of systems. Opportunities are available for students to participate in research projects during the school year and over the summer.

There are three educational options from which to choose: a Bachelor of Science (B.S.) degree; a Bachelor of Arts (B.A.) degree; or a minor in physics. The B.S. degree provides the necessary background for students interested in graduate school, engineering or industrial work; for students interested in professional programs such as medicine or patent law, or students double majoring in areas such as mathematics or chemistry, the Bachelor of Arts degree gives a solid background in physics with the flexibility to meet other needs.

Graduates with a major in physics will demonstrate an adequate understanding of the core areas of physics. They will have an ability to communicate well in technical areas. They will demonstrate adequate laboratory skills. They will possess an understanding of societal and ethical issues related to physics.

The Pre-Engineering Program sponsored by the Department of Physics allows students to combine a liberal arts education at the University of St. Thomas with an engineering program at another institution. See the description under Pre-Professional Programs in this catalog.

For students interested in teacher licensure, see the various combinations of science education in the Department of Teacher Education in this catalog.



## Departments

The department offers courses for non-majors to fulfill the laboratory science component of the core curriculum.

### Major in Physics (B.S.)

- 111 Introduction to Classical Physics I
- 112 Introduction to Classical Physics II
- 225 Introduction to Modern Physics I
- 226 Introduction to Modern Physics II
- 260 Introduction to Electronics
- 310 Statistical Mechanics and Thermodynamics
- 341 Electricity and Magnetism
- 399 Advanced Physics Laboratory I
- 400 Advanced Physics Laboratory II
- 411 Theoretical Mechanics
- 421 Quantum Mechanics

*Plus one of:*

- 342 Electromagnetic Waves
- 451 Introduction to Solid State Physics

*Allied requirements*

- CHEM 111 General Chemistry I
- CHEM 112 General Chemistry II
- MATH 113 Calculus I
- MATH 114 Calculus II
- MATH 200 Multi-Variable Calculus
- MATH 210 Linear Algebra and Differential Equations
- QMCS 230 Software Design Using the JAVA Language

### Major in Physics (B.A.)

- 111 Introduction to Classical Physics I
- 112 Introduction to Classical Physics II
- 225 Introduction to Modern Physics I
- 226 Introduction to Modern Physics II
- 260 Introduction to Electronics
- 341 Electricity and Magnetism
- 399 Advanced Physics Laboratory I
- 400 Advanced Physics Laboratory II
- 411 Theoretical Mechanics

*Plus one of:*

- 310 Statistical Mechanics and Thermodynamics
- 342 Electromagnetic Waves
- 421 Quantum Mechanics
- 451 Introduction to Solid State Physics

*Allied requirements*

- MATH 113 Calculus I
- MATH 114 Calculus II
- MATH 200 Multi-variable Calculus
- MATH 210 Linear Algebra and Differential Equations

### Teacher Licensure

Elementary Education with a Co-major in Science and Mathematics for Elementary Education

Elementary Education with a Specialty in Science (5-8)

Co-major in Science (5-8) – Physics (9-12) and a Co-major in Secondary Education

*See Department of Teacher Education*

**Minor in Physics**

111 and 112 Introduction to Classical Physics I and II

or

109 and 110 General Physics I and II

Plus:

225 Introduction to Modern Physics I

Eight credits in courses numbered 226 or above

**101 General Physics For Liberal Arts Students (109, 111)**

Intended for non-science majors; treats fundamental principles of physics and their application to familiar phenomena, stressing qualitative understanding. The course will survey topics from mechanics, fluids, temperature and heat, oscillations, waves and sound, light and optics, and properties of matter. The course consists of lecture, discussion and laboratory. This course is designed especially for elementary education majors. It is not intended for students who have had high school physics.

Prerequisite: Three years of high school mathematics

**102 Topical Introduction to Physics**

2 credits

This course will introduce students to physics by studying a specific but broad topic. The course will have laboratory experience and will fulfill one-half of the general education laboratory science requirement. The course may be repeated for credit under different topics. Examples of topics are: light and color, physics and the human body, science of hi-fidelity, electronics of a computing machine, modern physics, and biomechanics. Offered in January term.

Prerequisite: Three years of high school mathematics

**103 Physics of Energy**

Intended for non-science majors; treats fundamental principles of physics and their application to understanding energy. This is an introductory course in physics with the focus on energy; it will give the underlying science and a quantitative approach to energy. Topics included are mechanics, thermodynamics, electricity and magnetism, atomic and nuclear concepts and radiation theory. The course consists of lecture, discussion and laboratory.

Prerequisite: Three years of high school mathematics

**104 Astronomy**

Introduction to physical principles and their application to astronomy for non-science majors. Emphasis is on comprehension of ideas and principles. Topics include the motions of the sun, moon, stars and planets; properties of the solar system; the stars including giants, dwarfs, pulsars and black holes; nebulae, galaxies and quasars; cosmology and life. The course consists of lecture, discussion and laboratory.

Prerequisite: Three years of high school mathematics

**105 Musical Acoustics**

An introductory course intended for non-science majors; treats fundamental principles of physics and acoustics as they relate to musical sounds and musical instruments. The course consists of lecture, discussion and laboratory. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: High school algebra and a music background (one year practice, instrument or voice, or one course)

**109 General Physics I (111)**

This course and its continuation 110 are a two-semester sequence of introductory physics, both classical and modern. Topics include principles of classical mechanics: description of motion, force, torque and rotational motion, energy, momentum and their conservation, fluid mechanics; thermal phenomena; oscillations, waves and sound. Appropriate topics and applications are chosen for the life-science student. The course consists of lecture, discussion and laboratory.

Prerequisite: Math placement at a level of MATH 111 or above.

**110 General Physics II (112)**

Continuation of 109. Topics include electricity; magnetism; light and optics; atomic, quantum and nuclear physics. The course consists of lecture, discussion and laboratory.

Prerequisite: A minimum grade of C- in 109 or 111

**111 Introduction to Classical Physics I (109)**

This course and its continuation 112 are intended for physical science, mathematics and pre-engineering students. The principles of classical mechanics: vectors, kinematics, particle and rigid body rotational dynamics and statics; conservation laws; fluid mechanics. The course consists of lecture, discussion and laboratory. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: A minimum grade of C- in MATH 113

**112 Introduction to Classical Physics II (110)**

Continuation of 111. The principles of thermal, wave, optical and electromagnetic phenomena. The course consists of lecture, discussion and laboratory. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: A minimum grade of C- in both 111 and MATH 114

**225 Introduction to Modern Physics I**

This course and its continuation 226 serve as an introduction to modern physics. The topics of this first course are quantum theory of light, particle nature of matter, wave aspects of particles, quantum mechanics in one-dimension, statistical physics, lasers, solid state physics. The course consists of lecture, discussion and laboratory. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 110 or 112 and MATH 200

**226 Introduction to Modern Physics II**

Continuation of 225. Topics include atomic structure, molecular structure, relativity, nuclear physics, elementary particles, other topics of contemporary interest. The course consists of lecture, discussion and laboratory. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: A minimum grade of C- in 225

**260 Introduction to Electronics (ENGR 350)**

This course provides scientists and engineers with a background in electronics and electronic instrumentation. Topics include DC and AC circuit analysis, frequency response, filters, feedback, operational amplifiers, semiconductor devices, power supplies, oscillators, logic gates, codes for numbers and symbols, combinational and sequential digital logic design, timing, transducers, and analog-digital conversion. The course consists of lecture, demonstration, discussion, and laboratory.

Prerequisite: A minimum grade of C- in Physics 112

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**310 Statistical Mechanics and Thermodynamics**

Concepts and laws of thermodynamics and of statistical mechanics. Applications of these to various systems, including gases, liquids, solids and chemical systems. Lecture and discussion.

Prerequisite: 226 or permission of the instructor

**341 Electricity and Magnetism**

Electrostatic and magnetostatic fields in vacuum and material media; energy and force relations; methods for the solution of static problems; fields and currents in conducting media; Maxwell's equations and time-dependent fields. Lecture and discussion.

Prerequisites: 110 or 112 and MATH 210 or permission of the instructor

**342 Electromagnetic Waves**

A continuation of electricity and magnetism with a view of Maxwell's equations and the resulting wave equation, traveling wave solutions and applications, radiation, interference and diffraction, optics, wave guides. Lecture and discussion.

Prerequisite: 34

**399 Advanced Physics Laboratory I****2 credits**

Advanced physics experiments in a number of areas including nuclear, atomic, optical and solid state physics. Some lectures and library research will be included. Four hours per week. This course partially fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 226, 260 and concurrent registration in an upper-division physics course

**400 Advanced Physics Laboratory II****2 credits**

Conduct a rigorous experimental physics project proposed by the student and approved by the instructor. This course partially fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 399

**411 Theoretical Mechanics**

Newtonian dynamics of particles and systems of particles; conservation laws; moving coordinate systems; central-force motion; collisions and scattering; plane and general motion of rigid bodies; free, forced and coupled oscillations; Lagrangian dynamics. Lecture and discussion.

Prerequisites: 112 and MATH 200 or permission of the instructor

**421 Quantum Mechanics**

Application of quantum mechanics to advanced problems in modern physics; perturbation theory; spin and its effects; identical particles; many-electron atoms; topics in scattering theory and nuclear physics. Lecture and discussion.

Prerequisite: 226 or permission of the instructor

**451 Introduction to Solid-State Physics**

Theory and applications of mechanical, thermal, electric, and magnetic properties of solids; band theory; semiconductors. Lecture and discussion.

Prerequisite: 226 or permission of instructor

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Political Science (POL)**

Farlow (chair), Hatting, High-Pippert, Hoffman, Toffolo

The program of courses offered by the Political Science Department is designed to enable students to acquire an understanding of political processes, governmental institutions, and theories of politics.

As one of the liberal arts, political science enables students to develop skills in communication and analytic problem solving that are useful in a wide variety of careers, including business. More specifically, the major in political science prepares students for the study of law, graduate programs in political science or public administration or for careers in government, politics, the non-profit sector, or teaching.

Students graduating with a major in political science will have a broad overview of the discipline, as well as substantive familiarity with at least two of the four political science sub-fields: American politics, comparative and international politics, law and judicial politics, and political thought. At various points in their study of political science, majors will develop a wide variety of skills, including skills related to the carrying out of research projects, the interpretation of empirical data, and the presentation of their work to a wider audience.

Students majoring in Political Science must take a minimum of sixteen credits in political science at St. Thomas.

The department also offers courses for non-majors to fulfill the Social Analysis component of the core curriculum.

**Political Science Honor Society**

Pi Sigma Alpha, the national political science honor society, established the Chi Theta chapter at St. Thomas in 1999. The purpose of Pi Sigma Alpha is to acknowledge superior performance in the study of political science, to forge closer links between faculty and political science majors and minors, and to stimulate political interest in the St. Thomas community.

Pi Sigma Alpha is open to juniors and seniors who meet the following qualifications for membership. Students must have completed at least three political science courses and be currently enrolled in or have taken a fourth. Two of the four courses must be UST political science courses, and one of the four must be at least a 300-level course. Additionally, students must have a grade point average of at least 3.00 in political science courses and be within the top third of their graduating class.

**Major in Political Science**

- 105 Politics and Government in Comparative Perspective
- 205 Introduction to the American Public Policy Process
- 225 Introduction to World Politics
- 275 Introduction to Political Thought

*Plus:*

Sixteen credits in 300-level courses

(completed in at least two of the four sub-fields)

## Departments

### *Plus:*

One 400-level seminar

Four elective credits

While students are encouraged to take an experiential learning course (475, 476, 477, 478), these internships do not normally fulfill a major field requirement.

### **Teacher Licensure**

Co-major in Social Studies (5-12) and a Co-major in Secondary Education

*See the Department of Teacher Education.*

### **Minor in Political Science**

105 Politics and Government in Comparative Perspective

### *Plus two of:*

205 Introduction to the American Public Policy Process

225 Introduction to World Politics

275 Introduction to Political Thought

### *Plus:*

Twelve credits in 300-level courses

(completed in at least two of the four sub-fields)

One 400-level seminar may be completed in place of a 300-level course.

### **Recommended Sequencing**

1. Students enrolling in POL courses, especially those desiring a major or minor field concentration in political science, are strongly advised to begin with 105 before enrolling in any of the 200-level core courses.
2. Students should normally complete successfully the appropriate 200-level core course before enrolling in any of the 300-level courses in that sub-field.
3. While these expectations do not constitute formal prerequisites, students who deviate from these recommendations may not be as well prepared for more advanced courses as those who observe them.

### **Prerequisites**

1. Students who intend to complete a major or minor in political science may not enroll in a 400-level seminar unless they have completed successfully a 200-level or 300-level course in the sub-field of the 400-level seminar.
2. Students who are not pursuing a major or minor in political science must obtain permission of the instructor of a 400-level seminar and the department chair to enroll in that seminar if a 200-level or 300-level course has not been completed in the sub-field of the seminar.

### **105 Politics and Government in Comparative Perspective**

An introduction to concepts basic to an understanding of politics and government, such as power, authority and legitimacy. A comparative examination of political processes, decision-making institutions and policy issues in the contemporary world. Countries surveyed will include the United States, the United Kingdom, Russia or China and selected third-world political systems. This course fulfills the Social Analysis and Human Diversity requirements in the core curriculum.

### **205 Introduction to the American Public Policy Process**

A survey of the way public policy is made in the American political system including agenda-setting, formulation of alternative policy choices, representation of interests and selection and implementation of policy options. Public policy case studies will be used as illustrations. Students also will be introduced to data analysis as a tool for policy evaluation. This course fulfills the second-level Computer Competency requirement in the core curriculum.

### **225 Introduction to World Politics**

An overview of the contemporary international political system that examines the nature of power in global politics, particularly the transition from a bipolar to a post-cold war world. Emphasis is given to the changing relationships among the great powers, such as the United States and Russia, and to the interaction between the industrialized democracies of the North and the less-developed states of the South. Issues that cut across international politics – arms proliferation, the debt crisis, terrorism, resurgent nationalism – are examined. The course also analyzes the role and impact of non-state actors, such as the United Nations and multi-national corporations, on the international system.

### **275 Introduction to Political Thought**

By examining the ideas of some major political thinkers and contemporary political ideologies, this course intro-

duces students to the central philosophical issues which confront every political system: What is political community? What is justice? How are individuals related to the state? What is power and how should it be allocated? What are the best ways for a society to deal with conflict and change? Are equality and/or individual freedom desirable ideals? Teaches students how to look critically at their political assumptions and to read political philosophy texts.

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 301 American Political Behavior

An examination of the political attitudes and behavior of the public, as well as the linkages between the public and their government. Topics include: public opinion; political psychology; political participation; voting; elections; political parties; interest groups; and the mass media. The emphasis is on the American system, but comparisons will be made with other democratic systems. Attention also will be paid to survey research as a principal method by which these topics are studied.

### 303 Urban and Metropolitan Politics and Government

An examination of the nature and role of urban and metropolitan places in American civic life. The evolution of cities from villages to metropolitan areas is examined. Topics examined include: the structure of American urban government, the role of community-based organizations in urban governance, the city as a vehicle for social segregation, the city as an economic entity and the relationship between cities and an increasingly global society.

### 305 Congress and the Presidency

An examination of the development and contemporary operation of the legislative and executive branches of government, focusing particularly on the interaction between them in the policy-making process. Topics include: the evolution of selection processes; the growth of careerism in the legislature; increasing complexity and bureaucratization of both branches; the nature of representation; the role of political parties; and the expansion and contraction of each branch's powers relative to the other. Primary attention will be on Congress and the presidency, but parallels also will be drawn with state legislatures and governors.

### 307 Public Policy Analysis and Administration

An examination of the processes underlying the formation, implementation and administration of public policy. The nature of administrative organizations is studied, as is recent literature on contemporary organizational theory. A variety of techniques commonly used in public sector organizations, including experimental designs, benefit-cost analysis and risk assessment are explored. Emphasis will be placed upon the historical character of American public administration and its changing role in American society.

### 312 Judicial Process

An examination of the relationship of law and judicial policy-making to American political culture. The selection, powers and operation of American courts – trial and appellate, federal and state; the evolution of the judiciary in American constitutional history with emphasis on the decision-making process; relations with law enforcement agencies, the legal profession, interest groups, executive and legislative institutions.

### 313 Constitutional Law and Politics

The Supreme Court as a legal and political institution; leading cases and related materials on the presidency, Congress, the judiciary, federalism and national emergency.

### 314 Constitutional Rights and Liberties

The Supreme Court as a legal and political institution; leading cases and related materials on the Bill of Rights and the Fourteenth Amendment, including the freedom of speech and press, the freedom of religion, the rights of the criminally-accused and equal protection of the laws.

### 320 American Foreign Policy

Examination of the traditional American approach to foreign policy; America's post-World War II role in the world; the roles of the president and Congress in the making of foreign policy; the foreign-policy bureaucracy; nuclear-weapons policy; contemporary American foreign policies.

### 321 Comparative Foreign Policy

Analysis of the domestic and external determinants of foreign-policy behavior. The general processes discovered by analysis will be examined on a comparative basis in the foreign policies of the major powers.

### 326 International Law and Organizations

The nature and role of international organizations with special emphasis on the United Nations and its affiliated specialized agencies. The function of law in the international setting: the concept of sovereignty; recognition; the law of the seas; aggression; the International Court of Justice.

**350 Comparative Politics of the New Europe**

A comparative analysis of governmental structures, political culture, political economy, and political behavior across a broad range of political systems in post-cold war Europe, ranging from the United Kingdom, France and Germany, to the emerging democracies and market economies of Poland, Hungary, the Czech Republic and Russia. The impact of resurgent nationalism is also examined. Regional developments and organizations, such as the European Union, and NATO, are included in the attempt to explain the political dynamics of the “new Europe.”

**352 Third World Politics and Government**

A survey of the governments, politics and economics of “third world” countries. Also includes an overview of colonialism and its legacy, strategies for economic and political development, and such common problems as the effects of rapid social change, controversy over forms of government, and the linkages and tensions between the North and the South. Films and novels from and about representative countries will be used as one means by which these issues are examined. This course fulfills the Human Diversity requirement in the core curriculum.

**372 Political Thought from Plato to Marx**

Using both original sources and secondary texts, this course introduces students to the political writings of Plato, Aristotle, Augustine, Aquinas, Machiavelli, Hobbes, Locke, Rousseau, Hegel and Marx. These thinkers are examined both for their historical importance and for the insights they can provide into contemporary political problems. Other theorists of the periods will be given consideration when appropriate.

**373 Political Thought from Marx to the Present**

Using original sources and secondary texts, this course examines some major trends in political theory from Karl Marx to the present. Although the emphasis may shift, topics to be covered include: developments in Liberalism from J.S. Mill to Rawls; developments in western Marxism; post-modernist political thought; participatory democracy; and feminist political theory.

**375 American Political Thought**

A survey of important American political thinkers, such as Jefferson, Thoreau, Dewey, Lincoln, Debs, Mencken, and Walzer from the 17th century to the present; includes analysis of the relevance of American political experience to abiding questions in normative political philosophy.

**404 Seminar in American Politics**

**414 Seminar in Law and Judicial Politics**

**424 Seminar in International Politics**

**454 Seminar in Comparative Politics**

**474 Seminar in Political Thought**

Seminars in political science provide an opportunity for students to synthesize and further develop knowledge gained in earlier courses and enhance their critical and analytical skills. Students in the seminars will engage in reading and discussion and undertake a major research project pertinent to the seminar's topic. Specific topics or themes of each seminar will vary. Seminars are offered in each of the sub-fields of the discipline.

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog. Specific possibilities in political science include:

*Administrative internship*

Fifteen hours per week of supervised practical government experience in an administrative agency plus a term paper and regular conferences with the supervising instructor.

Prerequisites: 205 plus previous or concurrent enrollment in 307

*Legislative internship*

Fifteen hours per week of supervised work assisting a legislator or legislative committee plus a term paper and regular conferences with the supervising instructor.

Prerequisites: 205 plus previous or concurrent enrollment in 305

*Field work in practical politics*

Fifteen hours per week of supervised work in a political campaign or with a political party or interest group plus a term paper and regular conferences with the supervising instructor.

Prerequisites: 205 plus previous or concurrent enrollment in 301

*Legal Internship*

Fifteen hours per week of supervised work experience in an agency or office engaged in the legal process plus assigned readings, a term paper and regular conferences with the supervising instructor.

Prerequisites: 205 plus previous or concurrent enrollment in 312.

**480 Research Seminar**

Empirical research in political science, building upon and furthering skills developed in 105 and 205. Students will undertake an independent research project. Recommended for students planning to enter a graduate program in political science.

Prerequisites: 105, 205, and permission of instructor

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Pre-Engineering****Pre-Health Professions****Pre-Law**

*See Affiliated Programs*

**Psychology (PSY)**

Giebenhain (chair), Amel, Buri, Chalkley, Johnson, Mabry, Robinson-Riegler, Scott, WilliamsMorris

The courses and programs offered by the Department of Psychology are meant to be a part of a liberal arts education, teaching the basic principles and theory of psychology, the scientific study of human behavior, mental processes, and emotions. The psychology programs are designed to prepare students with the analytical and technical skills necessary for graduate study in psychology and for careers in human services and other occupations for which a psychology background is valuable. Courses are offered that introduce psychology to non-majors, enabling students to make practical applications of psychology to their own lives.

Students who graduate with a major in psychology will be able to write a research paper written in accordance with guidelines set forth by the American Psychological Association (APA). They will be trained in those research and statistical skills frequently employed in the field of psychology. They will be able to complete an independent research project, and write a synthesis of the psychological literature in an area of psychological interest.

Students majoring in psychology must successfully complete a minimum of twenty-four credits in psychology at St. Thomas.

The department also offers courses for the non-major to fulfill the Social Analysis component of the core curriculum.

**Psychology Honor Society**

Psi Chi, the National Honor Society in psychology, was founded in 1929 for the purpose of encouraging, stimulating, and maintaining excellence in scholarship and advancing the science of psychology. The St. Thomas chapter was established in 1997. Students who have a grade point average of at least 3.00 in psychology, rank in the highest 35 percent of their class, and who have completed at least three semesters of college coursework, including nine hours in psychology, are eligible to apply for membership.

The Department of Psychology also recognizes selected students each year for outstanding research, service, and academic achievements.

**Major in Psychology**

- 111 General Psychology
- 212 Research Methods in Psychology
- 422 History and Systems (to be taken during the senior year)

*Plus two laboratory courses from:*

- 321 Current Research Issues in Social Psychology
- 322 Sensation and Perception
- 323 Learning and Memory
- 325 Research Issues in Cognition
- 401 Physiological Psychology



## Departments

*Plus one of:*

- 200 Psychology of Infancy and Childhood
- 202 Lifespan Development (students may not receive credit for both 202 and 200)
- 203 Psychology of Adolescence
- 204 The Psychology of Adulthood and Aging

*Plus one of:*

- 121 Social Psychology
- 301 Psychopathology
- 302 Personality Theories

*Plus one of:*

- 206 The Brain and Human Behavior
- 275 Cognition
- 400 Seminar in Cognitive and Language Development

*Plus:*

Twelve elective credits in psychology

A total of 44 credits in psychology are required for the major. Twenty of the 44 credits in psychology must be 300- or 400-level courses.

*Allied requirements*

All of the following or an adequate substitute approved by the chair:

BIOL 101 General Biology or 105 Human Biology

*Plus:*

MATH 101 Finite Mathematics  
(or MATH 108-109, 111 or 113; students should take highest level for which eligible)

QMCS 220 Statistics I

Students should take the following courses in the following order:

MATH 101 (or 108-109 or 111 or 113)

QMCS 220

PSY 212

These courses should be taken early in the college career, since they are prerequisites for some required courses in psychology. A student should consult early with her/his department adviser to have her/his plan approved.

### **Concentration in Behavioral Neuroscience**

- 111 General Psychology
- 212 Research Methods in Psychology
- 422 History and Systems (to be taken during the senior year)

*Plus one of:*

- 200 Psychology of Infancy and Childhood
- 202 Lifespan Development (students may not receive credit for both 202 and 200)
- 203 Psychology of Adolescence
- 204 The Psychology of Adulthood and Aging

*Plus one of:*

- 121 Social Psychology
- 301 Psychopathology
- 302 Personality Theories

*Plus:*

- 206 The Brain and Human Behavior
- 207 Alcohol, Other Drugs and Behavior
- 322 Sensation and Perception
- 401 Physiological Psychology

*Plus:*

Two elective courses in psychology

*Allied requirements*

All of the following or an adequate substitute approved by the chair:

BIOL 101 General Biology or 105 Human Biology

*Plus:*

MATH 101 Finite Mathematics  
(or MATH 108-109, 111 or 113; students should take highest level for which eligible)

**QMCS 220 Statistics I**

Students should take the following courses in the following order:

MATH 101 (or 108-109 or 111 or 113)

QMCS 220

PSY 212

These courses should be taken early in the college career, since they are prerequisites for some required courses in psychology.

*Recommended:*

Those students planning to pursue graduate study in behavioral neuroscience should consider:

493, 494 Research

Additional courses in biology and chemistry (consult the Behavioral Neuroscience adviser)

**Teacher Licensure**

Elementary Education with a Specialty in Social Studies (5-8)

Co-major in Social Studies (5-12) and a Co-major in Secondary Education

*See the Department of Teacher Education*

**Minor in Psychology**

111 General Psychology

*Plus two of:*

121 Social Psychology

151 Cross-Cultural Psychology

200 Psychology of Infancy and Childhood

202 Lifespan Development (students may not receive credit for both 202 and 200)

203 Psychology of Adolescence

204 The Psychology of Adulthood and Aging

205 Psychology of Women

206 The Brain and Human Behavior

207 Alcohol, Other Drugs and Behavior

212 Research Methods in Psychology

275 Cognition

288 Psychology of Marriage and the Family

*Plus two of:*

301 Psychopathology

302 Personality Theories

308 Motivation and Emotion

313 Psychological Testing

321 Current Research Issues in Social Psychology

322 Sensation and Perception

323 Learning and Memory

325 Research Issues in Cognition

342 Industrial/Organizational Psychology

400 Seminar in Cognitive and Language Development

401 Physiological Psychology

422 History and Systems

424 Clinical Psychology

428 Theories of Counseling and Psychotherapy

Students should consult early with a department adviser to have their plan approved.

**111 General Psychology**

An introduction to the research questions, concepts, theories, methods, and findings of psychological science. Although the selection varies with instructor, topics include brain function, psychological testing, sensation and perception, cognition (learning, memory, language), states of consciousness, motivation, human development, personality, origins and treatment of disorders, social behavior, stress and health, and applied psychology (workplace, community, environment). This course fulfills the Social Analysis requirement in the core curriculum.

**121 Social Psychology**

A survey of theories and research findings in social psychology. Topics covered include attitude change, love and liking, aggression, stereotypes and altruism and conformity.

Prerequisite: 111

**151 Cross-Cultural Psychology**

This course is designed to cover the issues and themes current in the field of cross-cultural psychology. Examples of such issues include: cultural variation along the lines of collectivism and individualism; psychological principles that might be universal compared to those that are culturally specific; how content and context affect psychological functioning, and variation within as well as between cultures. A range of substantive areas within psychology will be examined, including social, developmental, organizational, cognitive, health psychology, and psychology of emotion. Examples will be drawn from a range of non-Western cultures (e.g., Japan, India, Liberia) as well as various cultures within the United States (e.g., African-American, Hispanic, American Indian). Emphasis will be placed on how Western and non-Western cultures differ from each other, on how non-Western cultures differ from each other, and on how intra-cultural variation also plays important roles in psychological functioning. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 111

**200 Psychology of Infancy and Childhood (202)**

An introduction to issues and theories of development dealing with infancy, toddlerhood, and early and middle childhood. The course covers physical, intellectual, emotional, personality, and social development. Mechanisms of heredity, as well as the relative effects of heredity and environment also are covered.

Prerequisite: 111

**202 Lifespan Development (200)**

Principles and theories of development throughout the life span; interplay among the physical, emotional, social and intellectual variables in the process of growth and development.

Prerequisite: 111

**203 Psychology of Adolescence**

This course reviews the principles, theories, research and application of physical, psychological and social growth during the adolescent's relationships with adults and peers, their sex attitudes and behaviors, moral development and religious values, school and vocational choices, alienation and commitment.

Prerequisite: 111

**204 The Psychology of Adulthood and Aging**

Theories of and research in physical, emotional, social, personality and intellectual development in adulthood and in old age. This course will emphasize the psychological adjustment to the stresses and demands (e.g., vocation, marriage, retirement, bereavement) the individual encounters during those developmental stages.

Prerequisite: 111

**205 Psychology of Women**

An examination of physiological, experiential, and social factors affecting the psychological development of women and their status as adults. Topics include: biological and social learning factors in the development of sex roles and other prescribed behavior patterns, the development of performance and intellectual skills, achievement motivation, identity and self-esteem, changing concepts of sex roles, women and psychological disorders, global women's issues, etc. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 111

**206 The Brain and Human Behavior**

An examination of brain systems that subserve human behavior. Topics include: human development, consciousness, social behavior, cognition, emotion and abnormal behavior.

Prerequisite: 111

**207 Alcohol, Other Drugs and Behavior**

The course surveys some basic facts and principles of administration, absorption, transport, action, deactivation and elimination of drugs. Various classes of drugs; their effects on mood, behavior, and consciousness; their use and misuse; and phenomena of chemical dependency and its treatment modalities are discussed. Lectures, readings, films, tapes and invited speakers are employed.

Prerequisite: 111

**212 Research Methods in Psychology**

Research designs and problems, with emphasis on operationalization of concepts, development of hypotheses, specific research designs, sources of error, literature reviews, data collection, data analysis and use of APA format. Three lecture and two laboratory hours per week.

Prerequisites: 111 and QMCS 220

**275 Cognition**

This course will provide an overview of cognitive processes, the processes that collectively comprise what is commonly termed "thinking." Topics discussed will include perception, attention, remembering, language, problem solving, reasoning, and social cognition. The course will focus on how these processes operate in everyday situa-

tions, as well as empirical (laboratory) investigations of these processes. Connections between cognitive psychology and other areas of psychology (e.g., clinical, biological) will also be discussed.

Prerequisite: 111

### 288 Psychology of Marriage and the Family

An examination of the psychological concepts, issues, challenges and changes relevant to marriage and family today. Topics include intimacy, liking and loving, power and control, gender, marriage and family therapy, and the psychological effects of marriage vs. non-marriage, divorce, and various parenting styles.

Prerequisites: 111 and junior standing or permission of the instructor

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 301 Psychopathology

This course sets forth a framework for understanding abnormal or maladaptive behavior. It will investigate specific diagnostic categories (such as depression and schizophrenia), causal factors and treatments of these maladaptive patterns.

Prerequisites: 111 and junior standing

### 302 Personality Theories

A review of major theories of personality, including psychoanalytic, behavioristic, humanistic and trait-factor approaches.

Prerequisite: 111

### 308 Motivation and Emotion

Survey of research and theories related to specific motives (such as hunger and thirst) as well as approaches to emotional states such as anger, happiness and sadness. Relevant research will be drawn from both the social and physiological branches of psychology.

Prerequisites: 111 and junior standing

### 313 Psychological Testing

This course provides an overview of the principles of testing and measurement, particularly as they relate to the practice of psychology and education. The course examines the theories underlying individual and group-administered tests in such areas as intelligence, aptitude, achievement, interests, personality, neuropsychological and educational tests. Various controversial issues in the field of testing will also be addressed including ethics, bias, computer-based assessment, and testing of special populations.

Prerequisite: 212

### 321 Current Research Issues in Social Psychology

Discussion of several specific research issues in contemporary social psychology. The course includes presentation of computer applications. An original research project is required. Four lectures and three laboratory hours per week.

Prerequisites: 121 and 212

### 322 Sensation and Perception

A study of the structure and function of sensory systems, the information that these systems provide the brain, and the subsequent interpretation of sensory information that we call perception. The course focuses on visual perception (e.g., brightness, color, form, depth, movement, constancy, illusions) and auditory perception (e.g., detection, discrimination, loudness, pitch) and incorporates art and music. Four lectures and three laboratory hours per week.

