



**University of St. Thomas  
Undergraduate Catalog**

**2010-2012**



UNIVERSITY *of* ST. THOMAS

# University of St. Thomas

**2115 Summit Avenue  
St. Paul, Minnesota 55105**

## Undergraduate Catalog

**2010-2012**

### **Telephone**

651-962-5000 or 800-328-6819

### **Website**

[www.stthomas.edu](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.

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, sexual orientation, 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.

## Academic Calendar 2010-2012

### Fall Semester 2010

September 8	Classes begin
September 14	Last day to register or add a class without instructor permission
September 21	Last day to drop a class without notation on record
October 13	Last day to designate grading option (S-D-R)
October 29	Fall semester break
November 1	Classes resume, 2nd half-semester classes begin
November 1	Mid-term & 1st half-semester grades due
November 15 - Dec 3	Early registration for January term and spring semester
November 16	Last day to withdraw from a class without a grade of "F"
November 25 - 26	Thanksgiving recess
November 29	Classes resume
December 1	Incompletes due from spring semester and summer sessions
December 10	Last day of classes
December 13	Study Day
December 14 - 17	Final examinations
January 3	Final grades due

### January Term 2011

January 3	Classes begin
January 7	Last day to drop a class without notation on record
January 7	Last day to register or add a class without instructor permission
January 11	Last day to designate grading option (S-D-R)
January 17	Martin Luther King Holiday
January 20	Last day to withdraw from a class without a grade of "F"
January 27	Last day of classes/examinations
January 31	January term grades due

### Spring Semester 2011

January 31	Classes begin
February 4	Last day to register or add a class without instructor permission
February 11	Last day to drop a class without notation on record
March 8	Last day to designate grading option (S-D-R)
March 21 - 25	Spring semester break
March 28	Classes resume, 2nd half-semester classes begin
March 28	Mid-term & 1st half-semester grades due
April 22 - 25	Easter break
April 26	Classes resume
April 18	Last day to withdraw from a class without a grade of "F"
April 18 - 29	Early registration for summer sessions and fall semester
May 1	Incompletes due from fall semester and January term
May 13	Last day of classes
May 16	Study Day
May 17 - 20	Final examinations
May 20	Commencement Mass
May 21	Spring commencements
May 31	Final grades due

### Summer Sessions 2011

May 25 - July 7	First summer session
May 25 - July 21	Extended session
May 25 - August 18	Double session
July 11 - August 18	Second summer session

## Academic Calendar 2010-2012

### Fall Semester 2011 (PRELIMINARY)

September 7	Classes begin
September 13	Last day to register or add a class without instructor permission
September 20	Last day to drop a class without notation on record
October 12	Last day to designate grading option (S-D-R)
October 28	Fall semester break
October 31	Classes resume, 2nd half-semester classes begin
October 31	Mid-term & 1st half-semester grades due
November 15	Last day to withdraw from a class without a grade of "F"
Nov. 14 - Dec. 2	Early registration for January term and spring semester
November 24 - 25	Thanksgiving recess
November 28	Classes resume
December 1	Incompletes due from spring semester and summer sessions
December 9	Last day of classes
December 12	Study Day
December 13 - 16	Final examinations
January 2	Final grades due

### January Term 2012 (PRELIMINARY)

January 2	Classes begin
January 6	Last day to register or add a class without instructor permission
January 6	Last day to drop a class without notation on record
January 10	Last day to designate grading option (S-D-R)
January 16	Martin Luther King Holiday
January 20	Last day to withdraw from a class without a grade of "F"
January 26	Last day of classes/examinations
January 30	January term grades due

### Spring Semester 2012 (PRELIMINARY)

January 30	Classes begin
February 3	Last day to register or add a class without instructor permission
February 10	Last day to drop a class without notation on record
March 6	Last day to designate grading option (S-D-R)
March 26	2nd half-semester classes begin
March 26	Mid-term & 1st half-semester grades due
April 6 - April 9	Easter & Spring semester break
April 10	Classes resume
April 18	Last day to withdraw from a class without a grade of "F"
April 16 - 27	Early registration for summer sessions and fall semester
May 1	Incompletes due from fall semester and January term
May 11	Last day of classes
May 14	Study Day
May 15 - 18	Final examinations
May 18	Commencement Mass
May 19	Spring commencements
May 31	Final grades due

### Summer Sessions 2012 (PRELIMINARY)

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

## Table of Contents

Calendars	2	Family Studies	167
General Information	6	Finance, Department of	76
Admission Information	9	Geography, Department of	169
Student Financial Services	14	Geology, Department of	172
Academic Information and Programs	15	Health and Human Performance, Department of	178
International and Off-Campus Programs	18	History, Department of	186
Requirements for Degree	21	Interdisciplinary Courses	192
Registration Information	28	International Studies	196
Academic Honors	33	Justice and Peace Studies	198
Academic Support Programs	35	Legal Studies	202
Student Life	36	Literary Studies	202
Student Services	38	Mathematics, Department of	203
Facilities	42	Modern and Classical Languages, Department of	208
Curricula	46	Management, Department of	78
Organization and Personnel	291	Marketing, Department of	81
University Faculty	296	Music, Department of	222
Retired Faculty	318	Neuroscience (B.S.)	237
Index	322	Operations & Supply Chain, Department of	82
<b>Departments and Programs</b>			
Course Explanation	46	Philosophy, Department of	238
Accounting, Department of	72	Physics, Department of	243
Actuarial Science	48	Political Science, Department of	247
Aerospace Studies, Department of	50	Pre-Professional Programs	251
American Culture and Difference	53	Psychology, Department of	254
Art History, Department of	54	Renaissance Program	259
Biochemistry	59	Social Sciences	260
Biology, Department of	60	Social Work, School of	260
Business, College of	70	Sociology & Criminal Justice, Department of	264
Accounting, Department of	72	Special Education, Department of	141
Entrepreneurship, Department of	73	Statistics	270
Ethics and Business Law, Department of	75	Theater, Department of	160
Finance, Department of	76	Theology, Department of	272
Management, Department of	78	Urban Studies	287
Marketing, Department of	81	Women's Studies	288
Operations & Supply Chain, Department of	82	<b>Majors and Minors</b>	
Catholic Studies, Department of	91	Accounting (Business Administration)	72
Chemistry, Department of	95	Actuarial Science (B.S.)	48
Classical Civilization	101	Aerospace Studies (minor only)	50
Communication & Journalism, Department of	103	American Culture and Difference (minor only)	53
Computer & Information Sciences, Department of	110	Art History	54
Economics, Department of	117	Biochemistry (B.S.)	60
Education, School of	122	Biology (B.A. & B.S.)	62
Engineering, School of	142	Biology (Life Science teacher licensure)	129
English, Department of	150	Business Administration (minor)	70
Entrepreneurship, Department of	73	Business Communication (Business Admin)	78
Environmental Science	162	Catholic Studies	92
Environmental Studies	165	Chemistry (B.A. & B.S.)	96
Ethics and Business Law, Department of	75	Chemistry (teacher licensure)	126
		Classical Civilization	101

## Table of Contents

Classical Languages . . . . .	209	Legal Studies in Business (Business Admin) . . . . .	76
Communication and Journalism . . . . .	103	Literary Studies . . . . .	203
Communication (Communication Arts . . . . .	127	Marketing Management (Business Admin) . . . . .	81
and Literature teacher licensures)		Mathematics . . . . .	203
Community Health Education . . . . .	178	Mathematics (teacher licensures) . . . . .	129
Computer and Information Sciences (minor only) . . . . .	112	Mechanical Engineering (B.S.M.E.) . . . . .	143
Computer Science . . . . .	110	Music . . . . .	223
Criminal Justice . . . . .	265	Music Business . . . . .	225
Economics (B.A. & B.S.) . . . . .	118	Music Education (teacher licensures) (B.M.) . . . . .	130
Electrical Engineering (B.S.E.E.) . . . . .	143	Music – Liturgical . . . . .	225
Engineering (minor) . . . . .	146	Music – Performance (B.M.) . . . . .	223
English . . . . .	151	Neuroscience (B.S.) . . . . .	237
English – Writing . . . . .	152	Operations Management (Business Admin) . . . . .	82
English – Education . . . . .	153	Philosophy . . . . .	239
Entrepreneurship (Business Admin) . . . . .	73	Physical Education – Non-licensure . . . . .	181
Environmental Science . . . . .	162	Physical Education (teacher licensure) . . . . .	131
Environmental Studies . . . . .	165	Physics (B.A. & B.S.) . . . . .	243
Family Studies (minor only) . . . . .	167	Physics (teacher licensure) . . . . .	132
Family Business . . . . .	74	Political Science . . . . .	247
Financial Management (Business Admin) . . . . .	76	Popular Music (minor only) . . . . .	227
French . . . . .	210	Psychology . . . . .	254
French (teacher licensure) . . . . .	134	Real Estate Studies (B.S.) (Business Admin) . . . . .	77
General Business Management (Business Admin) . . . . .	71	Renaissance Program (minor only) . . . . .	259
Geographic Information Systems . . . . .	169	Russian (minor only) . . . . .	218
Geography . . . . .	169	Science and Mathematics for Elementary . . . . .	125
Geology (B.A. & B.S.) . . . . .	173	Education (SMEE)	
Geology (Earth & Space Science teacher licensure) . . . . .	128	Social Sciences . . . . .	260
German . . . . .	212	Social Studies (teacher licensures) . . . . .	133
German (teacher licensures) . . . . .	134	Social Welfare (minor only) . . . . .	262
Greek (minor only) . . . . .	214	Social Work . . . . .	261
Health Education – Non-Licensure . . . . .	180	Sociology . . . . .	265
Health Education (teacher licensure) . . . . .	128	Spanish . . . . .	219
Health Promotion (B.S.) . . . . .	179	Spanish (teacher licensure) . . . . .	134
Health Promotion – Science (B.S.) . . . . .	179	Statistics . . . . .	270
History . . . . .	186	Theater Courses . . . . .	160
Human Resource Management (Business Admin) . . . . .	79	Theater Arts (teacher licensure) . . . . .	133
Information and Decision Theory . . . . .	112	Theology . . . . .	273
Information Security . . . . .	112	Theology – Ministry . . . . .	273
Information Systems (IS) . . . . .	111	Urban Studies (minor only) . . . . .	287
Information Technology (IT) . . . . .	111	Women’s Studies [ACTC] . . . . .	288
International Business (Business Administration) . . . . .	71		
International Business – French Intensive . . . . .	215		
International Business – German Intensive . . . . .	215		
International Business – Spanish Intensive . . . . .	215		
International Studies . . . . .	196		
Japanese (minor only) . . . . .	216		
Justice and Peace Studies . . . . .	198		
Latin . . . . .	216		
Leadership and Management (Business Admin) . . . . .	80		
Legal Studies (minor only) . . . . .	202		

## General Information

### **Mission**

Inspired by Catholic intellectual tradition, the University of St. Thomas educates students to be morally responsible leaders who think critically, act wisely, and work skillfully to advance the common good.

### **Convictions**

As a community we are committed to:

1. Pursuit of Truth  
We value intellectual inquiry as a life-long habit, the unfettered and impartial pursuit of truth in all its forms, the integration of knowledge across disciplines, and the imaginative and creative exploration of new ideas.
2. Academic Excellence  
We create a culture among faculty, students and staff that recognizes the power of ideas and rewards rigorous thinking.
3. Faith and Reason  
We actively engage Catholic intellectual tradition, which values the fundamental compatibility of faith and reason and fosters meaningful dialogue directed toward the flourishing of human culture.
4. Dignity  
We respect the dignity of each person and value the unique contributions that each brings to the greater mosaic of the university community.
5. Diversity  
We strive to create a vibrant diverse community in which, together, we work for a more just and inclusive society.
6. Personal Attention  
We foster a caring culture that supports the well-being of each member.
7. Gratitude  
We celebrate the achievements of all members of our community in goals attained and obstacles overcome, and in all things give praise to God.

### **Undergraduate Vision Statement**

The university's mission and convictions and our objectives for undergraduate education provide the framework for the Undergraduate Vision Statement.

The strengths of the undergraduate program 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 undergraduate program:

- 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 program 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 more than 11,000 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, 50 percent of the undergraduates and 52 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 10,641 today. The undergraduate program currently enrolls approximately 5,600 students.

Long-standing graduate programs in business, education, professional psychology and social work offer degrees at the master's, specialist, and doctoral levels.

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 Divinity which offers graduate degrees in pastoral studies, divinity and theology. St. Thomas is home to the undergraduate St. John Vianney Seminary.

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.

## Locations

The university's 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 most of the graduate programs in the Opus College of Business, the Graduate School of Professional Psychology, the School of Education, and the School of Law.

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 Bernardi Residence in Rome, which opened in

2000, is a remodeled residential estate on the banks of the Tiber River. Serving as a home to students on the university's Center for Catholic Studies Rome Program and the Fall Semester in Rome Program, it is also available for conferences, study tours and housing for faculty, students, and visitors to Rome.

## Organization of the University

### Undergraduate

#### College of Arts and Sciences

The College of Arts and Sciences includes undergraduate departments in the arts, humanities, natural sciences, and social sciences, plus a number of interdisciplinary programs.

#### Opus College of Business

The Opus College of Business has seven departments offering undergraduate curricula in an interdisciplinary setting. It is home to a variety of centers offering credit and noncredit seminars and continuing-education programs.

#### School of Education

The School of Education offers undergraduate courses and curricula for elementary and secondary teacher licensures.

#### School of Engineering

The School of Engineering offers fully accredited degree programs in mechanical and electrical engineering. The School is committed to developing complete engineers who have a sound Liberal Arts foundation combined with extensive hands-on experience and strong technical skills. (more information is available at [www.stthomas.edu/engineering/](http://www.stthomas.edu/engineering/))

#### School of Social Work

The School of Social Work offers undergraduate courses and curricula for social work and chemical dependency counseling.

### Graduate

#### College of Arts and Sciences

Master's-level programs are offered in Art History, Catholic Studies, English, and Music Education.

#### Opus College of Business

The Opus College of Business offers seven degree programs at the graduate level. It is home to a variety of centers offering credit and noncredit seminars and continuing-education programs.

#### St. Paul Seminary School of Divinity

The St. Paul Seminary School of Divinity offers master's- and doctoral-level degrees oriented to theological study and the practice of ministry. The school also offers a two-year pre-theology program for priesthood candidates who require additional preparation.

#### College of Applied Professional Studies

Graduate study leading to certificates, master's, educational specialist, and doctoral degrees is offered. Master's- and doctoral-level degrees are offered in counseling psychology. A certificate in family psychology also is offered.

#### School of Engineering

St. Thomas graduate engineering programs have served



## General Information

students and regional industries since 1986. The School of Engineering offers graduate degrees in manufacturing engineering, mechanical engineering, systems engineering, technology management, and regulatory science. (more information is available at [www.stthomas.edu/engineering/](http://www.stthomas.edu/engineering/))

### School of Law

The School of Law was reopened in 1999 after a 66-year hiatus. The first class of 120 students was accepted in fall 2001. Full accreditation by the American Bar Association was granted in 2006.

### School of Social Work

The Master of Social Work, offered as a joint degree program with St. Catherine University, is designed to provide advanced professional study in social work. Dual-degree programs are offered in cooperation with Luther Seminary, the Department of Theology at St. Catherine University, and the St. Paul Seminary School of Divinity.

### Vital Statistics

The University of St. Thomas is a private, coeducational, Catholic, liberal arts university.

The university offers five bachelor's degrees, 96 major fields of study, and 58 minor fields of study. The university offers 48 graduate degree programs: 43 master's, two education specialist, one *juris doctor*, and four doctorates. It also offers five graduate-level joint- or dual-degree programs.