Prerequisite: 212

### 323 Learning and Memory

The basic concepts involved in simple associative learning are presented, along with theoretical and applied concerns. The analysis and modification of animal and human behavior by means of classical and instrumental conditioning are discussed. The course also will trace the history of the study of learning from its roots in philosophy to the current cognitive approach.

Prerequisite: 212

### 325 Research Issues in Cognition

This course will explore research issues in cognitive psychology, with special emphasis on cognitive psychology methodology, current research issues, hands-on research, and discussion/analysis of primary research sources. Specific topics covered each semester may vary slightly. Examples of topics include: subliminal perception; automatic processing; implicit memory; eyewitness testimony; memory reconstruction; expertise and problem solv-

## Departments

ing; the use of heuristics in decision making; person memory.

Prerequisites: 212 and 275

### 342 Industrial/Organizational Psychology

This course presents basic concepts of psychology as they apply everyday in the workplace. Topics to be covered include measurement and its applications in the workplace (e.g., personnel decisions and performance appraisals), worker training, worker attitudes and motivation, worker adjustment, health and safety, leadership, communication and group behavior and development of the organization.

Prerequisites: 111 and junior standing

### 400 Seminar in Cognitive and Language Development

Current theory and research regarding children's understanding, thinking processes, and language acquisition are discussed. Topics include knowledge acquisition, concept formation, grammatical development, and the nature of developmental change.

Prerequisites: 200 and one additional PSY course or permission of the instructor

### 401 Physiological Psychology

A study of the brain, its function and its control of behavior. Neuroanatomical, neurophysiological, and biochemical substrates of behaviors associated with feeding, drinking, sex, sleep, arousal, emotion, learning and memory are examined. Four lectures and three laboratory hours per week.

Prerequisites: 212 and BIOL 101 (or equivalent)

### 407 Seminar in Behavioral Neuroscience

Analysis and discussion of selected theories and new research concerning brain mechanisms that subserve behavior. Advances in methodology and instrumentation also will be examined.

Prerequisite: 401

### 422 History and Systems

How contemporary psychology developed from its remote and more recent roots. Emphasis upon the contributions, contributors and perennial issues that led to psychology today and that could help to fashion its future.

Prerequisites: four courses in psychology

### 424 Clinical Psychology

Study of the clinical application of psychological processes in the evaluation, diagnosis and treatment of behavioral disorders.

Prerequisites: 301 and three psychology courses or permission of instructor

### 428 Theories of Counseling and Psychotherapy

Theories and procedures of counseling and psychotherapy are discussed, including psychoanalysis, client-centered therapy, cognitive therapy, behavior therapy, and others.

Prerequisites: 301 and three psychology courses or permission of the instructor

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Public Relations

See *Department of Journalism and Mass Communication*

## Quantitative Methods and Computer Science (QMCS)

Hansen (chair), Bennett, Chung, Darling, Hanna, Hansen, Jaede, Jarvis, Kaminski, Pliego, Raymond, Schwebel, Sharrock, Sturm, Werness; Ahrens, Bagley, Brick, Cady, Callaghan, DeLyser, Jacobson, Jensen, Klingel, Komar, Morey, Wilson

Quantitative Methods and Computer Science is part of the liberal arts curriculum at the University of St. Thomas. The QMCS program is concerned with the areas of today's society that involve the collection, organization, processing, storage, retrieval, communication and use of information. The department's emphasis is on the broad basic core of knowledge required to become an effective user of information; to design and implement system and application software; and to understand the concepts involved in areas such as computer graphics, telecommunication, artificial intelligence, database design, statistics and operations research.

Students who graduate with a major in quantitative methods and computer science will be prepared to work in business, industry, education, and government, as designers or users, or to pursue entrepreneurial interests in technologically supported areas or to continue study in graduate school.

Courses are arranged so that students from other disciplines may participate to whatever extent they wish. The department also strongly encourages its majors to obtain a minor in another field.

The undergraduate major or minors in QMCS are offered in the day school and through the School of Continuing Studies.

Students interested in teacher licensure should see the various science and mathematics programs in the Department of Teacher Education section of this catalog.

### **Major in Quantitative Methods and Computer Science**

220 Statistics I

230 Software Design Using the JAVA Language\*

281 Object-Oriented Design and Programming\*

350 Data and File Structures

\*A grade of C- or higher must be earned by majors in each of these courses chosen to fulfill the core requirement.

*Plus (for all majors):*

Eight credits numbered 300 through 450. Students should consult with their department adviser in choosing the most appropriate courses.

*Plus (for all majors):*

Four credits numbered 100 through 499. QMCS 238 is highly recommended for the CIS path.

*Plus:*

A set of courses in one of three paths (CS, CIS, or QM):

#### **Computer Science (CS)**

A traditional computer-science path that emphasizes low-level computing fundamentals as well as high-level design issues.

420 Systems Analysis and Design I

450 Database Design

*Plus one of:*

300 Computer Organization

340 Digital Electronics and Microprocessors

#### **Computer Information Systems (CIS)**

A management information systems path emphasizing high-level design issues and designer/user interaction.

420 Systems Analysis and Design I

450 Database Design

*Plus one of:*

421 Systems Analysis and Design II

425 Information Resource Management

#### **Quantitative Methods (QM)**

A path emphasizing the role of statistics, mathematics and operations research as well as the use of computers in solving problems in organizations.

410 Operations Research I

*Plus two of:*

320 Statistics II

411 Operations Research II

420 Systems Analysis and Design I

450 Database Design

*Allied requirements*

MATH 128 Introduction to Discrete Mathematics

## Departments

*Plus one of:*

- MATH 109 Calculus with Review II
- MATH 111 Calculus for Business and Social Science
- MATH 113 Calculus I

*Plus one of:*

- COMM 100 Public Speaking
- COMM 105 Communication in the Workplace

### **Teacher Licensure**

Elementary Education with a Co-major in Science and Mathematics for Elementary Education

*See the Department of Teacher Education*

### **Minor in Quantitative Methods and Computer Science – for sciences**

This minor is intended to support majors in biology, chemistry, environmental studies, geology, mathematics and physics.

- 230 Software Design Using JAVA Language
- 281 Object-Oriented Design and Programming

*Plus three of:*

- 220 Statistics I
- 300 Computer Organization
- 320 Statistics II
- 330 Graphics and Numerical Methods
- 340 Digital Electronics and Microprocessors
- 342 Computer Applications in Experimental Sciences
- 350 Data and File Structures
- 380 Artificial Intelligence and Robotics
- 381 Expert Systems
- 410 Operations Research I
- 411 Operations Research II
- 450 Database Design

### **Minor in Quantitative Methods and Computer Science – for business**

This minor is intended to support majors in any concentration of business administration, economics and other related disciplines.

- 110 Introduction to Information Processing

*Plus one of:*

- 230 Software Design Using JAVA Language
- 238 Software Design using Business Languages

*Plus three of:*

- 215 Rapid Application Development
- 281 Object-Oriented Design and Programming
- 420 Systems Analysis and Design I
- 425 Information Resource Management
- 450 Database Design

### **Minor in Quantitative Methods and Computer Science – for mathematics**

This minor is intended to support majors in mathematics and those interested in statistics and operations research.

- 230 Software Design Using JAVA Language

*Plus four of:*

- 220 Statistics I
- 281 Object-Oriented Design and Programming
- 320 Statistics II
- 330 Graphics and Numerical Methods
- 410 Operations Research I
- 411 Operations Research II

**110 Introduction to Information Processing (216)**

Introduction to basic concepts of hardware, software and information processing systems. Introduction to computer programming concepts. Use of microcomputer application packages, including spreadsheets and database packages. Introduction to the Internet and World Wide Web. Investigation of the impact of the computer and future trends. This course fulfills the second-level Computer Competency requirement in the core curriculum.

**120 Computers in Elementary Education and LOGO**

This course is intended for elementary education majors. Topics will include the role of the computer in elementary education, computer applications in science and mathematics, software packages for use in elementary school classrooms, Computer-Assisted Instruction (CAI), multimedia, telecommunication and LOGO programming, experiments and examples. LOGO will be used to teach programming concepts and to solve problems in math and science using LOGO's arithmetic, graphic and animation capabilities. This course fulfills the third course in the Natural Science and Mathematical and Quantitative Reasoning and the second-level Computer Competency requirements in the core curriculum.

Prerequisite: elementary education or SMEE major

**201 Introductory Statistics II (220)****2 credits**

This course is for students desiring to satisfy the coverage of QMCS 220 (a full semester of statistics), but who have taken less than one full semester of statistics. Review of basic statistical techniques (confidence intervals, hypothesis testing, regression), multiple regression, contingency tables, analysis of variance, sampling, plus emphasis on use of statistical packages and design of a statistical study.

Prerequisite: 206 or at least .35 semester, but less than one semester, of statistics

**215 Rapid Application Development**

Introduction to user-friendly development tools. These tools allow non-programmers to create usable software without programmer assistance. Students will be exposed to developing systems using software packages emphasizing structured analysis techniques. These packages integrate spreadsheet software database management software and presentation software. Queries to the World Wide Web (WWW) and a variety of techniques to display data on the Web are included. Approximately half of the course deals with philosophical and foundational topics such as modeling or requirements. This course fulfills the second-level Computer Competency requirement of the core curriculum.

Prerequisite: 110

**216 Quantitative Techniques in Business (110)****2 credits**

The use of microcomputer spreadsheet software to aid in solving quantitative business problems. This course is to be taken by students who have been given transfer credits for the equivalent of some part but not all of 110 and who are required to take 110.

Prerequisite: ACCT 205

**220 Statistics I (201)**

Introductory applied statistics: sampling, descriptive (exploratory) statistics, probability, sampling distributions, estimation and hypothesis testing, non-parametrics, simple and multiple linear regression, introduction to analysis of variance; use of statistical packages. This course fulfills the third course in the Natural Science and Mathematical and Quantitative Reasoning and the second-level Computer Competency requirements in the core curriculum.

Prerequisite: Math placement at level of MATH 111 or above; or MATH 100, 101, or 105, or 109, 111 or 113

**230 Software Design Using the JAVA Language**

Introduction to software development including procedural and object-oriented concepts. Topics include: algorithmic development, classes and methods, arrays, sorting and searching, recursion. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: None in general. However, certain sections will be designated for science students. The prerequisite for those sections is MATH 109 or 111 or 113.

**238 Software Design Using Business Languages**

Introduction to software development using COBOL and other business languages. Topics include algorithm development, sequential and direct-access file processing, tables, sorting, structured programming and software validation. This course fulfills the second-level Computer Competency requirement in the core curriculum.

**281 Object-Oriented Design and Programming**

Continuation of object-oriented design and programming in JAVA, with emphasis on more advanced concepts. Topics include classes, inheritance, encapsulation, polymorphism, GUI interface design, exception handling and files. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 230



## Departments

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 300 Computer Organization

Concepts of computer system organization and programming. Instruction and data representations. Instruction set decoding, addressing modes, and fundamentals of assembly language. The organization and the operation of the central processing unit, instruction fetching and execution, hardwired and microprogrammed control, I/O structures, direct memory access, interrupts, bus protocols and I/O interfaces, multiple-module memory, caches, memory, memory organization, registers, microprocessor families, pipelining, and RISC features. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 230 or 238 and MATH 128

### 320 Statistics II

Analysis of variance; regression with indicator variables; topics from: general linear model; design of experiments; further use of statistical packages, discriminant, cluster analysis, time series.

Prerequisite: 201 or 220 or MATH 333

### 330 Graphics and Numerical Methods

An integrated approach to using the computer to solve numerical problems and to present information in graphical form. Includes: non-linear equations, systems of linear equations, interpolation, approximation, differential equations, two and three-dimensional picture transformations plus viewing and rendering of graphical images.

Prerequisites: 230 and MATH 109 or 111 or 113

### 340 Digital Electronics and Microcomputers

Digital electronics techniques: semiconductor devices, digital logic, counters, clocks, shift registers, combinatorial and sequential logic circuits and minimization. Microprocessor organization, programming, device addressing, buffering and enabling. Microprocessor interfacing with switches, A to D, D to A, and communications.

Prerequisites: 230 and MATH 128

### 342 Computer Applications in Experimental Sciences

Introduction to the use of computers in the collection and analysis of scientific information. The course is designed to meet the needs of both natural science majors with an interest in scientific computing and computer science majors with an interest in laboratory science. Emphasis is placed on application of concepts and techniques using software packages and not on programming. Topics include laboratory device interfacing, analog-signal acquisition and processing, data-analysis packages and simulation. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 230 or 238; MATH 109 or 111 or 113; one course in a laboratory science

### 350 Data and File Structures

An introduction to data structures and abstract data types using an object-oriented language. Includes arrays and linked lists, stacks and queues, recursion, searching and sorting, trees, heaps, files, hashing and graphs.

Prerequisites: 280 and MATH 128

### 360 Operating Systems Design

The basic principles of designing and building operating systems. Sequential versus concurrent processes, synchronization and mutual exclusion, memory management techniques, CPU scheduling, input/output device handling, file systems design, security and protection. Primary focus on uniprocessors, with some coverage of multi-processor operating systems.

Prerequisite: 281; Recommended: 300

### 370 Telecommunications and Teleprocessing

The fundamental concepts of telecommunications and networking for voice, data and video, including hardware, media, signaling and digital switching, open-system interconnection model, standards and protocols, local and wide-area networks and inter-networking.

Prerequisites: 230 or 238 and MATH 128

### 371 Advanced Voice and Data Communications

Analysis of voice, data and video telecommunication requirements, network configuration, network operations, network monitoring and optimization, documentation and legal issues.

Prerequisite: 370

### 380 Artificial Intelligence and Robotics

Theory and implementation techniques using computers to solve problems, play games, prove theorems, recognize patterns, create artwork and musical scores, translate languages, read handwriting, speak and perform mechanical assembly. Emphasis placed on implementation of these techniques in robots.

Prerequisites: 220 and 281

**381 Expert Systems**

Emphasis on a practical understanding of artificial intelligence, LISP, and the expert system-building process. Course goals include understanding what expert systems are, how they operate, techniques used to build expert systems, and evaluating commercially available expert systems packages.

Prerequisites: 281 and junior standing

**410 Operations Research I**

Utilization of computer and analytic techniques to support the decision-making process in both the public and private sectors. Topics include linear programming, simulation, PERT, inventory control, goal programming and queuing theory. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites: 220 and MATH 109 or 111 or 113

**411 Operations Research II**

Advanced modeling techniques. Techniques include: decision theory, Markov chains, integer programming, dynamic programming, forecasting, game theory, transportation problems and decision theory.

Prerequisites: 410; MATH 112 or 114

**419 Accounting Information Systems**

This course will provide an understanding of the conceptual framework and practices of accounting information systems and the ability to work effectively with computer specialists and management to design, implement and audit such systems. Examples of subjects included are: systems development life cycle (SDLC), systems analysis phase of the SDLC, data and process models, operations of a corporate data center, including internal controls, database integrity, audit considerations for both internal and external auditors, unit integration, and system testing.

Prerequisites: 110 plus either auditing or concurrent registration with ACCT 416

**420 Systems Analysis and Design I**

A study of process, data, and object models for the analysis and design of information systems. Includes enterprise models, data-flow diagrams, structure charts, entity-relationship models, normalization and state transition diagrams. Alternative system development life cycles are discussed, as well as testing, quality and installation strategies.

Prerequisites: 230 or 238 and junior standing

**421 Systems Analysis and Design II**

Continuation of 420. Concentration on implementation problems, software and hardware limitations. Emphasis on managerial problems in an information-processing system. Continued use of computer-based analysis and design and project-management tools. A "real world" project is an integral part of this course.

Prerequisite: 420

**425 Information Resource Management**

A study of relevant technologies and how they are used in today's modern organizations to help manage the information resource of those organizations. Emphasis is placed on the organizational issues and concerns wrought by these technologies. This is an "active learning" course in which students will be researching current information systems technologies and participating in the establishment of an organization that provides information services.

Prerequisite: 230 or 238

**450 Database Design**

Introduction to database management systems design philosophy. Design considerations for satisfying both availability and integrity requirements. Data models used to structure the logical view of the database. Schema, sub-schemas, binding. Custom, special purpose and generalized database systems.

Prerequisite: 280 or 420 or 425

**460 Senior Project**

Work on a software analysis, design, and implementation project under the direction of a faculty member.

Prerequisite: Senior standing and permission of the instructor

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Departments

491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Real Estate Studies

*See Division of Business*

## Renaissance Program

*See Interdisciplinary Minors*

## Russian

*See Department of Modern and Classical Languages*

## Russian, Central and East European Studies

*See Interdisciplinary Programs*

## Science and Mathematics Major for Elementary Education

### Science Education

### Secondary Education

*See Department of Teacher Education*

## Social Sciences

*See Interdisciplinary Programs*

## Social Studies

*See Department of Teacher Education*

## Social Work (SOWK)

Shank (dean), Thornton (undergraduate program director), Andrews, Barretta-Herman, Biboila, Brenden, Burczek-Bogucki, Chovanec, Freeman, Garrett, Graham, Hanley, Herman, Hollidge, Holloway, Kaiser, Kuechler, Miller, Parnell; Adler, Canfield, Caron, Gearity, Jacobson, McPartlin, Mowatt, Peterson, Young; Bauer, Berger, Dziengel, Rottenberg

A major in social work is available through a joint department at both the College of St. Catherine and the University of St. Thomas. The major also is offered in Weekend College at the College of St. Catherine.

Students graduating with a major in social work will be prepared to begin generalist professional practice with individuals, families, small groups, organizations and communities. They will be prepared to develop an identity which will incorporate the values and ethics of the social work profession. They will be prepared for practice with diverse, oppressed and at-risk populations. They will be prepared as beginning social work generalists who link social research and social service practice. They will be prepared for lifelong learning and critical thinking through an educational process combining a liberal arts foundations with professional social work education. They will be prepared for graduate education in social work.

Transfer students must be in social work courses for a minimum of three semesters, excluding summer sessions.

The program described below is accredited by the Council on Social Work Education at the baccalaureate level and qualifies graduates to take the examination for licensure at the licensed social worker level.

### Social Work Honor Society

Beta Epsilon, the campus chapter of Alpha Delta Mu National Social Work Honor Society, was established at the University of St. Thomas and the College of St. Catherine in 1980. The purpose of this organization is to advance excellence in social work practice and to encourage, stimulate and maintain scholarship of the individual members.

Students become eligible for membership after they have achieved a junior or senior standing, earned a minimum of six semester hours or equivalent in social work, achieved a grade point average of 3.00 or above and been duly enrolled in an undergraduate social work program accredited by the Council on Social Work Education.

### Summer Study Abroad Program

This is an opportunity to study at the University of Bristol, England. The Bristol International Credit-Earning Program (BICEP) was established in 1987. The two-week summer program provides a framework in comparative international social welfare and public policy. The program is open to undergraduate and graduate students, alumni, faculty and practitioners. More information is available from the School of Social Work.

**Major in Social Work**

281	Introduction to Social Work
340	Human Behavior and the Social Environment
355	Communication and Interviewing Skills
375, 376 or 378	Junior Fieldwork in Social Work
380	Social Research: Designs and Statistical Applications
385	Working with Groups: Theory and Practice
391	Social Policy for Social Change
401	Generalist Practice with Individuals, Families and Groups
402	Generalist Practice for Social Action
405, 406	Senior Fieldwork in Social Work

*Allied requirements**One of:*

BIOL	105	Human Biology
BIOL	112C	Biology of Women

*Plus:*

PSY	111	General Psychology
PSY	202	Lifespan Development
SOC	100	Introduction to Sociology

**Required Fieldwork Experience**

These experiences, arranged by the Department of Social Work, provide practical learning in social work agencies, institutions and, or departments to complement the students' academic work through integration of theory and practice.

*Junior year:*

Two semesters of approximately 10 hours per week off campus totaling 200 hours, plus weekly seminar groups on campus. Students should contact their social work adviser during the second semester of their sophomore year so that placement can be discussed.

*Senior year:*

Two semesters of approximately 15-20 hours per week off campus totaling 400 hours, plus weekly seminar groups on campus. A total of 150 hours must be completed in the first semester.

*Recommended:*

IDSC	291	The Anatomy of Violence
SOWK	210	Relationship, Intimacy and Sexuality
SOWK	290	Death, Dying and Bereavement
SOWK	414	School Social Work
SOWK	441	Family Resilience and Diversity

Students should select elective courses in consultation with their adviser.

**Admission Process**

The Department of Social Work requires students to be formally admitted to the major. This process takes place at the middle of the junior year. Prospective majors must have a GPA of 2.25 and be interviewed by faculty of the department. Contact an adviser for more details.

**Minor in Social Welfare**

A minor in social welfare is available through the joint department at The College of St. Catherine and the University of St. Thomas. A minor in social welfare is not accepted by the Council on Social Work Education as preparation for beginning-level generalist social work practice. A minor is offered for the student's own learning in the area of social welfare. Formal application for a minor must be approved by the Department of Social Work.

281	Introduction to Social Work
340	Human Behavior and the Social Environment
391	Social Policy for Social Change

*Plus two of:*

PSY	202	Lifespan Development
PSY	207	Alcohol, Other Drugs and Behavior
SOC	251	Race and Ethnicity
SOC	303	Aging and the Lifecourse
SOWK	380	Social Research: Designs and Statistical Applications

## Departments

(The CT designation beside course numbers indicates the same course is offered at the College of St. Catherine and the University of St. Thomas.)

### 210CT Relationship, Intimacy and Sexuality

This course addresses three major areas: exploring values and societal influence on relationships, intimacy and sexuality – the influence of culture, religion, family and friends; understanding self-worth, communication patterns and the effect of family and other significant relationships on the development of one's needs/wants in relationships, intimacy and sexuality; discovering the basic attributes, purposes and powers of significant relationships, intimacy and sexuality. Participation in a structured small-group discussion is required. Open to non-majors.

### 281 Introduction to Social Work

This course introduces the student to the profession of social work within the context of the social welfare system. It provides an overview of an integrative approach to generalist social work practice which emphasizes intervention on individual, environmental and societal levels. Special emphasis is placed on values, human diversity, social problems and social work fields of practice.

Prerequisites: SOC 100 or PSY 111 or permission of the instructor

### 290CT Death, Dying and Bereavement

This course focuses on understanding loss and grief in the human experience. Emphasis is given to recognizing loss in various forms and to understanding grief as a generic process. Skills are taught for coping with personal loss and for relating in helpful ways to bereaved persons. Special topics relating to death and dying in our society (e.g., medical ethics, suicide) are covered. Open to non-majors.

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 340CT Human Behavior and the Social Environment

The primary focus of this course is to provide students with knowledge and understanding of human behavior and development from a social systems approach as affected by biological, cultural, environmental, and psychosocial factors. Emphasis is on the role of individual, family, small group, organization and community in human behavior as related to social-work practice. Cultural, ethnic and life-style diversity and their effects on the development of human systems is stressed. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites or concurrent registration for majors: 281; PSY 202; and BIOL 105 or 112C; or consent of the instructor

### 355CT Communication and Interviewing Skills

This course is the first of a four-course practice sequence. The primary focus is on communication theory and skills as applied to social work with individuals, families, small groups, communities and organizations. There is an emphasis on self-awareness, beginning assessment skills and diversity issues. An integrative approach to generalist social work practice provides the context for intervention on individual, environmental and societal levels. Prerequisite or concurrent registration: 281 or consent of the instructor

### 375, 376, 378CT Junior Fieldwork in Social Work

Junior fieldwork complements the student's academic work through practical experience in a social-work agency, institution or department. Under the supervision of an agency field instructor, the student learns beginning social-work tasks and functions while applying theory to actual social-work situations. Students participate in an on-campus seminar with other junior social-work majors while in placement. The placement is 10 hours per week during fall and spring semesters, totaling 200 hours. Fall 378 is only open to students going abroad spring semester. Also offered in Weekend College, with placement during fall and winter trimesters. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 281 or consent of the instructor

### 380 Social Research: Designs and Statistical Applications

The purpose of this course is to assist students in gaining knowledge and skill to understand the problems/persons generalist social workers encounter. The goals of the course are to have social-work students understand and be able to apply research methods, techniques, and tools to behavior and the social environment. Application of theory and research techniques, including statistical applications, for evaluating change, needs assessment, assessment of client-system functioning, program evaluation and practice effectiveness. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisites for majors: 281 and junior status or permission of the instructor. Listed at CSC as INDI 380.

**385CT Working with Groups: Theory and Practice**

This course is the second of the four-course practice sequence. The primary focus of the course is on the study of human behavior in groups with emphasis on the use of groups in generalist social work practice to accomplish individual, family, organizational and/or community goals. Extensive opportunities to practice the skills necessary to be an effective group member and leader are provided. The effects of diversity on group interaction are stressed.

Prerequisite: 355 or consent of the instructor

**391CT Social Policy for Social Change**

This course equips students to understand and critically analyze current and past social policies. Policy alternatives are explored with a focus on the values and attitudes as well as the societal, economic and political dynamics from which they originate. Roles and responsibilities of citizens and professionals in formulating and implementing policies responsive to actual social needs are addressed.

Prerequisite: 281 or consent of the instructor

**401CT Generalist Practice with Individuals, Families and Groups**

This is the third course in the four-part practice sequence. This course prepares students for generalist social-work practice with individuals, families and groups in the context of their social environments with emphasis on aspects of diversity. A primary focus is the application of social-work knowledge through increased development of skills. The overall goal of the course is integration and application of the stages of the generalist social work method.

Prerequisites: 385; senior major status and concurrent registrations in 405 are required

**402CT Generalist Practice for Social Action**

This course is a continuation of 401 and the final of four courses in the practice sequence of the social work curriculum. The focus is on the development of intervention methods based on generalist social-work knowledge that can be applied to all client systems. A special emphasis is placed on effects of oppression and strategies for social action. A combination of lecture, discussion, experiential learning, and small-group activities provide student with knowledge and skills for client advocacy and social change.

Prerequisites: 401; concurrent registration in 406 is required

**405CT Senior Fieldwork in Social Work**

Senior fieldwork complements the student's academic work through practical experiences in a social work agency, institution or department. Under the supervision of an agency field instructor, the student learns social-work tasks and functions while applying theory to actual social-work situations. Students participate in an on-campus seminar with other senior social work majors while in placement. The placement is 15-20 hours per week during fall and spring semesters, totaling 400 hours. Also offered in Weekend College, with placement in fall and winter trimester.

Prerequisite: Concurrent registration in 401

**406CT Senior Fieldwork in Social Work**

Prerequisite: Concurrent registration in 402

**414 School Social Work (GRSW 514)**

This course examines the school as a social institution which serves to educate and socialize children into American society and the role of the social worker in such a setting. Emphasis is placed on discovering similarities and differences between social work and education values and tasks and the process of integrating social work values into a school setting. Social work with special and at-risk populations is discussed. This course also examines specific handicaps to learning and the role of the social worker in helping students, schools and families adjust to and cope with special needs. Emphasis will be placed on evaluation of social work practice. Interventions with children which fit within a school setting are included. Undergraduate students are expected to spend time working with the instructor outside of class.

Prerequisite: Junior standing

**441 Family Resilience and Diversity (GRSW 541)**

This course presents a family resilience framework for therapeutic and preventative efforts with families. A resilience lens shifts perspective from viewing distressed families as damaged to seeing them as challenged, affirming their potential for repair and growth. Students also develop a knowledge base of the cultural experience of ethnic families through the study of cultural values, life style and family structure of each group.

Prerequisite: 340

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Departments

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Sociology (SOC)

Alexander (ECON) (chair), Ahler, Alvi, James, Karraker, Kinney, Lybrand, Parilla, Sandifer, Schuth, Smith-Cunnie; Bruton, Caldie, Fink, Nelson, Peterson

Sociology is the scientific study of society and social relations. A major in Sociology enables students to observe and analyze social life. It provides knowledge and skills applicable in both career and non-career settings.

The curriculum reflects the breadth of the discipline, its place in the liberal arts tradition, and the application of its theory, data and method to contemporary society.

The department offers majors for students interested in a career in the field of criminal justice, a career in applied sociology or preparation for graduate school. The choice of any of these majors is at the discretion of the student and should be declared at the time of admission to the major field.

Students who graduate with a concentration in applied sociology will know the theoretical foundations upon which the discipline of sociology is based, and be able to utilize this knowledge in a practical and applied way. They will be prepared for employment in a setting in which the knowledge gained from a major in this field will be of substantive use to them.

Students who graduate with a concentration in criminal justice will know the main components of the criminal and juvenile justice systems and will know the basics of criminal law and criminal procedure in the U.S. system of justice. They will be able to understand the longstanding and current dilemmas faced by society in trying to develop and maintain a just and effective criminal justice system. They will be prepared for employment in the field of criminal justice.

Students majoring in applied sociology or criminal justice must take a minimum of sixteen credits in sociology at St. Thomas.

Students may also select a minor in Sociology as a useful complement to their major. The Sociology department offers a minor in applied sociology and a minor in criminal justice. Students minoring in sociology must take a minimum of eight credits in sociology at St. Thomas.

The department also offers courses for the non-major to fulfill the Social Analysis and Human Diversity components of the core curriculum.

No more than one Experiential Learning course or one Internship will count toward applied sociology or criminal justice major field requirements.

### Sociology Honor Society

The Iota Chapter of Minnesota of Alpha Kappa Delta, the international sociology honor society, was chartered at the University of St. Thomas in 1991. The purpose of the society is to promote an interest in the study of sociology, research of social problems, and such other social and intellectual activities as will lead to improvement in the human condition. Membership is open to juniors and seniors who have completed at least sixteen credits in sociology registered through the university, who are officially declared majors or minors in applied sociology, criminal justice, the sociology concentration of social science, or social studies and who have a minimum grade point average of 3.30 (overall and in sociology courses taken at the University of St. Thomas.)

### Major in Sociology: Applied

Karraker (director)

- 100 Introduction to Sociology
- 210 Research Methods in Sociology
- 220 Sociological Analysis
- 370 Sociological Theory
- 404 Internship in Applied Sociology

*Plus one of:*

- 365 Social Psychology
- 366 Self and Society

*Plus:*

Twelve additional credits in Sociology

*Strongly recommended:*

MATH 101 Finite Mathematics

In addition, it is recommended that students take the following courses in this order:

MATH 101 (or adequate substitute)

SOC 210 Research Methods in Sociology

SOC 220 Sociological Analysis

Finally, it is recommended that students begin the SOC 210/220 sequence during their sophomore year. This sequence must be completed by the end of the junior year. Students who have a double major in sociology and psychology and complete SOC 210, PSY 212, and QMCS 220 do not need to take SOC 220.

**Major in Sociology: Criminal Justice**

Lybrand (director)

The program in Criminal Justice provides students with an understanding of the entire criminal justice system while at the same time allowing them to take specific courses in a area of special interest.

The program emphasizes the interrelationships among the various components of the criminal justice system (i.e., law enforcement, prosecution, courts and corrections) and examines how they deal with adult offenders and juvenile delinquents.

The major reflects the interdisciplinary nature of criminal justice. It provides a concentration of courses which prepares students for careers in such areas as policing, private security, probation, parole and corrections. It also prepares students for advanced study in criminology, criminal justice and law.

The Criminal Justice program at St. Thomas, in conjunction with Alexandria and Hibbing Technical Colleges, is certified by the Board of Minnesota Peace Officers Standards and Training to prepare students for the peace officer licensing examination. Students who intend to take this examination must also complete SOC 251, PHED 250, and PSY 111. Please see the department's Law Enforcement Education Coordinator.

100 Introduction to Sociology

200 Introduction to Criminal Justice

210 Research Methods in Sociology

220 Sociological Analysis

310 Juvenile Delinquency

320 Criminology

480 Seminar in Criminal Justice

*Plus:*

IDSC 340 Criminal Law and the Social Order

POL 314 Constitutional Rights and Liberties

*Plus one of:*

POL 312 Judicial Process

SOC 338 Law Enforcement

SOC 340 Corrections

*Plus one of:*

SOC 405 Internship in Criminal Justice

SOC 498 Individualized Study (for in-career students only)

*Strongly recommended:*

MATH 101 Finite Mathematics

SOC 251 Race and Ethnicity

In addition, it is recommended that students take the following courses in this order:

MATH 101 Finite Mathematics (or adequate substitute) in freshman year

SOC 210 Research Methods in Sociology in first semester sophomore year

SOC 220 Sociological Analysis in second semester sophomore year

(Students with a double major in sociology and psychology who have completed SOC 210, PSY 212 and QMCS 220 do not need to take SOC 220.)

**Teacher Licensure**

Elementary Education with a Specialty in Social Studies (5-8)

Co-major in Social Studies (5-12) and a Co-major in Secondary Education

*See the Department of Teacher Education*



**Minor in Sociology**

100 Introduction to Sociology

*Plus at least four credits from the list below:*

210 Research Methods in Sociology

220 Sociological Analysis

365 Social Psychology

366 Self and Society

370 Sociological Theory

*Plus 12 additional credits from the list above or below:*

110 Social Problems

251 Race and Ethnicity

255 Gender in American Society

303 Aging and the Life Course

304 Adolescence in Society

310 Juvenile Delinquency

320 Criminology

330 Religion and Society

332 Urban Sociology

341 Work and Occupations

360 Health Care and Medicine

386 Organizations in Society

388 Deviant Behavior

498 Individual Study

**Minor in Criminal Justice**

100 Introduction to Sociology

200 Introduction to Criminal Justice

310 Juvenile Delinquency

*Plus eight credits from the following courses, at least four of which must be in sociology:*

IDSC 340 Criminal Law and the Social Order

POL 312 Judicial Process

POL 314 Constitutional Rights and Liberties

SOC 320 Criminology

SOC 338 Law Enforcement

SOC 340 Corrections

SOC 480 Seminar in Criminal Justice

**100 Introduction to Sociology**

Introduction to the concepts, theories, methods and applications of the scientific study of society and social concerns. Enables students to understand the connections between the individual and larger social and cultural forces. Heightens awareness of the diversity of American and other societies. This course fulfills the Social Analysis requirement in the core curriculum.

**110 Social Problems**

Contemporary American society is confronted with a number of serious problems. This course explores the causes, effects and proposed solutions to some of the major social problems currently facing Americans. Special attention is given to issues confronting core institutions such as poverty, racism, sexism, drug and alcohol abuse, crime, and sexual deviance. This course fulfills the Social Analysis and Human Diversity requirements in the core curriculum.

**200 Introduction to Criminal Justice**

An introduction to the American criminal justice system. Studies the role of the police, courts and corrections in the administration of criminal justice.

**210 Research Methods in Sociology**

Consideration of alternative strategies for each stage of the research process. Emphasis is on the skills required to design and successfully perform research projects: selection of topics, development and testing of hypotheses, collection and analysis of data and reporting of findings.

Prerequisite: 100

**220 Sociological Analysis**

Methods of data analysis and conclusion formation through application of statistical techniques. Introduction to applied statistics as employed in sociology with emphasis on skill development in the use of data processing tech-

niques and SPSS, the computer statistical package commonly employed by contemporary sociologists in the full range of research settings. This course fulfills the second-level Computer Competency requirement in the core curriculum.

Prerequisite: 210

### 251 Race and Ethnicity

Race and ethnicity as significant components of U.S. social structure; the cognitive and normative aspects of culture which maintain and effect varying manifestations of social distance, tension, prejudice and discrimination between majority and minorities at both micro and macro levels, nationally and internationally. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 100 or sophomore standing

### 255 Gender in American Society

Description of gender roles and sex stratification in American society today. Includes examination of socialization and social psychological influences on gender identity, the impact of gender in relationships, the importance of sex and gender in institutions and organizations, and the impact of recent social movements and social policies. This course will examine how our assumptions about gender are specific to cultural and social contexts. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 100 or sophomore standing

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 301 General Anthropology

Systematic survey of the components and dynamics of human societies throughout the world, focusing on categories such as foraging (hunter and gatherer), horticultural, pastoral, agricultural and industrial cultures. Key topics include kinship patterns, language, religion, artistic expression, technology and economic/political organization. Major consideration is given to the practical significance of expanding intercultural awareness. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 100 or sophomore standing

### 303 Aging and the Lifecourse

A sociological and social-psychological examination of movement through the life-course from adolescence to old age. Major focus is on changes in age-related status, roles and social problems. Topics include the aging process, age stratification and age grading, age norms and behavioral regularities, the problem of generations, socialization, critical life periods in the aging process and theories of life stages.

Prerequisite: 100 or sophomore standing

### 304 Adolescence in Society

The transition between childhood and adulthood is examined using a general sociological framework and including life course, socioeconomic, and systems theories. Particular attention is given to the social construction of adolescence; institutional contexts (family, education, employment) of adolescent relationships with parents, peers, and others; gender and sexual socialization in society; cultures of achievement and risk; social diversity.

Prerequisite: 100 or 110

### 310 Juvenile Delinquency

An examination of juvenile delinquency and society's response to delinquent youth. Major topics include the historical foundations of delinquency, sociological and social psychological causes of delinquency, and the legal response to delinquents.

Prerequisite: 100 or 200 or sophomore standing

### 320 Criminology

The nature and extent of crime and victimization in American society. Theories of crime from a sociological and social psychological perspective. An examination of specific types of criminal behavior.

Prerequisites: 210 and 310 or permission of instructor

### 321 Marriage and the Family

Survey of the characteristics, trends and issues affecting families in a changing society. Applications of the sociological perspective, with an emphasis on empirical research and theory, to the dynamics underlying courtship, marriage, parenting and alternative forms of the family.

Prerequisite: 100

### 330 Religion and Society

Theoretical and empirical examination of the sociological dimensions of religion, with a special emphasis on the religious situation in America. Topics include cultural contexts, affiliation patterns, organizational structures,

## Departments

individual religiosity and the emergence of new forms.

Prerequisite: 100 or sophomore standing

### 332 Urban Sociology

The study of the social organization of urban areas. Topics include the historical development of cities, interaction patterns in neighborhoods, cities and metropolitan areas, community power structures, and urban problems.

Prerequisite: 100 or sophomore standing

### 338 Law Enforcement

Examination of the role of law enforcement organizations and agents in contemporary society. Explores the limitations imposed on law enforcement in a democratic society. Other issues included are the ability of police to control crime, the growth of the private security industry and the occurrence of police corruption.

Prerequisite: 200

### 340 Corrections

An overview of various types of penal and correctional programs and their function in society. Examines the social organization of prisons and the effects of imprisonment on individuals. Provides a critical evaluation of research on community corrections, rehabilitation and deterrence.

Prerequisite: 200

### 341 Work and Occupations

The work experience in American life. Application of sociological theory, data, methods and perspective to the full range of occupational and career roles, and to the structure and processes of work in the United States. Topics include social conditions affecting career choice, occupational segregation, labor unions, occupational prestige and work organizations.

Prerequisite: 100 or sophomore standing

### 360 Health Care and Medicine

An examination of the social nature of disease and illness and the social organization of health care and the medical professions. Topics include medical education, access to health care, the growth of alternative health care systems and comparative issues in health and medical care.

Prerequisite: 100 or sophomore standing

### 365 Social Psychology

A general survey of major social psychological theories and research, with a strong emphasis on the sociological perspective. Topics include selfhood, socialization, conformity/deviance, attitudes, gender roles, and intergroup/intragroup dynamics. Practical applications are a central focus.

Prerequisite: 100 or sophomore standing

### 366 Self and Society

An examination of the various social forces that shape societies and the individuals in them. Includes the influence of "micro" elements of social structure (such as socialization processes and small groups), "macro" elements of social structure (organizations, communities and society), and important sociological concepts (inequality, power, conflict, social control, etc.).

Prerequisite: 100 or sophomore standing

### 370 Sociological Theory

Study of the place of sociological theory in understanding interaction and society. Examination of both classical theorists and contemporary theories, including conflict, functionalism, and interactionism. Application of theories to contemporary social concerns. Normally offered in the fall semester.

Prerequisite: 100

### 386 Organizations in Society

An overview of the main sociological aspects of formal organizations and bureaucracy. Key topics include structural dimensions, communications, decision-making processes and strategies for planning and implementing organizational change. Applications will center on solutions to organizational problems in real-life settings.

Prerequisite: 100 or sophomore standing

### 388 Deviant Behavior

Study of different types of deviant behavior. Examines the prevalence of deviance, the reasons why it exists and the relationship between deviance and social control.

Prerequisite: 100 or sophomore standing

### 404 Internship in Applied Sociology

This course is designed to provide the sociology major with an opportunity to apply academic training in an applied sociology setting. Students will spend a minimum of 10 hours per week engaged in research or some other aspect of applied sociology in an organization. Students will be directed by a sociology faculty member and

supervised by an on-site professional. Students also will participate in weekly seminars with other interns and the sociology faculty member. Normally offered in spring semester.

Prerequisites: 220, 370 and permission of the instructor

#### 405 Internship in Criminal Justice

This course is designed to provide the student with an opportunity to apply academic training in a criminal justice setting. Students will spend a minimum of 10 hours per week in an agency or organization directly involved in some aspect of criminal justice. Students will be supervised by an on-site supervisor. They also will participate in a weekly meeting with other interns and a St. Thomas faculty member.

Prerequisites: 200, 210, 320, and permission of the instructor

#### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 480 Seminar in Criminal Justice

Criminal justice seminars provide majors with the opportunity to engage in advanced sociological and critical analysis of some aspect of the criminal justice system. This course number may be repeated, since focus of seminar changes.

Prerequisite: 200, 320 or permission of instructor

#### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Spanish

See *Department of Modern and Classical Languages*

## Study Abroad Programs

### Superior Studies At Wolf Ridge

See *Affiliated Programs*

## Teacher Education (EDUC)

(chair to be appointed), Cady, Hunter, Nistler, Payne, Reif, Taylor, Tonnis, Warring

The University of St. Thomas School of Education offers a full range of undergraduate and graduate elementary/middle level and secondary/middle level teacher licensure programs. These standards-based programs embrace the liberal arts, emphasize ethical practice, and prepare creative, reflective educators dedicated to the success of all learners. They prepare professional educators who can demonstrate appropriate knowledge, skills and dispositions related to:

1. subject matter
2. student learning
3. diverse learners
4. instructional strategies
5. learning environments
6. communication
7. planning for instruction
8. assessment of learning
9. reflection, scholarship, and continuous professional development, and
10. collaboration, ethics, and relationships

Students who are recommended for licensure through the St. Thomas Teacher Education Department are part of a tradition that goes back over three-quarters of a century. Programs are fully accredited by the National Council for the Accreditation of Teacher Education (NCATE) and the North Central Association of Colleges and Secondary Schools and are designed to meet or exceed Minnesota State Board of Teaching licensure requirements.

Because of the number of required courses and the options available, it is suggested that students considering an education degree contact a department adviser as early as possible in their college career. Recent state licensure rule changes make careful planning particularly important. Handbooks and School of Education cata-

## Departments

log supplements outline specific departmental policies and are available in the Teacher Education Department office in Opus Hall.

### Admission to the Program

Students normally begin their application for admission to the Teacher Education program during their sophomore year, while enrolled in Block I (EDUC 210 and 212). Candidates typically complete their application during Block II (EDUC 330).

Criteria for admission to the education program include:

- cumulative grade point of 2.75 or above;
- positive recommendations from major/co-major adviser, education adviser, and interview team;
- evidence of a positive initial clinical experience;
- completion of the Pre-Professional Basic Skills Test (PPST)

Persons seeking licensure to teach in the state of Minnesota must complete all three components (reading, writing, and mathematics) of the PPST prior to program admission. Students must pass all three components in order to apply for licensure in the State of Minnesota. Contact the department office in Opus Hall for information about test dates and fees.

### Retention in the Program

Students accepted into the department must maintain a cumulative grade point average of 2.75 and must demonstrate appropriate progress on all required licensure standards in order to be placed for student teaching and recommended for licensure. The department reserves the right to dismiss candidates from the licensure programs based on unprofessional actions or unsatisfactory progress toward meeting state mandated licensure standards.

All courses completed in fulfillment of licensure requirements must have an earned grade of C or better.

### Program Sequence

*Elementary (K-6) and Specialist (5-8 or K-8) Licensure*

*Block I* – EDUC 210, 212 (concurrent registrations recommended)

*Block II* – EDUC 330, 350 (concurrent registrations recommended)

*Block III* – EDUC 370, 371, 372, 373, 374 (concurrent registrations required)

*Block IV* – EDUC 456, 460, 461 (concurrent registrations required)

*Secondary/Middle Level (5-12) Licensure and K-12 Licensure*

*Block I* – EDUC 210, 212 (concurrent registrations recommended)

*Block II* – EDUC 330

*Block III* – EDUC 380 or 381 and 382 (concurrent registrations required)

*Block IV* – EDUC 456, 460, 461 (concurrent registrations required)

### Program Options

#### *Plan A*

Elementary/middle level and secondary/middle level education students who complete program requirements and graduate within four years follow Plan A.

#### *Plan B*

Teacher education students who find it difficult to complete their education program in four years may opt for Plan B. This allows students to complete licensure at the graduate level after completing their undergraduate degree. Students who seek the Plan B option should consult with the department chair at least one semester prior to graduation. Students must be fully admitted to the undergraduate Department of Teacher Education prior to application for Plan B.

## Teacher Licensure in Elementary (K-6) with a Specialty (5-8 or K-8)

Licensure at the elementary/middle level includes a generalist (K-6) component plus an accompanying middle level specialty (5-8 or K-8) in at least one of the following subject areas:

Middle Level Communication Arts and Literature (5-8)

Middle Level Mathematics (5-8)

Middle Level Science (5-8)

Middle Level Social Studies (5-8)

Middle Level World Languages and Cultures (K-8)

## Major in Elementary Education with a 5-8 Specialty in Communication Arts and Literature

### *Block I*

EDUC 210 Education's Place in Society

EDUC 212 Human Relations and Multicultural Education

### *Block II*

EDUC 330 Psychology for Teaching and Learning

EDUC 350 Language Development, Literacy, and Literature I

*Block III*

- EDUC 370 Language Development, Literacy, and Literature II  
 EDUC 371 Teaching Mathematics and Technology  
 EDUC 372 Teaching Science and Healthy, Active Living  
 EDUC 373 Teaching Social Studies and Fine Arts  
 EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
 EDUC 460 Student Teaching and Seminar (8 credits)  
 EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose  
 ENGL 112 Critical Reading and Writing II: Drama and Poetry

Qualified students may substitute 190 plus an additional upper-level course for 111 and 112

*Plus eight credits from two of the following categories:*

- ENGL 211 or 212 British Authors I or II  
 ENGL 214 or 215 American Authors I or II  
 ENGL 220 or 221 The Classical Tradition or The Modern Tradition  
 ENGL 217 or 218 Multicultural Literature or Literature by Women: Critical History

*Plus:*

A second major (which may incorporate courses from the middle level concentration requirements)

*Plus:*

Demonstrated competence on all required state standards

Recommended core curriculum math and science courses to meet state competencies:

MATH 100 and 121

Two laboratory sciences (one each chosen from two different fields)

or

IDSC 150 and one additional lab science

**Major in Elementary Education with a 5-8 Specialty in Mathematics***Block I*

- EDUC 210 Education's Place in Society  
 EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning  
 EDUC 350 Language Development, Literacy, and Literature I

*Block III*

- EDUC 370 Language Development, Literacy, and Literature II  
 EDUC 371 Teaching Mathematics and Technology  
 EDUC 372 Teaching Science and Healthy, Active Living  
 EDUC 373 Teaching Social Studies and Fine Arts  
 EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
 EDUC 460 Student Teaching and Seminar (8 credits)  
 EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- MATH 100 Mathematical Sampler  
 MATH 113 Calculus I  
 MATH 121 Structures of Elementary Mathematics  
 MATH 128 Introduction to Discrete Mathematics  
 MATH 259 Elements of Geometry and Statistics

*Plus:*

A second major (which may incorporate courses from the middle level concentration requirements)

*Plus:*

Demonstrated competence on all required state standards

## Departments

*Recommended core curriculum science courses to meet state competencies:*

Two laboratory sciences (one each chosen from two different fields)

or

IDSC 150 and one additional lab science

### **Major in Elementary Education with a 5-8 Specialty in Science**

*Block I*

EDUC 210 Education's Place in Society

EDUC 212 Human Relations and Multicultural Education

*Block II*

EDUC 330 Psychology for Teaching and Learning

EDUC 350 Language Development, Literacy, and Literature I

*Block III*

EDUC 370 Language Development, Literacy, and Literature II

EDUC 371 Teaching Mathematics and Technology

EDUC 372 Teaching Science and Healthy, Active Living

EDUC 373 Teaching Social Studies and Fine Arts

EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

*Block IV*

EDUC 456 Introduction to Exceptionality (2 credits)

EDUC 460 Student Teaching and Seminar (8 credits)

EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

GEOL 111 Introductory Geology I

*Plus either:*

BIOL 101 General Biology

*or the course sequence:*

BIOL 201 Diversity and Adaptation

BIOL 202 Genetics and Population Biology

BIOL 204 Cellular and Molecular Biology

*Plus either:*

CHEM 100 Chemistry in Our World

*or the course sequence:*

CHEM 111 General Chemistry I

CHEM 112 General Chemistry II

*Plus either:*

PHYS 101 General Physics for Liberal Arts Students

*or the course sequence:*

PHYS 109 General Physics I

PHYS 110 General Physics II

*or the course sequence:*

PHYS 111 Introduction to Classical Physics I

PHYS 112 Introduction to Classical Physics II

*Plus:*

A second major (which may incorporate courses from the middle level concentration requirements)

*Plus:*

Demonstrated competence on all required state standards

*Recommended core curriculum math courses to meet state competencies:*

MATH 100 and 121

### **Major in Elementary Education with a 5-8 Specialty in Social Studies**

*Block I*

EDUC 210 Education's Place in Society

EDUC 212 Human Relations and Multicultural Education

*Block II*

EDUC 330 Psychology for Teaching and Learning

EDUC 350 Language Development, Literacy, and Literature I

*Block III*

- EDUC 370 Language Development, Literacy, and Literature II  
 EDUC 371 Teaching Mathematics and Technology  
 EDUC 372 Teaching Science and Healthy, Active Living  
 EDUC 373 Teaching Social Studies and Fine Arts  
 EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
 EDUC 460 Student Teaching and Seminar (8 credits)  
 EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus Middle Level for Social Studies Specialty:*

16 credits in Social Studies, four credits each from four different disciplines:

- ECON 101 The American Economy  
 ECON 211 Current Economic Issues  
 GEOG 111 Human Geography  
 GEOG 112 Physical Geography  
 GEOG 113 World Geography  
 HIST 111 Origins of the Modern World o 1550  
 HIST 112 The History of the Modern World since 1550  
 HIST 113 Early America in Global Perspective  
 HIST 114 The Modern U.S. in Global Perspective  
 PSY 111 General Psychology  
 PSY 121 Social Psychology  
 PSY 151 Cross-Cultural Psychology  
 SOC 100 Introduction to Sociology  
 SOC 110 Social Problems

*Plus:*

A second major (which may incorporate courses from the middle level concentration requirements)

*Plus:*

Demonstrated competence on all required state standards

*Recommended core curriculum math and science courses to meet state competencies:*

MATH 100 and 121

Two laboratory sciences (one each chosen from two different fields)

or

IDSC 150 and one additional lab science

**Major in Elementary Education with a K-8 Specialty in World Languages and Cultures***Block I*

- EDUC 210 Education's Place in Society  
 EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning  
 EDUC 350 Language Development, Literacy, and Literature I

*Block III*

- EDUC 370 Language Development, Literacy, and Literature II  
 EDUC 371 Teaching Mathematics and Technology  
 EDUC 372 Teaching Science and Healthy, Active Living  
 EDUC 373 Teaching Social Studies and Fine Arts  
 EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
 EDUC 460 Student Teaching and Seminar (8 credits)  
 EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus Middle Level for World Languages and Cultures Specialty:*

Successful completion of a minor or equivalent in one or more of the following languages:

- French
- German
- Spanish



## Departments

### *Plus:*

A second major (which may incorporate courses from the middle level concentration requirements)

### *Plus:*

Demonstrated competence on all required state standards

### *Recommended core curriculum math and science courses to meet state competencies:*

MATH 100 and 121

Two laboratory sciences (one each chosen from two different fields)

*or*

IDSC 150 and one additional lab science

## **Co-Major in Science and Mathematics for Elementary Education (SMEE)**

Werness (QMCS) (director), Sullivan (BIOL), Hartshorn (CHEM), Kemper (MATH), Tommet (PHYS)

This major provides an integrated background in science and mathematics appropriate for individuals who will teach in the elementary grades. The SMEE major was designed as a co-major along with elementary education and should be considered by students planning to pursue a degree in elementary education who wish to emphasize science and mathematics. Students should contact the program director, the Department of Teacher Education, or members of program faculty for further information on this major. SMEE is only available as a co-major for those students also majoring in elementary education. The SMEE co-major fulfills the Middle Level Specialty (5-8) in Science.

### *Block I*

EDUC 210 Education's Place in Society

EDUC 212 Human Relations and Multicultural Education

### *Block II*

EDUC 330 Psychology for Teaching and Learning

EDUC 350 Language Development, Literacy, and Literature I

### *Block III*

EDUC 370 Language Development, Literacy, and Literature II

EDUC 371 Teaching Mathematics and Technology

EDUC 372 Teaching Science and Healthy, Active Living

EDUC 373 Teaching Social Studies and Fine Arts

EDUC 374 Seminar in Middle Level Specialty Area (0 credit)

### *Block IV*

EDUC 456 Introduction to Exceptionality (2 credits)

EDUC 460 Student Teaching and Seminar (8 credits)

EDUC 461 The Teacher as Educational Advocate (2 credits)

### *Plus SMEE co-major requirements:*

BIOL 101 General Biology

CHEM 100 Chemistry in Our World

GEOL 111 Introductory Geology I

MATH 100 Mathematical Sampler

MATH 121 Structures of Elementary Mathematics

PHYS 101 General Physics for Liberal Arts Students

QMCS 120 Computers in Elementary Education and LOGO

SMEE 181 Science Seminar

SMEE 182 Science Seminar

SMEE 359 Integrated Studies in Science and Mathematics

### *Plus:*

A *specialization sequence* consists of eight or more additional credits in one department, to be approved by the student's SMEE adviser. These courses will build on the "core courses" above and develop specialized knowledge in one of the areas served by the Division of Science and Mathematics.

### *Plus:*

Demonstrated competence on all required state standards.

### **181 Science Seminar**

**0 credit**

The seminar consists of five one-hour meetings per semester and is offered for SMEE students enrolled in the laboratory science courses. Two semesters of the seminar are required.

### **182 Science Seminar**

**0 credit**

Same as 181. This number is used for the second semester of the seminar.

**359 Integrated Studies in Science and Mathematics**

The capstone course in the SMEE interdisciplinary major. A number of currently important science and mathematics-related topics will be studied in depth, and will emphasize the integration of the natural sciences and mathematics. Consideration will be given to the relevance of the topics to modern society and their potential use in the elementary classroom.

Prerequisites: BIOL 101, CHEM 100, GEOL 111, MATH 100 and 121, PHYS 101, QMCS 120. (In certain cases, permission of the adviser may allow a substitution.)

**Teacher Licensure in Secondary/Middle Level Education**

Programs are designed to provide professional preparation for teaching in middle and secondary settings.

Licensure is available in the following areas:

- Communication Arts and Literature (5-12)
- Health (5-12)
- Mathematics (5-12)
- Music Education
  - Instrumental and Classroom Music (K-12)
  - Vocal and Classroom Music (K-12)
- Physical Education (K-12)
- Science (5-8) plus one of:
  - Chemistry (9-12)
  - Earth and Space Science (9-12)
  - Life Science (9-12)
  - Physics (9-12)
- Social Studies (5-12)
- World Language and Cultures (K-12)
  - French
  - German
  - Spanish

**Communication Arts and Literature (5-12)**

Co-major in Communication Arts and Literature and a Co-major in Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Block I*

- EDUC 210 Education's Place in Society
- EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning

*Block III*

- EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)
- EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)
- EDUC 460 Student Teaching and Seminar (8 credits)
- EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- COMM 100 Public Speaking
  - COMM 120 Communication Theories and Methods
  - COMM 140 Rhetorical Criticism
  - COMM 160 Electronic Media Production
  - COMM 217 Survey of Communication Disorders
  - ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose
  - ENGL 112 Critical Reading and Writing II: Drama and Poetry
- Qualified students may substitute 190 plus an additional upper-level course for 111 and 112
- ENGL 300 Theory and Practice of Writing
  - ENGL 305 Linguistics: English Language
  - ENGL 361 Shakespeare and the Early Modern Period
  - ENGL 380 Issues in English Studies

*Plus four credits from each of the following areas:*

- ENGL 211 or 212 British Authors I or II
- ENGL 214 or 215 American Authors I or II

## Departments

ENGL 220 or 221 The Classical Tradition or The Modern Tradition  
ENGL 217 or 218 Multicultural Literature or Literature by Women: Critical History

*Plus:*

Four additional upper division credits in COMM or ENGL selected in consultation with adviser

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in English, the following courses are required:*

The "Four additional upper division credits in COMM or ENGL selected in consultation with adviser" would be an upper division ENGL course (COMM 340, 350, or 440 may be substituted)

*To complete a major in Communication, the following courses are required:*

Twelve additional upper division COMM credits  
COMM 480 Capstone Course in Communication

### Health Education (5-12)

Major in Health Education 5-12

*Block I*

EDUC 210 Education's Place in Society  
EDUC 212 Human Relations and Multicultural Education

*Block II*

EDUC 330 Psychology for Teaching and Learning

*Block III*

HLTH 440 Health Education : 5-12 Curriculum Assessment and Administration  
HLTH 450 Health Education: 5-12 Methods, Resources and Partnerships  
Note: These courses substitute for EDUC 381 and 382

*Block IV*

EDUC 456 Introduction to Exceptionality (2 credits)  
EDUC 460 Student Teaching and Seminar (8 credits)  
EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

BIOL 101 General Biology  
HLTH 345 Nutrition for Health and Fitness  
HLTH 350 Personal Health and Wellness  
HLTH 353 Consumer, Community and Environmental Health  
HLTH 375 Lifelong Stress Management (2 credits)  
HLTH 400 Epidemiology  
HLTH 462 Human Sexuality Education  
HLTH 464 Critical Issues in Health Education  
PHED 410 Human Anatomy and Physiology  
PSY 111 General Psychology  
SOC 100 Introduction to Sociology  
SOWK 290 Death, Dying and Bereavement

*Plus one of:*

CHEM 100 Chemistry in our World  
CHEM 101 Environmental Chemistry

*Plus one of:*

COMM 100 Public Speaking  
COMM 105 Communication in the Workplace

*Plus:*

Instructor level CPR/First Aid/HIV/AIDS (0 credit)

*Plus:*

Demonstrated competence on all required state standards

### Mathematics 5-12

Major in Mathematics and a Co-major in Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Block I*

EDUC 210 Education's Place in Society

- EDUC 212 Human Relations and Multicultural Education  
*Block II*  
 EDUC 330 Psychology for Teaching and Learning  
*Block III*  
 EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)  
 EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)  
*Block IV*  
 EDUC 456 Introduction to Exceptionality (2 credits)  
 EDUC 460 Student Teaching and Seminar (8 credits)  
 EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- MATH 113 Calculus I (or 108-109)  
 MATH 114 Calculus II  
 MATH 200 Multi-Variable Calculus  
 MATH 210 Linear Algebra and Differential Equations  
 MATH 301 Abstract Algebra I  
 MATH 317 Real Analysis  
 MATH 325 Geometry  
 MATH 450 Advanced Mathematics from an Elementary Point of View  
 QMCS 230 Software Design Using the JAVA Language

*Plus at least one of:*

- MATH 302 Abstract Algebra II  
 MATH 309 Discrete Mathematical Structures  
 MATH 385 Mathematical Methods of Numerical Analysis  
 MATH 400 Dynamic Systems and Chaos  
 MATH 419 Complex Variables  
 MATH 420 Topology

*Plus either:*

- MATH 303 Statistics for the Applied Sciences *and* one additional MATH course numbered 300 or above  
*or*  
 MATH 313 Probability *and* 314 Mathematical Statistics

*Plus:*

Demonstrated competence on all required state standards

**Music Education**

Music Education: Instrumental and Classroom Music K-12  
 Major in Music Education

*Block I*

- EDUC 210 Education's Place in Society  
 EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning

*Block III*

- EDUC 260 Elementary Classroom Music Pedagogy  
 EDUC 360 Secondary Classroom Music Pedagogy  
*Note:* These courses substitute for EDUC 381 and 382

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
 TEGR 580 Student Teaching and Seminar (6 graduate credits)  
 TEGR 581 The Teacher as Educational Advocate (3 graduate credits)  
*See note below about completion of licensure in Plan B*

*Plus:*

- EDUC 214 Teaching Techniques Woodwind Instruments I (2 credits)  
 EDUC 216 Teaching Techniques Woodwind Instruments II (2 credits)  
 EDUC 218 Teaching Techniques Brass Instruments (2 credits)  
 EDUC 220 Teaching Techniques Percussion Instruments (2 credits)  
 EDUC 222 Teaching Techniques String Instruments I (2 credits)  
 EDUC 224 Teaching Techniques String Instruments II (2 credits)

## Departments

*Plus:*

MUSC	112	Introduction to Music (students testing out of 112 take 115)
MUSC	113	Theory I
MUSC	212	Theory II
MUSC	213	Theory III
MUSC	312	Theory IV
MUSC	351	Introduction to Conducting (2 credits)
MUSC	353	Instrumental Conducting
MUSC	411	History and Literature of Music I
MUSC	412	History and Literature of Music II
MUSN		See ensemble participation under the Major in Music in the department section of this catalog
MUSP	102 or 103	Skills for Piano Proficiency (0 credit)
MUSP	2xx	Six semesters of performance studies in the same performance medium (12 credits)
MUSR	200	Piano Proficiency (0 credit)
MUSR	270	Level I Recital (0 credit)
MUSR	350	Level II Recital (0 credit)
PHYS	105	Musical Acoustics

An additional thirteen credits taken in Graduate Education (*Plan B*) complete licensure. These credits may apply towards a master's degree.

MUS	516	Developing the Child Voice (2 credits)
MUS	561	Teaching World Music (2 credits)
TEGR	580	Student Teaching and Seminar (6 credits)
TEGR	581	The Teacher as Educational Advocate (3 credits)

*Plus:*

Demonstrated competence on all required state standards

### Music Education: Vocal and Classroom Music K-12

#### Major in Music Education

*Block I*

EDUC	210	Education's Place in Society
EDUC	212	Human Relations and Multicultural Education

*Block II*

EDUC	330	Psychology for Teaching and Learning
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*Block III*

EDUC	260	Elementary Classroom Music Pedagogy
EDUC	360	Secondary Classroom Music Pedagogy

*Note:* These courses substitute for EDUC 381 and 382

*Block IV*

EDUC	456	Introduction to Exceptionality (2 credits)
TEGR	580	Student Teaching and Seminar (6 graduate credits)
TEGR	581	The Teacher as Educational Advocate (3 graduate credits)

*See note below about completion of licensure in Plan B*

*Plus:*

EDUC	226	The Woodwind Family in Classroom Teaching (2 credits)
EDUC	228	The Brass and Percussion Families in Classroom Teaching (2 credits)
EDUC	230	The String Family in Classroom Teaching (2 credits)
EDUC	362	Teaching Techniques for Voice

*Plus:*

MUSC	112	Introduction to Music (students testing out of 112 take 115)
MUSC	113	Theory I
MUSC	212	Theory II
MUSC	213	Theory III
MUSC	312	Theory IV
MUSC	351	Introduction to Conducting (2 credits)
MUSC	352	Choral Conducting
MUSC	411	History and Literature of Music I
MUSC	412	History and Literature of Music II
MUSN	142, 160	Chamber Singers, Concert Choir (minimum of six semesters)
MUSN	143	Liturgical Choir (maximum of two semesters)

MUSP	102 or 103	Skills for Piano Proficiency (0 credit)
MUSP	2xx	Six semesters of performance studies in the same performance medium (12 credits)
MUSR	200	Piano Proficiency (0 credit)
MUSR	270	Level I Recital (0 credit)
MUSR	350	Level II Recital (0 credit)
PHYS	105	Musical Acoustics

*Plus:*

Four credits of MUSP 133 (1/2 hour lesson) if voice is not principal instrument

An additional thirteen credits taken in Graduate Education (*Plan B*) complete licensure. These credits may apply towards a master's degree.