The university awards the B.A. in 89 fields; B.M. in 3 fields; B.S. in eleven fields; B.S.E.E.; B.S.M.E.; Ed.S. in two fields; Ed.D. in two fields; J.D.; M.A. in 20 fields; M.B.A. in four fields; M.B.C.; M.Div.; M.M.S.E.; M.S. in seven fields; M.S.S.; M.S.W.; and Psy.D.

Enrollment in the undergraduate program for fall semester 2009 was 6,146. Graduate-level enrollment figures at the university were: College of Arts and Sciences, 175; Opus College of Business, 1,588; St. Paul Seminary School of Divinity, 125; School of Education, 1,169; School of Law, 464; School of Social Work, 395; Graduate School of Professional Psychology, 221; Graduate Programs in Software Engineering, 351; Programs in Engineering, 217.

The total undergraduate and graduate enrollment for fall semester 2009 was 10,851.

There are 457 full-time faculty, 473 part-time faculty, and a support staff of 1,136.

### Accreditation and Memberships

The University of St. Thomas is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools (800-621-7440), the Association of Theological Schools (412-788-6505), and is an affiliate member of the Teacher Education Accreditation Council.

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 mechanical engineering, electrical engineering, and manufacturing systems engineering programs in the School of Engineering are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, (410) 347-7700; the School of Law is accredited by the American

Bar Association (202-662-1000); the music programs are approved by the National Association of Schools of Music (703-437-0700); the doctoral program in Professional Psychology is accredited by the American Psychological Association (800-374-2721); the Social Work program is accredited by the Council on Social Work Education (703-683-8080).

The university is a member of the:

- American Association of Colleges for Teacher Education
- American Council on Education
- Associated Colleges of the Twin Cities
- Association of American Colleges and Universities
- Association of Catholic Colleges and Universities
- Association to Advance Collegiate Schools of Business
- 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

The University of St. Thomas is registered as a private institution with the Minnesota Office of Higher Education pursuant to sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions.

### 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 on-going curricular development.

The University Assessment Committee, which oversees the student outcomes assessment programs of the university, consists of the chief assessment officer for each school or college and the director of Institutional Research. The committee is chaired by the associate vice president for academic affairs.

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, color, creed, religion, ancestry, national origin, gender, sexual orientation, or disability.

## Information and Visits

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

Phone: 651-962-6150 or  
800-328-6819 ext. 2-6150  
e-mail: [admissions@stthomas.edu](mailto:admissions@stthomas.edu)  
Website: [www.stthomas.edu](http://www.stthomas.edu)

When writing, inquirers should be sure to include their full name, address with zip code and telephone 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. Admission counselors and scheduled tour times are available during those hours. 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 completed by the applicant and sent to the Office of Admissions. The application also may be completed via the Web at: [www.stthomas.edu](http://www.stthomas.edu)
2. The admissions committee considers each student's academic record, writing sample, and recommendations, if applicable. Applicants are then notified whether they have been accepted officially by the university.
3. Each accepted applicant should make a \$200 confirming deposit to reserve a place in the class. This confirming deposit is refundable when requested in writing by May 1 prior to the fall semester of admission.
4. Admitted students wishing to live in on-campus housing must also make a \$200 room deposit. The room deposit will be refunded when requested in writing by May 1 prior to the fall semester of admission. Housing is granted on a space available basis and not guaranteed.
5. Each confirmed student is required to provide a final high school transcript after graduation prior to the first day of class in the fall semester of admission.
6. Undergraduate students enrolled in 12 or more credits each semester are required to demonstrate proof of health insurance. Students participating in NCAA athletics and international have additional specific insurance requirements. Students are to provide their health insurance information via Murphy Online at: <https://banner.stthomas.edu>. Additionally, St. Thomas sponsors a health insurance plan that is available for any degree-seeking student to purchase. More information on the health insurance requirement and available insurance options can be found on the Student Health Insurance web site at: <http://www.stthomas.edu/stu->

[denthealth/Insurance](http://denthealth/Insurance).

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 Student Health Service. These immunizations are to be entered via Murphy Online at [banner.stthomas.edu](http://banner.stthomas.edu).

## Admission Credits

Students entering St. Thomas as first-time college students may have high school credits, Advanced Placement (AP) 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.

Graduates of accredited high schools are admitted on the basis of their grade point average, academic rank in their graduating class (if applicable), college preparatory course selection, 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 (AP) 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** – For students intending to major in Biology, Biochemistry, Environmental Science, or Neuroscience, a score of 4 or higher = BIOL 201 lecture section (3 credits); such students will normally be required to take the BIOL 201 lab (1 credit) at St. Thomas. For students not intending to major in one of the degree programs listed above, a score of 4 or higher = BIOL 101 (4 credits).

**Chemistry** – A score of 3 or higher may = CHEM 100, depending on laboratory experience, at the discretion of the chair of the department. A score of 4 or higher may = CHEM 111, depending on laboratory experience, at the discretion of the chair of the department. Students will be required to present both coursework in class as well as lab work that includes, but not limited to lab notebook, lab reports, experiments and experimental procedures, exams taken and syllabi.

**Chinese** – A score of 3 = CHIN 211 (fulfills Language and Culture requirement);

## Admission Information

- A score of 4 = CHIN 212  
A score of 5 = CHIN 300
- Computer Science** – A score of 3 or higher in Computer Science A or B = CISC 199
- 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 4 or higher in English Language/Composition = ENGL 199 (does not fulfill the Literature and Writing requirement);  
A score of 4 or higher in English Literature/Composition = ENGL 104 (fulfills 4 credits towards the Literature and Writing requirement)
- Environmental Science** – A score of 3 or higher in Environmental Science = ENVR 151.
- French** – A score of 3 = FREN 211 (fulfills Language and Culture requirement);  
A score of 4 = FREN 212  
A score of 5 = FREN 300  
A score of 3 or higher in French Literature = FREN 309 (this will count towards the major in French)
- Geography** – A score of 3 or higher in Human Geography = GEOG 111 (fulfills Social Analysis requirement)
- German** – A score of 3 = GER 211 (fulfills Language and Culture requirement);  
A score of 4 = GERM 212  
A score of 5 = GERM 300
- History** – A score of 4 or higher in European History = HIST 199 (with the discretion of the department chair, may fulfill Historical Studies requirement.) A score of 4 or higher in U.S. or World History = HIST 100 (fulfills the Historical Studies requirement.)
- Italian** – A score of 3 = ITAL 211 (fulfills Language and Culture requirement);  
A score of 4 = ITAL 212  
A score of 5 = ITAL 300
- Japanese** – A score of 3 = JAPN 211 (fulfills Language and Culture requirement);  
A score of 4 = JAPN 212  
A score of 5 = JAPN 300
- Latin** – A score of 3 or higher = LATN 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 or higher may = MUSC 113 and a score of 4 or higher may = MUSC 114, however, all students who wish to transfer AP credits are required to take the music theory placement test. Review sheets and information on taking the test are available from the music department office (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)
- Political Science** – A score of 3 or higher in Comparative Government & Politics = POLS 105 (fulfills Social Analysis requirement.)
- Psychology** – A score of 4 or higher = PSYC 111 (fulfills Social Analysis requirement)
- Spanish Language** – A score of 3 = SPAN 211 (fulfills Language and Culture requirement);  
A score of 4 = SPAN 212  
A score of 5 = SPAN 300
- Spanish Literature** – A score of 5 or higher = SPAN 335 (this will count towards the major in Spanish)
- Statistics** – A score of 3 or higher in Statistics = IDTH 220 (fulfills third Math/Science requirement)
- Studio Art** – A score of 3 or higher in Studio Art = ARTS 199 (does not fulfill Fine Arts Requirement)

### International Baccalaureate

All exams with the exception of foreign languages, must be taken at the *higher level*. Students who pass the higher level International Baccalaureate (IB) Examination(s) in subjects included in the St. Thomas curriculum with a score of 4 or higher will ordinarily receive 4 credits toward graduation. The specific courses for which credit would be awarded will be determined by the appropriate academic department.

Following is a list of guidelines according to which credit may be obtained through the higher level IB exam in specific departments.

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

**Biology** – For students intending to major in Biology, Biochemistry, Environmental Science, or Neuroscience, a score of 5 or higher normally = BIOL 201 lecture section (3 credits); such students will usually be required to take the BIOL 201 lab (1 credit) at St. Thomas. However, placement in the major sequence must be determined in consultation with the Biology Department chair. For students not intending to major in one of the degree programs listed above, a score of 5 or higher = BIOL 101 (4 credits).

**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.

**Economics** – A score of 5 or higher on the Higher Level examination = ECON 251 (fulfills the Social Analysis requirement).

**English** – A score of 4 or higher equals ENGL 104 (fulfills 4 credits toward the Literature and Writing requirement.)

**Foreign Language** – Foreign language credit is dependent on the results of the UST departmental language placement exam typically administered during freshman orientation. Once a language placement exam result is known, IB credit will be granted with a score of 4 or higher.

#### UST Exam

Placement Result	IB Credit Earned
300	212 (fulfills Lang & Culture)
212	211 (fulfills Lang & Culture)
211	112

112  
111                      111  
111                      199 (elective)

**History** – A score of 4 or higher in European History equals HIST 199 (with the discretion of the department chair, may fulfill Historical Studies requirement.) A score of 4 or higher in History of Americas equals HIST 100 (fulfills the Historical Studies requirement.) A score of 4 or higher in History: Africa equals HIST 100 (fulfills the Historical Studies requirement.)

**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 Enrollment Option (PSEO)**

The Post-Secondary Enrollment Options program is a State of Minnesota program which allows qualified high school students to earn credit toward their high school diplomas by attending colleges, universities, technical colleges 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 applicants who are in the top 10 percent of their high school class, have scored well on the ACT, SAT or PSAT standardized tests, and have a strong academic record while pursuing a rigorous academic program including honors or accelerated coursework. Admission to the program is competitive and highly selective. Students seeking admission to the PSEO program should contact the Office of Admissions.

PSEO students are considered non-degree and may take a maximum of twenty-four credits through the program at St. Thomas. They may divide their coursework a variety of ways. Students in their junior year of high school may take four credits per semester. Students in their senior year may take twelve credits each semester, provided the total number of credits taken at St. Thomas does not exceed twenty-four.

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

With the consent of an academic adviser, students are allowed to enroll in almost any course for which they have adequate preparation, provided 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 or Catholic Studies 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 most 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. Students must take CLEP examinations before or during the first semester of college work to receive credit for the CLEP examination from UST.

**Business** – A score at the 50th percentile or above in Principles of Marketing=MKTG 300 (fulfills requirement in Business Major.) No other CLEP Exams in Business will earn St. Thomas Credit.

**English Literature/Composition** – A score at the 50th percentile or above in any English Literature or Composition exam will earn ENGL 199 (does not fulfill the Literature and Writing requirement.)

**Foreign Languages** – Students must consult with department chair to determine if any CLEP credit will be accepted with a score at the 50th percentile or above.

**History** – A score at the 50th percentile or above in History of the United States I=HIST 113, History of the United States II=HIST 114 (both fulfill the Historical Studies requirement.) History exams in other areas with a score of 50% or higher need to be evaluated by the department chair.

**Mathematics** – Students must consult the department chair to determine if any CLEP credit will be accepted with a score at the 50th percentile or above.

**Natural Sciences** – CLEP Examinations that include Biology, Chemistry and Natural Sciences do not fulfill the laboratory science requirement. A score at the 50th percentile or above will earn elective credit.

**Social Sciences** – A score at the 50th percentile or above in the following social sciences will earn 4 credits in the following subject areas

<u>CLEP Exam</u>	<u>UST Credit</u>			
Princ of Macroecon	ECON	251	(fulfills	Soc
Analysis)				
Princ of Microecon	ECON	252	(fulfills	Soc
Analysis)				
Introductory Psyc	PSYC	111	(fulfills	Soc Analysis)
Introductory Soc	SOCI	100	(fulfills	Soc Analysis
				and Human Div)

**Department Examinations**

Certain departments in the undergraduate program 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.

## Admission Information

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.

**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:

FINC 321 Financial Management

**Chemistry** – Examinations may be given for CHEM 111 and/or CHEM 112, at the discretion of the chair of the department.

**Communication and Journalism** – in special circumstances, credit by examination could be sought for courses in journalism with the following *exceptions*:

COJO 254 Photojournalism

COJO 470 Advertising and Public Relations Campaigns

COJO 480 Communication Ethics

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

CISC 320 Systems Analysis and Design I

CISC 321 Systems Analysis and Design II

**Economics** – all courses, if circumstances warrant it, with the *exception* of:

ECON 315 Empirical Methods in Economics

ECON 470 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:

Fiction and Nonfiction Prose

ENGL 112 Critical Reading & Writing II:

Drama and Poetry

ENGL 121 Critical Thinking: Literature and Writing

ENGL 190 Critical Reading & Writing:

Major Genres

ENGL 201 Text in Conversation: Perspectives on

Genre and Craft

ENGL 202 Texts in Conversation: Interdisciplinary Perspectives

ENGL 203 Texts in Conversation: Thematic and Intertextual Perspectives

ENGL 204 Texts in Conversation: Perspectives on Language, Culture, and Literacy

ENGL 300 Theory and Practice of Writing

ENGL 480 Literary Magazine Practicum

ENGL 481 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

**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 examination may be sought for PSYC 111 General Psychology

### Waiver of Credits

Unlike the other areas discussed above, a waiver of credits does not add any credits to the student's transcript. For example, if a student tests out of the third level of the foreign language requirement for the core curriculum, a waiver will be noted on the course audit, but no credits are awarded.

### Transfer Students

In addition to following the general application procedures, students wishing to transfer from another college should submit official high school and college transcripts to the Office of Admissions as soon as possible. Previous college work and other academic information will be reviewed as part of 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 from a regionally accredited college/university will be recognized for credit at St. Thomas. To determine if your college/university has regional accreditation, please see:

[www.ncahigherlearningcommission.org](http://www.ncahigherlearningcommission.org)

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

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 contact the Office of Admissions at:

651-962-6150 or 1-800-328-6819 Ext 2-6150  
or [admissions@stthomas.edu](mailto:admissions@stthomas.edu)

## **International Students**

The university welcomes and encourages prospective international students to apply for admission.

International students are classified as students applying for admission to the University who will need to have or have a visa to enter the United States. Admission is competitive and requires:

- Application and essay;
  - Secondary school official records with very good to excellent scores;
  - Proof of English proficiency
- Priority deadline for applications is January 15.

The minimum acceptable TOEFL score is the iBT total of 80 with subscores of 20 on speaking and writing. Information for testing can be found at [www.toefl.org](http://www.toefl.org). Please see the University of St. Thomas international admissions website for additional acceptable testing formats.

In lieu of the TOEFL test or other English proficiency tests, completion of Level 112 at any ELS Language Centers facility will satisfy the English requirement for admission. For more information about ELS, please see [www.els.com](http://www.els.com).

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

The University of St. Thomas has international student scholarships available for students with outstanding merit. These scholarships are highly competitive. To qualify for consideration, students must apply to the University of St. Thomas, and submit a scholarship essay and recommendation letter by January 15. After the priority deadline, admission and scholarship applications will be reviewed on a case-by-case, space available basis.

For more information, or to arrange to visit, please contact International Recruiting and Admissions, University of St. Thomas 44C, 2115 Summit Avenue, St. Paul, MN 55105-1096.

web: [www.stthomas.edu/admissions/international](http://www.stthomas.edu/admissions/international)  
e-mail: [international@stthomas.edu](mailto:international@stthomas.edu)  
phone: 1-651-962-6880

## **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 ensure 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 are those who 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 begin registration five days before the start of each term.

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

Non-degree students are limited to enrolling for eight credits during the spring and fall semesters, and four credits during J-term. They may register for a combined total of sixteen credits during the summer sessions. 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 and disciplinary 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 Academic Counseling 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 and the Dean of Students form completed by the dean of students 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 and the Dean of Students form indicates the student left that institution in good standing.

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.



## Student Financial Services

### **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 and financing options available to students seeking a college education. Whenever possible, students will want to take advantage of opportunities such as federal and state grants, loans, and student employment programs. It is important that proper application for aid be made by the deadlines noted.

### **Financial Aid**

The University of St. Thomas participates in all Federal and State financial aid programs. These programs include scholarships and grants, loans and work-study. In addition, the university offers institutional merit-based scholarships and grants to those students who have excelled academically and/or made contributions to their school, community or church.

### **Financial Aid Information on the Web**

For the most current information regarding the application process, scholarships, grants, student employment, student loans and financial aid policies at the University of St. Thomas, visit the undergraduate financial aid website at [www.stthomas.edu/financialservices/undergraduate](http://www.stthomas.edu/financialservices/undergraduate).

### **Applications**

To be considered for financial aid, a student must be admitted to the university as a degree seeking student.

Students wishing to apply for need-based financial aid or federal student loans 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.

Students are strongly encouraged to complete the FAFSA on-line at [www.fafsa.gov](http://www.fafsa.gov). A paper form may also be obtained by calling the Federal Student Aid Information Center at 800-4-FED-AID (800-433-3243).

### **Awards and Renewals**

Need-based financial aid is awarded for one year only unless specified otherwise.

Students must reapply by filing the FAFSA each year. All financial aid is disbursed to the student's account to pay 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 enrolled less than full-time (12 credits or more per semester). Students must be in compliance with the Satisfactory Academic Progress Policy to be eligible for assistance.

### **Satisfactory Academic Progress**

To remain in compliance with the Satisfactory Academic Progress Policy, a student must:

1. Successfully complete 75 percent of all attempted credits.
2. Maintain a cumulative GPA of 2.00 after his/her second year of attendance.

All students meeting the above conditions are eligible to receive financial aid for a maximum of 176 attempted

credits. A detailed copy of the Satisfactory Academic Progress Policy is available from the Financial Aid Office.

### **Financial Aid Policy Regarding Withdrawal from the University**

If a student withdraws from the University of St. Thomas during a semester, January or summer term, a calculation of "earned" vs. "unearned" federal aid must be determined. This federal policy assumes the student earns his or her aid based on how much time has elapsed in the term. If a student receives federal financial aid, that aid may be reduced as a result of the withdrawal.

There are three steps that St. Thomas must complete to comply with the federal policy: 1) Determine the withdrawal date, 2) Determine the amount of earned federal aid, 3) Return unearned federal funds to the appropriate program(s). However, in order to ensure that the student is eligible to receive financial aid, St. Thomas must first verify with the student's instructor(s) that they have attended or participated in academic activities related to the class(es) for the term. Students must withdraw officially in one of two ways: Murphy Online, or through the Registrar's Office, which is open from 7:30 a.m. – 4:30 p.m. Monday through Friday. The withdrawal date is the date the student begins the withdrawal process. If the student fails to withdraw officially, the withdrawal date will become the midpoint of the term, unless the university can document a later date. In certain circumstances if an earlier date of last academic activity is determined, this date may be used in the calculation of "earned" federal aid. If the student withdraws after completing 60 percent of the term, they earn all federal financial aid for the term. The responsibility to repay unearned aid is shared by the institution (St. Thomas) and the student. The institution's share is the lesser of the unearned aid or unearned institutional charges. The institution's share must be repaid to the federal aid programs in the following order before the student's share is considered:

1. Federal Unsubsidized Direct Stafford Loan
2. Federal Subsidized Direct Stafford Loan
3. Federal Perkins Loan
4. Federal Direct PLUS/Grad PLUS Loan
5. Federal Pell Grant
6. Federal Academic Competitiveness Grant (ACG)
7. National Science and Mathematics Access to Retain Talent Grant (SMART)
8. Teacher Education Assistance for College and Higher Education Grant (TEACH)
9. Federal Supplemental Educational Opportunity Grant (FSEOG)
10. Other Title IV Aid

If the student is required to repay a portion of their loan through the student's share calculation, they 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 percent. In such cases, St. Thomas repays the grant programs on the student's behalf and the student is then responsible for repaying St. Thomas. If this causes undue hardships, a satisfactory payment arrangement can be made with St. Thomas.

### **Institutional Charges and State Aid Refund Policy**

The Return of Title IV Aid calculation, as cited above, only considers federal funds – not institutional, state or outside funding sources that may be included in the student's financial aid package. St. Thomas offers tuition refunds if a student withdraws from the university according to the following schedule for fall and spring semesters:

The first 14 calendar days of the semester	100%
On the 15 <sup>th</sup> through 21 <sup>st</sup> calendar days	80%
On the 22 <sup>nd</sup> through 28 <sup>th</sup> calendar days	60%
On the 29 <sup>th</sup> through 35 <sup>th</sup> calendar days	40%
On the 36 <sup>th</sup> through 42 <sup>nd</sup> calendar days	20%
After the 42 <sup>nd</sup> calendar day	0%

If a student withdraws during a period of time that allows for a tuition refund, a portion or all of the student's institutional, state and/or outside funding may need to be reduced or cancelled. If a student receives a 100 percent 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 student's tuition refund was not used to fully repay the Return of Title IV Aid, 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 Music (B.M.), Bachelor of Science (B.S.), the Bachelor of Science in Electrical Engineering (B.S.E.E.) 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, moral and philosophical reasoning, natural science and mathematical and quantitative reasoning, faith and the Catholic tradition, social analysis, historical studies, 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 undergraduate program; 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 *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 St. Catherine University. 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 also may be proposed to the Committee on Studies for acceptance. Guidelines for such a proposal are available from the Director of Undergraduate Academic Affairs.

Actuarial Science (B.S.)  
 Art History  
 Biochemistry (B.S.)  
 Biology  
 Biology (B.S.)  
 Business Administration – Accounting  
 Business Administration – Communication  
 Business Administration – Entrepreneurship  
 Business Administration – Family Business  
 Business Administration – Financial Management  
 Business Administration – General Business Mgmt



## Academic Information & Programs

Business Administration – Human Resource Mgmt  
 Business Administration – International Business  
 Business Administration – Leadership and Mgmt  
 Business Administration – Legal Studies in Business  
 Business Administration – Marketing Management  
 Business Administration – Operations Management  
 Business Administration – Real Estate Studies (B.S.)  
 Catholic Studies  
 Chemistry  
 Chemistry (B.S.) (ACS Certified)  
 Classical Civilization  
 Classical Languages  
 Communication and Journalism  
 Community Health Education  
 Computer Science  
 Criminal Justice  
 Economics  
 Economics (B.S.)  
 Electrical Engineering (B.S.E.E.)  
 English  
 English – Education (5-12 teacher licensure)  
 English – Writing  
 Environmental Sciences (Biology, Chemistry, Geoscience) (B.S.)  
 Environmental Studies (Business, Humanities, Natural Sciences, & Social Science)  
 French  
 Geography  
 Geography – Geographic Information Systems (GIS)  
 Geology  
 Geology (B.S.)  
 German  
 Health Education – non-licensure  
 Health Promotion (B.S.)  
 Health Promotion – Science Emphasis (B.S.)  
 History  
 Information and Decision Theory  
 Information Security  
 Information Systems (IS)  
 Information Technology (IT)  
 International Business – French Intensive  
 International Business – German Intensive  
 International Business – Spanish Intensive  
 International Studies  
 Justice & Peace Studies  
 Latin  
 Literary Studies  
 Mathematics  
 Mechanical Engineering (B.S.M.E.)  
 Music  
 Music Business  
 Music – Liturgical Music  
 Music – Performance (B.M.)  
 Neuroscience  
 Philosophy  
 Physical Education – non-licensure  
 Physics  
 Physics (B.S.)  
 Political Science  
 Psychology  
 Social Sciences (Economics, History, Political Science, & Sociology and Criminal Justice)  
 Social Work  
 Sociology  
 Spanish

Statistics  
 Theology  
 Theology – Lay Ministry  
 Women's Studies [ACTC]

### Education Co-Majors

The following sets of majors (with specialty) require a second major. They cannot be “stand-alone” majors.

Elementary Education (K-6)

The following sets of majors constitute a double major when taken together. Neither component can be a “stand-alone” major.

Elementary Education (K-6) - Science & Mathematics for Elementary Education

Middle/Secondary Education and Chemistry (9-12)

Middle/Secondary Education and Communication Arts and Literature (5-12)

Middle/Secondary Education and Earth and Space Science (9-12)

Middle/Secondary Education and Life Science (9-12)

Middle/Secondary Education and Physics (9-12)

Middle/Secondary Education and Social Studies (5-12) - (Economics, Geography, History, Political Science, Psychology, or Sociology)

Music Education - Instrumental Music Education (K-12) (B.M.)

Music Education - Vocal Music Education (K-12) (B.M.)

Theater Arts (K-12) - K-12 Teaching Theater

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

*Middle/Secondary Education* and Mathematics (5-12)

*Middle/Secondary Education* and Health Education - Teaching (5-12)

*K-12 Teaching Physical Education* and Physical Education-Teaching (K-12)

*K-12 World Languages & Cultures* - French (K-12)

*K-12 World Languages & Cultures* - German (K-12)

*K-12 World Languages & Cultures* - Spanish (K-12)

### 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 Director of Undergraduate Academic Affairs.

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

Actuarial Science  
 Aerospace Studies  
 American Culture and Difference  
 Art History  
 Biology  
 Business Administration

Catholic Studies  
 Chemistry  
 Classical Languages  
 Communication and Journalism  
 Community Health Education  
 Computer and Information Sciences  
 Criminal Justice  
 Economics  
 Electronic Music Production  
 Electrical Engineering  
 English  
 Environmental Studies  
 Family Studies  
 Film  
 French  
 General Engineering  
 Geography  
 Geography – Geographic Information Systems (GIS)  
 Geology  
 German  
 Greek  
 History  
 Information and Decision Theory  
 Japanese  
 Justice & Peace Studies  
 Latin  
 Legal Studies  
 Mathematics  
 Mechanical Engineering  
 Music  
 Philosophy  
 Physics  
 Political Science  
 Popular Music  
 Psychology  
 Renaissance Program  
 Russian  
 Social Welfare  
 Sociology  
 Spanish  
 Theology  
 Urban Studies  
 Women's Studies [ACTC]

### **The 4-1-4 Calendar**

The undergraduate program 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.

### **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 and encourage discussion.

Aquinas Scholars are also required to complete a minimum of three interdisciplinary honors seminars (on the 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 must have at least a 3.5 grade point average. Students need to apply to the program early enough to complete the course requirements.

For further information, contact Dr. Stephen J. Laumakis, Director of the Honors Program (sllaumakis@stthomas.edu) or Kathy Tischler, Administrative Assistant for the Program (ktischler@stthomas.edu).

### **Pre-Health Professions**

The Pre-Health Professions program provides guidance to St. Thomas students preparing for admission to health professional schools. Services available include:

- Support in choosing courses, a major or a career
- Assistance with the application process for admission to health professional schools
- Availability of catalogs, literature and CDs (regarding the health professions)
- Special events
- Scheduled visits by recruitment or admissions coordinators from a variety of health professional schools

The program stresses personal interaction with the student. All pre-health profession students are required to major in an academic discipline in addition to completing the basic science courses required for admission to each professional school. Each student will be assigned a faculty adviser (initially one during their first year of studies and another once their major is declared).

Health Areas include:

- Chiropractic
- Dentistry
- Medicine (allopathic and osteopathic)
- Nursing
- Optometry
- Pharmacy
- Physical Therapy
- Physician Assistant
- Podiatric Medicine
- Public Health
- Veterinary Medicine

## Academic Information & Programs

Additional information is available at:  
[www.stthomas.edu/healthprofessions](http://www.stthomas.edu/healthprofessions)

### Special Curricula

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

Air Force, Army, and Navy ROTC  
 Certificate In Lay Ministry  
 Higher Education Consortium for Urban Affairs (HECUA)  
 Pre-Engineering  
 Pre-Law  
 School Social Work licensure  
 Social Work licensure  
 Study Abroad Programs  
 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 St. Catherine University 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 intercampus 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.

Full-time, degree-seeking undergraduate students in the day division are eligible to register for exchange courses in the fall and spring semesters. Students are limited to one exchange course each semester. An exception to this are students majoring in Social Work which is a joint program with St. Catherine University, and students with approval to pursue an ACTC major or minor.

Exchange courses are not transfer courses, and thus courses taken through the ACTC are considered UST courses and do not impact the senior residency requirement. *Note:* For courses during the summer sessions, students register and pay tuition at the college offering the courses and have a transcript of the completed work sent to St. Thomas.

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. For additional information consult the Director of Undergraduate Academic Affairs in AQU 110-G.

For more information on the ACTC visit:  
<http://www.associatedcolleges-tc.org/>.

### Parents-on-Campus Program

Parents of full-time students in the undergraduate day

program are eligible to take up to two undergraduate courses (or eight credits) on a space-available basis in fall and spring semesters without tuition charge. The dependent daughter/son must be a full-time day student taking at least twelve credits.

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. There is a fee charged for all business courses.

Not included in this program are: Graduate courses, courses at ACTC schools, courses taught in January term or summer sessions, and study abroad courses.

Registration for Parents-on-Campus (non-degree and degree-seeking) will begin five business days prior to the start of the term.

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

### International and Off-Campus Programs

#### Study Abroad Programs (SABD)

Cross-College Program  
 Hubbard & Spencer (International Education)

The University of St. Thomas encourages its students to incorporate intercultural experiences into their degree plans. Through International Education, students of all majors can find a program that fits their schedule at some time during their St. Thomas experience. The International Education staff facilitates the process for students to identify study abroad or off-campus programs appropriate to the individual's desires and goals. Visit the Study Abroad Web site for current year program listing: [www.stthomas.edu/studyabroad](http://www.stthomas.edu/studyabroad).

Students may choose from more than 130 programs in over 40 countries around the world. Short-term program locations may vary annually, so visit the Study Abroad Web site for a current list:

<b>Africa</b>	<b>Middle East</b>
Ghana	Egypt
Kenya	Jordan
Morocco	Turkey
Namibia	<b>Oceania</b>
South Africa	Australia
Tanzania	New Zealand
Uganda	<b>The Americas and the Caribbean</b>
<b>Asia</b>	Argentina
Bangladesh	British West Indies
China	Chile
India	Costa Rica
Japan	Ecuador
<b>Europe</b>	Guatemala
Austria	Mexico
Belgium	<b>United States</b>
Czech Republic	Hawaii
Denmark	Nevada
England	
France	

Germany  
Greece  
Iceland  
Ireland  
Italy  
Netherlands  
Northern Ireland  
Norway  
Poland  
Russia  
Scotland  
Spain  
Ukraine  
Wales

*Note:* Students may seek approval for other countries and/or programs from the Study Abroad Advisory Committee.

### Short-term Off-Campus Programs

The University of St. Thomas offers a number of two- to six-week, faculty-directed programs during January, spring break or June/summer term. January Term programs are sponsored by the University of St. Thomas, HECUA or UMAIE, a five-member consortium which provides a broad disciplinary and geographic January or June curriculum.

Students may not apply for, maintain an approved application, nor participate in a study abroad or off-campus program while on academic or conduct probation.