MUS	516	Developing the Child Voice (2 credits)
MUS	561	Teaching World Music (2 credits)
TEGR	580	Student Teaching and Seminar (6 credits)
TEGR	581	The Teacher as Educational Advocate (3 credits)

*Plus:*

Demonstrated competence on all required state standards

**Physical Education (K-12)**

Major in Physical Education

*Block I*

EDUC	210	Education's Place in Society
EDUC	212	Human Relations and Multicultural Education

*Block II*

EDUC	330	Psychology for Teaching and Learning
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*Block III*

PHED	200	Activities and Techniques
PHED	340	Physical Education at the Elementary Level
PHED	360	Curriculum Organization and Administration

*Note:* These courses substitute for EDUC 380 and 381

*Block IV*

EDUC	456	Introduction to Exceptionality (2 credits)
EDUC	460	Student Teaching and Seminar (8 credits)
EDUC	461	The Teacher as Educational Advocate (2 credits)

*Plus:*

BIOL	101	General Biology
HLTH	350	Personal Health and Wellness
PHED	110	Foundations and Skills for Majors I (2 credits)
PHED	111	Foundations and Skills for Majors II (2 credits)
PHED	215	Rhythms and Dance (2 credits)
PHED	310	History, Principles and Philosophy of Physical Education (2 credits)
PHED	311	Motor Development (2 credits)
PHED	351	Teaching of the Special Needs Student (2 credits)
PHED	410	Human Anatomy and Physiology
PHED	420	Kinesiology
PHED	421	Athletic Training Techniques (2 credits)
PHED	430	Measurement and Evaluation (2 credits)
PHED	431	Exercise Physiology (2 credits)
PSY	111	General Psychology
SOC	100	Introduction to Sociology

*Plus two of:*

PHED	210	Outdoor Education I (2 credits)
PHED	211	Outdoor Education II (2 credits)
PHED	212	Outdoor Education III (2 credits)

*Recommended:*

COMM 100 or 105 Public Speaking or Communication in the Workplace

*Plus:*

Demonstrated competence on all required state standards

**Science (5-8) plus Chemistry (9-12)**

Co-major in Science – Chemistry and a Co-major in Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Block I*

- EDUC 210 Education's Place in Society
- EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning

*Block III*

- EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)
- EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)
- EDUC 460 Student Teaching and Seminar (8 credits)
- EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- BIOL 101 General Biology
- CHEM 111 General Chemistry I
- CHEM 112 General Chemistry II
- CHEM 201 Organic Chemistry I
- CHEM 202 Organic Chemistry II
- CHEM 300 Quantitative Analysis
- CHEM 331 Chemical Thermodynamics and Reaction Dynamics
- CHEM 481 Seminar (1 credit)
- CHEM 484 Seminar (1 credit)
- GEOLOG 111 Introductory Geology I
- MATH 113 Calculus I
- MATH 114 Calculus II
- PHYS 104 Astronomy
- PHYS 111 Introduction to Classical Physics I
- PHYS 112 Introduction to Classical Physics II

*Plus four credits from:*

- CHEM 320 Instrumental Analysis
- CHEM 332 Quantum Chemistry and Molecular Spectroscopy
- CHEM 391 Research (1 credit)
- CHEM 440 Biochemistry I

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in Chemistry, the following courses are required:*

- CHEM 320 Instrumental Analysis
- CHEM 482 Seminar (0 credit)
- CHEM 483 Seminar (0 credit)

*Plus:*

Eight additional credits from the list above

*or*

eight credits from the BA Major Field Optional Courses List (see Department of Chemistry)

**Science (5-8) plus Earth and Space Science (9-12)**

Co-Major in Science – Earth and Space Science and a Co-Major in Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Block I*

- EDUC 210 Education's Place in Society
- EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning

*Block III*

- EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)
- EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)

- EDUC 460 Student Teaching and Seminar (8 credits)  
 EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- BIOL 201 Diversity and Adaptation  
 BIOL 202 Genetics and Population Biology  
 CHEM 111 General Chemistry I  
 CHEM 112 General Chemistry II  
 GEOL 111 Introductory Geology I  
 GEOL 112 Introductory Geology II  
 GEOL 15M Oceanography (at Macalester)  
 GEOL 211 Mineralogy  
 GEOL 252 Geomorphology  
 GEOL 311 Petrology  
 GEOL 322 Structural Geology  
 GEOL 421 Geophysics  
 PHYS 104 Astronomy

*Plus one of:*

- PHYS 109 General Physics I  
 PHYS 111 Introduction to Classical Physics I

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in Geology, the following additional courses are required:*

- MATH 113 Calculus I  
 MATH 114 Calculus II

**Science (5-8) plus Life Science (9-12)**

Co-Major in Science – Life Science with Co-Major in Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Block I*

- EDUC 210 Education's Place in Society  
 EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning

*Block III*

- EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)  
 EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
 EDUC 460 Student Teaching and Seminar (8 credits)  
 EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- BIOL 201 Diversity and Adaptation  
 BIOL 202 Genetics and Population Biology  
 BIOL 204 Cellular and Molecular Biology  
 BIOL 206 Global Ecology (2 credits)  
 CHEM 111 General Chemistry I  
 CHEM 112 General Chemistry II  
 CHEM 201 Organic Chemistry I  
 GEOL 111 Introductory Geology I  
 PHYS 104 Astronomy

*Plus:*

Sixteen additional BIOL credits in courses numbered 200 or above, chosen in consultation with an adviser

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in Biology, the following courses are required:*

Six additional BIOL credits numbered 200 or above



## Departments

*Plus one of:*

- MATH 303 Statistics for the Applied Sciences  
QMCS 220 Statistics I

*Plus at least two of the following selected in consultation with the departmental adviser:*

- CHEM 202 Organic Chemistry II  
MATH 109 Calculus with Review II or MATH 113 Calculus I  
PHYS 109 General Physics I or PHYS 111 Introduction to Classical Physics I

### **Science (5-8) plus Physics (9-12)**

Co-major in Science – Physics plus a Co-Major in Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Block I*

- EDUC 210 Education's Place in Society  
EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning

*Block III*

- EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)  
EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
EDUC 460 Student Teaching and Seminar (8 credits)  
EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- CHEM 111 General Chemistry I  
CHEM 112 General Chemistry II  
GEOL 111 Introductory Geology I  
MATH 113 Calculus I  
MATH 114 Calculus II  
MATH 200 Multivariable Calculus  
MATH 210 Linear Algebra and Differential Equations  
PHYS 104 Astronomy  
PHYS 111 Introduction to Classical Physics I  
PHYS 112 Introduction to Classical Physics II  
PHYS 225 Introduction to Modern Physics I  
PHYS 226 Introduction to Modern Physics II  
PHYS 260 Introduction to Electronics  
PHYS 399 Advanced Physics Lab (2 credits)  
PHYS 400 Advanced Physics Lab (2 credits)

*Plus:*

Four additional credits in PHYS courses other than 101

*Plus either:*

- BIOL 101 General Biology  
*or the three-course sequence*  
BIOL 201 Diversity and Adaptation  
BIOL 202 Genetics and Population Biology  
BIOL 204 Cellular and Molecular Biology

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in Physics, the following courses are required:*

- PHYS 341 Electricity and Magnetism  
PHYS 411 Theoretical Mechanics

*Plus one of:*

- PHYS 310 Statistical Mechanics and Thermodynamics  
PHYS 342 Electromagnetic Waves  
PHYS 421 Quantum Mechanics  
PHYS 451 Introduction to Solid State Physics

**Social Studies (5-12)**

Co-Major in Social Studies with a Co-Major in Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Block I*

- EDUC 210 Education's Place in Society  
 EDUC 212 Human Relations and Multicultural Education

*Block II*

- EDUC 330 Psychology for Teaching and Learning

*Block III*

- EDUC 381 Curriculum and Methods for Specific Discipline (5-8) (2 credits)  
 EDUC 382 Curriculum and Methods for Specific Discipline (9-12) (2 credits)

*Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
 EDUC 460 Student Teaching and Seminar (8 credits)  
 EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus:*

- POL 105 Politics and Government in Comparative Perspective  
 PSY 111 General Psychology  
 SOC 100 Introduction to Sociology  
 SOC 301 General Anthropology

*Plus one of:*

- ECON 101 The American Economy  
 ECON 211 Current Economic Issues  
 ECON 251 Principles of Macroeconomics

*Plus one of:*

- HIST 111 Origins of the Modern World to 1550  
 HIST 112 The Modern World Since 1550

*Plus one of:*

- HIST 113 Early America in Global Perspective  
 HIST 114 The Modern U.S. in Global Perspective

*Plus one of:*

- HIST 210 Modern Latin America, 1800 to the Present  
 HIST 220 Introduction to Japanese History and Culture  
 HIST 340 Foundations of Chinese Civilization  
 HIST 341 The History of Modern China  
 HIST 345 Family and Women in Chinese History  
 HIST 347 The Modernization of Taiwan, Hong Kong, and China

*Plus one of:*

- GEOG 111 Human Geography  
 GEOG 113 World Regional Geography

*Plus:*

Twenty-four additional credits in courses in any one of the Social Science disciplines (Economics, Geography, History, Political Science, Psychology, Sociology). Choice of these courses are subject to the approval of the department involved.

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in one of the Social Science disciplines, contact the chair of the department.*

**World Language and Cultures Education (K-12)**

Students wishing to be licensed grades K-12 in World Language and Cultures in the State of Minnesota must achieve a rating of Good or Superior by the Language Department of the Teacher Preparation institution in five of the seven competencies defined in the MLA "Qualifications for Secondary School Teachers of Modern Foreign Languages" and at least a minimal rating in the remaining two competencies.

The MLA competencies include aural understanding, speaking, reading, writing, linguistic analysis, culture and pedagogy.

Major in French, German, or Spanish with a Co-Major in Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

## Departments

### *Block I*

- EDUC 210 Education's Place in Society  
EDUC 212 Human Relations and Multicultural Education

### *Block II*

- EDUC 330 Psychology for Teaching and Learning

### *Block III*

- EDUC 380 Curriculum and Methods for Specific Discipline (K-12)

### *Block IV*

- EDUC 456 Introduction to Exceptionality (2 credits)  
EDUC 460 Student Teaching and Seminar (8 credits)  
EDUC 461 The Teacher as Educational Advocate (2 credits)

*Plus one of the languages:*

#### **French**

28 credits numbered FREN 300 and above with a minimum of six credits in each of the following areas:

- Oral and Written Language
- Culture/Civilization
- Literature

#### **German**

28 credits numbered GER 300 and above with a minimum of six credits in each of the following areas:

- Oral and Written Language
- Culture/Civilization
- Literature

*Plus:*

HIST Four credits in modern European history

#### **Spanish**

28 credits numbered SPAN 300 and above with a minimum of six credits in each of the following areas:

- Oral and Written Language
- Culture/Civilization
- Literature

*Plus:*

SPAN A course in Hispanic linguistics

*Plus (for all languages):*

Demonstrated competence on all required state standards

#### **210 Education's Place in Society**

Designed to critically analyze the place of education in today's rapidly changing society. Assists students in recognizing the similarities and differences in the major philosophical positions and evaluating their impact on current educational practice. Focuses on understanding the historic and social perspectives of education. The course includes a guided, reflective, in-school field experience.

Prerequisite: Sophomore standing

#### **212 Human Relations and Multicultural Education**

Designed to engage teachers in a dialogue concerning the issues of cultural diversity in schools, its impact on the learning process and the construction of human relations. Emphasis will be placed on an education that is multicultural, gender fair, and disability aware. It examines issues such as racism, sexism, oppression, prejudice, and discrimination. The course aims to equip the participants with pedagogic practices and instructional techniques that respond to social conflicts and stresses within the classroom and that will enable them to create productive learning situations for all students. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: Sophomore standing

#### **214 Teaching Techniques for Woodwind Instruments I**

2 credits

The teaching-techniques courses are designed to acquaint the prospective instrumental teacher with the fundamental principles underlying the correct playing of wind, percussion and string instruments. Basic concepts important in teaching others to play these instruments are stressed. The uses and merits of a variety of method books are discussed as they pertain to lesson and unit planning. Solo and ensemble literature also are covered. Students will learn how to select instruments, mouthpieces and other equipment appropriate for elementary and secondary instrumental pupils. Offered fall semester in odd-numbered years.

#### **216 Teaching Techniques for Woodwind Instruments II**

2 credits

Offered spring semester in even-numbered years.

- 218 **Teaching Techniques for Brass Instruments** 2 credits  
Offered fall semester in even-numbered years.
- 220 **Teaching Techniques for Percussion Instruments** 2 credits  
Offered spring semester in odd-numbered years.
- 222 **Teaching Techniques for String Instruments I** 2 credits  
Offered fall semester in odd-numbered years.
- 224 **Teaching Techniques for String Instruments II** 2 credits  
Offered spring semester in even-numbered years.
- 226 **The Woodwind Family in Classroom Teaching** 2 credits  
The families courses are designed to acquaint the student with the general principles involved in playing and caring for the various instruments. Emphasis is on the application of this information to classroom and choral situations. Students are expected to achieve an elementary level of competence in playing selected instruments. Offered spring semester in odd-numbered years.
- 228 **The Brass & Percussion Families in Classroom Teaching** 2 credits  
Offered spring semester in even-numbered years.
- 230 **The String Family in Classroom Teaching** 2 credits  
Offered fall semester in even-numbered years.
- 260 **Elementary Classroom Music Pedagogy**  
This course introduces contemporary elementary music pedagogy to prospective music educators. Both content and method will be addressed in this course as students learn to design a curriculum that includes specific objectives and teaching strategies to help students master those goals. Specific media including the child voice, movement, recorder, and Orff instruments are used to address the diversity of cultures as well as learning styles and developmental stages present in each class. Artistic teaching and learning of culturally sensitive material are stressed at all levels by faculty members who themselves teach children. EDUC 260 and 360 fulfill the Block III requirement. Offered fall semester in odd-numbered years.
- 295, 296, 297, 298 **Topics**  
The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.
- 330 **Psychology for Teaching and Learning**  
This course integrates psychological principles with strategies for effective instruction. Prospective K-12 teachers explore the scientific knowledge base that underlies good teaching practices; they learn to apply the principles of educational psychology to their own learning and future teaching through reading, discussion, classroom simulations, school observations and micro-teaching demonstrations. Includes clinical.  
Prerequisite: 210
- 345 **Adolescent Literature** 2 credits  
Survey of contemporary literature for adolescents; exploration of ways in which this literature meets the reading interests and needs of adolescents; emphasis on developing familiarity with literature read by adolescents; methods and programs to stimulate reading interests and practices.
- 350 **Language Development, Literacy, and Literature I**  
This course is Part I of a two-course literacy block designed to introduce the pre-service teacher to the theory and practice of elementary curriculum and instruction in the areas of reading, language arts, and children's literature. Campus and elementary school experiences will emphasize the importance of teaching in an integrated manner to students of diverse socio-economic backgrounds and cultures. The course will present developmentally appropriate practice for kindergarten, primary, and intermediate grades, the current knowledge base of research, and recommendations for professional development. As the introductory course in literacy, it will focus on language development and literacy processes as a foundation for understanding curricular development in and applications for literacy in the elementary classroom.  
Prerequisites: 210 and 212
- 360 **Secondary Classroom Music Pedagogy**  
Students in this course will learn to design middle- and senior-high-school curricula that include, but are not limited to, performance opportunities. Participation in small ensembles for voices and instruments will be augmented by guitar study as means for developing music literacy. Music literature, history, and theory will be approached from a participatory perspective; students will learn how to use the material as a resource for individual creative work that speaks to the diversity of environments and cultures represented in today's classrooms. EDUC 260 and 360 fulfill the Block III requirement. Offered spring semester in even-numbered years.

**362 Teaching Techniques for Voice**

2 credits

Students will study the structure and function of the mouth, the nasopharyngeal cavity, the larynx and the breathing mechanism as these relate to the acoustical principles governing the human voice, including the psychology and the aesthetics involved in singing. The uses and merits of a variety of methods and exercises are discussed as they pertain to studio and classroom use. Solo and ensemble literature appropriate for young singers also are covered. Includes teaching individuals and groups, observation of master teachers, and journaling. Offered fall semester in even-numbered years.

**370 Language Development, Literacy, and Literature II**

This course is Part II of a two-course literacy block designed to introduce the pre-service teacher to the theory and practice of elementary curriculum and instruction in the areas of reading, language arts, and children's literature. Campus and elementary school experiences will emphasize the importance of teaching in an integrated manner to students of diverse socio-economic backgrounds and cultures. The course will present developmentally appropriate practice for kindergarten, primary, and intermediate grades, the current knowledge base of research and recommendations for professional development. This second course in the literacy block will extend the foundations in language, literacy and children's literature presented in the initial course to classroom applications in composing processes (writer's workshop), assessment/evaluation, content area reading, and interdisciplinary instruction. The course includes field-based experiences.

Prerequisites: 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with 371, 372, 373, and 374

**371 Teaching Mathematics and Technology**

This course is designed to prepare teachers who will effectively engage learners with mathematics and technology. Emphasis is on developmentally appropriate practice for a range of learners in kindergarten, primary and intermediate grades; curriculum content and sources; performance based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes field-based experiences.

Prerequisites: 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with 370, 372, 373, and 374

**372 Teaching Science and Healthy, Active Living**

This course is designed to prepare teachers who will effectively engage learners with science and help them have the skills for lifelong healthy, active living. Emphasis is on developmentally appropriate practice for a range of learners in kindergarten, primary and intermediate grades; curriculum content and sources; instructionally based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes field-based experiences.

Prerequisites: 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with 370, 371, 373, and 374

**373 Teaching Social Studies and Fine Arts**

This course provides an overview of the social studies and fine arts for the elementary teacher that develops a civic and cultural awareness respectful of human diversity. National and state standards, unit and lesson planning, instructional resources and technology, teaching and assessment strategies, and curriculum integration are addressed. The course includes field-based experiences.

Prerequisites: 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with 370, 371, 372, and 374

**374 Seminar in Middle Level Concentration Area**

0 credit

Students will participate in a series of guided classroom and field experiences designed to meet the Minnesota middle level competencies for K-6 pre-service teachers in their chosen 5-8 area of academic concentration. Emphasis is on developmentally appropriate practice for a range of learners in grades 5 through 8, expanding the content, curriculum, and instructional strategies students gain through their K-6 methods courses. Age appropriate performance based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration will be covered.

Prerequisites: 210, 212, 330 and 350 plus unconditional admission to the teacher education program; concurrent registration with 370, 371, 372, and 373

- 01 Communication Arts and Literature (5-8)
- 02 Mathematics (5-8)
- 03 Science (5-8)
- 04 Social Studies (5-8)
- 05 World Languages and Cultures (K-8)

**380 Curriculum and Methods for Specific Discipline (K-12)**

This course is designed to prepare teachers who will effectively engage learners with the curriculum of a specific

licensure area. Emphasis is on developmentally appropriate practice for a range of learners in grades K through 12, curriculum content and sources; performance based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes a clinical experience.

Prerequisites: 210, 212, 330, plus unconditional admission to the teacher education program.

### 381 Curriculum and Methods for Specific Discipline (5-8)

2 credits

This course is designed to prepare teachers who will effectively engage learners with the curriculum of a specific licensure area. Emphasis is on developmentally appropriate practice for a range of learners in grades 5 through 8, curriculum content and sources; performance based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes a clinical experience.

Prerequisites: 210, 212, 330, plus unconditional admission to the teacher education program; concurrent registration with 382.

- 01 Communication Arts and Literature
- 02 Mathematics
- 03 Science
- 04 Social Studies
- 05 Theater and Dance

### 382 Curriculum and Methods for Specific Discipline (9-12)

2 credits

This course is designed to prepare teachers who will effectively engage learners with the curriculum of a specific licensure areas. Emphasis is on developmentally appropriate practice for a range of learners in grades 9 through 12, curriculum content and sources; instructionally based assessment strategies; connections with community resources; national and state standards; lesson and unit planning; and curriculum and technology integration. The course includes a clinical experience.

Prerequisites: 210, 212, 330, plus admission into department; concurrent registration with 381.

- 01 Communication Arts and Literature
- 02 Mathematics
- 03 Science
- 04 Social Studies
- 05 Theater and Dance

### 456 Introduction to Exceptionality

2 credits

Provides an overview of students identified as gifted/talented, students with disabilities (learning disabilities, mental retardation, emotional/behavioral disabilities, and sensory and physical impairments), etiology, and appropriate interventions for exceptional students. Also, current issues and research in the field of exceptionality (legal rights, integration, best practices) are also discussed.

Prerequisite: PPST

### 460 Student Teaching and Seminar

8 credits

As the culminating experience of the teacher licensure program, student teaching provides the opportunity for students to apply their knowledge and skills of teaching and learning in a classroom setting. Accompanying seminars assist students to reflect upon the experience and to increase their repertoire of strategies for dealing with topical, relevant issues. Student teaching, along with the companion course Teacher as Educational Advocate, is a full-time, full-semester commitment under the supervision of university and school-based professionals. Students seeking licensure in multiple fields may require additional credits and time in the classroom.

Prerequisites: Satisfactory completion of all education courses in Blocks I, II, and III, plus unconditional admission to the teacher education program, plus admission to student teaching, senior status; concurrent registration with 456, 461

- 01 (K-8)
- 02 (5-2)
- 03 (K-12)

### 461 The Teacher as Educational Advocate

2 credits

A capstone course designed to prepare teachers who will effectively collaborate to advocate for strong educational institutions and for students. The course emphasizes connections with families and communities, including strategies for working with students and families for whom English is not the primary language, and skill development in communication and teacher leadership. Includes a portfolio presentation by each teacher candidate as the culminating experience.

Prerequisites: Acceptance into Education program; completion of Blocks I, II and III; senior status; concurrent registration with 456, 460

## Departments

### 462 Student Teaching and Seminar Dual License Extended Term

10 credits

This student teaching section is intended for students seeking licensure in multiple fields or grade ranges requiring additional credits and time in the classroom. As the culminating experience of the teacher licensure program, student teaching provides the opportunity for students to apply their knowledge and skills of teaching and learning in a classroom setting. Accompanying seminars assist students to reflect upon the experience and to increase their repertoire of strategies for dealing with topical, relevant issues. Student teaching, along with the companion course Teacher as Educational Advocate, is a full-time, full-semester commitment under the supervision of university and school-based professionals.

Prerequisites: Satisfactory completion of all education courses in Blocks I, II, and III, plus unconditional admission to the teacher education program, plus admission to student teaching, senior status; concurrent registration with 456, 461

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 480 Behavior Management (SPED 785)

Examines the etiology of problem behaviors in the home and in the classroom; explores the relationship between behavior and environmental antecedents and consequences; examines how environmental variables may be manipulated in order to increase appropriate behavior and decrease inappropriate behavior. Also, parent-child and teacher-student interaction patterns, data collection techniques, and legal and moral guidelines for the use of behavior change procedures are reviewed.

Prerequisite: Permission of the chair

### 481 Basic Skills Instruction: Mild/Moderate Handicaps (SPED 705)

Research supported instructional interventions and progress monitoring strategies emphasizing practical knowledge, theoretical foundations and classroom skills for the instruction of students with mild/moderate handicaps in the basic skills: reading, written expression, spelling and mathematics.

Prerequisite: Permission of the chair

### 482 Survey of Exceptionality (SPED 750)

Provides an overview of special education and specific categories of exceptionality. Examines the theories, legal mandates, definitions, and terminology related to special education. Characteristics of exceptional children who are in the following categories will be studied: gifted and talented, learning disorders, behavioral disorders, mental disabilities, visual impairments, auditory impairments, early childhood, physical impairments, health impairments, and communication disorders.

Prerequisite: Permission of the chair

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Theater (THR)

Kritzer (chair), Holonbek, Poletes; Barrett, Hayes, Klein, Morrissey, Wexler, Wilhelmson

The Department of Theater is administered jointly by the University of St. Thomas and the College of St. Catherine. Students from both campuses enroll in a variety of courses and participate in the year-round production of plays, films, and video. Courses enable students to gain a knowledge of history, theory, aesthetics and production of theater and film.

Three well-equipped theaters and an audio and television studio at St. Thomas and St. Catherine enable students to cooperate in the creation of musical and dramatic performances for college and metropolitan audiences.

Students majoring in theater concentrate their courses in acting and directing, theater history and theory, music theater, or theater education.

Students graduating with a major in theater will have a usable knowledge of works, styles, and evaluative methods. They will have developed performance skills for amateur or professional theater.

Minors are available in Theater Performance, Theater History/Theory, and Film (history/theory/production).

Special topics classes are offered periodically. These vary from movement and voice production or audition techniques to in-depth studies of major directors, film-makers, or performers, or examinations of ethical, political, and gender issues.

Students are encouraged to take advantage of the nationally respected professional arts community of the Twin Cities by engaging in experiential learning courses.

The department offers a number of courses for the non-major to fulfill the Fine Arts component of the core curriculum.

#### **Drama Honor Society**

Pi Epsilon Delta (since 1942 locally) recognizes scholarship and talent in directing, performance, writing, design and technical areas of dramatic art in theater, film, television. Candidates for membership in this national society must have demonstrated their abilities through classwork and in the field and have a GPA of 3.0 or higher.

#### **Major in Theater**

For students seeking careers in professional or academic theater who wish to concentrate in performance, direction, and design.

- 105 Stagecraft
- 215 Beginning Directing
- 315 Advanced Directing
- 412 Drama: Theory and Criticism

#### *Plus two of:*

- 221 History of Theater I: Classical Through 17th Century
- 222 History of Theater II: 18th Century to Contemporary
- 223 History of Theater III: American

#### *Plus two of:*

- 214 Beginning Acting
- 218 Acting for the Camera
- 314 Advanced Acting

#### *Plus:*

Twelve additional credits in Theater courses

#### **Teacher Licensure**

Students who wish to be licensed to teach theater/dance in the elementary or secondary schools, see Department of Teacher Education. Consult an adviser in Teacher Education and in Theater.

#### **Minor in Theater Performance**

- 105 Stagecraft
- 214 Beginning Acting
- 215 Beginning Directing

#### *Plus one of:*

- 221 History of Theater I: Classical through 17th Century
- 222 History of Theater II: 18th Century to Contemporary

#### *Plus one of:*

- 204 Oral Interpretation
- 253 Creative Dramatics and Children's Theater

#### **Minor in Theater History/Theory-Criticism**

- 221 History of Theater I: Classical through 17th Century
- 222 History of Theater II: 18th Century to Contemporary
- 412 Drama: Theory and Criticism

#### *Plus two of:*

- COMM 264 Electronic Media and Society
- COMM 440 Classical Rhetoric
- THR 223 History of Theater III: American
- THR 359 Film II: Textual Analysis



**Minor in Film**

- 259 Film I: Introduction to Narrative and Non-Narrative World Cinema
- 260 History of Film: The Silent Era
- 261 History of Film: Sound Era, 1926 to Present Day
- 359 Film II: Film Theory and Criticism
- 360 Film III: Super 8 Film-making

**105 Stagecraft**

An introduction to the technical aspects of theatrical production: how they relate to design interpretations, use of tools and equipment, building materials, construction and painting techniques, stage lighting equipment and procedures. Theoretical class work supplemented by crew assignments on a stage production.

**111 Introduction to the Theater**

Foundation in theater and drama for the non-major beginning student; orientation to the dramatic tradition through consideration of plays and playwrights from the Greeks to the present; history of theatrical customs, traditions and conventions as they affect modern stage design, acting, directing, costumes, make-up and criticism. Experience in seeing and analyzing CSC/UST and Twin City play productions and in producing a play. This course does not count towards a theater major. Open to all students. This course fulfills the Fine Arts requirement in the core curriculum.

**204 Oral Interpretation**

Content and style of literature; analysis of selected works and projection of their meaning to an audience. Includes public performance. Attention to Reader's Theater.

**214 Beginning Acting**

Provides a foundation for acting through examination of the research process essential to achieving physical and psychological characterization. Emphasis is on theory and the practical application of performance.

**215 Beginning Directing**

Introduction to the theory and craft of directing a production; areas of emphasis include play selection, analysis of script, casting, blocking, characterization, and rehearsal techniques.

**217 Production Design**

Interpreting the play for understanding of design in the theater; translation of written and verbal concepts into elements of line, mass, form and color as they relate to the problems of proscenium and non-proscenium staging. Emphasis variable.

**218 Acting for the Camera**

Acting for the camera is a laboratory course. The course illustrates the differences between stage acting and acting for the camera. Emphasis upon theory and the practical application of working with monologues, commercials, soap operas and scenes for the camera. Students will gain knowledge and experience of operating the cameras and working within a TV studio.

**221 History of Theater I: Classical through 17th Century**

The history and analysis of theater forms, Western and non-Western, from ancient rituals to the 18th century with attention to the relationships between the plays and the audience, performers, and production methods of various periods. This course fulfills the Fine Arts requirement in the core curriculum.

**222 History of Theater II: 18th Century to Contemporary**

Examination of 18th, 19th and 20th century world theater with special attention to both the contemporary and historic perspectives. Deals with major movements and styles of modern theater. This course fulfills the Fine Arts requirement in the core curriculum.

**223 History of Theater III: American**

Development of theater in the United States from its 17th century roots to the present, with special attention to contemporary American drama. Emphasis on the connections between theater and culture. This course fulfills the Fine Arts requirement in the core curriculum.

**253 Creative Dramatics and Children's Theater**

The combination of creative dramatics and children's theater enables students to investigate techniques of teaching drama to children; the course provides an understanding of children's needs and the psychology of play. The second half of the course will be devoted to producing a children's play or several final production projects.

**259 Film I: Introduction to Narrative and Non-Narrative World Cinema**

Analysis of the structure and social impact of film as an art form; extensive use of films in class; concentration on the fiction, documentary and animated film. This course fulfills the Fine Arts requirement in the core curriculum.

**260 History of Film: The Silent Era**

Examines the growth of popular film from the 16th century Italian camera obscura to the rise of Hollywood and the first talkies. Selected films will be studied in class and independently. This course fulfills the Fine Arts requirement in the core curriculum.

**261 History of Film: Sound Era, 1926 to Present Day**

Studies the ways in which such innovations as sound, color, wide-screen and present day computer technology continue to change world cinema. The impact of war and peace, economic conditions, nuclear age politics and the emergence of third world and feminist cinema will be examined as well. Selected films will be studied in class and independently. This course fulfills the Fine Arts requirement in the core curriculum.

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog. Topics listed under 297 fulfill the Fine Arts requirement in the core curriculum.

**314 Advanced Acting**

Study and practice in the art of developing characterization through research and performance of scenes. Examination of conventional acting styles. Work with properties and costuming, methods of rehearsals that lead to a final acting project.

Prerequisite: 214 or permission of instructor

**315 Advanced Directing**

Study of directing theory and practice from Stanislavsky to contemporary; practical directing experience through preparation of scenes and one-acts.

Prerequisite: 215 or permission of instructor

**334 Voice: Musical Theater Emphasis****1 credit**

Designed for students participating in the music/theater program. Repertoire emphasizes literature from operetta and musical comedy. One 50-minute lesson per week. Jury examination is required.

**359 Film II: Film Theory and Criticism**

An approach to film as text – as a constructed weave of images, sounds, speech, music and writing tracing the patterns and forces by which film produces its meanings and effect for spectators. Study of the impulses of the structuralist and semiotic movements which have combined since 1970 with those of feminism, Marxism and psychoanalysis. This course fulfills the Fine Arts requirement in the core curriculum.

Prerequisite: Any beginning film course or permission of instructor

**360 Film III: Super 8 Film-making**

The course makes available to each class member all necessary Super 8 equipment, but assumes no prior knowledge of camera use, editing, sound recording, animation or projection. These areas are covered in the class through specific assignments, class discussions and special workshops conducted by professional filmmakers.

Prerequisite: 259 or equivalent is recommended but not required

**412 Drama: Theory and Criticism**

Study in abstract and applied dramatic theory. Selected playwrights and bodies of criticism that surround their work are examined closely in relation to various theoretical systems. Aristotle through post-modern. This course fulfills the Fine Arts requirement in the core curriculum.

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Theology (THEO)**

Cory (chair), Batten, Boyle, Brady, Briel, Burr, Cavanaugh, Cytron, Hallman, Hart, Hollerich, Hughes, Joncas, Jordon, Kennedy, King-Lenzmeier, Landry, Naughton, Nichols, Patton, Penchansky, Posey, Smith, Snyder, Spencer, Stevenson, Thompson, Windley-Daoust, Wojda

In every historical period and cultural context, there are certain questions which continue to be of pervasive concern for human beings: the nature of the universe, the existence and nature of God, the nature of human beings, the proper relationship of a human being to his or her world, the source of evil and the possibility of redemption.

The Department of Theology has designed a sequence of three courses which acquaints students with the nature and importance of these questions and assists students in articulating for themselves responses formulated in light of their knowledge of the Catholic tradition and the Christian faith. These courses contribute in a coherent and cumulative way to the students' liberal arts education in the development of skills in writing, reading and critical thinking.

The first course, "The Christian Theological Tradition," provides students with a theological framework within which individuals and groups have addressed questions of faith and human existence throughout Christian history. Therefore, the core readings for the course are drawn from the Bible and from classical writers of the Christian tradition. The course also provides students with an opportunity to begin to reflect critically on the content of the Catholic tradition in the diversity of its cultural expressions and in the broader context of other Christian traditions and faiths. Finally, it provides students with a basic level of theological literacy as a prerequisite for their second and third level courses.

The second-level courses all focus on the themes of revelation, the theology of the human person, relationships between the believing community and the wider culture, and worship and spirituality. On this level, courses differ from each other on the basis of particular theological areas of inquiry and are tied together through the four themes. Students will have the opportunity to deepen and expand in content and skill, the theological literacy developed on the first level. In addition, they do so in view of the new methodological achievements of the modern period.

Third-level courses are seminars designed for interactive learning, allowing students the opportunity to engage in questions which relate to faith and culture. From within a larger selection of courses, students learn how cultures shape faith and how faith informs cultures. Emphasis on this level is given to those issues which connect theology to other disciplines in the liberal arts tradition, and students will be expected to make more sustained use of analytical skills.

Beyond the three levels which introduce and develop the skills of all students in theological inquiry the department offers a way to study theology further through its major and minor. The major in theology is an intensive investigation of theological questions in biblical, historical, systematic, and moral theologies. The minor provides students majoring in other disciplines a certain core of theological questions and skills of analysis. Students also may choose to double-major in theology and another discipline. Students graduating with a major in theology will be proficient in their area of specialization. They will demonstrate an ability to reflect on theological and moral issues of contemporary society.

**National Honor Society for Religious Studies and Theology**

Theta Alpha Kappa is devoted to encouraging and rewarding excellence in theology and the study of religion. The Greek letters stand for theos (God), anthropos (humans), and koinonia (community). In addition to recognizing excellence through induction into TAK, the Society also sponsors an essay contest, the winners of which are published in the TAK journal.

An induction ceremony is held at St. Thomas each spring. Those invited to join must meet academic criteria based on the number of theology courses taken, their GPA in theology courses, and their overall GPA.

**Major in Theology**

- 101 The Christian Theological Tradition
- 215 Christian Morality
- 301 Theological Methods and Resources

*Plus:*

- Four credits in Old Testament
- Four credits in New Testament  
(one course must be 205 or 210)
- Four additional credits in systematic theology
- Four credits in historical theology

*Plus:*

- Eight elective credits in theology courses

*Plus either:*

- 480 Seminar for Theology Majors and Minors  
*or*  
 481 Research Thesis for Majors

**Minor in Theology**

- 101 The Christian Theological Tradition  
 215 Christian Morality

*Plus:*

Four credits in Sacred Scripture  
 Eight additional credits in theology

*Plus either:*

Four credits in systematic theology  
*or*

Four credits in historical theology

At least eight of the credits used to fulfill the minor must be at the 300-level or above. The department recommends either 301 or 480 be chosen as one of the two electives for the minor.

**Courses in areas of theological study:***Sacred Scripture*

205 (OT), 210 (NT), 330 (OT), 335 (NT), 340 (NT), 343 (OT & NT), 345 (NT), 350 (OT), 352 (OT), 353 (OT), 356 (OT & NT), 365 (OT), 387 (OT or NT)

*Historical theology*

220, 308, 310, 313, 318, 320, 327, 354, 357, 361, 362, 363, 369, 388

*Systematic theology*

200, 301, 302, 305, 306, 314, 326, 331, 332, 333, 334, 337, 358, 360, 364, 373, 374, 375, 380, 382, 393

*Moral theology*

215, 303, 309, 315, 325, 389

**101 The Christian Theological Tradition**

This course is designed to acquaint students with the contents of the Bible and with Christian history, especially in the context of the Catholic tradition. Through careful reading of a core of common texts and a variety of written assignments, students are expected to attain a basic understanding of human experience in the light of major areas of theology, including revelation, God, creation, Jesus and the Church.

**200 Christian Belief Today**

This course introduces systematic theology, a discipline that tries to understand how Christian doctrines are inter-related with each other and with other beliefs about the world. It explores both traditional and contemporary interpretations of the most significant doctrines in Catholic and Protestant traditions, emphasizing the relationship of scripture, tradition, experience, and reason as sources for Christian theology. The course is structured on the classical "system" of the Nicene Creed, and will focus on the ongoing formation of the doctrines of God, Christ, the Spirit, creation, sin, salvation, and Church. Special emphasis will be given to the role of grace in history and human experience.

Prerequisite: 101

**205 Old Testament**

An intensive reading and discussion of the Old Testament, also known as the Hebrew scriptures. The course investigates methods of biblical interpretation and the literature and theologies of the Israelite people in their ancient Near Eastern context. In addition, this course explores the Old Testament as a foundational document for the Jewish and Christian traditions (both ancient and modern) in the development of doctrine, in the expressions of worship and in the articulation of moral principles.

Prerequisite: 101

**210 New Testament**

This course involves the student in an intensive historical, literary and theological reading of major portions of the New Testament in the Jewish and Greco-Roman contexts and from the perspective of modern methods of biblical interpretation. In addition, the course explores the New Testament as a foundational document for modern Christian traditions in the development of doctrine, in the expressions of worship and in the articulation of moral principles.

Prerequisite: 101

**215 Christian Morality**

This course is an introduction to the principles, methods and topics of Christian theological ethics. The following themes will be addressed: the relation of Christian faith to moral reflection and decision making (both individual and social); the contribution of the Christian tradition to the understanding of the human person (including freedom, sin, conscience, character and grace); the role of the believing community in its relation to culture; and the connection of worship and spirituality to the Christian moral life. Some application will be made to selected issues in personal, professional and social ethics.

Prerequisite: 101

**220 Early Christian Theology**

A theological and historical introduction to the origins and development of the Christian church from the first to the fifth centuries. Special attention will be given to the historical emergence of Christian doctrines, creeds and canon; the formation of Christian understandings of the human person; the development of liturgical and sacramental traditions; and the interaction of Christianity with other ancient cultures. Contemporary approaches to the study of Christian origins will be emphasized.

Prerequisite: 101

**301 Theological Methods and Resources**

This course explores the role of scripture, history, tradition and common human experience in the understanding of religious mystery and the systematic expression of that mystery in the Christian tradition. It examines both ancient and contemporary formulations of theological knowledge, requirements for theological scholarship, and consideration of certain key theological questions.

Prerequisite: 101

**302 The Second Vatican Council**

This course examines the roots of Vatican II in the unfinished work of the First Vatican Council, together with the movements and events in the period between the councils. In addition, it analyzes major documents of the Second Vatican Council with special attention to the dogmatic and pastoral constitutions of the Church.

Prerequisite: 101

**303 Theology and the Biomedical Revolution**

This course examines the contributions of Christian faith to reflecting upon, understanding, and resolving issues and ethical questions raised by revolutionary developments in the life sciences, e.g. innovative birth technologies, genetic manipulation and control, human experimentation, the prolonging of life and allocation of scarce medical resources.

Prerequisite: 101

**305 Theologies of Justice and Peace**

An examination of the views of various religions and ideologies on issues of justice and peace, with special attention to the Catholic and other Christian teachings on such issues as war and peace, violence, economic justice, the environment, criminal justice, and social justice. Special attention is given to how fundamental presuppositions and principles of each group studied affect their views on justice and peace, and contribute to or hinder dialogue and peaceful interaction with other groups. In addition to Christianity, students will study (at least) one Far Eastern worldview (e.g. Buddhism, Hinduism, Jainism), one tribal religion (Native American, African tribal), Islam, and one secular worldview (e.g. Marxism, capitalism, secular humanism). Students are required to investigate one worldview in depth through a semester-long research project. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 101

**306 Christian Faith and the Management Professions (CATH 306)**

What is a good manager and how does he or she contribute to the common good? This course pursues these questions within the Christian social tradition broadly understood through an exploration of the theological relationship between work as a vocation and leisure as contemplation. Within this theological context, the course examines the financial, organizational, technological, and cultural forces that managers and organizations encounter daily.

Prerequisite: 101

**308 Theology of the Protestant and Catholic Reformation**

An investigation of the origins of the Protestant tradition through the writings of Martin Luther, John Calvin, Ulrich Zwingli, and the Radical reformers, among others. This course also examines the Roman Catholic response, especially as articulated by Ignatius of Loyola, Teresa of Avila, and the Council of Trent. Attention will be given to the theological issues which emerged, as well as views on marriage and family life, religious and political authority, and the status of women.

Prerequisite: 101

**309 The Virtues**

In current Roman Catholic and Protestant moral theology the tradition of the virtues has re-emerged as a significant focus of discussion. This course proposes to direct students to at least three aspects of this conversation: the warrant for retrieving the language of the virtues; the important historical contributions to that discussion; and the contemporary implications for current moral theology. Special attention is given to the cardinal virtues as well as the theological virtues of faith, hope and charity.

Prerequisite: 101

**310 Christian Worship**

A study of Christian communal worship from historical, social science, and theological perspectives. This course examines worship as the sanctification of time, space, and life. It also includes a comparison and contrast of Eastern (Orthodox) and Western (Lutheran, Anglican, Reformed, Baptist, Methodist, Quaker, Frontier, Pentecostal) worship practices with those of Roman Catholics.

Prerequisite: 101

**313 Christian Sacramentality**

A study of sacramentality as an essential component of the Christian life. This course examines the historical development of Christian Initiation, Eucharist, Penance, Anointing of the Sick, Matrimony, and Holy Orders as effective signs of the human-divine transformative encounter. It also includes a systematic reflection on sacramentality as proposed by ancient, medieval, Reformation, and contemporary theologians.

Prerequisite: 101

**314 Christian Spirituality**

This course explores the diverse expressions of Christian spirituality. Students will discuss the definitions given to the term "spirituality" and consider methodological issues in the academic study of spirituality whether these are historical, anthropological or theological in approach. Emphasis is placed on a wide reading in the Christian tradition of both primary and secondary literature in order to assist the student in grasping the integral link between the lived faith of Christians and the theological articulation of that faith. Spiritualities will be seen in the context of their historical emergence, the unique contributions each makes to Christianity, and the link they demonstrate between spiritual life and theological insight.

Prerequisite: 101

**315 Christian Marriage**

This course is designed to acquaint students with the theology of Christian marriage, understood as covenant relationship and as sacrament, that is, an effective sign of God's love in our world. Primary though not exclusive emphasis will be on the Roman Catholic tradition. Students will also examine contemporary cultural attitudes toward sexuality, marriage, and the family in the light of Christian theology.

Prerequisite: 101

**318 Theology from Augustine to Aquinas**

A study of the development of Christian theology from St. Augustine to St. Thomas Aquinas. Attention will be given to the formation of the classical Christian views of faith/reason, grace/nature, God/creation.

Prerequisite: 101

**320 Readings from St. Thomas Aquinas**

An introduction to the theology of St. Thomas Aquinas, his influence and his contemporary significance.

Prerequisite: 101

**325 The Catholic Social Traditions**

This course examines Catholic reflection on social structures and patterns of moral behavior as they are expressed in economic, social and political contexts. Focus topics might include: social virtues, the role of religion in the public realm, understanding of the person in relation to society and the state, the defense of the dignity of the person, the promotion of the common good, the use of force and the meaning of justice within and between communities. Possible sources for this course might include selections from classic biblical, patristic and medieval texts; papal, conciliar and episcopal documents; writings of modern and contemporary Catholic social theorists; and social movements inspired by the tradition.

Prerequisite: 101

**326 Church in Latin America (CATH 326)**

This course affords the opportunity to study Christian theology and practice in a context of great suffering and struggle. The course analyzes the various forms that Christianity has taken in Latin American history, with special emphasis on the period of the Spanish Conquest and the twentieth century. This course covers the outline of the history of the Church in Latin America, but more importantly examines the theological issues raised in each era to see how Christians have lived their faith under different circumstances. Theological topics explored include evangelization, Christology, sin, martyrdom, poverty, the Church, and the Eucharist. Students also study and cri-

tique specifically Latin American methods and approaches to the theological task itself. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 101

### 327 Theology of the Catholic Worker Movement (CATH 327)

Two Catholic laypeople, Dorothy Day and Peter Maurin, founded a movement in the 1930s aimed at applying traditional Christian thought to a profound political and cultural critique of modern American society. Still flourishing today, the Catholic Worker movement provides hospitality to the poor and a prophetic critique of the prevailing social order, based on a vision of all people as members of the mystical Body of Christ. This course examines the theoretical and practical implications of this movement, emphasizing its development of a theological politics and economics out of the traditional sources of Catholic theology; the Gospels, the Church Fathers, the saints, the liturgy, and papal social teaching. The course also examines criticisms of the movement from both within and without the Church. The course will include a field trip to a Catholic Worker community.

Prerequisite: 101

### 330 Wisdom Writings in the Biblical Tradition

This course introduces students to the structure and contents of some of the major wisdom writings of the Bible, such as Proverbs, Job, Ecclesiastes, Sirach (Ecclesiasticus), and Wisdom of Solomon. Special emphasis is given to the intellectual climate and essential controversies of ancient Israel which produced the wisdom movement and its literature. One of the aims of the course is for students to experience the unique relevance of this ancient quest for wisdom in today's climate of secularity and skepticism.

Prerequisite: 101

### 331 Christianity and World Religions

This course is a comparison of the teachings and practices of Christianity with the teachings and practices of selected non-Christian religions, for example, American Indian (Lakota), Judaism, Islam, Hinduism and Buddhism. The aim of the course will be to clarify similarities and differences between Christianity and other religions, to reflect on the problem posed by religious pluralism in modern culture, and to develop a Christian theology of world religions. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 101

### 332 Judaism

An examination of Judaism, its history, literature, religious concepts, practices and personalities. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 101

### 333 Contemporary Judaism

During the last two centuries freedom of movement, new political rights and modern science have all changed the basis of Jewish religious life. The migration from the old world to the new, the devastation of the Holocaust and the creation of the State of Israel have helped pull this revolution along at a frenzied pace. The course focuses on the changes, both theological and social, of these past two centuries which have resulted in a multiplicity of Judaisms. Reading, lectures and discussions, along with some film highlights, will enable the student to discover the many ways in which modern Jews live out their religious and communal lives with their fellow Jews and in the pluralistic setting of America. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 101

### 334 Islam

This course is designed to familiarize students with the basic beliefs and practices of Islam in its diverse cultural expressions worldwide, including worship, family life and intellectual and artistic traditions. Through a close reading of Qur'anic and biblical texts, students will consider how Islam is both similar to and different from the other two major monotheistic faiths, Judaism and Christianity. Finally, the course will examine how both Islam and Christianity are meeting the challenges of modern culture. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 101

### 335 Letters of St. Paul

Through a careful reading of the authentic letters of Paul, as well as some of the letters attributed to him, this course explores the religious and cultural world of Paul and the Christian communities with whom he interacted. It will also investigate some of the major theological themes of his letters and inquire into Paul's understanding of the ethical life of first-century Christian communities. Finally, the course will examine the impact of Paul's theological and ethical teaching for modern Christian life.

Prerequisite: 101

**337 Evil and the Suffering of God**

This course analyzes some of the most profound evils of the modern era, and attempts to relate them to traditional and contemporary theological discussions of divine responsibility. It is especially concerned with the unique features of modern evils, including their presence in certain social structures, political systems and scientific technologies. Specific subjects for study, which will vary from year to year, may include: the Holocaust; the slave trade; genocidal colonization in Africa, Asia and the Americas; and the threat of nuclear annihilation. The course investigates how religious faith might be re-interpreted in light of these evils, and whether the notion of a suffering deity is theologically appropriate for Christian faith.

Prerequisite: 101

**340 The Gospel of John**

This course focuses on the gospel of John and the New Testament letters attributed to John. Employing a variety of historical and literary critical methods, the course investigates Johannine literature's unique portrait of Jesus, the theological themes of the gospel, and the worldview and social situation of the community of Christians from which this literature emerged. It also explores some of the ways the gospel of John has been interpreted over the centuries, with special attention to the question of the gospel's attitude toward Judaism and the historical impact of that stance.

Prerequisite: 101

**343 Apocalyptic Literature**

This course examines some of the apocalyptic literature of the Bible, specifically the books of Daniel and Revelation, as well as non-biblical Jewish and Christian apocalyptic literature of the same periods. It explores a variety of ways of interpreting apocalyptic literature with special attention given to the meaning and significance of its mythical imagery and symbolism. It also examines the nature and function of apocalypticism as a worldview and as a theological response to universal and compelling questions such as the justice of God and the problem of evil.

Prerequisite: 101

**345 Gospels of Matthew, Mark and Luke**

This course introduces students to the major methods of modern biblical criticism (for example, source criticism, form criticism, historical criticism, redaction criticism, literary criticism, and sociological analysis) and develops expertise in the application of each of these methods to the synoptic gospels (Matthew, Mark and Luke-Acts). Students will learn the major theological teachings, social and historical contexts, and literary features of each of the synoptic gospels.

Prerequisite: 101

**350 Historical Literature of the Old Testament**

Many books of the Old Testament, such as Joshua, Judges, 1 & 2 Samuel and 1 & 2 Kings, contain ancient Israel's own understanding of its history. This course examines books such as these in order to examine their historical content, and to develop an appreciation for the way history was told in the ancient world. Students will learn to apply certain methods of biblical study to the texts. In addition, several major themes in the biblical histories will be explored, such as prophecy, monarchy and developments in Israelite worship. One aim of the course is to examine the relationship between the memorable story telling in these texts and the theological message for both the ancient and modern audience.

Prerequisite: 101

**352 The Pentateuch**

Critical and in-depth investigations of various Pentateuchal traditions: Primeval Stories; Patriarchs; Exodus; Sinai Covenant; Laws; Entry into Canaan. Particular emphasis will be focused on their origin, transmission, mutual relationships and final theological unity.

Prerequisite: 101

**353 Women and the Old Testament**

This course explores the topic of women and the Old Testament from several different vantage points. In the first place, it will try to reconstruct the status and roles of women during the biblical periods at various points in their ancient Near Eastern context. This reconstruction will involve an examination of the legal and narrative material of the Old Testament and cross-cultural studies on women and family life in non-industrial countries. Secondly, the course investigates the conceptions of gender in the Old Testament, including key texts such as the creation stories, the stories about the ancestors, the stories about family honor, the female characters of the historical books of the Bible, the books named after women (Ruth, Esther, Judith), the texts symbolizing woman as evil (e.g., the foreign woman, the adulterous wife, the whore of Babylon). Finally, the course studies the interpretive work of biblical scholars and how they utilize various historical and literary-critical methodologies in order to bring issues of gender, race, and class to bear upon the biblical text. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: THEO 101



**354 Women and the Christian Tradition**

This course explores the ways in which the Judeo-Christian religious tradition has profoundly influenced our society's definition of women. It will focus on what some of the major works of this tradition assert about the nature and place of women in their particular historical communities. Students will also read religious literature by women in order to acquire a sense of women's religious experience both throughout history and in the present day. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: THEO 101

**356 Music and the Bible (CATH 356)**

This course explores the social, cultural and religious contexts for music-making among biblical peoples and the primitive Christian communities. Students will learn to do detailed analysis of psalm and canticle texts in the Old Testament and acclamations, infancy canticles, God-hymns, Christ-hymns and psalmody in the New Testament. Implications for present-day worship and spirituality will also be addressed.

Prerequisite: 101

**357 Sacred Music of the Catholic Heritage (CATH 357)**

Music both expresses and shapes religious experience. This course explores the practice and theory of music-making in Catholic worship and devotion. Special emphasis will be given to the study of Gregorian chant as foundational for Roman Rite worship music, the historical development of other forms of Catholic church music, and contemporary issues of music, culture and spirituality.

Prerequisite: 101

**358 The Church**

A study of past and present models of the Church. This course will examine the implications of these models for the status and functions of laity, forms of ministry and authority, and the relationship between the churches.

Prerequisite: 101

**360 Contemporary Catholic Theologians**

This course concentrates on the study of two to four influential Catholic systematic theologians of the 20th and 21st centuries within their historical, cultural, and philosophical contexts. The course will alternate between the study of the prominent themes and concerns of the modern and post-modern world, and the theologians' varied responses to these issues through substantial primary text reading and discussion. The Second Vatican Council's impact upon systematic work will be measured as well.

Prerequisite: 101

**361 Black Religious Experience**

This course explores Black theological development as a cultural, functional and cognitive dimension of traditional Afro-American society, including belief, worship, expression, symbol, spirituality and God. Attention will be given to the meaning and roots of the notions of culture, nationalism and racism as they appear as questions in Black theological thought, including African religions, Islam and The Nation of Islam, along with Afro-American Christian theologies. African as well as Afro-American religious experience combined with the affirmation of the Christian creed are identified in order to evaluate the questions of Black Catholic theology in America today. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: 101

**362 Twentieth Century American Catholicism**

This course emphasizes the impact of cultures on one another in the growth of the Catholic community in today's United States. These world and theological views and their practical application in the piety, politics and everyday life of Catholics will be the primary focus. By summarizing significant events and characters in the history of the Catholic experience, the student will develop an understanding both of the different ethnic experiences and the theological concerns which created a pluralism among American Catholics that makes the Church of the United States truly catholic.

Prerequisite: 101

**363 Theology and Politics**

A theological investigation of changing relationships between Christianity and the political order, principally in religious terms as understood by Christians themselves, but also from the vantage point of government. Emphasis in the first half of the course is on the foundational events of the New Testament and the early Christian era, and in the second half on Christianity's experience with secular and democratic modernity in America. The aim of the course is to measure the effect, in changing historical contexts, of persecution, establishment, and dis-establishment, on a religion which professes both to be rooted in transcendent reality, and to have direct implications for life in this world. Primary readings from scripture, ancient and modern theology, speeches, sermons, Supreme Court decisions, and political, sociological and religious reflections on the American experiment with democracy and freedom of religion.

Prerequisite: 101

**364 Science and Christian Theology (CATH 364)**

This course is an introduction to the interrelationship between Christian theology (the understanding of the Christian faith), and the natural sciences. It explores the relationship between scientific and theological methods and modes of knowledge, and considers some of the central topics of Christian theology – God, creation, providence, resurrection, and afterlife – in the light of modern scientific evidence and theories.

Prerequisites: 101, PHIL 115, some college-level background in science, preferably biology, physics, or chemistry

**365 Prophetic Literature of the Old Testament**

This course examines biblical prophetic activity and prophetic texts within their ancient Near Eastern context. Biblical texts will include both narratives about the prophets, and collections of oracles in the prophetic books. The course includes an examination of the nature and function of prophetic activity from a cross-cultural perspective, the historical background of the prophets, as well as the literary forms and Israelite traditions utilized in the oracles. It will be seen that this background is essential to any discussion of the theology of the prophets.

Prerequisite: 101

**369 Salvation and Damnation: Theology of Luther and Calvin**

How are humans saved? Do we have a free will? Does God choose some to be saved and others to be damned? This course examines the answers offered to these questions by two influential Protestant reformers: Martin Luther and John Calvin. It also explores their views on marriage and family life, work, religious and political authority, and the status of women.

Prerequisite: 101

**373 The Person and Mission of Jesus Christ**

This course explores New Testament understandings of some of the titles of Jesus, such as Christ, Lord, and Savior, and investigates the development of Christological doctrine in the early centuries of Christianity. Consideration will also be given to some modern Christological questions.

Prerequisite: 101

**374 Atheists and Apologists**

This course explores the problem of religious belief in a secular society by looking at the rise of modern atheism from the 17th century to the present day. Focusing on original thinkers of major significance, both the case for the emergence of several types of atheism and the intellectual defense of religious belief written in order to counter them will be considered. Students will do a close, detailed reading of selected texts; these texts may include theological, philosophical, scientific, and literary works.

Prerequisites: 101 and PHIL 115

**375 Theology in the Enlightenment**

An analysis of the effects of the empirical and human sciences on the classical understanding of God. This course focuses on the theological formulations of Descartes, Kant, Hegel and Marx, with attention given to Darwin, Nietzsche and Freud. It also includes a study of theological responses to modernity: Denzinger Theology, Schleiermacher, Blondel, de Chardin, Rahner and Lonergan.

Prerequisite: 101

**380 Grace, Hope and Eschatology**

This course explores the connections among the life of grace, Christian hope and the traditional “last things” – death, judgment and eternal life – using the death-resurrection of Jesus as the foundation and point of departure for study.

Prerequisite: 101

**382 Death and the Afterlife**

This course explores Christian and non-Christian conceptions of death and afterlife. It focuses on Christian theological views, but also considers Jewish, Muslim, Hindu, and Buddhist conceptions. Specific topics addressed will be ideas of judgment, heaven, purgatory, hell, reincarnation, and accounts of near-death experiences.

Prerequisite: 101

**387 Topics in Scripture**

The subject matter of this course, announced in the annual Class Schedule, will vary from year to year, but will not duplicate existing courses in scripture. The course introduces students to major methods of biblical criticism and helps students develop expertise in the application of appropriate methods to a given scriptural book or topic. The topic could consist in a focus on a particular text, such as Psalms or the Catholic Epistles, or on a theme related to scriptures, such as Biblical Ethics or History of Biblical Interpretation. The course may be taken more than once.

Prerequisite: 101

**388 Topics in Historical Theology**

The subject matter of this course, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses in historical theology. The course will consider particular historical thinkers, texts, themes or movements and help students to develop expertise in the theological consideration and analysis of them. This course may be taken more than once.

Prerequisite: 101

**389 Issues in Christian Morality**

This course focuses on the historical development and contemporary discussion of a specific moral issue – to be announced in the annual *Class Schedule* – addressed within the Christian theological tradition. Examples of such issues include, but are not limited to: war and peace, sex and the body, wealth and poverty, family and society. Emphasis will be on the foundations (biblical, traditional) and development of a distinctively Christian approach to the issue. Substantial attention will be devoted to modern challenges. This course may be taken more than once.

Prerequisite: 101

**393 Newman and the Nineteenth Century Catholic Revival**

A study of some of the responses to the emerging questions of history, subjectivity and authority, including those of the first Vatican Council, but with special emphasis on the thought and works of Cardinal Newman.

Prerequisite: 101

**395 Special Seminar****2 credits****397 Special Seminar**

The subject matter of the seminar, announced in the annual *Class Schedule*, will vary but will not duplicate existing courses.

400-level courses cannot be used to fulfill the core curriculum requirements in Faith and the Catholic Tradition.

**445 Theology and Education**

A study of topics and procedures for teaching religion. Using previously acquired theological knowledge, the course examines the tasks of translating and transmitting that knowledge as a series of insights to elementary and secondary students. The course will include supervised teaching experience.

Prerequisite: 101

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**480 Seminar for Theology Majors and Minors**

A capstone experience for theology majors and minors. The subject matter of this course, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate already existing theology courses. Students explore, in seminar format, a particular theological theme or issue from the perspective of at least three of the four sub-disciplines of theology (biblical, systematic, historical, moral). Under the guidance of the instructor, students will complete a major research project.

Prerequisites: a minimum of sixteen credits in theology, including 101

**481 Research Thesis for Majors**

An independent research thesis for majors to be completed under the direction of a theology faculty member. The results of this thesis, at the student's option, may be presented at the annual Senior Forum, in which theology majors present their research work before theology students and faculty members. The research thesis is best suited to students who intend to pursue an academic career in theology. See the department chair for further information.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the “Departments and Curricula” section of this catalog.

**Urban Studies***See Interdisciplinary Minors***Visual Communication***See Department of Journalism and Mass Communication***Washington Semester***See Affiliated Programs***Women's Studies***See Interdisciplinary Programs***Actuarial Science (ACSC)**

Youn (MATH), director, Herman (MATH)

The Bachelor of Science in Actuarial Science is an interdisciplinary degree program offered through the Department of Mathematics. (See also the Department of Mathematics in this catalog.)

Actuarial science education equips students with strong mathematical problem-solving skills that can be applied to business careers. The major requirements consist of courses in mathematics, actuarial science, computer science, business, economics and a course in communication. Coupled with a firm foundation in the liberal arts, this major provides a sound grounding in analytical problem-solving and communication skills.

This program prepares students for a variety of careers with insurance companies, consulting firms, financial institutions, industrial corporations or government agencies. It also provides a good preparation for non-actuarial careers in banking, finance or insurance. In addition, the statistical background developed by an actuarial student is valuable in a variety of other fields.

Students graduating with a major in Actuarial Science will become proficient in basic mathematics through multi-variate calculus and probability together with basic notions of insurance and risk management. They will demonstrate the ability to think clearly and critically in solving problems related to the analysis and management of risk. They will be able to effectively communicate technical and non-technical information to their peers and to non-specialists in their work environment.

To be certified as a Fellow or an Associate by either the Society of Actuaries or the Casualty Actuarial Society, one must pass a series of rigorous examinations. The earlier examinations are focused on mathematics and statistics and can be taken while a student. The later examinations cover aspects of business, economics, and the regulatory climate.

A careful selection of courses from a variety of departments helps a student to prepare for many excellent professional opportunities in this field. Students should see the director of the Actuarial Program for advice in selecting courses for a particular purpose.

Within the Department of Mathematics, the Center for Applied Mathematics provides opportunities for actuarial science students to work on significant mathematical problems of current interest to business, industry, and government.

**Major in Actuarial Science (B.S.)**

ACCT	205	Introduction to Accounting
ACSC	264	Theory of Interest
ACSC	351	Foundations of Actuarial Mathematics
ACSC	352	Actuarial Contingencies
BUS	201	Ethics and Practice: Foundations of Business
ECON	252	Principles of Microeconomics
FINC	321	Financial Management
MATH	113	Calculus I
MATH	114	Calculus II
MATH	200	Multi-Variable Calculus
MATH	210	Linear Algebra and Differential Equations
MATH	313	Probability
MATH	314	Mathematical Statistics
QMCS	230	Software Design Using the JAVA Language

A course in risk management and insurance approved by the program director

*Plus one of:*

MATH	333	Applied Statistical Methods: Regression, Time Series, Forecasting
MATH	385	Mathematical Methods of Numerical Analysis

## Interdisciplinary Programs

*Plus one of:*

COMM 103	Public Speaking
COMM 104	Communication in the Workplace
ENGL	200 or above
JOUR 215	Journalistic Writing in the Workplace
JOUR 311	Persuasion in Writing

*Suggested Electives:*

BLAW 365	Business Law
ECON 251	Principles of Macroeconomics
ECON 351	Macroeconomic Theory
ECON 352	Microeconomic Theory
ECON 355	Game Theory
FINC 324	Advanced Financial Management
FINC	400-level Investment Courses
MBIS 701	Insurance Seminar
MKTG 300	Principles of Marketing
QMCS 280	Object-Oriented Design and Programming
QMCS 450	Database Design

### 264 Theory of Interest (MATH 264)

A survey of topics in the mathematical analysis of financial transactions which involve payments made over time. Specific areas of concentration will include the time value of money; the analysis of annuities; amortization and sinking funds; and the pricing and rates of return on investments. Both continuous time and discrete time problems will be considered.

Prerequisite: MATH 114.

### 351 Foundations of Actuarial Mathematics

The course covers the theory and applications of contingency mathematics in the area of life and health insurance, annuities and pensions from both the probabilistic and deterministic approaches. Topics will include: survival distributions, actuarial notation, life insurance and life annuities, net premiums and reserves.

Prerequisite: 264 and MATH 313.