#### January Term Programs

All courses for the following January are announced in February. Enrollment period extends from late March through early October. Topics and locations vary each year. 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.

#### Spring-Embedded Programs

A limited number of spring courses have an off-campus component 'embedded' in the semester, usually traveling during spring break.

#### June/Summer Programs

Students may study abroad during the summer through a co-sponsored program, or by participating in a faculty-directed course (similar to January Term). Application deadlines vary; check the Study Abroad Web Site for details.

### Semester and Year-Long Programs

St. Thomas offers a wide variety of semester and year-long programs around the world, including programs sponsored by St. Thomas, co-sponsored programs or direct enrollment in a university abroad.

Students may not apply for, maintain an approved application, nor participate in a study abroad or off-campus program while on academic or conduct probation.

#### London Business Semester

Business majors and minors study abroad during this annual fall semester program in London. Students take regular St. Thomas business and liberal arts courses, as well as complete the 40-hour Community Service

requirement. Priority deadline is the first Friday of December, and February 15th as the final deadline each year if any spaces remain.

#### Catholic Studies in Rome

Students may apply for fall, spring or the academic year, and live at the St. Thomas Bernardi Residence. Catholic Studies majors and minors may study Catholic social thought, theology, and social justice, as well as introductory Italian language. Priority deadline is January 15th for either semester of the following year. Check the website for further deadline information.

#### Partnerships with Universities Abroad

St. Thomas sponsors study at and welcomes students from the following universities:

- Australia: Curtin University and Australian Catholic University
- China: University of International Business and Economics
- Egypt: American University of Cairo
- Germany: University of Trier and University of Paderborn
- Ireland: University of Limerick
- Japan: Osaka Gakuin University and Sophia University.

#### Participation in Semester and Year-Long Programs

To study abroad for a semester or year, 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 International Education for program approval by October 1 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 a Study Abroad Advisor and their Financial Aid counselor in the Office of Student Financial Services.

#### SABD 300 Study Abroad (16 credits)

Students participating in the University of St. Thomas overseas study program register for this interdisciplinary listing for the first semester they are abroad. Permission from International Education staff required.

#### SABD 301 Study Abroad (16 credits)

A continuation of SABD 300. Permission from International Education staff required.

### Higher Education Consortium for Urban Affairs (HECUA)

Cross-College Program

Werner (GEOG), adviser; International Education staff co-adviser

The Higher Education Consortium for Urban Affairs offers off-campus educational experiences focused on social justice issues. HECUA provides experiential learning opportunities that link academic study with hands-on work for social change. Students earn sixteen credits in the semester-long programs and four credits in January term programs. Open to all majors. See Web

## Academic Information & Programs

site: [www.hecua.org](http://www.hecua.org).

### Study Abroad Programs: Development and Community in Bangladesh (January term)

Learn about the actions and intentions of development agencies and witness the realities of a moderate Islamic culture. Through lectures, discussions, and group field study (with Bangladeshi students), you will explore the policies, practices, and ideologies of socioeconomic development in one of the world's poorest countries.

### Democracy and Social Change in Northern Ireland (spring semester)

Examine the historical, political, and religious roots of the conflict in Northern Ireland, the prospects for peace, and the progress being made toward it. You learn through readings, lectures, discussions, internships, group study projects, and field experiences that invite interaction with people involved in social change.

Courses:

- Northern Ireland: Building a Sustainable Democracy (4 credits)
- Politics of Conflict and Transformation (4 credits)
- Internship Seminar and Internship (8 credits)

### Scandinavian Urban Studies Term (SUST) (fall semester)

Gain a deep understanding of contemporary Norway, using the welfare state and the notion of citizenship as the focus for investigation. Three interrelated seminars give you an understanding of how the welfare state works in the context of a social democracy facing challenges posed by immigration. An option for either an independent study project or language classes rounds out the course load for the semester.

Courses:

- Scandinavian International Relations (4 credits)
  - Urbanization and Immigration (4 credits)
  - Scandinavian Literature: Immigration and National Identity (4 credits)
  - Norwegian Language
- or*
- Independent Study Project (4 credits)

### Community Internships in Latin America (CILA) (fall or spring semester)

CILA offers a semester of study and experience with a focus on community participation and social change. The program, centered in Quito, Ecuador, combines rigorous seminar work and independent study with a home stay and a hands-on internship to give an in-depth experience of community participation and social movements in Ecuador.

Courses:

- Community Participation for Social Change (4 credits)
- Independent Study Project (4 credits)
- Internship Seminar and Internship (8 credits)

### Divided States of Europe (spring semester)

Divided States of Europe examines the development of the European Union (EU), including its historical foundations and institutional basis, contemporary democratic and social challenges, and its expansion to include the former communist nation-states of Central and Eastern

Europe. The program explores the relationship between the EU and globalization and in particular questions whether the EU adequately addresses the human dimensions of globalization.

Courses:

- 'Ever closer union': the challenge of European integration (4 credits)
- Included but excluded? Globalization and human rights in Europe (4 credits)
- Internship (Volunteer Placement) and Integration Seminar (4 credits)
- Independent Study Project (4 credits)

### Programs in the U.S.A.:

#### Civil Rights Movement: History and Consequences (summer term)

IDSC 299: Critically examine the events of the Civil Rights Movement by visiting important sites and interviewing leaders of the movement. After several days in the Twin Cities, students embark on a two-week field study tour through the South. A final week of integration seminars in the Twin Cities helps students bring their experiences back to bear on their own lives.

#### City Arts (spring semester)

City Arts is a semester-long, off-campus study experience. In the program, students explore the relationships among art, culture, and social change. Field study and professional internships provide direct access to the arts community in the Twin Cities.

- IDSC 466 City Arts: Reading Seminar (Creating Social Change: Art and Culture in Political, Social, and Historical Context) (4 credits)
  - IDSC 467 City Arts: Field Seminar (Arts Praxis: Social Justice Theory and Practice in the Field) (4 credits)
  - IDSC 468 City Arts: Internship (4 credits)
- and*
- IDSC 469 City Arts: Internship Seminar (8 Credits)

#### Metro Urban Studies Term (MUST) (fall or spring semesters)

MUST is a semester-long, off-campus study experience. In the program, students examine the causes of and solutions to poverty and inequality in the urban United States. Field study and professional internships provide direct access to the non-profit sector.

- IDSC 471 MUST Seminar: Research on Urban Issues (4 credits)
- IDSC 472 MUST Seminar: Field Studies in the Twin Cities (4 credits)
- IDSC 473 MUST: Urban Studies Internship (4 credits)
- IDSC 474 MUST: Urban Studies Internship Seminar (4 credits)

#### Environmental Sustainability: Science, Public Policy, and Community Action (fall semester)

The program focuses on processes of ecosystem degradation and rehabilitation, the social and economic underpinnings of conflict over environmental change, and public policy and community-based strategies to achieve sustainability. Through lectures, discussions, group field experiences and internships, students explore the relationships between patterns of environ-

mental resource use and current social inequities, analyze the effects of future environmental trends, and assess strategies for sustainability.

Courses:

- IDSC 462 Adaptive Ecosystem Management (4 credits)
- IDSC 463 Social Dimensions of Environmental Change (4 credits)
- IDSC 464 Field Methods (2 credits)
- IDSC 465 Environmental Internship (6 credits)

Writing for Social Change (fall semester)

Seminars and field study address the social, cultural, and ideological contexts of creative writing and literary production, and the ways in which this work links to community building. The goal is to facilitate the growth of students as writers, as readers, and as actors in our democracy by examining the role of literature and literary production in creating social transformation.

Courses:

- IDSC 475 Reading for Social Change (4 credits)
- IDSC 476 Writing for Social Change (4 credits)
- IDSC 477 Seminar (2 credits)
- IDSC 478 Internship (4 credits)

### Washington Semester

Cross-College Program  
Hoffman (POLS), 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, Gender and Politics, Information Technology and Telecom, International Business and Trade, International Environment and Development, Journalism, Justice, Law Enforcement vs. Liberty, Peace and Conflict Resolution, Public Law, and Transforming Communities.

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)



## 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 (Opus College of Business for business majors) of the major field (including transfer credits)
- all credits in the department (Opus College of Business for business majors) of the major field earned at St. Thomas.

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

In addition, students in all majors except the 2008 and later business major areas must earn a minimum of 84 credits outside the major field. Students following the 2008 and later business major requirements must earn a minimum of 76 credits outside the Opus College 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 or a cross-listed course in another department. 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.

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 undergraduate program. The core curriculum is organized into nine curricular areas.

### Goals of the Core Curriculum

The importance of offering a well integrated undergraduate core curriculum flows from the commitment of St. Thomas as a Catholic university to the underlying unity of the human person: we are called to integrity in our personal, social, and spiritual lives. The unity of the person entails the interrelatedness of the various branches of knowledge, and we are guided in our search for such interrelations by the recognition that faith and reason are fundamentally compatible and complementary.

## Requirements for a Degree

Moreover, this vision of the human person brings into focus the communitarian dimension of the person, leading us to emphasize the ethical and social development of all students and to insist that knowledge should serve the common good. Finally, because this tradition calls upon us to recognize the dignity of the human person, the curriculum fosters both an appreciation for the life of the mind and an awareness of interdependence with others on local, national, and global levels.

Drawing upon the Catholic identity of the university as an overarching principle, the undergraduate program is then framed by three additional key principles: *the pursuit of liberal learning*, serving as a foundation for *career preparation* viewed as cultivating a vocation to serve the common good, leading to *fruitful interaction with the urban community* within which the university flourishes.

Students formed within the architecture of such a curriculum will exhibit a love of learning and will act in accord with their deeper understanding of the responsibilities they carry within the various communities within which they participate. Through their learning they will be prepared to engage in fruitful dialogue across the many differences that constitute the polyphony of human culture, standing open to being challenged while exhibiting a readiness to seek out the deepest insights of those who at first might have seemed strikingly different from themselves.

To further these overarching objectives, graduates of St. Thomas should have developed:

- the ability to think analytically, critically, and creatively, and to solve problems by applying knowledge in appropriate circumstances
- the ability to write and speak clearly, to read demanding works with comprehension, to listen and observe carefully, and to respond appreciatively to the precise and imaginative use of language
- an understanding of the fine arts as modes of expression that deepen human experience and open new perspectives on human cultures
- an understanding of the nature and function of faith and the Catholic tradition in the modern world
- the ability to articulate and support moral and ethical judgments about what constitutes good actions and a good society
- the ability to participate responsibly in a democratic society, to respect the value of informed dialogue and to give thoughtful consideration to differing ideas
- an understanding of the responsibility of educated persons to contribute to the communities and the environment in which they live on local, national, and global levels
- knowledge of their own and others' cultures and traditions, including non-Western and non-majority cultures, and respect for the diversity of peoples and cultures within the fundamental unity of humankind
- knowledge of the natural world and of the modes of inquiry cultivated by the natural sciences
- the ability to reason quantitatively and to evaluate basic mathematical and statistical arguments
- the ability to understand how the power of technology can be used in service of the common good and as a tool within academic disciplines
- the ability to use knowledge from various fields and to integrate ideas across disciplinary boundaries

- knowledge in depth in at least one field of study, including an understanding of the route to acquiring knowledge and demonstration of some ability to do research or learn independently in that field.

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.

### Overview of requirements:

Literature and Writing - 8 credits

Moral and Philosophical Reasoning - 8 credits

Natural Science and Mathematical and Quantitative Reasoning - 12 credits

Faith and the Catholic Tradition - 12 credits

Social Analysis - 4 credits

Historical Studies - 4 credits

Fine Arts - 4 credits

Language and Culture - 12 credits

Human Diversity - 4 credits

### 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.

#### Students enroll in two courses:

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

or

ENGL 121 Critical Thinking: Literature and Writing (beginning fall 2011)

#### Second course (one of the following):

ENGL 112 Critical Reading and Writing II: Drama and Poetry

ENGL 201 Texts in Conversation: Perspectives on Genre and Craft (beginning fall 2011)

ENGL 202 Texts in Conversation: Interdisciplinary Perspectives (beginning fall 2011)

ENGL 203 Texts in Conversation: Thematic and Intertextual Perspectives (beginning fall 2011)

ENGL 204 Texts in Conversation: Perspectives on Language, Culture, and Literacy (beginning fall 2011)

Students with qualifying ACT scores may enroll in:

ENGL 190 Critical Reading and Writing: Major Genres or one of ENGL 201 through 204

plus

one additional literature course in English numbered 205 or above (includes ENGL 205, 211, 212, 214, 215, 217, 218, 220, 221, 222, 297, 324, 325, 334,

337, 341, 360, 361, 362, 364, 365, 366, 367, 370, 371, 372, 373, 390, and 395) or two 2-credit ENGL 295 courses during J-term

### 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. 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 or 215 Introductory Ethics

### 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 (with a laboratory component), mathematics (MATH 114 or higher), 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. (Normally, Web-based courses are not accepted as lab sciences that satisfy this lab science requirement. Any exceptions to this rule must be pre-approved by the Core Area Curriculum Review Committee in the Natural Sciences and Mathematics Division.)

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

BIOL 101 General Biology *or* BIOL 105 Human Biology *or* BIOL 106 Women, Medicine and Biology  
BIOL 202 Genetics, Evolution, and Ecology  
BIOL 201 Diversity and Adaptation  
CHEM 100 Chemistry in Our World  
CHEM 101 Environmental Chemistry  
CHEM 111 General Chemistry I  
CHEM 112 General Chemistry II  
CHEM 115 Accelerated General Chemistry  
GEOL 102 Origins and Methods  
GEOL 110 Geology of the National Parks *or* GEOL 111 Introductory Physical Geology *or* GEOL 114 The Science of Natural Disasters *or* GEOL 115 Environmental Geology  
GEOL 130 Earth History  
GEOL 161 Medical Geology  
GEOL 162 The Earth's Record of Climate

GEOL 211 Earth Materials  
GEOL 220 Oceanography  
GEOL 252 Earth Surface Processes and Geomorphology  
GEOL 260 Regional Geology and Geological Field Methods  
GEOL 461 Medical Geology  
GEOL 462 The Earth's Record of Climate  
IDSC 150 Development of the Natural World  
PHYS 101 Physics as a Liberal Art I  
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:

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

*or*

a second natural science course (with laboratory) from the first group (note the restrictions involving BIOL 101, 105, or 106, and GEOL 110, 111, 114 or 115).

### Faith and the Catholic Tradition

(12 credits)

In every historical period and cultural context, there are fundamental questions that concern human beings: the nature of the universe, the existence and nature of God, the nature of human beings, the relationship of humans to God and to the world, the nature of evil, and the possibility of redemption.

The Department of Theology has designed a sequence of courses that acquaint students with these questions and assist them in articulating thoughtful responses formulated in light of the Catholic tradition and Christian faith. These courses contribute to the students' liberal arts education at the University through the development of writing, reading, and critical thinking skills.

The first course, "The Christian Theological



## Requirements for a Degree

Tradition,” introduces students to the theological frameworks that Christians have historically used to address questions of faith and human existence. The core readings for the course are from the Bible and from classic writers within the Christian tradition. The course provides students with an opportunity to reflect critically on the Catholic and Christian traditions within the context of contemporary life. Finally, it provides students with a basic level of theological literacy to prepare them for the second and third-level courses.

The second-level (200-numbered and 300-numbered) courses invite students to practice theology by engaging at a deeper level in the discipline of “faith seeking understanding.” Courses at this level focus on a particular area of the Christian tradition, namely: the Bible, historical theology, systematic theology or moral theology. Students critically examine core elements of the tradition, such as classic texts, concepts, persons, and events while remaining mindful of the contemporary context. Through these courses, students learn the skills and methods of the discipline. These second-level courses then serve as a foundation for the interdisciplinary “Bridge Courses” at the next level.

The “Bridge Course,” as the third course in the Faith and the Catholic Tradition sequence (400-numbered), will provide an opportunity for students to draw upon their entire program of studies. Serving as the culminating point for the curriculum, the Bridge Course prepares students to build connections between their studies in the liberal arts and the broader world for which their St. Thomas education has prepared them. A principal concern of the course is to guide students toward experiencing a sense of vocation in their professional, familial, and social lives. Because no single type of course can be expected to address all such areas, students will be offered three different types of bridge courses exploring different aspects of the broader world they are preparing to serve.

The three levels of course, thus, form an integrated sequence in the Faith and Catholic Tradition core area requirement. The first course (THEO 101) introduces the tradition of Christian theological reflection. The second-level courses (at the Theo 200 or THEO 300 level) invite students “to do” theology—that is, to engage in reasoning about faith. In the third-level courses, students bring theological concepts and methods into dialogue with other disciplines.

Students select three courses as follows:

- Theology 101
- One Theology course at the 200 or 300-level
- One Theology course as the 400-level

### 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 pro-

vide 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
- POLS 104 American Government in Comparative Perspective
- PSYC 111 General Psychology
- SOCI 100 Introduction to Sociology
- SOCI 110 Social Problems

### 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
- HIST 115 The World Since 1900
- HIST 116 African American History in Global Perspective

### 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 110 Introduction to Art History
- ARTH 270 Pacific Art
- ARTH 275 Buddhist Art
- ARTH 280 Sacred Architecture and Space
- ARTH 282 The History of American Architecture
- ARTH 284 Arts of the African Diaspora
- ARTH 285 Arts of Africa
- ARTH 286 Women’s Art in Cross-cultural Perspective
- ARTH 289 Asian Art
- ARTH 291 Topics in Non-Western Art
- ARTH 297 Topics
- ARTH 305 Greek Art and Archaeology

ARTH 310 Roman Art and Archaeology  
 ARTH 321 The Art and Culture of Modern Mexico  
 (1824-1940)  
 ARTH 329 Chinese Painting  
 ARTH 330 Churches and Mosques in the First  
 Millennium  
 ARTH 335 Cathedrals, Monasteries, and Caliphates  
 ARTH 339 Western Costume Design and Visual  
 Representation in Context  
 ARTH 340 Southern Renaissance Art and Society  
 ARTH 345 Baroque and Rococo Art  
 ARTH 351 Romanticism to Impressionism  
 ARTH 352 Art in the United States  
 ARTH 356 Modernism in European Art  
 ARTH 361 Contemporary 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: A Historical  
 Survey  
 MUSC 219 Music in the United States  
 MUSC 222 Theology of American Popular Music  
 MUSC 412 History & Literature of Music II  
 THTR 111 Introduction to the Theater  
 THTR 221 World Theater, Origins to 17th Century  
 (History of Theater I)  
 THTR 222 Modern and Contemporary World Theater  
 (History of Theater II)  
 THTR 223 American Theater (History of Theater III)  
 THTR 259 Film I: Introduction to the Art of Film  
 THTR 260 History of Film: The Silent Era  
 THTR 261 History of Film: Sound Era, 1926 to  
 Present Day  
 THTR 297 Topics  
 THTR 359 Film II: Film Theory and Criticism  
 THTR 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 173 Guitar Ensemble  
 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 stu-

dents 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 placement 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 with sufficient proficiency in a language may test out of 211 and receive a waiver of the requirement. A waiver does *not* add credits on the student's transcript. Students should begin the process of the language/culture requirement waiver in their first year at UST.

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 the human diversity requirement focus on one or more of the following areas of inquiry: racial and ethnic minorities; class; gender; marginalized groups; non-Western culture.

These courses assist students in understanding the perspectives, values, experiences, works and achievements of the peoples and cultures being studied, recognizing that the experiences, beliefs, and values of any group being studied are not monolithic, but may vary widely within the group. Whenever possible they include materials (*e.g.*, writings, films, narratives, oral histories, artwork) which are produced by the population or culture under study.

Courses consider ways in which individual preconceptions, stereotypes, and assumptions affect understanding of issues related to diversity or consider ways in which position and privilege affect understanding of issues related to diversity. In addition, these courses address ways in which power and privilege operate at the institutional/systemic level.

Courses fulfilling the human diversity requirement explicitly address the ways in which the study of diversity is valuable to a liberal arts education and fosters respect for the diversity of peoples and cultures within the fundamental unity of humankind. These courses also address how the discipline involved contributes to an understanding of the groups or culture under study and how the perspectives of the groups or culture might expand understanding of the discipline itself.

Courses available to fulfill the requirement are:

ACST 200 Introduction to American Cultural Studies  
 ARTH 110 Introduction to Art History  
 ARTH 260 Women in Ancient Art  
 ARTH 270 Pacific Art  
 ARTH 275 Buddhist Art  
 ARTH 284 Arts of the African Diaspora  
 ARTH 285 Arts of Africa  
 ARTH 286 Women's Art in Cross-cultural Perspective  
 ARTH 289 Asian Art

## Requirements for a Degree

ARTH 291 Topics in Non-Western Art  
 ARTH 321 The Art and Culture of Modern Mexico (1824-1940)  
 ARTH 329 Chinese Painting  
 BLAW 352 Gender Issues and the Law  
 CATH 308 Woman and Man  
 COJO 328 Communication of Race, Class, and Gender  
 COJO 370 Intercultural Communication  
 ECON 345 Economics of Development and Growth  
 ECON 346 Country and Area Studies in Economics (dependent upon country involved)  
 EDUC 212 Human Relations and Multicultural Education  
 ENGL 217 Multicultural Literature  
 ENGL 218 Literature by Women: Critical History  
 ENGL 297 Native American Literature  
 ENGL 337 The Literature of Human Diversity  
 ENGL 341 Literature by Women: Critical Questions  
 ENGL 395 Issues in Literature and Culture (dependent on topic)  
 GEOG 111 Human Geography  
 GEOG 113 World Geography  
 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 366 History of the American Catholic Church  
 HIST 368 History of Women in the United States  
 HIST 369 African-American History  
 HIST 372 The United States and Vietnam  
 IDSC 291 The Anatomy of Violence  
 IDSC 312 Gender and Science  
 JPST 250 Introduction to Justice and Peace Studies  
 MUSC 130 Introduction to World Music  
 MUSC 216 Jazz in America  
 MUSC 218 Black American Music: A Historical Survey  
 PHIL 208 Indian Philosophy  
 PHIL 210 Chinese Philosophy  
 PHIL 215 Ethics of East and West  
 POLS 352 Third World Politics and Government  
 PSYC 151 Cross-Cultural Psychology  
 PSYC 205 Psychology of Women  
 SABD *See the Office of International Studies for courses that have been approved.*  
 SOCI 100 Introduction to Sociology  
 SOCI 110 Social Problems  
 SOCI 251 Race and Ethnicity  
 SOCI 301 Cultural Anthropology  
 SOCI 330 Religion and Society  
 SOCI 353 Global Perspectives on Gender  
 SOWK 340 Human Behavior and the Social Environment  
 SPAN 411 Ethnicity and Multiculturalism of the Spanish-speaking World  
 SPAN 412 Chicano and U.S. Latino Culture(s) and Literature(s)  
 SPAN 415 Hispanic Cinema Studies  
 THEO 421 Theologies of Justice and Peace  
 THEO 424 Christianity and World Religions  
 THEO 425 Judaism  
 THEO 426 Islam  
 THEO 428 Women and the Old Testament

THEO 429 Women and the Christian Tradition  
 THEO 431 Women in the Early Church  
 THEO 432 Black Religious Experience  
 THTR 223 American Theater (History of Theater III)  
 UMAIE *See the Office of International Studies for courses that have been approved.*  
 WMST 205 Foundations in Women's Studies

## 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 Curricula with a grade point average of 2.00 or better in courses taken in the department (Opus College of Business for business majors) of the major 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 in which the major is offered. No more than 48 semester credits in the department of the major field or 48 credits in the Opus College of Business for majors in the area 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.

Students in all majors except the 2008 business major areas must earn a minimum of 84 credits outside the major field. Students following the 2008 business major requirements must earn a minimum of 76 credits outside the Opus College of Business.

Students with transfer courses in the major must also attain a 2.00 grade point average for the courses taken in the department (Opus College of Business for business majors) of the major 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 Curricula.

An individualized major requires the selection 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**

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 final 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.



## Registration Information

### The Undergraduate Program

All matters pertaining to the undergraduate curriculum are under the jurisdiction of the faculty.

#### Courses

A “full” course is equivalent to four semester credits. Each course is assigned a subject area code consisting of 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 permission from the Associate Dean of Academic Counseling.

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 semester 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 if the student was not in attendance on the first day of the session. Students must not assume they have been dropped if they did not attend the first day of class. To officially withdraw from the class, the student must file a **Change in Registration** form with the Office of the University Registrar or drop the course using the **Murphy On-line Web registration system**.

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

also includes any courses taken at the four other cooperating colleges in the ACTC: Augsburg, Hamline, Macalester, and St. Catherine. Registration for these 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. Failure to meet certain core requirement competencies will result in loss of registration priority.

#### 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.

At this meeting, transfer students should identify any transfer courses they think should count as fulfilling particular core requirements. The academic counselor will assist the transfer student with a petition form used to request consideration of one or more transfer courses for fulfillment of core requirements. The petition form should be submitted to the Director of Undergraduate Academic Affairs (AQU 110G) during the first semester of enrollment at UST.

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 St. Catherine University 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
3. the student consults the University Registrar before registering for more than one course at Augsburg, Hamline, Macalester or St. Catherine University 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 Website for additional restrictions:

[www.associatedcolleges-tc.org](http://www.associatedcolleges-tc.org)

For exchange courses in the fall and spring semes-

ters, St. Thomas students register at St. Thomas. Grades for these courses are automatically recorded on the St. Thomas transcript.

For 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. These summer courses are considered transfer courses.

Exchange courses may be used to fulfill the senior 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 for evaluation by the University Registrar.

Students who have matriculated at St Thomas must forward transcripts from any other institution attended to the Office of Admissions for evaluation by the University Registrar.

All transcripts should be mailed to the following address:

University of St. Thomas  
 Admissions, Mail 32F  
 2115 Summit Ave  
 St. Paul, MN 55105-1078

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.

Students who wish to enroll in courses at another institution after matriculation at St. Thomas must receive approval from the chair of the department if these courses are to be included in the major or minor field.

**Minimum Transfer Grade Requirement**

St. Thomas will accept only transfer courses in which the student has received a minimum grade of C- (1.3 value) or higher.

When a transfer student matriculates at St. Thomas, all transfer courses accepted for credit at St. Thomas will be posted to the students academic history for the first term of enrollment at St. Thomas. When any St. Thomas student transfers credits to St. Thomas after the student's first term of enrollment, the transfer courses will be posted to academic history for the term in which it was taken at the transfer institution.

**Quarter Credit to Semester Credit Conversions**

St. Thomas will convert all transfer credits taken from quarter system academic institutions to semester credit using the following conversion scale (dividing the number of quarter credits by 1.5).

Quarter Credits	Semester Credits
6	4
5	3.3
4	2.7
3	2
2	1.3
1	0.7

**Non-traditional Grading**

St. Thomas will post non-traditional grades that meet our minimum transfer grade policy (these include AB or a grade value of 3.5 and BC or a grade value of 2.5). All numeric grades will be converted to alpha grades based on the value of the grade as long as the numeric grade value is 1.7 or higher.

**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 and content are different. See the beginning of the Curricula section of this catalog for a description of these courses.

**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. If, for some emergency situation, attendance on the first day is not possible, the student should notify the instructor of the situation by e-mail or telephone.

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 must do so by officially withdrawing from the class.

**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. An instructor or Department chair approval is required to Audit any course.

Students may not switch from credit status to audit status after the last day to withdraw from a class without a grade of F. Students may not switch from audit status to credit status after the last day to register or add a

## Registration Information

class.

The tuition charged for an audited course is equivalent to one credit of tuition.

### Changes in Registration

Changes in registration can be made on the Murphy On-line Web registration system until the published deadline to “add a class without instructor permission.” After the published deadline, additional classes are added by submitting a Change in Registration (Add/Drop) form, which must be signed by the instructor, to the Office of the University Registrar. This form is available at the Office of the University Registrar or online at <http://www.stthomas.edu/registrar/student/forms/adddrop.html>. Classes may be dropped at any time during the semester using the Murphy On-line Web registration system. Students should consult the university calendar in this catalog for the specific deadlines for making these changes.

Courses added after the published deadline must have permission of the instructor.

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 up to the “last day to drop a course without notation on record” indicated in the academic calendar for each term. The refund schedule for courses dropped after this period is available from the university business office.

### Withdrawal from a Course

Courses dropped between the “last day to drop a course without notation on record” and the “last day to withdraw from a course without a grade of F or R” listed in the academic calendar will receive a notation of W.

A grade of W is an official grade and is posted on the permanent record. Since there is no credit and no quality points for a W, the notation does not affect the GPA.

### Retaking of Courses

A student may repeat a course if her or his grade or mark is F, R, W, D-, D or D+. Only the higher grade will be 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.

### Withdrawal from the University

Students may withdraw from the university at any time by contacting 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 adviser.

Institutional refunds and financial aid adjustments are determined by the date on which the student initially contacts 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 an associated grade point value. These values are listed below:

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 undergraduate program may be taken on the S-D-R grading option.
3. A student must complete a form at the Office of the University Registrar for any course to be taken on this basis. The published deadline date is in the academic calendar for each term.
4. If the course is part of the major or minor program (including allied requirements), the signature of the department chair is required.
5. 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- becoming the grade of record 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) and Not Recorded (NR) 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 may not 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.

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.

In an instance where a grade has not been assigned at the end of the term, a designation of Not Recorded (NR) will be assigned to the student's academic record. The NR must be changed to a grade by May 1 for the fall semester or January term; by December 1 for the spring semester or summer session. In the absence of a final grade on or before the deadline, the mark of NR will be changed to a grade of F or R. This 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. After the grading deadline for a term, the instructor must submit the changes to the Office of the University Registrar using the *Official Change of Grade Form*.

### Grade Reports

Final grades can be accessed by the student through the UST student Web system. Final grade reports are printed only upon request, using the student Web system.

### Grade Point Total and Grade Point Average

Grade points are assigned as indicated above. Note that marks of W, I, 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 courses 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 considered a full-time student. A degree student who takes fewer than 12 credits for credit is considered a part-time student.

A degree-seeking student is ranked by credits successfully completed:

- fewer than 27 credits = freshman
- between 28 and 59 credits = sophomore
- between 60 and 91 credits = junior
- 92 credits or more = senior

### Catalog of Record

The catalog of record may be a catalog that appears only online if changes occur between printed versions of the catalog. The catalog in effect at the time of matriculation is usually considered the catalog of record and determines the student's graduation requirements. However, a student may wish to choose a later catalog issued before being graduated to take advantage of a revision of a major, for example.

Choosing the new catalog means accepting *all* changes in that catalog from the former one. If there is a change in core curriculum requirements, for example, the student will be responsible for those changes or will need to petition for a waiver. Generally speaking, the student may choose any catalog in force during the time the student is enrolled for a degree.

Students should contact the office of Academic Counseling if they wish to change their catalog of record.