### 352 Actuarial Contingencies

Extension of the analysis of 351 to multiple life functions and multiple decrement theory. Topics will include: multiple life functions and multiple decrement models, valuation of pensions, insurance models including expenses, nonforfeiture benefits and dividends.

Prerequisite: 351

## Biochemistry

DeJong (BIOL), Hartshorn (CHEM), chairs; Advisory committee: Chaplin (BIOL), Glorvigen (CHEM), Olson (CHEM), Verhoeven (BIOL)

Biochemistry is an interdisciplinary major that draws upon faculty and courses in the departments of Biology and Chemistry. The major is administered by a committee of representatives from both departments and is designed to meet the needs of students interested in gaining an understanding of the chemistry of life processes. Students who fulfill the requirements will receive a Bachelor of Science (B.S.) degree in Biochemistry. The program is appropriate for students pursuing graduate studies in biochemistry, medicine, or related fields. The major is also suitable for students interested in positions in biotechnology after graduation.

Entering students interested in this major should inform Academic Counseling. Students are advised to begin their introductory biology and chemistry coursework in their freshman year. The biochemistry committee will coordinate advising, though any faculty member of either department may serve as an adviser. Students should talk with an adviser as soon as possible following their freshman year in order to select the elective courses that will be most appropriate to their interests. A research course in either biology or chemistry can be counted as one of the electives and is highly encouraged if the student will be seeking admission to a graduate program in biochemistry or molecular biology.

Students choosing this major may not take a second major or a minor in either Biology or Chemistry.

### Major in Biochemistry (B.S.)

BIOL 201	Diversity and Adaptation
BIOL 202	Genetics and Population Biology
BIOL 204	Cellular and Molecular Biology
CHEM 111	General Chemistry I

CHEM 112	General Chemistry II
CHEM 201	Organic Chemistry I
CHEM 202	Organic Chemistry II
CHEM 440	Biochemistry I
CHEM 442	Biochemistry II

*Plus one of:*

CHEM 331	Chemical Thermodynamics and Reaction Dynamics
CHEM 332	Quantum Chemistry and Molecular Spectroscopy

*Plus:*

Twelve additional credits numbered BIOL 295 or higher.

*Note:* Four credits must be at the 400-level, excluding Research. Four credits may be in Research at the 300-level.

Four additional credits in CHEM, selected in consultation with the adviser.

*Allied requirements*

MATH 113	Calculus I (or equivalent)
MATH 114	Calculus II
PHYS 111	Introduction to Classical Physics I
PHYS 112	Introduction to Classical Physics II

**Catholic Studies (CATH)**

Briel (THEO), director, Hayden-Lemmons (PHIL), Joncas (THEO), A. Kennedy (THEO), R. Kennedy (MGMT), Menssen (PHIL), Reichardt (ENGL), T. Sullivan (PHIL), Thompson (THEO), Wallace (CATH)

The interdisciplinary program in Catholic Studies is designed to allow students to encounter the broad and diverse expressions of Catholic culture. While grounded in Catholic philosophy and theology, the program engages students with the imaginative and sacramental expressions of Catholic life in literature, the arts, social systems and personal experience. The program's interdisciplinary dimension gives students insight into the Church's dynamic interaction with and interpenetration of cultures, traditions, and intellectual life throughout history. By examining the role the church has played in various cultures, students are challenged to take seriously Catholicism's transforming power in every aspect of intellectual, spiritual, and social life.

Faculty who teach in the program are drawn from across the university and are united by a profound respect for Catholicism. They are committed to a high degree of interaction among themselves as well as with students. Students who choose to participate in the program thus enter into a community at once faithful and intellectual.

The program will appeal to students of any faith tradition who seek to deepen their knowledge of Catholicism's rich and living heritage. Its interpersonal approach and opportunities for sustained reflection on important issues invite students to a more profound and mature experience of faith.

Students graduating with a major in Catholic Studies will have a knowledge of the living Catholic tradition, and will be conversant with resources from the Catholic intellectual tradition that will permit them to explore critically the history and contemporary significance of Catholicism. They will be familiar with major Catholic figures from a variety of cultural and historical settings, and will be able to demonstrate a knowledge of the complex and broad history of the Catholic intellectual tradition.

The major consists of 32 credits: 20 credits in core courses and 12 credits in electives (two electives for double majors). The minor consists of 16 credits: 12 credits in core courses and four elective credits. Many courses are cross-listed with another department. Students majoring or minoring in other disciplines are invited to take an occasional course in the program at any time.

**Major in Catholic Studies**

240	Faith and Doubt
301	The Catholic Vision
312	Catholic Social Thought
334	Literature from a Christian Perspective
397	Topics

*Plus:*

Twelve credits in electives chosen from three of the following four categories:

CATH 222	The Catholic Literary Tradition: Medieval to Modern
THEO 310	Christian Worship

An historically based course from the interdisciplinary program in Catholic Studies or a course approved by the director

An aesthetics course from the interdisciplinary program in Catholic Studies or a course approved by the director

**Minor in Catholic Studies**

- 240 Faith and Doubt
- 301 The Catholic Vision
- 334 Literature from a Christian Perspective

*Plus:*

Four credits chosen from the following five categories:

- CATH 222 The Catholic Literary Tradition: Medieval to Modern
- CATH 312 Catholic Social Thought
- THEO 310 Christian Worship

An historically based course from the interdisciplinary program in Catholic Studies or a course approved by the director

An aesthetics course from the interdisciplinary program in Catholic Studies or a course approved by the director

**222 The Catholic Literary Tradition: Medieval to Modern (ENGL 222)**

This course surveys literary works with theological or spiritual themes that have contributed to the vitality of Catholic culture. The purpose of the course is to help students realize that Catholic culture has fostered a variety of literary expressions and has produced works that speak compellingly of human experience and sacramental life. Prerequisites: ENGL 111 and 112 or 190

**234 Love, Sex and Friendship (PHIL 234)**

A philosophical examination of the nature of human love. Possible topics include reciprocity and permanence, fidelity, romantic love, human sexuality, kinds of friendship. Special attention will be given to the thought of John Paul II.

Prerequisite: PHIL 115

**240 Faith and Doubt (PHIL 240)**

Philosophical arguments for and against the possibility of divine revelation. Special attention will be given to the claim that the faith of the Catholic Church is revealed. Possible topics include tests of alleged revelations and miracles, evil as a barrier to belief in revelatory claims, the compatibility of science and religion, the role of reason and faith in religious commitment, and personal decision-making in a state of doubt about evidence.

Prerequisite: PHIL 115

**250 Christian Mysteries from a Philosophical Viewpoint (PHIL 250)**

A consideration of philosophical problems associated with Catholicism. Possible topics include divine providence, creation, the soul, freedom of the will, faith, the Eucharist, the Incarnation, and the variety of religious beliefs.

Prerequisite: PHIL 115

**272 Evolution and Creation (PHIL 272)**

A philosophical examination of the relation between the doctrine of creation and theories in the evolutionary sciences. The course will consider arguments concerning evolution and creation from a variety of disciplines (including philosophy, theology, and natural science). The course will also examine historical and philosophical aspects of the relation between science and religion on the origins of the material world and the human race.

Prerequisite: PHIL 115

**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**301 The Catholic Vision**

At the center of the Catholic vision are the two great works of divine love: creation and salvation. This course considers the implications of these divine works for a radical reconsideration of the world and the human person. Readings are drawn from sacred Scripture, councils, and theologians throughout the tradition with specific attention given to the intellectual and spiritual consequences of Catholic doctrine. Possible authors studied include Augustine, Basil, Francis, Ignatius, Teresa of Avila, Pascal, Newman, Maritain and de Lubac. In addition, the visual arts and works of literature by such figures as Dante, Hopkins, O'Connor and Percy will provide important illustrative examples.

Prerequisite: THEO 101

**306 Christian Faith and the Management Professions (THEO 306)**

What is a good manager and how does he or she contribute to the common good? This course pursues these questions within the Christian social tradition broadly understood through an exploration of the theological relationship between work as a vocation and leisure as contemplation. Within this theological context, the course

examines the financial, organizational, technological, and cultural forces that managers and organizations encounter daily.

Prerequisite: THEO 101

### 312 Catholic Social Thought

Rooted in Scripture, Catholic thought on social questions has always constituted a challenge to communities to protect human dignity from the concrete threats of the day. As it matured, Catholic social thought developed both a theoretical framework as well as a set of principles and guidelines for structuring communities in ways that protect and advance human dignity. The purpose of this course will be to explore both dimensions of Catholic social thought in their historical origins and in their contemporary expressions. Although the course presupposes a theological context, the principal focus will be on the interdisciplinary contributions to and implications of Catholic social thought.

Prerequisite: Completion of the Social Analysis requirement in the core curriculum

### 326 Church in Latin America (THEO 326)

This course affords the opportunity to study Christian theology and practice in a context of great suffering and struggle. The course analyzes the various forms that Christianity has taken in Latin American history, with special emphasis on the period of the Spanish Conquest and the twentieth century. This course covers the outline of the history of the Church in Latin America, but more importantly examines the theological issues raised in each era to see how Christians have lived their faith under different circumstances. Theological topics explored include evangelization, Christology, sin, martyrdom, poverty, the Church, and the Eucharist. Students also study and critique specifically Latin American methods and approaches to the theological task itself. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: THEO 101

### 327 Theology of the Catholic Worker Movement (THEO 327)

Two Catholic laypeople, Dorothy Day and Peter Maurin, founded a movement in the 1930s aimed at applying traditional Christian thought to a profound political and cultural critique of modern American society. Still flourishing today, the Catholic Worker movement provides hospitality to the poor and a prophetic critique of the prevailing social order, based on a vision of all people as members of the mystical Body of Christ. This course examines the theoretical and practical implications of this movement, emphasizing its development of a theological politics and economics out of the traditional sources of Catholic theology; the Gospels, the Church Fathers, the saints, the liturgy, and papal social teaching. The course also examines criticisms of the movement from both within and without the Church. The course will include a field trip to a Catholic Worker community.

Prerequisite: THEO 101

### 334 Literature from a Christian Perspective (ENGL 334)

This course examines methods of reading and literary texts from a Christian perspective. The general question of the course is, "how does a reader engage works of imaginative literature from an intellectually serious Christian perspective?" The course studies works of criticism representing a variety of Christian viewpoints and applies them to literary texts that are explicitly Christian in themes as well as those which invite, or are enriched by, a Christian perspective.

Prerequisites: ENGL 111 and 112 or 190

### 356 Music and the Bible (THEO 356)

This course explores the social, cultural and religious contexts for music-making among biblical peoples and the primitive Christian communities. Students will learn to do detailed analysis of psalm and canticle texts in the Old Testament and acclamations, infancy canticles, God-hymns, Christ-hymns and psalmody in the New Testament. Implications for present-day worship and spirituality will also be addressed.

Prerequisite: THEO 101

### 357 Sacred Music of the Catholic Heritage (THEO 357)

Music both expresses and shapes religious experience. This course explores the practice and theory of music-making in Catholic worship and devotion. Special emphasis will be given to the study of Gregorian chant as foundational for Roman Rite worship music, the historical development of other forms of Catholic church music, and contemporary issues of music, culture and spirituality.

Prerequisite: THEO 101

### 364 Science and Christian Theology (THEO 364)

This course is an introduction to the interrelationship between Christian theology (the understanding of the Christian faith), and the natural sciences. It explores the relationship between scientific and theological methods and modes of knowledge, and considers some of the central topics of Christian theology – God, creation, providence, resurrection, and afterlife – in the light of modern scientific evidence and theories.

Prerequisites: THEO 101, PHIL 115, some college-level background in science, preferably biology, physics, or chemistry



## Interdisciplinary Programs

### 397 Topics

This course will examine in detail a small focused set of questions arising from one or more areas of the interdisciplinary program in Catholic Studies. Topics will vary from year to year but will not duplicate existing courses. The selection in any given semester will depend upon the interest of the students and instructors and on the availability of community resources (for example, guest lecturers). Some examples of subject matter include: Is Christian tragedy possible? Does Catholic belief conflict with the findings of modern science? What is the relationship of Catholicism to various economic systems?

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Classical Civilization (CLAS)

Chew (M&CL), director

The study of Classical civilization – the cultures of ancient Greece and Rome and their relationship to the societies of the Mediterranean and the Near East – is the origin and foundation of the modern university. To this day, it continues to be a model of an interdisciplinary approach to the study of culture, combining fields of literature and language, history, archaeology and art history, religious studies, and philosophy.

The Classical Civilization major at St. Thomas provides an opportunity for students to integrate various disciplines in the study of a subject. It also provides an awareness of the origins of modern culture and religion and the influence of other ancient cultures of the Near East and Egypt upon its formation. This interdisciplinary program includes an introductory foundation course, a series of courses from a variety of supporting disciplines, and a capstone senior paper requirement.

### Major in Classical Civilization

CLAS	245	Classical Mythology
CLAS	397	Topics
CLAS	480	Senior Paper
ENGL	220	The Classical Tradition
HIST	111	Origins of the Modern World to 1550
HIST		300-level ancient history course approved by director
PHIL	200	Ancient Philosophy

#### *Plus one of:*

GRK	212	Intermediate Greek II (prerequisites may be necessary)
LAT	212	Intermediate Latin II (prerequisites may be necessary)
GRK or LAT		Four credits numbered above 212

#### *Plus one of:*

ARTH	305	Greek Art and Archaeology
ARTH	310	Roman Art and Archaeology

#### *Plus two of the following courses not already taken above:*

ARTH	305	Greek Art and Archaeology
ARTH	310	Roman Art and Archaeology
COMM	440	Classical Rhetoric
GRK	342	Greek Reading and Exegesis: John
GRK		additional course
HIST	302	Classical and Early Hellenistic Greece
HIST	304	The Roman Republic and the Early Principate
HIST	306	The World of Late Antiquity: A.D. 284-641
HIST	307	The Church in the Roman Empire to A.D. 395
LAT	360	Philosophy in Latin Texts
LAT		additional course

PHIL	230	Greek Philosophers on the Foundations of Knowledge
PHIL	320	Aristotelian Logic
THEO	210	New Testament
THEO	220	Early Christian Theology

#### 245 Classical Mythology

Mythology is the embodiment and encoding of the beliefs, principles, and aspirations of ancient cultures. This course provides an interdisciplinary introduction to mythology as an introduction and foundation to Classical civilization. Myths will be examined from a variety of perspectives, including the study of literature in translation, art historical, religion, and history.

#### 397 Topics

The subject matter of the course, announced in the annual *Class Schedule*, will vary but will not duplicate existing courses.

#### 480 Senior Paper

0 credit

During the senior year or earlier majors are expected to write a major research paper with an abstract and to describe the results of their research in a short oral presentation to a panel of faculty. Normally this requirement is accomplished by rewriting and submitting a paper from one of the major field courses. The topic should be chosen in consultation with the program director and should be completed no later than 6 weeks prior to graduation. Papers will be presented to students and faculty at least annually at a symposium.

#### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## East Asian Studies

Foy (ENGL), adviser

This major and minor is offered by the Associated Colleges of the Twin Cities (ACTC). The purpose of this program is to enable students to acquire a broad interdisciplinary understanding of East Asia, which includes knowledge of an East Asian language, and specialization in upper-division courses.

### Major in East Asian Studies

A major in East Asian studies consists of 36 credits which must include:

- sixteen credits in an East Asian language
- sixteen credits in East Asian studies (with a minimum of eight credits in upper-division courses)
- one East Asian studies seminar

*Note:* Courses that satisfy these requirements are published annually in The ACTC Joint *Class Schedule*. Each student should develop a plan of studies with the faculty adviser.

### Minor in East Asian Studies

Eight credits in East Asian language courses

*Plus:*

Twelve credits in East Asian studies courses from the annual list of courses that satisfy the requirement

See the faculty adviser.

## Environmental Studies (ENVR)

Hoffman (POL), director; Governance Committee: Degnan (PHIL), Evarts (BIOL), Longley (CHEM), Lorah (GEOG), Neuzil (JOMC), Sathe (ACCT), Smith-Cunnien (SOC), Vincent (ECON), Werner (GEOG)

The Environmental Studies program provides students with a broad interdisciplinary background as well as a

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basis for career specialization and practical application and problem solving. The program is based upon an investigation both of the Earth's environment and the wide variety of human interactions with that environment. The program has three basic objectives:

1. to transmit an understanding of environmental problems and their complexities,
2. to motivate productive responses to those problems, both vocational and avocational, based on that understanding, and
3. to foster the development of critical, inquiring minds.

All students majoring in Environmental Studies are required to take 36 credits in core courses, another 24 credits in concentration-area courses, and four credits in an allied course. The core courses are designed to provide the student with a foundation in the physical, social and ethical dimensions of environmental issues. Students graduating with a major in environmental studies will demonstrate their ability to integrate their liberal arts and professionally-oriented education. Students are encouraged, but not required, to take additional courses in writing and computer applications, and should consult the chair of the Environmental Studies Committee for recommendations.

The concentration area consists of a minimum of an additional 24 credits beyond the core. These courses are meant to deepen the student's understanding of the origin and complexity of environmental issues while focusing attention on one particular area of study.

The student may

- (a) choose to specialize in an existing area of study or
- (b) may propose an individually designed concentration program.

In either case, students are required to submit a Concentration Area Proposal to the Governance Committee for approval. The proposal will identify the prospective concentration area, a set of learning objectives, and the concentration area's relationship to the student's environmental interests. Students are strongly encouraged to discuss the formation of their concentration area with the director of the program or another member of the Governance Committee. Committee members can assist students in constructing successful concentration area proposals. Students are required to identify their concentration area by the end of their sophomore year or the first semester of their junior year.

### **Major in Environmental Studies: Concentration Area in the Natural Sciences**

ENVR 151	Humans and the Environment
ENVR 212	Social Dynamics and the Environment
ENVR 301	Environmental Ethics
ENVR 351	Environmental Policy Formation
ENVR 401	Field Seminar
GEOL 111	Introductory Geology

*Plus one of:*

BIOL 102	Conservation Biology
BIOL 201	Diversity and Adaptation

*Plus either:*

CHEM 101	Environmental Chemistry
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*or*

CHEM 111	General Chemistry I <i>and</i> 112 General Chemistry II
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*Plus one of:*

BLAW 351	Environmental Law
ECON 252	Principles of Microeconomics
POL 205	Introduction to the American Public Policy Process

*Plus one of:*

MATH 303	Statistics for the Applied Sciences
QMCS 220	Statistics I

*Plus:*

Concentration area in one of the natural sciences

### **Major in Environmental Studies: Concentration Area in Social Science, Business, or Humanities**

ENVR 151	Humans and the Environment
ENVR 212	Social Dynamics and the Environment
ENVR 301	Environmental Ethics
ENVR 351	Environmental Policy Formation
ENVR 401	Field Seminar

*Plus one of the three sequences below:*

- BIOL 102 Conservation Biology  
 CHEM 101 Environmental Chemistry  
 GEOL 111 Introductory Geology I  
 GEOL 112 Introductory Geology II  
 or  
 BIOL 201 Diversity and Adaptation  
 BIOL 202 Genetics and Population Biology  
 CHEM 101 Environmental Chemistry  
 GEOL 111 Introductory Geology I  
 or  
 BIOL 102 Conservation Biology  
 CHEM 111 General Chemistry I  
 CHEM 112 General Chemistry II  
 GEOL 111 Introductory Geology I

*Plus one of:*

- MATH 303 Statistics for the Applied Sciences  
 QMCS 220 Statistics I

*Plus:*

Concentration area in one of the social sciences, business, or humanities

### **Minor in Environmental Studies**

- 151 Humans and the Environment  
 212 Social Dynamics of the Environment  
 301 Environmental Ethics  
 351 Environmental Policy Formation

*Plus one of:*

- BLAW 351 Environmental Law  
 ECON 252 Principles of Microeconomics  
 POL 205 Introduction to the American Public Policy Process

#### **151 Humans and the Environment**

A study of the interaction of humans and the environment over time and space; a broad introduction that integrates a variety of social-science perspectives into an understanding of the environment and the relations between humans and nature. Specific topics include ecology, population, economic development, resources and sustainable development. This course fulfills the second-level Computer Competency requirement in the core curriculum.

#### **212 Social Dynamics and the Environment**

An emphasis on the ways in which people have created, and attempted to solve, environmental problems in different cultural and historical contexts. Examines the roles of the entire spectrum of actors and human communities, including individuals, families, groups and formal organizations, neighborhoods, cities and nations. Students examine how individual dynamics (such as altruism and economic self-interest) and collective dynamics (such as competition, cohesion, social definitional processes and global interdependence) direct humans in their interactions with the environment.

Prerequisite: 151

#### **295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

#### **301 Environmental Ethics (PHIL 358)**

Consideration of the ethical issues arising from human interaction with the environment, including population pressure, pollution, conservation and preservation. Focus on the grounds of our obligation to resolve such issues; the question of what persons and things are worthy of moral consideration; and the respective roles of individuals, organizations and government in addressing environmental problems. Case studies will be used to trace the implications of various ethical and political theories.

Prerequisite: 151 and PHIL 214

#### **351 Environmental Policy Formation**

An examination of environmental policy outcomes generated by institutions and organizations, including legis-

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lation, court decisions and administrative decisions. Additional focus on decision-making processes commonly used to assess environment-related legislation, including those rooted in economics and policy analysis.

Prerequisite: 212

### 401 Field Seminar

A capstone course that combines field experience with classroom seminar. Student teams will conduct collaborative, broadly interdisciplinary analyses of selected environmental problems. Field-based projects are chosen by the students in consultation with course instructor. Classroom seminars are used for exchange of information between teams and for discussion of readings pertinent to individual research projects or, more broadly, to the interdisciplinary character of environmental problem-solving. Each team produces a major paper that examines ethical and natural- and social-science aspects of the selected problems.

Prerequisite: 301 and 351 or permission of the instructor

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 491, 492, 493, 494 Research

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## International Studies

Papagapitos (ECON), director

This major seeks to give the student a basic understanding of the contemporary international system. It combines study in economics, history and political science with a concentration in one of these fields, along with the study of a foreign language beyond the College's general education requirement. The program enables students to relate international interests to a broad range of careers including government, international business, nonprofit associations and teaching.

Students graduating with a major in international studies should have adequate preparation for their professional lives, and the capacity for intellectually stimulating lives. They will be capable of critical thought and writing in the discipline. They will have pursued opportunities for broader governmental and international experience, and should be well-prepared to undertake post-baccalaureate studies.

### Major in International Studies

ECON	251	Principles of Macroeconomics
GEOG	113	World Geography
HIST	112	The Modern World Since 1550
IDSC	481	Seminar in International Studies
POL	105	Politics and Government in a Comparative Perspective

#### *Plus:*

Twenty-eight credits from the following list. A student must choose 16 credits from one discipline, and the remaining 12 must include courses from each of the other two disciplines.

ECON	252	Principles of Microeconomics
ECON	345	Economics of Development and Growth
ECON	346	Country and Area Studies in Economics
ECON	348	International Economics
ECON	349	Comparative Economic Systems
HIST	210	Modern Latin America, 1800 to the Present
HIST	220	Introduction to Japanese History and Culture
HIST	313	Europe 1750 to 1945
HIST	314	Modern Europe since 1945
HIST	371	History of U.S. Foreign Policy

POL	225	Introduction to World Politics
POL	320	American Foreign Policy
POL	326	International Law and Organizations
POL	350	Comparative Politics of the New Europe
POL	352	Third World Politics and Government
POL	424	Seminar in International Politics
POL	454	Seminar in Comparative Politics

**GEOG** The Department of Geography from time to time offers courses on the geography of selected regions of the world. With the approval of the director of international studies, these courses may be elected to full fill non-concentration requirements.

*Allied requirements*

At least twelve credits beyond the core curriculum requirement in a particular modern foreign language

*Recommended courses:*

While the student who might eventually seek employment in international business may choose any courses in business administration, the following four courses would be most appropriate for gaining general background in the field:

ACCT	205	Introduction to Accounting
BLAW	301	Legal Environment of Business
MGMT	300	Management for Non-Business Majors
MKTG	300	Principles of Marketing

*ACTC courses:*

A student with particular academic and/or career interests should consult with the director about courses offered by the Associated Colleges of the Twin Cities that would be appropriate to the major.

*Opportunities for studying human diversity:*

Students should particularly note the opportunities in the major for enhancement of their understanding of other cultures. Courses with a non-Western focus meeting the requirements of the major are available both on campus and at the other ACTC schools.

*Opportunities for study abroad:*

Students majoring in international studies should seriously consider one or more of the opportunities to study abroad offered by the International Education Center.

*Opportunities for internships:*

Students majoring in international studies should discuss with the director opportunities to relate academic and career interests through internship experiences in the Twin Cities or Washington, D.C.

## **Justice and Peace Studies (JPST)**

Smith (THEO), (director), Brady (THEO), King-Lenzmeier (THEO), Landry (THEO), Nelson-Pallmeyer (JPST), Wojda (THEO); Andregg, Cytron, Davidov, Klein, Palackapilly, Rothwell, Rutten

Justice and Peace studies is an interdisciplinary program designed to prepare students to be responsible critics of contemporary societies and effective agents for positive social transformation. The two core courses for the minor, and the pattern of requirements for the major, make use of four stages:

1. Experience (actual and vicarious) of poverty and injustice
2. Descriptive analysis (study of the economic, political, and social realities of a culture, and the historical events that produced those realities)
3. Normative analysis (moral judgment on existing society, study of alternative possibilities for that society, and analysis of the moral values at stake)
4. Action possibilities (strategies and skills for transforming society from its present condition to a better condition).

The Justice and Peace Studies program is strongly interdisciplinary and interfaith. It promotes understanding and appreciation of widely diverse ideologies, cultures, and world views. Special attention is given to the rich tradition of Roman Catholic social teaching in the context of pluralistic world societies.

Students graduating with a major in justice and peace studies will understand how personal experience, descriptive analysis, normative analysis, and action plans (including community organizing) interact ("circle of praxis") as one works for justice and peace; recognize the important role of each; and develop the skills to use them. They will understand the principles of active nonviolence and how it operates to promote social change; be familiar with several historical examples of its use; know its strengths and limitations; know how to judge when its use is appropriate; and be capable of engaging in it personally or of advising others who are doing so.

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They will be capable of engaging in respectful dialogue with people who value and propose responses to violence and injustice that differ widely from their own responses. They will understand and be able to use conflict resolution skills in personal life, in small group dynamics, and in inter-group and international conflicts. They will have developed the personal skills and confidence needed to work effectively in organizations committed to justice and peace.

While the two core courses for the minor integrate all four of these stages, JPST 250 concentrates on descriptive analysis and THEO 305 concentrates on normative analysis. The additional three core courses for the major, JPST 450, 470, and 472 concentrate on action possibilities.

JPST 250 and THEO 305 require extensive student writing and discussion.

### Major in Justice and Peace Studies

JPST	250	Introduction to Justice and Peace Studies
JPST	450	Active Nonviolence
JPST	470	Conflict Resolution
JPST	472	Justice and Peace Methods and Resources
THEO	305	Theologies of Justice and Peace

#### *Plus significant experience:*

May include analysis for course credit (through 475-478 Experiential Learning) or be noncredit.

Appropriate experience of poverty and injustice includes: appropriate foreign study, especially in connection with the experience of poverty or oppression. Examples: Ireland with study of Northern Ireland; programs through the Center for Global Education at Augsburg, e.g., its program in Cuernavaca, Mexico; UMAIE and HECUA foreign programs in Scandinavia and Latin America; the European University Center for Peace Studies in Stadtschlaining, Austria, and in Spain; The Metro Urban Studies Term (MUST) in the Twin Cities through HECUA; January term or summer session programs, such as those arranged through Campus Ministry and VISION at San Lucas Toliman, Guatemala and elsewhere; alternative spring break programs, such as those arranged through Campus Ministry and VISION at Turtle Mountain Indian Reservation in North Dakota, Appalachia, Twin Cities urban plunge and others. Various Twin Cities programs through VIA, such as the Loaves and Fishes program and work in shelters.

#### *Plus four additional credits in descriptive analysis*

##### *Examples of appropriate courses include:*

BIOL	103	Nature and Society
COMM	340	Rhetorical Dimensions of Race, Class, and Gender
ECON	211	Current Economic Issues
ECON	301	History of Economic Thought
ECON	337	Economics of the Public Sector
ECON	339	Labor Economics
ECON	345	Economics of Development and Growth
ECON	349	Comparative Economic Systems
ENVR	151	Humans and the Environment
ENVR	212	Social Dynamics and the Environment
GEOG	111	Human Geography
GEOG	113	World Geography
HIST	210	Modern Latin America, 1800 to the Present
HIST	358	Twentieth-Century United States
HIST	368	Women in the United States
HIST	372	The United States and Vietnam
IDSC	472	MUST Seminar: Field Studies in the Twin Cities (HECUA)
POL	225	Introduction to World Politics
POL	314	Constitutional Rights and Liberties
POL	326	International Law and Organizations
POL	350	Comparative Politics of the New Europe
POL	352	Third World Politics and Government
PSY	121	Social Psychology
SOC	110	Social Problems
SOC	251	Race and Ethnicity
SOC	255	Gender in American Society
SOC	365	Social Psychology
SOWK	340	Human Behavior and the Social Environment

*Plus four additional credits in normative analysis*

*Examples of appropriate courses include:*

BLAW	303	International Business Law
BLAW	351	Environmental Law
BLAW	352	Gender Issues and the Law
BUS	201	Ethics and Practice: Foundations of Business
CATH	312	Catholic Social Thought
ENVR	301	Environmental Ethics
IDSC	291	The Anatomy of Violence
IDSC	471	MUST Seminar: Research on Urban Issues (HECUA)
JPST	350	The Holocaust: Victims, Perpetrators, Bystanders
PHIL	353	Machiavelli, Hobbes, and Nietzsche
POL	275	Introduction to Political Thought
POL	372	Political Thought from Plato to Marx
POL	373	Political Thought from Marx to the Present
POL	375	American Political Thought
THEO	306	Christian Faith and the Management Professions
THEO	325	The Catholic Social Traditions
THEO	337	Evil and the Suffering of God
THEO	361	Black Religious Experience
THEO	365	Prophetic Literature of the Old Testament
WMST	205	Foundations in Women's Studies

*Plus a non-credit internship in the area of justice and peace:*

May include analysis for course credit through 475-478 Experiential Learning.

"Appropriate noncredit internship" means some significant activity giving experience in the kind of work carried on by the justice and peace community including: the internship associated with the Metro Urban Studies Term program and with some programs of foreign study such as those through HECUA and the Augsburg Center for Global Education; leadership positions with the UST Student Coalition for Social Justice; work with a non-profit or governmental group doing social services, education for peace and justice, or political action for peace and justice; work in the community service part of a for-profit corporation, etc.

Since this requirement is noncredit, there is no objection to using an appropriate internship from another major (such as social work) to fulfill this requirement.

*Plus:*

Additional courses to be selected with the approval of the program director, to bring the total number of credits to 40 (36 for a double major).

These additional courses may deal with experience, descriptive analysis, normative analysis, or action possibilities. Appropriate courses for action possibilities include:

COMM	230	Intercultural Communication
COMM	240	Persuasion
ENTR	252	Creating the 21st Century
ENTR	360	Creativity and Change
ENVR	351	Environmental Policy Formation
SOWK	391	Social Policy for Social Change

### **Minor in Justice and Peace Studies**

JPST	250	Introduction to Justice and Peace Studies
THEO	305	Theologies of Justice and Peace

*Plus:*

Twelve additional credits to be selected with the approval of the program director. At least eight of these credits must be outside the student's major department. Any of the courses listed for the major may be applied to the minor.

### **250 Introduction to Justice and Peace Studies**

Major aspects of world and local conflict, theories of social science relating to conflict and violence, and various proposals for solutions. Among the aspects of conflict studied are cultural differences, scarcity of resources, economic and social structures, international trade, the arms race, corruption, oppression and war. Proposed solutions assessed include development, structural changes, world governance, multinational agencies, military power, civilian-based defense, active nonviolence for social change, conflict resolution, disarmament, cultural exchange, religious revival and prayer. These topics are considered in the light of theory, history, and literature. Students apply these concepts by investigating one country or geographic area in depth through a semester-long research project. Usually offered every semester. This course fulfills the Human Diversity requirement in the core curriculum.



**295, 296, 297, 298 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**350 The Holocaust: Victims, Perpetrators, Bystanders**

The background and development of the systematic extermination of European Jewry by the Nazis. Particular attention is given to anti-Semitism in both its religious and secular forms, to the relationship between the mass murder of genocide and the growth of bureaucracy and technology, and to the challenges posed by the Holocaust for religious and humanistic beliefs and values. The Holocaust provides an excellent case-study of how a democracy can elect a dictator to power, and how a society based on egalitarian principles can roll back equality and carry out mass murder. Attention will also be given to the role the "Christian" world played as cooperators, silent bystanders, or courageous resisters (the "righteous gentiles"); and to the contrast between desire for a culturally uniform society and respect for diversity, minorities, and the "other."

**450 Active Nonviolence**

Active nonviolence as a means for societal defense and social transformation analyzed through case studies of actual nonviolent movements, examining their political philosophy and how this philosophy is reflected in their methods and strategies. Examples of possible case studies include: Mahatma Gandhi's movement for a free India, the struggle for interracial justice in the United State (the 1961 freedom rides to Mississippi, an integrated Canada-to-Cuba peace-and-freedom walk), the Minnesota farmers' power-line struggle, and the Honeywell Project. The course emphasizes both the development of conceptual understanding and the transformation of personal experience. Usually offered fall semester.

**470 Conflict Resolution**

An introduction to issues surrounding conflict and the resolution of conflict in today's world focusing primarily on its contextual manifestation at the international, regional and intrastate levels. The course will explore important structural, social and psychological explanations of conflict. Attention will be given to ethnic and nationalist themes surrounding conflicts and their resolution at the intrastate and international levels. The course will examine how different types of intervention affect conflicts (the media, force, other types of third party intervention). Effective methods that foster an environment conducive to resolving or managing disputes will be studied. As part of this final task, the course will critically study how institutions such as power-sharing arrangements, federalism, and the rule of law might figure in establishing a lasting basis for peaceful co-existence. Usually offered spring semester.

*Note:* Active nonviolence and conflict resolution focus on different stages of conflict. Active nonviolence is a sanction employed when conflict resolution has broken down; it is designed to move the parties toward conflict resolution. Active nonviolence also is employed when one or more of the parties to a conflict believe that conflict resolution is maintaining an unjust situation – peace without justice.

**472 Justice and Peace Methods and Resources**

Current state of the questions in justice and peace research and activism with special attention to key theoreticians. Students will relate the course material to their own internship or service project as well as choosing a topic for individual research related to their internship or personal interests. Through investigating their project through a series of steps shared with other students, they will develop familiarity with the major resources available for justice and peace research and action: bibliographies, periodicals, indexes and abstracts, newsletters, electronic media. The class will study basic statistics and other methods necessary to understand, judge, and use the resources. Through reflection on the individual service projects students will analyze the types of work involved in the justice and peace community and identify the broad range of organizations working for relief of suffering and for structural and social change. Usually offered spring semester.

**475, 476, 477, 478 Experiential Learning**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**483, 484, 485, 486 Seminar**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**487, 488, 489, 490 Topics**

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Literary Studies

Mikolajczak (ENGL) and Moorman (M&CL), directors

Students wishing an excellent preparation for the many occupations in which the ability to use language effectively is absolutely essential may be interested in the following major, which is not basically career-oriented.

The primary aims of the major in literary studies are to extend to highly motivated students the opportunity:

1. To deepen their mastery of two languages
2. To provide them with double evidence that literature, as the highest form of language art, is based on the skillful use of adequately developed languages in the creation of an esthetic world of the human spirit
3. To enable them to experience firsthand that much is lost in the translation of a great literary work
4. To help them appreciate more deeply that literature transcends national and cultural boundaries.

### Major in Literary Studies

#### *Prerequisite:*

At least three high school years of a second language, accepted for this major by the Department of Modern and Classical Languages. Either 212 in that language, or its equivalent, must also be taken.

#### Option I (administered by the Department of Modern and Classical Languages):

Twenty credits in courses numbered 300 or higher in the literature of a non-English language, chosen in consultation with the chair of the Department of Modern and Classical Languages

#### *Plus:*

Sixteen credits in courses numbered 300 or higher in English literature, chosen in consultation with the chair of the Department of English

#### Option II (administered by the Department of English):

Twenty credits in courses numbered 300 or higher in English literature, chosen in consultation with the chair of the Department of English

#### *Plus:*

Sixteen credits in courses numbered 300 or higher in the literature of a non-English language, chosen in consultation with the chair of the Department of Modern and Classical Languages

#### *Plus:*

(required under both options)

Four credits in European history

#### *Recommended:*

An additional four credits in European history, four credits in aesthetics, and courses in a third language, preferably a classical language if the second language is modern

Courses such as phonetics, conversation, composition and civilization (if not based on literature) will not count as courses in literature.

## Russian, Central and East European Studies

Shambour (RUSS), adviser

The ACTC program in Russian, Central and East European Studies seeks to give the broadest possible exposure to the history, politics, literature and philosophy of central and eastern Europe and Russia. This interdisciplinary major offers the student an opportunity to become well-acquainted at the undergraduate level with the rich literary and cultural achievements of the area. The student also acquires fluency and experience with the Russian language, or (through the ACTC language contract with the University of Minnesota) with one of the eastern European languages.

While the collapse of the Soviet Union and its eastern European sphere of influence has eliminated the perceived threat of a world communist movement, the human talent, residual military power and resources of the area guarantee that it will continue to play an important role in global affairs.

Drawing upon the faculty and resources of the five ACTC institutions, courses are offered at Augsburg College, Hamline University, Macalester College, The College of St. Catherine and the University of St. Thomas.

In choosing any major, future career options are an important consideration. This is a sound liberal arts major that offers considerable flexibility and career opportunities, especially when combined with another major or minor in business, economics, history, language and literature, or political science. As this area of the world undergoes transition from Russian socialist dominance to democratic market-oriented societies, the major will offer fascinating career opportunities in government, international business and journalism, as well as in teach-

## Interdisciplinary Programs

ing and research. Students who plan to do graduate work in a related discipline, such as history, economics or political science will find the major a strong background for such study. Students are urged to seek career counseling from their adviser in the major.

### **Major in Russian, Central and East European Studies**

Forty-four credits, including language and area studies courses:

#### *Language:*

Two years of basic college Russian, Polish, Serbo-Croatian, Czech, Hungarian or equivalent competencies

#### *Area studies:*

##### *Concentration in Humanities*

Sixteen credits from the list of approved courses in Track #1, plus four credits from Track #2, as approved by adviser

##### *Concentration in Social Sciences*

Sixteen credits from the list of approved courses in Track #2, plus four credits from Track #1, as approved by adviser

#### *Plus:*

Eight additional credits in courses selected from either Track #1 or Track #2

*Note:* Students are strongly recommended to take a third year of Russian or any other east European language. A program of study abroad in Russia or one of the central or east European countries, during a semester, a January term, or during the summer, is strongly encouraged. All options should be discussed with the student's adviser.

### **Courses available for this program**

Letter following the course number indicates the institution offering the course:

- A Augsburg College
- C The College of St. Catherine
- H Hamline University
- M Macalester College
- T University of St. Thomas

#### *Language courses*

- RUSS 111T Elementary Russian I
- RUSS 112T Elementary Russian II
- RUSS 211T Intermediate Russian I
- RUSS 212T Intermediate Russian II
- RUSS 31M Advanced Russian I
- RUSS 32M Advanced Russian II
- RUSS 33M Advanced Russian Conversation

#### *Track #1: Humanities concentration*

- HIST 348A Russia and Soviet Union in 20th Century
- HIST 337H Modern Russia from the Empire to Revolution
- HIST 371H The Rise and Fall of the Soviet Union
- HIST 373H Heart of Europe: Central and Eastern Europe in 20th Century
- HIST 55M History and Philosophy of Socialism
- HIST 60M State and Society in Tsarist Russia
- HIST 62M History of the Soviet Union and Its Successors
- HIST 313T Europe 1750 to 1945
- HIST 331T Eastern Europe, 1699-1914
- HIST 333T Eastern Europe, 1914 to Present
- HIST 464T Seminar in European History

#### *Russian literature*

- RUSS 51M 19th Century Literature in Translation
- RUSS 52M 20th Century Literature and Culture in Translation
- RUSS 63M Orientalism and Empire: Russia's Literary Self
- RUSS 67M Dostoevsky and Gogol

#### *Advanced language*

- RUSS 41AM Russia in Russian—Speaking/Listening

- RUSS 41BM Russia in Russian—Reading/Writing  
 RUSS 88M Senior Seminar (taught in Russian - Humanities track only)

*Culture*

- RUSS 50-01M Topics (subject matter will vary)  
 RUSS 55M Russian Culture  
 RUSS 56M Soviet Mass Culture  
 RUSS 64M Culture and Revolution  
 RUSS 65M Translation as Cross-cultural Communication

*Theology*

- REL 420A The Russian Orthodox Church  
 REL 66M The Russian Religious Experience

*Track #2: Social sciences concentration*

- ECO 317A Comparative Economic Systems  
 ECO 495A Topics  
 ECON 25M Comparative Economic Systems  
 ECON 35M Economics of the Transition  
 ECON 346T Topics: Country and Area Studies in Economics  
 ECON 349T Comparative Economic Systems  
 GEOG 45M Regional Geography of the Post-Soviet Union  
 POL 351A Topics in Communist/Post-Communist Systems  
 POL 363A Russian and Chinese Foreign Policy  
 POSC 220C Introduction to Comparative Government  
 POSC 225C Introduction to World Politics  
 POL 362H Politics of Change: Eastern European Political Systems  
 POL 350T Comparative Politics of the New Europe  
 POL 424T Seminar in International Politics  
 POL 454T Seminar in Comparative Politics

*Business/Management*

- BUS 364A East-West Trade  
 BADM 350C International Marketing and Management

**Social Sciences**

The major in the social sciences is intended for the liberal arts student who wishes to become familiar with the perspective of the four disciplines traditionally defined as the social sciences – economics, history, political science, and sociology – and who wishes at the same time to study more intensively one of those disciplines. In requiring both introductory and advanced courses in each of the disciplines, irrespective of the area of concentration, the major provides both opportunity and challenge for the student seriously interested in understanding the order, structure and interrelationships involved in human behavior.

**Major in Social Sciences***Either:*

- HIST 111 Origins of the Modern World to 1550 *and* 112 The Modern World Since 1550  
*or*  
 HIST 113 Early America in Global Perspective *and* 114 The Modern U.S. in Global Perspective

*Plus:*

- ECON 251 Principles of Macroeconomics  
 ECON 252 Principles of Microeconomics  
 ECON One additional course in economics numbered above 300  
 HIST One additional history course numbered above 300  
 POL 105 Politics and Government in Comparative Perspective  
 POL Two additional political science courses  
 SOC 100 Introduction to Sociology  
 SOC 210 Research Methods in Sociology  
 SOC One additional sociology course numbered above 300

*Plus:*

Twelve additional credits in courses numbered above 300 from one of the following departments: Economics, History, Political Science, or Sociology. The choice of these courses is subject to the approval of the department involved.

## Interdisciplinary Programs

*Plus one of:*

- MATH 101 Finite Mathematics
- MATH 111 Calculus for Business and Social Science
- MATH 113 Calculus I
- QMCS 220 Statistics I

## Women's Studies (WMST)

Johnson (PSY), director

The Associated Colleges of the Twin Cities (ACTC) offers a cooperative major in Women's Studies. The purpose of this inter-college (Augsburg, Hamline, St. Catherine, St. Thomas), inter-departmental major is to enable students to examine critically women's contributions and experiences in various historical and cultural contexts.

Students in the program deepen their understanding of the artistic, economic, domestic, spiritual, intellectual and political communities to which women of various ages, classes and societies belong. They also learn how to analyze the social forces and assumptions which have shaped women's lives on individual, national and global levels.

A flexible, interdisciplinary program which combines theoretical, practical and research components, it provides preparation both for advanced study and for professional work, for example, in organizations focusing on women and in human relations departments of corporations.

### Major in Women's Studies

- 205 Foundations in Women's Studies
- 480 Women's Studies Seminar

*Plus:*

One Internship course (designated as Individual Study)

At least eight credits in Humanities

At least eight credits in the Social Sciences and Natural Sciences

Four credits in Multicultural or Ethnic Studies

Eight elective credits chosen from the Humanities and/or the Social Sciences and Natural Sciences

*Note:* At least twelve credits in Humanities, Social/Natural Sciences, and Multicultural Studies must be at the 300- or 400-level.

### Minor in Women's Studies

- 205 Foundations in Women's Studies

*Plus:*

Eight credits in Humanities

Eight credits in Social Sciences and Natural Sciences

*Recommended:*

- 480 Women's Studies Seminar

The seminar can count as one of the humanities, social science, or natural science courses.

### 205 Foundations in Women's Studies

This multi-disciplinary course is designed to raise awareness of women's status and women's diversity; to critically examine disciplines and social practices through the lens of feminist theory; to recover past achievements of women and survey the work that women do now; to expand perspectives; and to provide a basis for critical evaluation of future learning. Available each semester on at least one consortial campus, usually offered at UST Spring semester. This course fulfills the Human Diversity requirement in the core curriculum.

### 475, 476, 477, 478 Experiential Learning

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 480 Women's Studies Seminar

This advanced capstone course for the Women's Studies major is a multi-disciplinary seminar usually taken during the student's senior year. The course will include student research and presentations that incorporate feminist theory. It will rotate among the different campuses of the ACTC.

Prerequisite: 205

### 483, 484, 485, 486 Seminar

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 487, 488, 489, 490 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will

not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**491, 492, 493, 494 Research**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**495, 496, 497, 498 Individual Study**

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

**Courses available for this program**

Letter following the course number indicates the institution offering the course:

- A Augsburg College
- C The College of St. Catherine
- H Hamline University
- T University of St. Thomas

Courses having a potential for duplication of material are marked with an asterisk (\*). Students should consult with the director of the program to avoid duplicating courses. Credit will not be given toward the major for two courses that overlap substantially in content. Students cannot satisfy more than one distribution requirement within the program with any given course.

Topics courses in any of these categories may be selected with the approval the program director.

**Humanities Courses**

ART	352A*	Women and Art
ENG	282A*	Women and Fiction
REL	441A*	Feminism and Christianity
SPC	414A*	Feminist Rhetoric
ENG	290A*	Women and Literature
HIS	356C*	Women in America
PHIL	320C*	Business Ethics
PHIL	390C*	Feminist Philosophy
SPCM	207C*	Gender and Rhetoric
SPCM	211C*	Leadership Communication
THR	299C	Women and Film
THEO	338C*	Women and the Bible
THEO	385C*	Sexuality and Spirituality
THEO	390C*	Women Mystics
ENG	357H*	Women and Literature
PHI	120H*	Introduction to Feminist Theory
REL	325H*	Women and Religion
COMM	340T*	Rhetorical Dimensions of Race, Class and Gender
ENGL	218T*	Literature by Women: Critical History
ENGL	341T*	Literature by Women: Critical Questions
THEO	353T	Women and the Old Testament
THEO	354T*	Women and the Christian Tradition

**Social Science and Natural Science**

INS	233A	Women: A Cross Cultural Perspective
INS	265A*	Women in American Culture
PSY	371A*	Psychology of Gender
BIO	112C*	Biology of Women
IDSC	291C*	Anatomy of Violence
PSY	315C*	Psychology of Adulthood and Aging
SOWK	270C*	Emerging Workstyles for Women
SOC	321C*	Sociology of Marriage and the Family
SOC	345C*	Sociology of Women in Society
ANT	153H	Human Evolution
BIO	151H*	Human Biology, A Feminine Perspective
EDUC	375H	Herstory of Education
POL	343H	Gender Politics
SOC	333H	Sex Roles
SOC	337H*	Marriage and the Family
BLAW	352T	Gender Issues and the Law

## Interdisciplinary Minors

HIST	368T*	Women in the United States
IDSC	291T*	The Anatomy of Violence
JOUR	305T	Gender, Race and Mass Media
PSY	205T*	Psychology of Women
SOC	255T*	Gender in American Society
SOC	304T	Adolescence in Society
SOC	321T*	Marriage and the Family

### Multicultural or Ethnic Studies

INS	231A	Religion in African-American History
INS	232A	Blacks in America: An Introduction to African-American Studies
INS	233A	Women: A Cross Cultural Perspective
INS	260A*	Contemporary American Indians
INS	320A	American Indian Women
SOC	325C*	Cultural Anthropology
SPCM	210C*	Intercultural Communication
ANT	333H*	North American Indians
SOC	335H*	Sociology of Race and Ethnicity
ARTH	285T	Arts of Africa and the African Diaspora
ARTH	289T	Asian Art
COMM	230T*	Intercultural Communication
MUSC	216T	Jazz in America
SOC	251T*	Race and Ethnicity
SOC	301T*	General Anthropology

## American Cultural Studies (ACST)

Banfield, director (Endowed Chair in Humanities & Fine Arts)

American Cultural Studies is an interdisciplinary minor in which students will have the opportunity to develop a critical perspective on the rich and multiple meanings of two crucial terms: "American" and "culture." Drawing on perspectives from a number of participating departments and programs (e.g. communication, English, history, art history, sociology, music, theology, philosophy, theater, journalism and mass communication, and modern and Classical languages), the American Cultural Studies minor examines the symbols, practices, and histories which contribute to the complexity and variety of the "American" experience, including North America and South America. In addition to making connections among disciplines, students will be encouraged to engage in analysis that discovers linkages and tensions between vernacular and elite culture, as well as among diverse and multiple cultural identities and affiliations. Although the emphasis will be on the analysis of culture as a system, the program may where appropriate offer courses that address the relationship between contemporary cultural phenomena and their historical origins.

The American Cultural Studies minor will appeal to any student who wishes to acquire a critical intellectual framework for:

1. thinking and acting in a diverse and increasingly fragmented society;
2. developing a political, economic, artistic, and spiritual consciousness that is informed by and expressed through popular culture and the technology of mass media and communication.

Given its emphasis on the diversity and multiplicity of cultural experience and its interdisciplinary focus on the various strands that comprise the fabric of a given culture, the minor in American Cultural Studies is particularly suited to provide students with the awareness and critical framework necessary to be effective and ethical participants in an increasingly globalized civic and economic environment.

### Minor in American Cultural Studies

200 Foundations of American Cultural Studies

*Plus:*

Twenty additional credits (at least four from each of the categories below and no more than eight from a single department):

#### American Cultures: History, Society, Politics

GEOG	340	Geography of the U.S. and Canada
HIST	210	Modern Latin America 1800 to the Present
HIST	361	American Thought and Culture since the Civil War
HIST	369	African-American History
POL	301	American Political Behavior
SOC	251	Race and Ethnicity
SPAN	332	Survey of Latin American Culture and Civilization

**American Cultures: Literature and the Arts**

ARTH	320	Art and Culture of Colonial Mexico
ARTH	391	Native American Art
ARTH	392	American Art
ENGL	215	American Authors II
ENGL	373	Contemporary American Literature
ENGL	395	Issues in Literature and Culture
MUSC	216	Jazz in America
MUSC	217	Music of the Americas
MUSC	218	Black American Music: An Historical Survey
MUSC	222	The Theology of American Popular Music
THR	223	History of Theater III: American

**American Cultures: Mass Culture, Popular Culture, and Communication Media**

COMM	340	Rhetorical Dimensions of Race, Class and Gender
COMM	350	Modern American Rhetoric
COMM	360	Television Criticism
COMM	455	Political Communication and Television
JOUR	302	Literary Journalism
JOUR	305	Gender, Race, and Mass Media
JOUR	402	Society, Culture, and the Media
JOUR	404	Media, Structure and Power

**200 Introduction to American Cultural Studies**

Students will explore in an interdisciplinary fashion some of the central ideas, myths, and perspectives that have shaped the American cultural experience. Although primarily focused on the culture of the United States, examination of the historical/cultural phenomena of North, Central, and South American will be considered. Through a critical analysis of various forms of culture expression, students will gain an understanding of how different groups of Americans define themselves and each other; how cultural identity and meaning have been constructed; and how power has been established, maintained, and, at times, diffused and shared. Students will also be exposed to the theoretical and methodological issues current in the field. This course fulfills the Human Diversity requirement of the core curriculum.

**Family Studies (FAST)**

Grochowski (H&HP), director

Family Studies is an interdisciplinary field of study in which the family is the primary unit of analysis. The purpose of this minor is to enable students to critically examine the family using a variety of theories and methods. Family Studies scholars can develop understanding of business and communication dynamics, health and social concerns, and psychological and theological matters affecting families and their members. A family studies minor is flexible and multidisciplinary, providing for both broad exposure and disciplinary integration. This minor provides preparation for advanced study in family studies and the allied fields, as well as professional work in organizations focusing on families.

No more than eight credits may be taken from a single major field. Students interested in a minor in Family Studies should meet with the director.

**Minor in Family Studies**

400 Family Studies Seminar

*Plus one of:*

PSY	288	Psychology of Marriage and the Family
SOC	321	Marriage and the Family

*Plus three of:*

COMM	425	Family Communication
ENTR	349	Family Business Management
FAST	495, 496	Individual Study (2 credits)
FAST	497, 498	Individual Study
HIST	345	Family and Women in Chinese History
HLTH	462	Human Sexuality Education
PSY	200	Psychology of Infancy and Childhood
PSY	204	The Psychology of Adulthood and Aging
PSY	288	Psychology of Marriage and the Family



## Interdisciplinary Minors

SOWK	210	Relationship, Intimacy, and Sexuality
SOC	303	Aging and the Lifecourse
SOC	304	Adolescence in Society
SOC	321	Marriage and the Family
THEO	315	Christian Marriage

### 295, 296, 297, 298 Topics

The subject matter of these courses, announced in the annual *Class Schedule*, will vary from year to year, but will not duplicate existing courses. See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

### 400 Seminar in Family Studies

This advanced capstone course for the Family Studies minor is a multidisciplinary seminar taken after the learner has completed at least four courses in the Family Studies minor. The course will incorporate a variety of methods, theories, and pedagogies drawn from the family studies paradigm. A substantial portion of the course will be devoted to student research and presentations that incorporate family studies scholarship.

Prerequisite: PSY 288 or SOC 321 and three other courses from the list of approved courses for the minor.

### 495, 496, 497, 498 Individual Study

See the description of these courses at the beginning of the "Departments and Curricula" section of this catalog.

## Legal Studies

Erstling (BLAW), director

The minor in legal studies enables students to undertake a multidisciplinary examination of the relationship of law to culture and society. Understanding the foundations and nature of law and legal process is an integral element of a liberal arts education. Several departments within the university offer courses that examine the sociological, political, philosophical, journalistic, historical, economic and business aspects of legal behavior and legal systems.

By drawing on those courses, the legal studies minor exposes students to a variety of perspectives on the study of law and provides a broad understanding of the role of law in society.

The legal studies minor is not intended as a pre-law program, although it may prove especially attractive to students interested in careers in law, public administration or related professions. Its objective is to allow students to undertake an examination of law and legal process within a liberal arts context.

### Minor in Legal Studies

Twenty credits from the following list, or other courses selected with the approval of the program director. To ensure an interdisciplinary base of study, no more than eight credits may come from any one department.

BLAW	301	Legal Environment of Business
BLAW	302	Business Law for Accounting
BLAW	303	International Business Law
BLAW	304	Real Estate Law
BLAW	351	Environmental Law
BLAW	352	Gender Issues and the Law
BLAW	401	Legal Research, Advocacy, and Dispute Resolution
BLAW	402	Law of Electronic Commerce
ECON	321	Law and Economics
HIST	326	English Law and Government before the American Revolution
HIST	365	U.S. Constitutional History
IDSC	340	Criminal Law and the Social Order
JOUR	304	Media Law
PHIL	357	Political Philosophy
PHIL	359	Philosophy of Law
POL	312	Judicial Process
POL	313	Constitutional Law and Politics
POL	314	Constitutional Rights and Liberties
POL	326	International Law and Organizations
POL	414	Seminar in Law and Judicial Politics
THEO	397	Topics courses that involve a legal aspect (consult Legal Studies adviser)

## Renaissance Program

Coulter (PHIL), director

The Renaissance Program is an interdisciplinary program which provides students the opportunity of combining the distinct learning experiences of a concentration in a liberal or non-business related field with exposure to career-related studies and significant work experience. It targets students majoring in the liberal arts who want preparation for their career search.

Specifically, the Renaissance Program has a three-fold set of objectives for each of its students.

1. Participants elect a major field of study from any of the liberal arts disciplines, namely, from the humanities, social sciences, natural sciences and the like. Majors in the Division of Business or the Department of Health and Human Performance are excluded from this program.
2. Participants take the Renaissance Program Professional Minor, composed of a set of six courses selected by each student according to personal interest and career-plan, from a broad range of pre-professional and professional areas.
3. Participants complete one internship in a career-related field. Students are encouraged to be creative and to search for inventive ways of implementing a plan of practical work experience. A variety of options and opportunities are available through the Career Center.

As part of its commitment to Renaissance Program participants, the University of St. Thomas extends to graduates of this program the offer of undergraduate business courses, free of charge and without limit, on a space-available basis. These courses may be taken either for credit or as audits (but may not be used toward a second degree at the university).

Application for admission is made through the office of the Renaissance Program, currently in the Department of Philosophy. Such application should normally take place during the second semester of the sophomore year, but may occur later.

### Renaissance Program Professional Minor

*One of:*

ECON 251 Principles of Macroeconomics

ECON 252 Principles of Microeconomics

*Note:* Other courses from the Department of Economics may be acceptable if the necessary prerequisites have been met, and on the approval of the director of the Renaissance Program.

*Plus one of:*

QMCS 110 Introduction to Information Processing

QMCS 120 Computers in Elementary Education and LOGO

QMCS 220 Statistics I

QMCS 230 Software Design Using the JAVA Language

QMCS 238 Software Design Using Business Languages

*Note:* Other courses from the Department of QMCS may be acceptable if the necessary prerequisites have been met, and on the approval of the director of the Renaissance Program.

*Plus a total of 12 credits in:*

ACCT 205 Introduction to Accounting

BLAW 301 Legal Environment of Business

BUS 201 Ethics and Practice: Foundations of Business

FINC 300 Finance for Non-Business Majors

MGMT 300 Management for Non-Majors

MKTG 300 Principles of Marketing

*Note:* Other courses from the Division of Business may be acceptable if the necessary prerequisites have been met, and on the approval of the director of the Renaissance Program.

*Plus:*

IDSC 330 Renaissance Program Internship (0 credit)

IDSC 333 Renaissance Program Studies

*Note:* Another course that integrates theoretical and practical themes may be acceptable provided the necessary prerequisites have been met, and on the approval of the director of the Renaissance Program.

## Urban Studies

Hoffman (POL), director

Urban Studies is an interdisciplinary field of inquiry which treats the city as responsible for the creation of unique patterns of social and physical organizations. The minor provides students with an opportunity to study the "urban way of life" using the insights generated by the traditional social science disciplines. By exposing themselves to such variety, students obtain a more comprehensive and integrated view of the city than is possible with-

## Affiliated Programs

in a single discipline. The minor is recommended for those students interested in entering careers or fields of academic study relating to urban issues and problems. These include fields such as public administration, urban planning, transportation, and planning. The minor also is recommended for students with career interests in the non-profit sector as well as for those interested in private sector careers which require substantial interaction with the public sector. Students are also encouraged to participate in the HECUA (Higher Education Consortium for Urban Affairs) programs. Descriptions of the HECUA programs are located under that title in this catalog.

### Minor in Urban Studies

ECON	252	Principles of Microeconomics
ECON	333	Regional and Urban Economics
HIST	377	The History of the Twin Cities
POL	303	Urban and Metropolitan Politics and Government
SOC	332	Urban Sociology

### Higher Education Consortium for Urban Affairs (HECUA)

Toffolo (POL), adviser; A. Hubbard (International Education Center) co-adviser

The Higher Education Consortium for Urban Affairs (HECUA) provides students the opportunity to explore urban settings to study the underlying causes of social inequality, as well as successful community building and social change strategies in both the United States and in other countries. Students earn sixteen semester credits in the semester-long programs and four credits in January term programs. Open to all majors.

#### City Arts (spring semester)

City Arts explores the relationship between the arts, culture and social change. Field study and internship provide direct access to the arts community of the Twin Cities. The four courses below are taken as an integrated whole in this semester-long off-campus study program.

IDSC	466	City Arts: Reading Seminar
IDSC	467	City Arts: Field Seminar
IDSC	468	City Arts: Internship
IDSC	469	City Arts: Internship Seminar

#### Metro Urban Studies Term (MUST) (fall and spring semesters)

Through a combination of seminars, field study and a professional internship in the Twin Cities, students explore the realities of social inequalities in urban America and strategies for bringing about change. The four courses below are taken as an integrated whole in this semester-long off-campus study experience.

IDSC	471	MUST Seminar: Research on Urban Issues
IDSC	472	MUST Seminar: Field Studies in the Twin Cities
IDSC	473	MUST: Urban Studies Internship
IDSC	474	MUST: Urban Studies Internship Seminar

#### Scandinavian Urban Studies Term (SUST) (fall semester)

SUST, offered in affiliation with the University of Oslo, provides a broad survey of contemporary Scandinavian societies, issues of the modern welfare state and social democracy. The city of Oslo is the primary field-study site, supplemented by travel in other parts of Scandinavia and the Baltic states.

#### South American Urban Semester (SAUS) (fall semester)

SAUS is an interdisciplinary, field-learning program that examines the relationship between development issues and the consequences of urbanization in Latin America. The program is based in Guatemala City, Guatemala, where students live with local families. Students gain a comparative perspective through study-travel in other regions of Guatemala and in Ecuador.

#### Environment, Economy and Community in Latin America (EECLA) (spring semester)

Explores the impact of global development on local culture and environment and the response of indigenous communities and other affected groups. Latin American faculty, guest resource persons and field placements guide students' learning. Based in Guatemala City, with study-travel in other regions of Guatemala and in Cuba.

#### Community Internships in Latin America (CILA) (fall semester)

CILA combines an internship, independent study and seminars on community participation and development in the Latin American urban setting. Based in Quito, Ecuador, students live with local families and are involved in field projects in outlying areas.

#### Development and Community in Bangladesh (January term)

Through lectures, discussions and group field study (with Bangladeshi collaborators), students explore the poli-

cies, practices and ideologies of socio-economic development in rural and urban Bangladesh.

## Pre-Professional Programs

A carefully-crafted baccalaureate degree can prepare a student for entrance to a professional school. The following programs of study will be helpful for students planning such a career.

### Pre-Engineering (PNGR)

Tommet (PHYS), adviser

Besides offering a degree program in mechanical engineering (B.S.M.E.), the University of St. Thomas offers a choice of pre-engineering programs under the auspices of the Department of Physics. Some advantages of starting engineering studies at the University of St. Thomas are: the student can benefit from the atmosphere of a liberal arts college and from the university's locale; the student can form a clearer picture of her or his goals before starting on concentrated engineering studies; and a smoother transition from high school to engineering school is possible. The program prepares for all engineering fields which include: aeronautical, aerospace, agricultural, architecture, biomedical, chemical, civil, electrical, engineering science, geological, industrial, materials science, mechanical, metallurgical, mineral and nuclear.

The programs of study are arranged so that a student may transfer to an engineering school with a maximum number of acceptable credits and yet, if a change to a non-engineering major is made while at the university, a maximum number of credits will be applicable to the St. Thomas requirements for graduation. In addition to the liberal arts, courses pre-requisite to an engineering school program are available in areas of mathematics, physics, chemistry, computer programming, and engineering. There are few significant differences in courses taken in the first two years of undergraduate study toward any type of engineering field. All pre-engineering students take mathematics, physics, and chemistry courses, along with a non-credit seminar introducing them to the various fields of engineering and to the work of engineers.

A Liberal Arts-Engineering (3-2) program is offered formally in cooperation with the University of Notre Dame, Washington University in St. Louis, and the University of Minnesota, and informally with virtually any other engineering school. The student will normally spend three years at St. Thomas and, upon approval of St. Thomas and acceptance by the engineering school, two additional years at the engineering school in an engineering field. Upon satisfying the requirements for graduation of both institutions, the student will receive a bachelor of arts (B.A.) degree from the University of St. Thomas and a bachelor of science degree in the selected field of engineering from the engineering school.