### Date of Graduation

Degrees are awarded at the end of Fall, January, Spring and Summer terms. The date of graduation will be the last day of the last term of registration for the course or courses needed to complete the student's degree requirements. To be considered completed, all courses must have final grades. An Incomplete (I) or a Not Reported (NR) grade is not considered a final grade and must be changed before the degree will be awarded.

### Diploma

One diploma is awarded for each degree earned. Diplomas are distributed to graduates after the university has verified that all requirements for graduation



## Registration Information

have been settled. This may be several weeks after commencement. Diplomas will be sent to the graduate's permanent address by mail.

The size of all diplomas is 8.5 x 11 inches. Information on the diploma includes the name of the university, the university seal, the graduate's name, the degree represented by the diploma, and the date of graduation.

### Transcripts

A transcript of a student's academic record will be issued only upon receipt of a written request from the student. A form is available on the Website at <http://www.stthomas.edu/registrar/transcript/default.html>. Forward a completed and signed copy along with the transcript fee to the address on the form. Transcripts will not be issued to students who have a hold placed on their records.

### Academic Probation

A student who has attempted twelve credits or more at the University of St. Thomas and has not achieved a University of St. Thomas 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 Academic Counseling 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.

Students placed on academic probation for the first time are required to work with the staff in the Academic Support Center during their probationary semester.

### 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 Office of Academic Counseling identifying the nature of the suspension and the events leading up to it. Students who are suspended may petition the Committee on Studies for readmission after consulting with the Director of Academic Counseling. A suspended student may not register for summer school, or any other term. A student may re-enroll following a semester of suspension, but must make an appointment with an academic counselor to do so. In addition, students returning from suspension are required to work with an academic counselor and the staff in the Academic Support Center during their first semester after suspension.

### Academic Dismissal

A student is dismissed from the undergraduate program 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 Office of Academic Counseling 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 after consulting with the Director of Academic Counseling. 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 counselor in the Office of Academic Counseling. 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 program and has the authority to grant exceptions and waivers when warranted. It is composed of five elected faculty members and two students appointed by the Undergraduate Student Government.

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 Director of Undergraduate Academic Affairs. 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.

### Student Records Privacy – FERPA

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 written 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 directory information from the public, the

student normally 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://www.stthomas.edu/registrar/student/ferpa/default.html>.



### **Aquinas Scholars**

The Aquinas Scholars Program is the honors program of the undergraduate program. 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. (Evening program students must have taken at least eight credits in a semester and meet the same requirements.)

The list is made public and the student receives a letter of commendation from the Director of Undergraduate Academic Affairs.

### **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. In the case of transfer credits, the St. Thomas grade point average must also satisfy the minimum requirement, with a minimum of twelve St. Thomas credits taken for letter grade. 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 (although course-related fees are to be paid); and attendance as guests of the university at special academic functions. Course load and tuition privileges first become effective in the semester following a student's induction to DES.

### **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 Curricula section of this catalog. Aerospace Studies - Arnold Air Society & Silver Wings Biology - *Gamma Tau* chapter of *Beta Beta Beta* Communication - Beta Chi chapter of *Lambda Pi Eta* Economics - *Omicron Delta Epsilon*

## Academic Honors

English – *Sigma Tau Delta*  
 Foreign Language – *Alpha Mu Gamma*  
 Geography – *Mu Alpha Pi*  
 History – *Phi Alpha Theta*  
 Neuroscience – *Nu Rho Psi*  
 Political Science – *Chi Theta* chapter of *Pi Sigma Alpha*  
 Psychology – *Psi Chi*  
 Religious Studies and Theology – *Theta Alpha Kappa*  
 Social Work – *Beta Epsilon* chapter of *Alpha Delta Mu*  
 Sociology and Criminal Justice – *Iota* chapter of *Alpha Kappa Delta*

### Latin Honors

Three types of academic honors are conferred upon graduates of the undergraduate program.

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 Director of Undergraduate Academic Affairs 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 3.50 and 3.69 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 3.70 and 3.89 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 3.90 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 divisions or schools of the undergraduate program.

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 Director of Undergraduate

Academic Affairs.

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 or schools of the undergraduate program 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*.



**Academic Counseling**

The Office of Academic Counseling serves as a resource and referral agent for both students and faculty.

Through one-on-one partnerships, academic counselors challenge undergraduate students to determine meaningful career and life goals by encouraging them to reflect upon their educational experiences and achievements. In addition to offering special support to those students who are experiencing academic challenges, the staff provides academic counseling and assistance with class registration and long term academic planning.

**Faculty Advisers**

Full-time faculty members serve as advisers to all students. Faculty advisers assist students in their freshman and sophomore years in planning their class schedules each semester.

Major field advisers guide their advisees' progress toward a degree by reviewing grade reports and degree evaluations, 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 twelve or sixteen credits in fall semester: ENGL 110 Intensive Writing; a companion course covering one of the core curriculum requirements; and one or two additional courses of the student's choice.

ADP students are required to participate in seminars offered by the Academic Support Center.

**Mathematics Resource Center**

The Mathematics Resource Center (MaRC) provides a variety of resources including a tutoring staff, placement preparation, self-study/review programs, 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 is taken online.

Students whose MPC is 099 can prepare for MATH 100 or MATH 101 by taking the Basic Math Skills self-study review course (MATH 005). The course has a nominal registration fee.

For students needing review or assistance to prepare for MATH 108/109, an advanced self-study review is available.

Consult the website for more information and the link to practice problems for the Calculus II Readiness Assessment:

[www.stthomas.edu/mathematics/marc](http://www.stthomas.edu/mathematics/marc)

**Academic Support Center**

The Academic Support Center (ASC) 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. The Center also provides support for students whose first language is not English.

All services are confidential and free of charge.

**Enhancement Program – Disability Services**

Students qualify for services through the Enhancement Program upon self-disclosure of a disability and the presentation of current and comprehensive documentation. Reasonable academic accommodations are arranged on an individual basis in order to provide students with disabilities equal access to all university programs. The University of St. Thomas is committed to compliance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973.

**Center for Writing**

Students at all levels of experience from across the university use the Center for Writing. Through individualized conferences, peer consultants work with writers to help them focus, develop, and organize their ideas, and revise and edit their drafts. Writers can seek assistance on any work in progress before they write, as they write, and after they write. Most writers bring course assignments, including analytical, research, and capstone papers. Those writing essays for application to graduate school, theses or dissertations are welcome.

The Center is staffed by peer consultants selected each spring through a rigorous application and interview process. The consultants do not edit or proofread, but instead encourage critical thinking, reading, and writing.

Conferences with consultants are free and confidential. Online consultations are available through our website [www.stthomas.edu/writing](http://www.stthomas.edu/writing). For more information on our services or to make an appointment, please contact the Center for Writing in JRC 361, 651-962-5601.

**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 pre-major adviser to a departmental major field adviser.

**Information Resources and Technologies**

Information Resources & Technologies encompasses six service and support departments: Budgets, Acquisition and Inventory, Client Services, Information Security, Information Technology, Networks & Telecom Services, University Libraries, and Web & Media Services. Our mission is to integrate people, processes, information resources and technologies in support of teaching, learning and strategic goals at the University of St. Thomas.

The Budgets, Acquisition and Inventory group is responsible for managing the IRT operating budget and the university IT equipment leasing budgets, responding to and processing requests for software, hardware and audio/visual items for multiple departments and the university. BAI manages the installation and upgrade of

## Academic Support Programs

IT and presentation systems in instructional facilities, and the acquisition, inventory and processing of equipment for the annual replacement of faculty, staff and lab desktop computing resources.

Client Services provides a single point of presence for accessing academic and administrative technology support services - in person, online, or by phone - and the complex coordination, cross-training, support, and knowledge management essential to success. Client Services provide both rapid response to technical break/fix issues in faculty and staff offices and classrooms as well as consultative-based support for productivity tools and technologies to facilitate course content delivery.

The Information technology (IT) department manages centralized networks, servers, application software and database management software. The IT department also is responsible for a combination of network and system security including the policies, procedures and technologies to be used for this purpose. These systems include the network firewalls, wireless network registration system, enterprise monitoring systems, JP addressing and security compliance issues.

Networking & Telecommunication Services (NTS) supports UST's network, the central nervous system on which all facets of technology at UST depend on for their performance. NTS provides highly reliable, secure, and extensive voice and data service to the university community.

The University Libraries provide support for research, writing and information literacy. The libraries enrich scholarship and teaching by providing information resources, services, and instruction that support the curriculum and the intellectual development of St. Thomas students, faculty, and staff.

Web and Media Services (WMS) manages the university Web environment and offers services supporting effective uses of Web and media technology for instruction and promotion.



### **Student Life**

Students will find that there are many cultural, social, and educational events to attend and many activities in which they may participate. Students can further develop their leadership skills by being an active member in one of over 120 clubs and organizations on campus.

### **Undergraduate Student Government**

The Undergraduate Student Government (USG) is the student government of the undergraduate program, representing undergraduate students. The Undergraduate Student Government, as a representative of the University of St. Thomas undergraduate student body, is dedicated to advocating student concerns by working with faculty, staff, the administration, community leaders, and fellow students to promote positive change while staying true to the Catholic identity of this institution.

STAR (St. Thomas Activities and Recreation) and the USG operations are financed by an activity fee assessed each full- and part-time student each semester.

The Undergraduate Student Government is comprised of 38 representatives who act as the voice of the students at the University of St. Thomas. Members of the USG serve their constituents by working with faculty, staff, administration, and other students to promote positive change and foster tradition in an effort to provide students with an exceptional college experience both inside and outside of the classroom. Membership in the Undergraduate Student Government consists of six executive officers, two neighborhood and two residential senators, one legislative affairs and one commuter senator, two student athlete representatives, one commuter representative, one elections and credentials chair, one transfer student senator, one Residence Hall Association representative, the class president and two representatives from each class, one International Student representative, one Hana student representative, one STAR representative, one St. John Vianney representative, one student organization's representative, one Student Alumni Council representative, one Student Diversity Relations representative, and two advisers, including the executive director for the Department of Campus & Residence Life and the director of Campus Life.

The USG functions in an advisory capacity to administrative decision making.

### **Participation in Faculty Committees**

Students of the undergraduate program work cooperatively with the faculty and administration on seven committees: the Student Life Committee, the Grievance Committee, the Committee on Discipline, the Undergraduate Planning and Policy Committee, the College of Arts and Sciences Curriculum Committee, the Undergraduate 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 120 clubs and organizations at the University of St. Thomas. Clubs and organizations are available in a range of interests, including academics,

sports, honors and service. Choosing to be involved is a great way to develop and build relationships with your peers and the university community. Most importantly, getting involved at St. Thomas is an excellent way to enhance social, interpersonal, problem solving, leadership and other important skills.

The Undergraduate Student Government and the Office of Campus Life oversee all student organization recognition and funding processes. 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 online. 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-two varsity sports.

Men's varsity sports are soccer, cross country, football, hockey, basketball, swimming, baseball, golf, tennis, and indoor and outdoor track and field.

Women's varsity sports are volleyball, hockey, cross country, basketball, swimming, soccer, softball, tennis, golf, and indoor and outdoor track and field.

### **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, tennis, and volleyball.

During the spring semester the offerings include 5-on-5 and 3-on-3 basketball, floor hockey, sand volleyball, dodgeball, and kickball. Aerobic classes are also offered and students are encouraged to use the recreational facilities for leisure enjoyment. All leagues are open to students, faculty and staff.

### **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 staff captures the school year's events through words, pictures, and graphic theme. The yearbook is distributed at no cost in the fall of each year. Applications for *Aquinas* student staff positions are made available through the *Aquinas* yearbook managing editor's office in Murray Herrick Center 112D.

### **Summit Avenue Review**

*Summit Avenue Review* is the literary and visual arts magazine at St. Thomas. Designed and edited by students, the magazine publishes poetry, fiction, literary nonfiction, photography, and other visual art from the St. Thomas community. Work on the magazine begins in early fall, with a first submissions deadline in December and an April publication date. Inquiries should be sent to the Department of English. The magazine's Web address is:

[www.stthomas.edu/summitavenuereview](http://www.stthomas.edu/summitavenuereview)

### **Musical Organizations**

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

Instrumentalists and vocalists can choose from a diverse selection of large and small ensembles – bands, orchestra, choirs, jazz ensembles (both vocal and instrumental), ensembles for pianos, guitars, woodwinds, brass, strings, percussion, and music theater productions. Membership in most of these organizations is by audition. For details consult [www.stthomas.edu/music](http://www.stthomas.edu/music).

### **Dean of Students Office**

The Dean of Students 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 Students 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, ombuds and parent liaison services, emergency loans, and the publication of the on-line *Student Policy Book*.

Contact the Dean of Students Office at (651) 962-6050 or visit the department web site at: [www.stthomas.edu/deanofstudents](http://www.stthomas.edu/deanofstudents).

### **The On-Line Student Policy Book**

The Student Policy Book is published by the Dean of Students Office. It 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 on-line Student Policy Book and will be held accountable for upholding the university's policies. It can be found at [www.stthomas.edu/policies](http://www.stthomas.edu/policies).

### **Student Affairs Life/Work Center**

The Life/Work Center, a department within the Division of Student Affairs, is located in 110 Terrence Murphy Hall on the Minneapolis campus. It provides special services and resources to meet the needs of all

## Student Life

students, especially those on the Minneapolis campus. The core services include financial aid counseling for graduate students, career counseling, and personal counseling services. Staff in the Life/Work Center are available to 1.) provide consulting services for career development, and personal life management concerns; 2.) give outreach and workshop presentations on a variety of topics; and 3.) administer interest inventories and career assessments. Contact the Life/Work Center at 651-962-4763 or [lifework@stthomas.edu](mailto:lifework@stthomas.edu).



## Campus Ministry

Campus Ministry believes that the depth of our faith powerfully affects the way we live and who we become. It is in response to this that Campus Ministry invites students, faculty and staff of all faiths and religious traditions to explore their faith more fully through the many worship, service and personal growth opportunities.

In addition to six full-time professionals, Campus Ministry employs team residence ministers and over twenty student employees. The staff coordinates the religious life of the campus and offers a variety of programs.

Numerous worship opportunities are available, including daily, Sunday and special community masses, the Sacrament of Reconciliation Adoration, evening prayer, and ecumenical services. Students can participate in worship through the Liturgical Ministers Program, Chapel Singers and the Liturgical Choir.

Campus Ministry also provides opportunities to serve the broader community through the Volunteers in Action program and VISION J-term and spring break volunteer service trips.

To inspire personal growth, Campus Ministry has a number of programs including prayer groups, retreats, pastoral counseling and referral, marriage preparation, crisis intervention, special groups for support, and Common Ground – a house of hospitality where students gather to relax, pray, study, and meet new people.

Campus Ministry also offers the Rite of Christian Initiation for Adults (RCIA) to those who are preparing for Baptism, Eucharist and Confirmation in the Catholic Church.

The Center for Campus Ministry 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 concerns of daily living to problems of a more serious nature. Personal Counseling provides individual counseling, groups, workshops, seminars and consulting services on a variety of topics. Walk-in hours are available every day and are listed in the Daily Bulletin. Complete confidentiality is maintained in accordance with legal requirements and the professional code of ethics. The Personal Counseling Website has an extensive self-help section including anonymous screening for depression, anxiety, alcohol and eating disorders: [www.stthomas.edu/personalcounseling](http://www.stthomas.edu/personalcounseling). Personal Counseling is accredited by the International Association of Counseling Services.

## Testing Services

Testing Services located in the Personal Counseling Office offers a full range of services including personality assessment and career testing.

### **Career Development Services**

The Career Development Center provides expertise and information to students and alumni. This includes assistance with the tools and methods necessary for finding jobs and internships. The department provides individual assistance and convenient access to quality resources.

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

- Self-assessment and vocational testing
- Career choice
- Major field choice and change
- Researching specific careers and employers
- Seeking internships, full-time, part-time and summer employment
- On-campus interviewing
- Utilizing technology in career development

### **Career Coaching and Counseling**

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

### **Web Services**

Our services can be accessed on the Web from campus, work, home, or anywhere with an Internet connection. Our Website is an invaluable asset, acting as a technological enhancement to broaden the reach of our services. It features seminars, handouts and information produced by our office, as well as suggested links to career resources on the Web.

[www.stthomas.edu/careerdevelopment](http://www.stthomas.edu/careerdevelopment)

### **Commuter Center and Off-Campus Services**

The Commuter Center provides hospitality, information, programs, resources, and services to all students with an emphasis on commuters, non-traditional students, and students that live in the immediate neighborhood. Services include: off-campus housing listings; renter education materials; free legal advice; locker rentals; commuter e-mail updates; and lounge space with a microwave, refrigerators, computers and a printer. The Center is located in the lower level of Murray Herrick Campus Center. Phone: 651-962-6138; Website:

[www.stthomas.edu/commutercenter](http://www.stthomas.edu/commutercenter)

### **Multicultural Student Services**

Multicultural Student Services (MSS), consistent with St. Thomas/ Catholic tradition, is concerned with providing a comprehensive system of advocacy and support for immigrant and U.S. students of color. The goal is to improve retention and the quality of the UST experience. We strive to prepare all students to think and act responsibly when confronted with the myriad diverse and changing needs of their local community and the world at large. Initiatives addressing academic support, developing partnerships and educational programming complement the academic mission of the university.

Multicultural Student Services also provides scholarships for undergraduate U.S. students of color. Information about these and other funding opportunities may 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 about academic, cultural, legal, and practical life at a U.S. university
- Immigration advising for all F-1 and J-1 nonimmigrant students and scholars
- Counseling and advising on academic, cultural, financial, health, practical and personal matters
- Undergraduate and graduate International Mentor Program: US and international students are hired and trained to serve as guides and helpers to new students
- Weekly International Student Electronic Newsletter
- A website with information on programs and services, immigration rules, activities and programs, and the newsletter:  
[www.stthomas.edu/oiss](http://www.stthomas.edu/oiss)
- Coordinate the International Education Week activities at St. Thomas each Fall Semester in collaboration with the International Matrix
- Close cooperation with the Globally-Minded Student Association, which promotes interaction and interchange of ideas through social and cultural activities
- Cultural and educational programming such as the CultureLink, Communication Partners, and Friendship Family programs
- Career and job-search workshops in cooperation with the UST Career Resource Center

### **Box Office & Expeditions**

The Box Office & Expeditions offers the university community the opportunity to purchase tickets to many UST campus-sponsored events (including campus dances and concerts for students), as well as discounted tickets to many local Twin Cities cultural, theatrical and athletic events. A sampling of tickets includes local theater productions, museums, athletic events, movie theaters, and specialty entertainment.

Expeditions is the campus outdoors programming and educational center. Expeditions offers a wide variety of outdoor camping, sporting and athletic equipment for a minimal fee.

### **Housing**

The University of St. Thomas houses approximately 2,500 students in its residence halls and apartments.

Living on campus provides students the opportunity to become part of a dynamic community. This community includes students from all backgrounds, lifestyles, and interests. Participating in such a community enhances the opportunity to establish a healthy balance of academic study and relaxation.

The University of St. Thomas offers traditional residence halls and apartment style living on the St. Paul campus.

Living on campus provides the convenience of living



## Student Services

close to classes and faculty along with extra amenities like wireless internet access, study areas, computer labs, and recreation space. Koch Commons, which connects Morrison, Dowling and Brady halls, has a fitness center and the Pit Stop, which sells smoothies, sandwiches and other snacks.

Nestled in a residential neighborhood in the city, students find St. Thomas to be a safe campus. The department of campus and residence life works to enhance the safety of students on campus through ground level security screens, ID card access, sprinkler systems, and night access staff. UST Public Safety is available 24 hours a day and a professional residence life staff member is on call each night.

Upon admission to the undergraduate program, each student will receive an *Application for On Campus Student Housing* along with instructions for completing the process online. New students desiring space in the residence halls must pay a \$200 housing deposit to the Office of Admissions either with a paper application or through the online process. The \$200 housing deposit is credited to the student's room and board charges during the first semester of residence. Priority for housing is based on the date the housing deposit is received.

Continuing students apply for housing for the coming academic year in the spring semester. The application process and deadlines are published in the Bulletin and on the residence life website during the spring semester. On-campus dining offers the most convenient options. Resident students (except upper-class students living in on-campus apartments in Morrison, Flynn & Grand Ave) are required to purchase a meal plan.

All of the residence halls are described in detail on the residence life website including building amenities, room furnishings, floor plans, and 360 degree photos. Information on what to bring and what not to bring is provided on the website and included when housing assignments are mailed to new students.

Information and policies for residence life are found in the *Student Residence Agreement* and the *Resident Student Handbook*. Both are available on the residence life website.

Visit [www.stthomas.edu/residencelife](http://www.stthomas.edu/residencelife) for additional and updated information about living on campus.

### **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, sandwiches and trend setting food selections, Starbucks Fair Trade specialty coffee, espresso, various snack and beverage items. It has a dance floor, a stage for live entertainment, a large screen TV and spe-

cial 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 Freshëns® smoothies, frozen yogurt, Pretzel Logic large fresh baked pretzels with various toppings, deli sandwiches, pizza, quesadillas, 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.

*Beakers* is located on the second floor in the Owens Science building. It features Starbucks Fair Trade specialty coffee and espresso, Deli Express and Gourmet 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 several different display cooking stations including Asian, Mexican, Grill, Deli, Panini's, Pizza, Salad Bar, Soups and a variety of other food, snacks, and beverage selections. We also feature Starbucks coffee in the Food Court.

### **Student Health Service**

#### **Student Health Service & Travel Clinic**

The Student Health Service operates a medical clinic staffed with doctors, nurse practitioners and registered nurses located in the lower level of Brady Residence Hall. Regular clinic hours are Monday through Friday 8:00 a.m. to 4:30 p.m. Same-day appointments are usually available for acute illness. Please call 651-962-6750 to schedule appointments. Services include a certified travel clinic, care of acute and chronic illnesses, allergy injections, sports related injuries, GYN exams, immunizations, laboratory services, physical exams, stress management, smoking cessation, etc. Students will be asked for a copy of their insurance card at the time of service, and any co-pays or fees not covered by insurance will be billed to the student account.

#### **Minneapolis Quick Clinic:**

The UST Quick Clinic is designed to provide basic, routine, limited health care focusing on quality, convenience, and cost-effective care for UST students, faculty, and staff. The most frequently prescribed prescription drugs will also be available in the clinic.

The UST Quick Clinic is not intended to meet every health care need, but rather to offer a low cost, convenient option to addressing common health care needs of our community.

#### **Clinic Location:**

Terrence Murphy Hall (TMH) LL 01

#### **Hours:**

Tuesday & Wednesday 2:00 - 6:00 p.m.

#### **Cost:**

Services will be billed to the insurance company with remaining balance billed to student, faculty or staff member. Please bring insurance card to your appointment.

#### **Contact:**

651-962-6750 (for general questions)  
651-962-4750 - Minneapolis Quick Clinic

For more information visit:  
<http://www.stthomas.edu/studenthealth>

### **Health Insurance Verification Requirement**

*Domestic students:* Undergraduate students enrolled in 12 or more credits are required to demonstrate health insurance coverage annually. Students may voluntarily purchase the UST-sponsored health insurance plan during the enrollment period. **Students who do not complete the health insurance verification process by the 10th day of classes will be automatically enrolled in and billed for the UST-sponsored plan.** Students must enter their information via Murphy Online at <http://banner.stthomas.edu>. Students can also learn more about the requirement and the health insurance plan at:

<http://www.stthomas.edu/studenthealth/Insurance>

*International students:* F-1 and J-1 international students on a St. Thomas I-20 or DS-2019 will be automatically enrolled in and billed for the UST-sponsored health insurance plan. F-1 international students who want to waive the UST-sponsored health insurance plan can submit their U.S.-based health insurance information that meets the minimum requirements via Murphy Online at <http://banner.stthomas.edu>. **F-1 international students who do not complete the Murphy Online waiver process by the 10th day of classes will be automatically enrolled in and billed for the UST-sponsored plan.** Those whose waiver request is approved will still be enrolled in and billed for an evacuation and repatriation plan. J-1 international students are not eligible to waive the UST-sponsored plan due to Department of State requirements.

### **Additional Health Records**

The state of Minnesota requires Mumps, Measles and Rubella (MMR) and Tetanus/Diphtheria(Td) dates on all students. Immunization information is to be entered under the Student Service tab via Murphy Online at <http://banner.stthomas.edu>. No changes can be made once this information is entered. You may contact Student Health Service at 651-962-6750 with updates, changes or questions. Registration holds will be placed on students that do not enter this information by the 45th day of classes.

To provide you with the most appropriate medical care, Student Health Services recommends that you complete the health history information and physical examination form, though it is not required unless you are an athlete. Student athletes are required to complete a physical exam form within six months of beginning their sport. These forms are available on Murphy Online or on the Student Health Services website:

<http://www.stthomas.edu/studenthealth/>.

### **Wellness Center**

The Wellness Center is dedicated to assisting students in developing healthy lifestyle choices and promoting behaviors that result in enhanced wellbeing. The center embraces the concept of wellness in developing the

whole person.

The center offers programs, resources, and educational material on health promotion and illness prevention. The center is designed to increase the overall health of the university community and promote healthy lifestyle choices that will serve individuals throughout their lives.

The center is located in the lower level of Koch Commons. More information can be found online at:  
[www.stthomas.edu/wellness](http://www.stthomas.edu/wellness)

### **Campus Public Safety**

The Department of Public Safety operates seven days a week 24 hours a day, on both the St. Paul and Minneapolis campuses.

The primary focus of the department is the care and safety of the students, employees, and guests of the University. Some of the services that are provided to the community are: immediate response to medical emergencies, responding to crimes in progress or suspicious persons, providing escorts, assisting with vehicle lock-outs, doing jumpstarts, and conducting safety inspections and operations of the University's lost and found. The department is also responsible for the campus wide emergency notification system. Students and employees are encouraged to sign up for this notification at <http://www.stthomas.edu/ustcares/emergencynot/default.t.html>.

The Public Safety officers are professionals, well trained in first aid, crisis management, emergency response, investigation, general safety, crime prevention and application of policies and laws.

For any on-campus emergency call 651-962-5555. For an off campus emergency please call 9-1-1. For all other matters related to Public Safety please call 651-962-5100. Students and employees are encouraged to program these numbers in their cell phones.

### **Public Safety Offices**

The Public Safety Office on the St. Paul campus is located on the first floor of Morrison Hall. Please use the north door for entrance. The Minneapolis Campus Public Safety office is located in Opus Hall on the second floor.

The Public Safety Department maintains the "Annual Security Report." The report is required by the Higher Education Act and includes a listing of crimes in on and around the campus. For details, please go to:

[http://www.stthomas.edu/pmps/Campus\\_Security\\_Act\\_Report/campus\\_security\\_act\\_report.htm](http://www.stthomas.edu/pmps/Campus_Security_Act_Report/campus_security_act_report.htm)

### **Parking Services**

The Parking Services Office, a division of the Public Safety department, is located at 2119 Grand Avenue, St. Paul. This office handles all parking questions, issues parking permits, takes requests for special event parking, sells Metro Transit bus passes, and processes UST parking tickets and appeals. These same services are available at the second floor Public Safety Office in Opus Hall (MOH 203) on the Minneapolis campus.

Parking lots on the St. Paul Campus are open to vehicles with the appropriate UST parking permit. Faculty, staff and students must have a permit to park on campus.

Visitors to the University of St. Thomas, St. Paul

Campus, may park in the Anderson Parking Facility, entrance off of Grand and Cretin, the Morrison Hall ramp, entrance off of Selby and Finn, or at parking meters.

Resident students are required to enter a permit lottery in order to be eligible to purchase a parking permit. Resident students are notified of the lottery process from Residence Life Office and the Bulletin.

On the Minneapolis Campus, only ramp and very limited surface parking is available. These parking contracts are only available for full-time faculty, staff, and students. These are available at the Public Safety Office in Opus Hall (MOH 203). Visitors and evening and part-time students are not eligible for a parking contract through the University of St. Thomas. However, they may park at the City of Minneapolis Ramp, 11th Street and Harmon Place. There is a greatly reduced rate for parking in the evening. This ramp also connects to the UST and downtown skyway system.

The university also offers a free shuttle bus service between the Minneapolis and St. Paul campuses. This is available Monday through Friday from 6 a.m. to 11 p.m. Check the Public Safety web page for current schedule information at: <http://www.stthomas.edu/psps/>.

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



## **Chapels**

### **Chapel of St. Thomas Aquinas**

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 Capecchi and Carl Olson, were installed in the 1940s. The chapel was renovated in 1978 and in 1987, a three-manual 56-rank mechanical action pipe organ, designed and built by Gabriel Kney of London, Ontario, was installed.

The Chapel was renovated again in 2008 by designers Alexander Tylevich and Fr. James Notebaart with the addition of an 11-ft-tall altar crucifix, sanctuary gates, a new altar and ambo.

### **St. Mary's Chapel**

St. Mary's Chapel of The Saint Paul Seminary was begun in 1901 and consecrated in 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, 27-rank mechanical action pipe organ designed by Noack Organ Company of Georgetown, Massachusetts, was installed.

### **St. John Vianney Chapel**

The university 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.

A small one-manual Van Daalen organ was moved to the chapel in 2000.

### **Florance Chapel**

The Florance Chapel is the lower chapel in the Chapel of St. Thomas Aquinas. 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.

### **St. Thomas More Chapel**

Located in the School of Law on the Minneapolis campus, the two-story St. Thomas More Chapel features colored art-glass windows, seating for more than 100 and a striking bronze crucifix. A meditation room overlooking the chapel on the second floor provides a quiet respite

and a place for reflection.

### **University Libraries**

The University of St. Thomas libraries contain more than 391,000 print book volumes as well as 95,000 electronic book titles, 1,865 print periodical subscriptions, 6000 videos, and access to about 40,000 electronic journals. In addition, the libraries provide students and faculty with access to over 230 electronic databases. The O'Shaughnessy-Frey and Keffer Libraries support student scholarship and faculty research by integrating technology, electronic and print collections and research assistance and instruction from librarians and technical staff.

#### **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. A newly installed coffee shop, expanded comfortable seating and spaces for group work have made the OSF Library a favorite campus location for research and studying.

#### **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, graduate programs in the Opus College of Business, and the Graduate School of Professional Psychology. The Keffer Library is the principle library serving the special needs of the graduate student population of the University of St. Thomas.

#### **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. The Ireland Library collection is highly regarded by theological scholars.

#### **CLIC/MINITEX**

Relationships with two local library networks benefit UST users by providing access to the collections of regional libraries. Cooperating Libraries in Consortium (CLIC) allows students to obtain books and periodical articles from other Twin Cities private academic libraries (Augsburg College, Bethel College, Concordia College, Hamline University, Hamline Law School, Macalester College, Northwestern College, St. Catherine University, as well as the University of St. Thomas.) Interlibrary loans for materials not owned by the university are available within the CLIC institutions.

Another cooperative venture, MINITEX (Minnesota Interlibrary Telecommunications Exchange) links the university with more than 200 libraries throughout Minnesota, Wisconsin, and North and South Dakota, including the University of Minnesota.