A four-year (4-2) program is offered formally in cooperation with the University of Minnesota, and informally with virtually any other engineering school. The student normally spends four years at St. Thomas and graduates with a major in Physics, Mathematics, Chemistry, or Quantitative Methods and Computer Science. The student then enters a masters or bachelors program at an engineering school.

A two-year (2-2) program is offered in which the student normally spends two years at St. Thomas (although transfer may be initiated at any time) and two years in a selected engineering field at an engineering school. No St. Thomas degree is awarded.

For all these programs, students are strongly encouraged to discuss with a pre-engineering adviser their own individual program. Each student, field, and school has different needs and requirements.

### Liberal Arts – Engineering Program

CHEM 111	General Chemistry I
CHEM 112	General Chemistry II
ENGR 150	Introduction to Engineering I (0 credit)
ENGR 151	Introduction to Engineering II (1 credit)
MATH 113	Calculus I
MATH 114	Calculus II
MATH 200	Multi-Variable Calculus
MATH 210	Linear Algebra and Differential Equations
PHYS 111	Introduction to Classical Physics I
PHYS 112	Introduction to Classical Physics II
PHYS 225	Introduction to Modern Physics I
QMCS 230	Software Design Using the JAVA Language

At least two additional courses are required. Which technical courses are needed will depend upon the field of engineering. Students must discuss their program with a pre-engineering adviser.

### Pre-Health Professions

Ovechka, adviser

The pre-health professions adviser will help students interested in any of the health professions to plan a specific

## Affiliated Programs

ic program of coursework in preparation for a professional school.

To aid students in making an informed choice of a health professions career, there are four non-credit health professions internships:

- BIOL 215 Regions Hospital Volunteer Program (0 credit)
- BIOL 216 Nursing Skills Training Program (0 credit)
- BIOL 217 Students and Physicians Program (0 credit)
- BIOL 218 Pre-Dental Internship Program (0 credit)

### Pre-dentistry

Schools of dentistry (including the University of Minnesota) generally require a minimum of three years of college coursework prior to admission to their programs. Most accepted applicants (85%) have completed four years of college. While a baccalaureate degree generally is not required, 75% of students in dental schools have received a baccalaureate degree or higher.

Specifically required or highly recommended courses vary from one dental school to another. The School of Dentistry at the University of Minnesota requires study in each of the following subjects:

- three semesters of biology
- two semesters of general chemistry
- two semesters of organic chemistry
- one semester of biochemistry
- two semesters of physics
- two semesters of English
- one semester of psychology
- a course in public speaking (recommended)
- college algebra or pre-calculus (by college credit or college validation) or computer science or statistics

### Pre-medicine

Most medical schools require a minimum of three years of undergraduate work before entrance to their programs, and the three medical schools in Minnesota all require a baccalaureate degree. Specifically required or highly recommended courses vary from one medical school to another.

Two semesters of study in each of the following subjects are required for admission to many medical schools. Particular medical schools may require more coursework in these subject areas or in other disciplines:

- biology
- general chemistry
- organic chemistry
- physics
- English

A number of medical schools also require one to two semesters of calculus or other college-level mathematics or statistics. The University of Minnesota (Twin Cities and Duluth) also require one semester of biochemistry. Medical schools generally do not require a specified undergraduate major.

The health professions adviser is available to help students choose the specific coursework necessary to meet admissions requirements, explain admissions procedures, provide information to students about career alternatives, etc. Students interested in a career in medicine should consult with the health professions adviser early in their freshman year to plan an appropriate four-year program.

### Pre-pharmacy

Required courses vary from one school to another, and students are encouraged to research various programs early in their undergraduate program. The Pharm.D. program at the University of Minnesota requires completion of the following courses:

- one semester of biology
- one semester of anatomy
- one semester of microbiology
- two semesters of general chemistry
- two semesters of organic chemistry
- two semesters of physics
- two semesters of calculus
- two semesters of behavioral science
- two semesters of English
- one semester of microeconomics
- one semester of public speaking

### Pre-veterinary

Required courses vary from one school to another, and students are encouraged to research various programs early

in their undergraduate program. The veterinary school at the University of Minnesota requires the following coursework:

- biology
- general chemistry
- organic chemistry
- biochemistry
- mathematics
- physics
- genetics
- microbiology
- English

Four courses from history and social sciences, arts and humanities are also required.

#### Other Pre-Health Professions

Many courses are offered at St. Thomas to prepare students for admission to the following health professional schools: chiropractic, optometry, osteopathic medicine, physical therapy, physician assistant and podiatric medicine.

Students are encouraged to research the programs at each professional school and to seek the guidance of the pre-health professions adviser.

#### Pre-Law

Hatting (POL), adviser

The best preparation for the study of law is a rigorous undergraduate program that combines depth of study in a major field with breadth of study in the liberal arts. The only true criterion for choice of a major is that it challenge the student's intellectual capabilities.

Regardless of major, pre-law students should include as wide a selection of the following courses, listed alphabetically by departmental designation, as their degree program allows. Each is beneficial for:

#### A. Increasing the student's knowledge of law

- BLAW 301 Legal Environment of Business
- BLAW 303 International Business Law
- BLAW 401 Legal Research, Advocacy, and Dispute Resolution
- ECON 321 Law and Economics
- ECON 332 Industrial Organization
- HIST 326 English Law and Government before the American Revolution
- HIST 365 U.S. Constitutional History
- IDSC 340 Criminal Law and the Social Order
- JOUR 304 Media Law
- POL 205 Introduction to American Public Policy Process
- POL 312 Judicial Process
- POL 313 Constitutional Law and Politics
- POL 314 Constitutional Rights and Liberties
- POL 326 International Law and Organizations
- POL 414 Seminar in Law and Judicial Politics

#### B. Fostering critical thinking about society

- HIST 361 American Thought and Culture Since the Civil War
- PHIL 357 Political Philosophy
- PHIL 359 Philosophy of Law
- POL 373 Political Thought from Marx to the Present
- POL 375 American Political Thought

#### C. Providing useful skills and improving analytical ability

- ACCT 205 Introduction to Accounting
- COMM 100 Public Speaking
- COMM 250 Argumentation and Advocacy
- ECON 251 Principles of Macroeconomics
- ECON 252 Principles of Microeconomics
- JOUR 311 Persuasion in Writing
- MATH 101 or 113 Finite Mathematics or Calculus I
- PHIL 220 Logic

**Study Abroad Programs (SABD)**

Stevenson (International Education Center), director

The University of St. Thomas encourages its students to incorporate international experience into their academic plans and offers a wide variety of overseas opportunities that serve as an integral part of a student's degree program. These opportunities encompass a wide range of options, including length of stay (semester, academic year, January or summer), course selection and geographic locale. The staff of the International Education Center assists students in identifying study, work or travel programs appropriate to the individual's desires and goals.

Students may not apply for nor participate in a Study Abroad program while on academic or disciplinary probation.

**Year/Semester Abroad**

**London Business Semester**

The University of St. Thomas sponsors a special fall semester program in London for business majors and minors. Students, accompanied by one or more St. Thomas business faculty members, take regular St. Thomas business and liberal arts courses, as well as complete the BUS 200 Community Service requirement.

**Liberal Arts Semester in Paris**

A spring semester program in Paris, led by a St. Thomas faculty member, offers students the opportunity to fulfill core curriculum requirements in the humanities (e.g. fine arts, philosophical and moral reasoning, faith and the Catholic tradition, historical studies, language and culture). Participants must complete at least one semester of French before beginning the program and continue to study French while abroad.

**Catholic Studies in Rome**

Students in Catholic Studies may participate in St. Thomas' program in Rome for one or two semesters. Students are enrolled at the Angelicum, a pontifical university where they take courses in Catholic social thought, theology, and social justice, as well as Italian language. A St. Thomas faculty member directs the program on site.

**Exchanges with other universities**

St. Thomas students may study at one of the following universities through established exchange programs:

- Australia: Curtin University, Perth
- England: Lancaster University, London School of Economics
- Egypt: American University in Cairo
- Germany: University of Trier, Fachhochschule Trier
- Ireland: University College, Cork
- Japan: Osaka Gakuin University  
Sophia University, Tokyo
- Scotland: University of Glasgow
- Uruguay: Catholic University

In addition, the university participates in consortia and affiliations offering programs in the following locations:

- Argentina: La Plata
- Austria: Vienna
- China: Beijing
- Denmark: Copenhagen
- Ecuador: Quito
- England: London
- France: Aix-en-Provence  
Avignon  
Dijon  
Nantes  
Paris  
Toulon
- Germany: Berlin  
Freiburg
- Guatemala: Guatemala City
- Italy: Milan  
Rome
- Japan: Nagoya
- Netherlands: Leiden
- Norway: Oslo
- Spain: Granada  
Madrid

Salamanca  
 Seville  
 Wales: Carmarthen

*Note:* Students may seek approval for other countries from the Coordinator of Study Abroad.

**Participation in Year/Semester Programs**

To participate in the University of St. Thomas study abroad programs, students must have a 2.5 minimum grade point average, be in good academic and disciplinary standing at St. Thomas, and have at least sophomore standing. All students must apply to the International Education Center for program approval by October 15 for spring semester participation, and by March 15 for fall semester or year-long programs. The overseas study program must include study of the native language in non-English-speaking countries.

**Financial Aid**

Financial aid in the form of grants, loans, and scholarships applies to the cost of semester and year of study abroad programs. Students should discuss their eligibility with the Study Abroad Coordinator and the Study Abroad Liaison in the Office of Student Financial Services.

**Short-term Study Abroad**

The University of St. Thomas offers a number of two-to-four week, faculty-led programs during January or summer term. A majority of the January Term Abroad programs are sponsored by UMAIE, a ten-member consortium that offers courses to Africa, Asia, Australia, Europe, South America and Hawaii each January.

**January Term Abroad**

All courses for the following January are announced in February. Enrollment period extends from April 15 through October 21. Students must be in good academic and disciplinary standing with the university in order to apply or participate. Individual programs may have additional criteria for acceptance.

**Spanish in Cuernavaca, Mexico**

A January Term Abroad intensive program in intermediate and advanced Spanish in Cuernavaca, Mexico, directed by St. Thomas faculty.

**Summer Term Abroad**

Students may study abroad during the summer through an affiliate or approved program, or by participating in a faculty-led course (similar to January Term Abroad). Students must apply by March 15 for all programs.

**Social Work in Bristol, England**

The School of Social Work sponsors a two-week summer program "International Social Welfare and Public Policy" in cooperation with the University of Bristol, England. The course serves as elective credit for social work.

**Spanish in Zacatecus, Mexico**

A Summer Term Abroad course for Spanish majors and minors is offered in June. Civilization or culture credit will be given. The program is directed by St. Thomas faculty.

**300 Study Abroad**

Students participating in the University of St. Thomas overseas study program register for this interdisciplinary listing for the first semester they are abroad. For program information see the Special Programs section of this catalog. Permission of the Director of International Education required.

**301 Study Abroad**

A continuation of 300. Permission of the Director of International Education required.

**Superior Studies At Wolf Ridge**

Hoffman (POL), director

Superior Studies at Wolf Ridge is a consortium of seven private colleges and universities in Minnesota that provides a field campus for Environmental Studies programs in Minnesota and surrounding states. Participating institutions include St. Olaf College, St. John's University, the College of St. Benedict, Gustavus Adolphus College, Hamline University, and Concordia College-Moorhead.

The program offers academic courses taught by faculty from the participating institutions, field trips to sites of environmental significance in northeastern Minnesota and Ontario, natural resource-related jobs and research opportunities for students, and wilderness experiences including backpacking, canoeing, kayaking, snowshoeing, and dogsledding. Courses are offered during both summer sessions, the Fall term and January inter-im session.

Academically, the program stresses environmental inquiry from the perspectives of different disciplines. It



## Affiliated Programs

incorporates the rich ecology of the Northwoods and the contemporary issues facing Northern Minnesota into the student's coursework through regular fieldtrips and field instruction. Organized outdoor trips provide significant personal experiences and the opportunities to develop skills and confidence in wilderness travel through one-day to one-week trips into the Boundary Waters Canoe Area Wilderness, Lake Superior kayak water trails, and the Superior Hiking Trail. In addition, students are able to arrange personal trips if they possess the necessary skills.

All of the Superior Studies teaching faculty are members of one of the consortium institutions.

Specific courses to be taught in the program vary by semester. Representative courses include: Introduction to Environmental Studies, Conservation Biology (with lab), Environment and Literature, Endangered Cultures, Individualized Physical Education: Health, Fitness, and Lifelong Skills, Seminar on Sustainability, the Environmental Imagination, Environmental Ethics, Environmental Policy, Theology and the Moral Life: Environmental Stewardship, American Environmental History: Great Lakes Region, and Environmental Education.

Work-study jobs and internships are also available through the program. All financial aid is applicable to the program.

Students receive elective credit for all courses taught in the program. Students should consult with departmental and program advisers regarding major and minor field credit.

See the director regarding program costs and applicable fees.

### **Washington Semester**

Farlow (POL), adviser

The University of St. Thomas is affiliated with American University's Washington Semester Program, Washington, D.C.

Students selected from across the nation to participate in the program have the option of studying one of several subjects: American Politics, Economic Policy, Foreign Policy, International Business and Trade, International Environment and Development, Journalism, Justice, Peace and Conflict Resolution, Public Law, and Visual and Performing Arts.

The Washington Semester involves seminars, research and internships drawing on governmental and private organization resources in the Washington area. Nominations to participate are made by the university, with final acceptance decided by American University.

Upon successful completion of four courses, 16 semester credits are earned and transferred to St. Thomas.

IDSC 310 Washington Semester (16 credits)

**Personnel and Organization**

The legal body that governs the university is the board of trustees. It is the final authority on setting our important policies, on the definition of major goals, and on the preservation of the academic mission. The financial health of the university is one of its chief responsibilities.

The board selects members who have demonstrated their understanding of the purpose of this institution, the commitment it has to higher education, and the unique contribution St. Thomas can make as a Catholic liberal arts university.

The chief administrative officer of the university is the president. He is responsible to the board of trustees for the functioning of the university and the administration of its policies. He presides at the meetings of the university faculty, university faculty senate, and the academic council.

Under the direction of the governing board, the president of the university must make sure that adequate means exist for communication, decision-making, and governance.

The president delegates appropriate authority and responsibilities to the faculty, as described in the faculty organization plan, and to various members of the university administration, among them: the executive vice president, who is responsible for the day-to-day operation of the university; the vice president for academic affairs; the vice president/rector, responsible for the administration of the Saint Paul Seminary School of Divinity; the vice president for finance and administration, responsible for the fiscal and business matters of the university; the vice president for student affairs, responsible for non-academic student affairs; the senior vice president for external affairs, responsible for public relations and the fundraising efforts of the university; the vice president for development, and the vice president for university and government relations.

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*Associate Vice President for Information  
 Technology*

Kris L. Ragozzino  
*Director, Institutional Research and  
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### Academic Affairs

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*Vice President for Academic Affairs*

Miriam Q. Williams, Ph.D.  
*Associate Vice President for Academic Affairs*

David T. Link  
*Dean, Law School*  
*Associate Vice President for Academic Affairs*

Thomas B. Connery, Ph.D.  
*Dean of the College*  
*Dean, Graduate School of Arts and Sciences*

Gene A. Scapanski, Ph.D.  
*Dean, School of Continuing Studies*

Theodore L. Fredrickson, Ph.D.  
*Dean, Graduate School of Business*

Richard S. Podemski, Ph.D.  
*Dean, School of Education*

Barbara W. Shank, Ph.D.  
*Dean, School of Social Work*

Bernice M. Folz, Ph.D.  
*Director, Graduate Programs in Software*

Ronald J. Bennett, Ph.D.  
*Director, Engineering Programs*

Burton Nolan, Ph.D.  
*Director, Graduate Department of  
 Professional Psychology*

Jean Walstrom Haley  
*Director of Libraries*

Nancy Z. Hartung, Ph.D.  
*Director, Faculty Development*

Elaine M. Lilly, Ph.D.  
*Coordinator, Faculty Grants*

### Academic Support Services

Miriam Q. Williams, Ph.D.  
*Associate Vice President for Academic Affairs*

Robert A. McCluskey  
*University Registrar*

Robert A. Rehn, Ed.D.  
*Director, Instructional Support Services*

Sarah A. Stevenson, Ph.D.  
*Director, International Education*

## The College

Thomas B. Connery, Ph.D.  
*Dean of the College*

Merritt C. Nequette, Ph.D.  
*Associate Academic Dean*

John P. Krebsbach, D.M.A.  
*Associate Dean for Academic Advising and  
Special Programs*

William D. Raffield, Ph.D.  
*Director, Division of Business*

Susan B. Chaplin, Ph.D.  
*Director, Division of Natural Sciences and  
Mathematics*

Richard S. Sathe, C.P.A.  
*Chair, Department of Accounting*

Francis E. Furs, Lt. Col., USAF  
*Chair, Department of Aerospace Studies*

Susan V. Webster, Ph.D.  
*Chair, Department of Art History*

Michael J. DeJong, Ph.D.  
*Chair, Department of Biology*

Lynn G. Hartshorn, Ph.D.  
*Chair, Department of Chemistry*

Thomas G. Endres, Ph.D.  
*Chair, Department of Communication*

Joseph L. Kreitzer, Ph.D.  
*Chair, Department of Economics*

Michael Allen Mikolajczak, Ph.D.  
*Chair, Department of English*

Ronald J. Bennett, Ph.D.  
*Chair, Department of Engineering*

Jeffrey R. Cornwall, D.B.A.  
*Chair, Department of Entrepreneurship*

David O. Vang, Ph.D.  
*Chair, Department of Finance*

Robert J. Werner, Ph.D.  
*Chair, Department of Geography*

To be appointed  
*Chair, Department of Geology*

James D. Parsley, Ph.D.  
*Chair, Department of Health and Human  
Performance*

Scott K. Wright, Ph.D.  
*Chair, Department of History*

Robert L. Craig, Ph.D.  
*Chair, Department of Journalism and Mass  
Communication*

Jay A. Erstling, J.D.  
*Chair, Department of Legal Studies in Business*

Philip H. Anderson, Ph.D.  
*Chair, Department of Management*

Lorman L. Lundsten, Ph.D.  
*Chair, Department of Marketing*

Chehrzad Shakiban, Ph.D.  
*Chair, Department of Mathematics*

Shelly Ann Moorman, M.A.  
*Chair, Department of Modern and Classical  
Languages*

Matthew J. George, D.M.A.  
*Chair, Department of Music*

Gary M. Atkinson, Ph.D.  
*Chair, Department of Philosophy*

Thomas N. Tommet, Ph.D.  
*Chair, Department of Physics*

Robert L. Farlow, Ph.D.  
*Chair, Department of Political Science*

Jean E. Giebenhain, Ph.D.  
*Chair, Department of Psychology*

To be appointed  
*Chair, Department of Quantitative Methods  
and Computer Science*

Barbara W. Shank, Ph.D.  
*Dean, School of Social Work*

Susan L. Alexander, Ph.D. (ECON)  
*Chair, Department of Sociology*

To be appointed  
*Chair, Department of Teacher Education*

Amy Kritzer, Ph.D.  
*Chair, Department of Theater*

Catherine Cory, Ph.D.  
*Chair, Department of Theology*

## Academic Counseling and Advising

John P. Krebsbach, D.M.A.  
*Associate Dean for Academic Advising and  
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Julie C. Larson  
*Director, Academic Counseling*

Kim J. Schumann  
*Enhancement Program Counselor*

Laura DeMarais  
*Director, Reading and Study Skills Center*

**Student Affairs**

Gregory Roberts  
*Vice President for Student Affairs*

Cara Halgren  
*Assistant to the Vice President*

Charles E. Smith, Ph.D., L.P.  
*Executive Director, Counseling and  
Affiliated Services*

Sharon Howell, CSJ  
*Director of University Diversity*

Alan L. Sickbert  
*Dean of Student Life*

Karen M. Lange  
*Associate Dean of Student Life*

Brian D. Dusbiber  
*Director, Residence Life*

Reverend Jeffrey H. Huard  
*Director, Campus Ministry*

Alice C. Grider  
*Director, Multicultural Student Services*

Mark F. Schneider  
*Coordinator, International Student Services*

Lee L. Hoedl  
*Director, Center for Student Leadership  
and Activities*

Elaine C. Foell, R.N.  
*Director, Student Health Services*

Jeannine M. Harff  
*Coordinator, Specialized Services*

Dana M. Farley  
*Director, Wellness and Alcohol and Drug Education*

Matt Maruggi  
*Coordinator, Tutor-Mentor Program*

Frank J. Chiodi  
*Coordinator, Life Care Center*

Steven J. Fritz  
*Director, Intercollegiate Athletics*

Becca Swiler  
*Director, Child Development Center*

Geraldine M. Rockett, Ph.D., L.P.  
*Director, Personal Counseling & Testing*

Diane Crist  
*Assistant Director, Career Development  
Services and Student Employment Training*

**Business Affairs**

To be appointed  
*Vice President for Finance and Administration*

Gerald M. Anderley  
*Assistant Vice President for Facilities*

Bruce Van den Berghe  
*Assistant Vice President of Auxiliary Services*

Gary L. Thyen  
*Controller*

Colleen M. Striegel  
*Director, Human Resources*

Todd D. Empanger  
*Director, Food Services*

Laura A. Deuberry  
*Director, Purchasing and Accounts Payable*

Tony Erickson  
*Director, Bookstores*

Timothy J. Thompson  
*Director, Public Safety and Parking Services*

John P. Barron  
*Manager, Service Center*

Nina F. Lemón  
*Manager, Post Office*

Barbara E. Clausen  
*Payroll Manager*

Carol J. Peterfeso  
*Assistant Treasurer*

Teresa M. Kohlbeck  
*Co-Director, Business Office*

Anne C. Reis  
*Co-Director, Business Office*

Amy E. Sims  
*Acting Director, Gainey Conference Center*

Derek A. Tonn  
*Director, Facilities Scheduling*

**Enrollment Management**

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## College Faculty

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Darcel K. Brommer  
*Associate Director of Admissions*

Julie R. Adams  
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Tina V. Valley  
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Kristen A. Hatfield  
*Assistant Director of Admissions*

### The Saint Paul Seminary School of Divinity

Reverend Philip J. Rask, Ph.D.  
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Seminary School of Divinity*

Jeanne McLean, Ph.D.  
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School of Divinity*

### External Affairs

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Doug E. Hennes  
*Vice President for University & Government  
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Richard J. Weiland, Ph.D.  
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Gregory M. Hendricks  
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### A

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 1984; A.B., University of Michigan; Ph.D.,  
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 1987; B.S., University of Illinois (Champaign-  
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 1989; B.A., St. Olaf College; Ph.D., University of  
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 1990; A.B., Oberlin College;  
 M.S.L., Pontifical Institute of Mediaeval Studies;  
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*Associate Professor of Theology*  
 1988; B.A., Loyola University (Chicago); M.A.,  
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 1980; B.S., Cornell University; M.S.W.,  
 University of Minnesota (Duluth)

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*Associate Professor of Marketing*  
 1987; B.A., M.S., Mankato State University;  
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*Koch Chair in Catholic Studies*  
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 1981; A.B., University of Notre Dame; Licence,  
 Diplôme d'études approfondies, Doctorat en  
 théologie catholique, Université de Strasbourg

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*Member of Adjunct Faculty in Business Law*  
 1993; B.A., J.D., University of Wisconsin



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1980; B.Mu., Eastman School of Music; M.Mu.,  
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*Associate Professor of Music*  
1999; B.M.E., M.M., Indiana University; D.M.A.,  
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1987; B.S., University of St. Thomas;  
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1999; B.A., University of Colorado  
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Christopher Brown  
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B.A., University of Michigan; Principal Bass,  
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B.S. Educ. University of Minnesota; Free-lance  
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*Assistant Professor of Communication*  
1998; B.A., St. Norbert College; M.A., Ph.D., Ohio  
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## C

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1991; B.S., M.S., South Dakota School of Mines and  
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1969; B.A., University of St. Thomas; M.B.A.,  
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Braden Canfield  
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Daniel G. Carey  
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*Performance*  
1990; B.S., M.A., Ph.D., University of Minnesota

Randel S. Carlock  
*Opus Chair in Family Enterprise*  
1990; B.S., M.A., M.B.A., Ph.D., University of  
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1996; B.A., College of St. Catherine; M.S.W.,  
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Nancy M. Carter  
*Endowed Chair in Entrepreneurship*  
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- Roger Casey  
*Member of Adjunct Faculty in Health and Human Performance*  
1985; B.S., University of Minnesota (Duluth); NATA, North Dakota State University; M.Ed., University of Minnesota (Duluth)
- William T. Cavanaugh  
*Assistant Professor of Theology*  
1995; B.A., University of Notre Dame; M.A., Cambridge University; Ph.D., Duke University
- Laura Caviani  
*Member of Adjunct Faculty in Music*  
1999; B.M., Lawrence University; M.M., University of Michigan
- Mary Anne Chalkley  
*Associate Professor of Psychology*  
1989; A.B., Cornell University; Ph.D., University of Minnesota
- Susan B. Chaplin  
*Professor of Biology*  
1990; A.B., Occidental College; Ph.D., Cornell University
- Kristina Chew  
*Assistant Professor of Latin and Greek*  
1998; B.A., Princeton University; Ph.D., Yale University
- Michael Chovanec  
*Assistant Professor of Social Work*  
1996; B.S.W., M.S.W., University of Wisconsin; Ph.D., University of Minnesota
- Kanishka Chowdhury  
*Associate Professor of English*  
1993; B.A., St. Xavier's College, Calcutta; M.A., Ph.D., Purdue University
- C. Winston Chrislock  
*Professor of History*  
1972; B.A., University of Minnesota; M.A., Ph.D., Indiana University
- Sun B. Chung  
*Assistant Professor of Quantitative Methods & Computer Science*  
1999; B.A., Seoul National University (Korea); M.S., Loyola University (Chicago); Ph.D., University of Wisconsin
- David Clemenson  
*Assistant Professor of Philosophy*  
1999; B.S., Portland State University; M.S., M.A. University of Wisconsin; Ph.D., Harvard University; Ph.D., Rice University
- Meredith Clermont-Ferrand  
*Assistant Professor of English*  
1999; B.A., State University of New York (Oswego); M.A., Northeastern University; Ph.D., University of Massachusetts (Amherst)
- Frank J. Coglitore  
*Associate Professor of Accounting*  
1982; B.A., Fordham University; M.B.A. University of Scranton; C.P.A.
- Anne N. Cohen  
*Member of Adjunct Faculty in Management*  
1998; B.S., Baldwin Wallace College; M.B.A., University of Minnesota
- Thomas B. Connery  
*Dean of the College*  
*Dean of the Graduate School of Arts & Sciences*  
*Professor of Journalism and Mass Communication*  
1982; B.A., M.A., Ohio State University; Ph.D., Brown University
- Jeffrey R. Cornwall  
*Endowed Chair in Entrepreneurship and Small Business*  
1997; B.S., University of Wisconsin (Stevens Point); M.B.A., D.B.A., University of Kentucky
- Catherine Cory  
*Assistant Professor of Theology*  
1991; B.A., College of St. Teresa; M.A., St. John's University (Minnesota); Ph.D., University of Notre Dame
- Vernon M. Cottles  
*Senior Member of Adjunct Faculty in Engineering*  
1987; B.S., M.S., Ph.D., Tulane University
- Gregory J. Coulter  
*Associate Professor of Philosophy*  
1985; B.A., Magdalen College; M.A., Ph.D., Center for Thomistic Studies, University of St. Thomas (Houston)
- Catherine A. Craft-Fairchild  
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1989; B.A., Canisius College; M.A., Ph.D., University of Rochester
- Robert L. Craig  
*Professor of Journalism and Mass Communication*  
1994; B.A., M.A., Ph.D., University of Iowa
- Jennifer L. Cruise  
*Associate Professor of Biology*  
1988; B.S., St. Lawrence University; Ph.D., Duke University
- Rabbi Barry D. Cytron  
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*Senior Member of Adjunct Faculty in Theology*  
1988; B.S., M.A., Columbia University; M.H.L., Rabbinic Ordination, Jewish Theological Seminary of America (New York); Ph.D., Iowa State University

## D

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## E

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## F

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1963-1990
- Joseph B. Connors  
*Professor of English*  
1946-1955; 1964-1982
- Reverend Thomas J. Conroy  
*Assistant Professor of Theology*  
1968-1997
- DuWayne R. Deitz  
*Assistant Professor of Physical Education*  
1970-1997
- Msgr. Henri Du Lac  
*Professor of Philosophy*  
1945-1988
- Harriet Ebeling  
*Associate Professor of Education*  
1967-1989
- Paul R. Farnham  
*Associate Professor of Geology*  
1970-1999
- Thomas J. Feely  
*Assistant Professor of Physical Education*  
1954-1990
- James Filkins  
*Professor of Finance*  
1977-1994
- Joseph N. Flood  
*Assistant Professor of Physical Education*  
1963-1997
- Francis L. Gerlach  
*Assistant Professor of Business  
Administration*  
1950-1986
- Tadeusz Gierymski  
*Assistant Professor of Psychology*  
1954-1989
- Richard P. Goblirsch  
*Professor of Mathematics*  
1964-1995
- Roy J. Gosselin  
*Assistant Professor of Business  
Administration*  
1956-1982
- Demos Hadjiyanis  
*Professor of Economics*  
1965-1991
- Paul J. Hague  
*Assistant Professor of English*  
1955-1990
- Gerald J. Hahm  
*Assistant Professor of Mathematics*  
1961-1996
- Stanley C. Johnson  
*Associate Professor of Management*  
1977-1995
- Dale Kramm  
*Assistant Professor of Latin and Greek*  
1960-1990
- Patrick H. Lally  
*Assistant Professor of English*  
1960-1997
- James J. Leigh  
*Associate Professor of Physics*  
1961-1995
- Rev. Roy C. Lepak  
*Associate Professor of Theology*  
1966-1990
- Robert D. Lippert  
*Assistant Professor of English*  
1955-1989
- Francis G. Mach  
*Associate Professor of Physical Education*  
1968-1998
- Francis N. Mayer  
*Professor of Music*  
1947-1982
- Warren McIntire  
*Professor of Management*  
1978-1992
- Richard R. Meierotto  
*Professor of Biology*  
1961-1995
- Eileen Michels  
*Professor Emerita of Art History*  
1974-1992
- Richard J. Morath  
*Professor of Chemistry*  
1974-1992

David Nimmer  
*Assistant Professor of Journalism and  
 Mass Communication*  
 1989-2000

William L. O'Neill, C.P.P.S.  
*Associate Professor of Psychology*  
 1974-1999

Rev. James E. Reidy  
*Associate Professor of English*  
 1958-1996

Rev. John Riley  
*Associate Professor of Theology*  
 1957-1994

Vincent Rush  
*Professor of Theology*  
 1967-1988

James A. Ryan  
*Professor of Chemistry*  
 1959-1989

Rev. John P. Sankovitz  
*Assistant Professor of Theology*  
 1980-1997

Mabel Schleif  
*Associate Professor of Education*  
 1972-1991

Jacob A. Schmitt  
*Assistant Professor of Education*  
 1975-1990

Joseph J. Schramer  
*Instructor in Accounting*  
 1961-1976; 1977-1998

Daniel R. Sevenich  
*Adjunct Professor of Accounting*  
 1956-1998

William B. Silverman  
*Professor of Biology*  
 1959-1990

E. Arnold Spencer  
*Assistant Professor of Speech and Theater*  
 1960-1974

Rev. James S. Stromberg  
*Professor of Philosophy*  
 1956-1999

Albert O. Trostel  
*Professor Emeritus of Management*  
 1977-1999

Robert E. Veverka  
*Assistant Professor of Business Administration*  
 1976-1989

Hubert R. Walczak  
*Professor of Mathematics*  
 1963-1995

Rev. Peter E. Wang  
*Professor of Theology*  
 1967-1996

Harry C. Webb  
*Associate Professor of Education*  
 1954-1990

Rev. George A. Welzbacher  
*Instructor in History*  
 1966-1995

Rev. James W. Whalen  
*Assistant Professor of Journalism and  
 Mass Communication*  
 1952-1953; 1858-1993

Jean Zilisch  
*Associate Professor of Education*  
 1976-1987

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