Interlibrary loan is available and makes possible the borrowing of materials from libraries around the nation and the world.

#### **Library Services**

The library staff offers a wide range of services to sup-

port coursework and research. Reference librarians provide individual help as well as classroom instruction in the use of library materials. Group study rooms are available throughout the libraries.

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

### **Computing Resources**

There are a wide variety of computing resources available for student use at the University. There are general-purpose labs, which any student can use for coursework or personal use. The Information Commons in O'Shaughnessy-Frey Library on the St Paul Campus and the Charles J. Keffer Library on the Minneapolis Campus house the largest general purpose computing facilities on each campus. The Information Commons brings together support for research, writing, information literacy, and computer application support to assist students in developing papers, presentations, and projects. The Information Commons provide both PC and Macintosh computers, printers, scanners and access to the UST wireless network.

There are also specialized departmental labs which are reserved for students who are enrolled in classes or working on course specific assignments. In addition, there are a number of Residence Hall labs that are open to St. Thomas students who live in the Residence Halls.

The University provides a wireless network. The wireless network is available in all public spaces on the Minneapolis and St Paul Campuses as well as in all of the Residence Halls.

The wireless network is also accessible outdoors on the St Paul campus in the following areas (Note: weather conditions may affect access to the wireless network outdoors):

- Foley Theatre (between Murray-Herrick & Foley), Sabo Plaza (South Campus outside of O'Shaughnessy Science Hall and Owens Science Hall), the Lower Quad (O'Shaughnessy Hall across to O'Shaughnessy-Frey Library), and the Upper Quad (outside of the Residence Halls)

### **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 many co-curricular programs related to women and gender. The most important of these is the annual March Women's History Month Speaker. 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 under-

## Facilities

graduate 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.

### **Auditoriums**

The O'Shaughnessy Educational Center (OEC) auditorium has 330 seats on the main level and 292 seats in the balcony level and hosts a number of guest lectures, teleconferences, and student assemblies.

The auditorium in the John R. Roach Center (room 126 JRC) has 194 seats and contains state-of-the-art technology. It is used for course lectures, meetings, conferences and is the site for many student activities including film viewings.

The Baumgaertner Auditorium in Brady Educational Center (BEC), located on the south campus, has 348 seats and is used for musical performances and community events. Musical concerts are also presented in the St. Thomas Aquinas Chapel.

The 3M Auditorium, located in Owens Hall of the Frey Science and Engineering Center, has 143 seats, 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.

In August 2010, the university will open the Lee and Penny Anderson Athletic and Recreation Complex. The AARC will include venues for basketball, volleyball, running, swimming, tennis, weight and aerobic training and many other recreational activities. Locker rooms and other support areas will also be located in this facility.

A six lane, 200 meter track is the focus of the new field house which will support varsity track and tennis activities and provide recreational space for the university community.

A new Schoenecker Arena will seat 2000 and accommodate varsity and recreational volleyball and basketball activities.

The AARC will also include an eight lane swimming/diving pool for varsity and recreational activities.

State of the art weight and aerobic training equipment and facilities are included in this complex.

### **University Bookstores**

The St. Paul campus Bookstore is located in the Murray-Herrick Campus Center. The store sells new and used textbooks, school and office supplies, computers and

computer supplies, insignia clothing and gifts, candy, class rings, cards, gifts and magazines.

The Minneapolis campus Bookstore, located in Terence Murphy Hall, sells textbooks for classes taught on that campus and most off-campus graduate classes. It also carries all of the same items mentioned above.

Call each store for hours of service: 651-962-6850 (St. Paul), 651-962-4340 (Minneapolis)

The bookstores maintain a web site at [stthomas.edu/bookstore](http://stthomas.edu/bookstore) where you can order textbooks and merchandise online. Hours and phone numbers are listed for each store.



University of St. Thomas  
Curricula Section  
Undergraduate Catalog  
2010-2012

**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.

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

## Curricula – Generic Courses

### Curricula

Programs and courses in this section are available to undergraduate students in all colleges and schools of the university.

#### Course Offerings

The courses listed in this section of the catalog are arranged alphabetically by discipline. Each listing includes a description of the course, the number of credits, 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.

### 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 will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

##### 295, 296 Topics (2 credits)

The even number is normally used by the department. The odd number is used if the course has been approved to fulfill a core curriculum requirement.

##### 297, 298 Topics (4 credits)

The even number is normally used by the department. The odd number is used if the course has been approved to fulfill a core curriculum requirement.

##### 487, 488 Topics (2 credits)

The even number is normally used by the department. The odd number is used if the course has been approved to fulfill a core curriculum requirement.

##### 489, 490 Topics (4 credits)

The even number is normally used by the department. The odd number is used if the course has been approved to fulfill a core curriculum requirement.

#### Experiential Learning

The university 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, 476 Experiential Learning (2 credits)**

The even number is normally used by the department. The odd number is used if the course has been approved to fulfill a core curriculum requirement.

**477, 478 Experiential Learning (4 credits)**

The even number is normally used by the department. The odd number is used if the course has been approved to fulfill a core curriculum requirement.

**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, 484 Seminar (2 credits)**

The even number is normally used by the department. The odd number is used if the course has been approved to fulfill a core curriculum requirement.

**485, 486 Seminar (4 credits)**

The even number is normally used by the department. The odd number is used if the course has been approved to fulfill a core curriculum requirement.

**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.

**269 Research (2 or 4 credits)**

This research course can be either a 2 or 4 credit course depending on the department and the topic.

**389 Research (2 or 4 credits)**

This research course can be either a 2 or 4 credit course depending on the department and the topic.

**491 Research (2 or 4 credits)**

This research course can be either a 2 or 4 credit course depending on the department and the topic.

**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 junior 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.

**243 Individual Study (2 or 4 credits)**

This individual study can be either a 2 or 4 credit course depending on the department and the topic.

**393 Individual Study (2 or 4 credits)**

This individual study can be either a 2 or 4 credit course depending on the department and the topic.

**495 Individual Study (2 or 4 credits)**

This individual study can be either a 2 or 4 credit course depending on the department and the topic.



## Actuarial Science

### Accounting

See Business Administration

### Actuarial Science (ACSC)

College of Arts and Sciences, Interdisciplinary Program  
O'Shaughnessy Science Hall (OSS) 201, (651) 962-5538  
Youn (MATH), director, Dayananda (MATH), Kemper (MATH), Shemyakin (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 multivariate 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.

**Admission Guideline:** Due to the demanding nature of the Actuarial Science Program and the difficulty of the examinations required for professional designation, it is strongly suggested that prospective majors have a minimum Math GPA of 3.0. Most students who have been successful in this program and actuarial examinations have had GPA's considerably higher than 3.0.

#### Major in Actuarial Science (B.S.)

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACSC 264 Theory of Interest (4 credits)  
ACSC 320 Risk Management and Insurance (4 credits)  
ACSC 351 Foundations of Actuarial Mathematics (4 credits)  
ACSC 352 Actuarial Contingencies (4 credits)  
CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
FINC 321 Financial Management (4 credits)  
FINC 325 Investments (4 credits)  
MATH 113 Calculus I (4 credits)  
MATH 114 Calculus II (4 credits)  
MATH 200 Multi-Variable Calculus (4 credits)  
MATH 240 Linear Algebra (4 credits)  
MATH 313 Probability (4 credits)  
STAT 314 Mathematical Statistics (4 credits)

*Plus four credits from the following:*

ACSC 464 Mathematical Finance (4 credits)  
STAT 333 Applied Statistical Methods: Regression, Time Series, Forecasting (4 credits)  
MATH 385 Mathematical Methods of Numerical Analysis (4 credits)

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
ENGL 200 or above

*Suggested Electives:*

BLAW 301 Legal Environment of Business (4 credits)  
 CISC 230 Object-Oriented Design and Programming (4 credits)  
 CISC 450 Database Design I (4 credits)  
 ECON 251 Principles of Macroeconomics (4 credits)  
 ECON 351 Macroeconomic Theory (4 credits)  
 ECON 352 Microeconomic Theory (4 credits)  
 ECON 355 Game Theory (4 credits)  
 FINC 324 Advanced Financial Management (4 credits)  
 FINC 400-level Investment Courses (4 credits)  
 MBIS 701 Insurance Seminar (3 credits)  
 MKTG 300 Principles of Marketing (4 credits)

**Minor in Actuarial Science**

ACSC 264 Theory of Interest (4 credits)  
 ACSC 320 Risk Management and Insurance (4 credits)  
 MATH 113 Calculus I (4 credits)  
 MATH 114 Calculus II (4 credits)

*Plus eight credits from the following:*

*Note:* At least four credits must not satisfy the student's major field requirement (including allied requirements)

ACCT 210 Introduction to Financial Accounting (4 credits)  
 ACCT 215 Managerial Accounting (4 credits)  
 ACSC 351 Foundations of Actuarial Mathematics (4 credits)  
 ACSC 464 Mathematical Finance (4 credits)  
 ECON 252 Principles of Microeconomics (4 credits)  
 FINC 321 Financial Management (4 credits) *or* FINC 300 Finance for non-Business Majors (4 credits)  
 MATH 200 Multi-Variable Calculus (4 credits)  
 MATH 313 Probability (4 credits) *or* MATH 303 Statistics for the Applied Sciences (4 credits)

**ACSC 264 Theory of Interest (4 credits)**

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.

**ACSC 320 Risk Management and Insurance (4 credits)**

This course introduces students to the subjects of insurance—theory and practice—and corporate risk management. In addressing these subjects, students will receive exposure to risk theory, insurance pricing, contract analysis, insurance company operations, reinsurance, regulation and the concepts and principles of business risk management.

Prerequisite: Junior standing or MATH 114

**ACSC 351 Foundations of Actuarial Mathematics (4 credits)**

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: ACSC 264 and MATH 313.

**ACSC 352 Actuarial Contingencies (4 credits)**

Extension of the analysis of ACSC 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, non-forfeiture benefits and dividends.

Prerequisite: ACSC 351

**ACSC 464 Mathematical Finance (4 credits)**

The focus of this course is on applications of probability, stochastic processes, and other mathematical tools to problems in finance. Both discrete and continuous models, including binomial, Brownian motion, and geometric Brownian motion models will be used to investigate the effects of randomness in financial markets and the behavior of financial instruments. The mathematical realization of arbitrage and hedging strategies will be examined, including the Arbitrage Theorem and the concept of risk-neutral pricing. Applications will include the pricing of equity options, currency transactions, and the use of duration and convexity in fixed income analysis. The course will be of interest to students of actuarial science, mathematics, finance and economics who want to develop a better quantitative understanding of financial risk.

Prerequisites: MATH 313 or MATH 303 and ACSC 264 or a course in FINC approved by the instructor

## Aerospace Studies

### Aerospace Studies (AERO)

College of Arts and Sciences, Department of Aerospace Studies  
Loras Hall, Third Floor (LOR), (651) 962-6320  
Zupancich (chair), Priestley, Roehl

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 AFROTC 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 if requirements are met. Coursework offers students the opportunity 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 the University of 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 cross-town 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 and pass field training, the basic military training held at Maxwell Air Force Base in the summer between sophomore and junior year. If accepted in the POC, 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.

A mandatory part of all aerospace studies classes is Leadership Laboratory and physical training. These courses round out the instruction toward gaining a commission in the Air Force. 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 other mandatory piece of the aerospace studies program is the Physical Fitness Lab. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to improve fitness and develop teamwork. Cadets will need to pass physical fitness assessments comprised of aerobic fitness, strength fitness and body composition.

The Air Force offers four-, three-, two- and one-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. Upon completion of the GMC, students attend a four-week field training session at Maxwell 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.

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 on Air Force scholarships, call the AFROTC Unit Admissions Officer at 651-962-6320.

The minor in Aerospace Studies is open to all undergraduate students at the University of St. Thomas. Students who are not seeking an Air Force commission should enroll in Option 1 below. Students who wish to receive a commission in the Air Force need to participate in Options 2 or 3, which include the Leadership Laboratories that coincide with their respective development level.

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:

## Option 1:

AERO 111 Foundations of the United States Air Force I (1 credit)  
 AERO 112 Foundations of the United States Air Force II (1 credit)  
 AERO 211 Evolution of USAF Air and Space Power I (1 credit)  
 AERO 212 Evolution of USAF Air and Space Power II (1 credit)  
 AERO 321 Air Force Leadership Studies I (4 credits)  
 AERO 322 Air Force Leadership Studies II (4 credits)  
 AERO 421 National Security Affairs I (4 credits)  
 AERO 422 National Security Affairs II (4 credits)

## Option 2:

AERO 200 Leadership Laboratory (0 credits)  
 AERO 201 AFROTC Physical Fitness Lab (0 credits)  
 AERO 250 Five-Week Field Training (4 credits)\*  
 \*Open only to students enrolled in Air Force ROTC  
 AERO 321 Air Force Leadership Studies I (4 credits)  
 AERO 322 Air Force Leadership Studies II (4 credits)  
 AERO 421 National Security Affairs I (4 credits)  
 AERO 422 National Security Affairs II (4 credits)  
 AERO 200 Leadership Laboratory (0 credits)

## Option 3:

AERO 111 Foundations of the United States Air Force I (1 credit)  
 AERO 112 Foundations of the United States Air Force II (1 credit)  
 AERO 200 Leadership Laboratory (0 credits)  
 AERO 201 AFROTC Physical Fitness Lab (0 credits)  
 AERO 211 Evolution of USAF Air and Space Power I (1 credit)  
 AERO 212 Evolution of USAF Air and Space Power II (1 credit)  
 AERO 321 Air Force Leadership Studies I (4 credits)  
 AERO 322 Air Force Leadership Studies II (4 credits)  
 AERO 421 National Security Affairs I (4 credits)  
 AERO 422 National Security Affairs II (4 credits)

**AERO 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 and AFROTC Physical Fitness Lab is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

**AERO 112 Foundations of the United States Air Force II (1 credit)**

Continuation of AERO 111

Prerequisite: AERO 111 or permission of instructor

**AERO 200 Leadership Laboratory (0 credit)**

Leadership Laboratory is mandatory for AFROTC cadets and complements each of the courses listed below by providing cadets with leadership and followership experiences.

**AERO 201 AFROTC Physical Fitness Lab (0 credit)**

AFROTC Physical fitness lab is mandatory for AFROTC cadets and complements each of the courses listed below by providing cadets with leadership, followership, and teambuilding experiences while learning to maintain physical fitness required for military service. Students must attend two sessions per week to pass the course. In order to remain in the program and gain a commission, students must pass a physical fitness assessment each term.

**AERO 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 historical Air Force leaders, and will continue to develop their

## Aerospace Studies

communication skills. One class-hour per week, plus a weekly Leadership Laboratory consisting of Air Force customs and courtesies, Air Force environment, drill and ceremonies, and field training orientation as well as the AFROTC Physical Fitness Lab is required.

Prerequisite: AERO 112 or permission of instructor

### AERO 212 Evolution of USAF Air and Space Power II (1 credit)

Continuation of AERO 211

Prerequisite: AERO 211 or permission of instructor

### AERO 250 Five-Week Field Training (4 credits) (AERO 111, 112, 211, 212)

Training and evaluation on an Air Force base during the summer. Training is designed to 1) fulfill the course goals of the General Military Course (GMC) normally taken during the regular school year; 2) 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 AERO 321.

NOTE: Students who receive credit for AERO 250 may not receive credit for AERO 111, 112, 211, or 212.

### AERO 321 Air Force Leadership and Management Studies I (4 credits)

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 and AFROTC Physical Fitness 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: AERO 212 or 250

### AERO 322 Air Force Leadership and Management Studies II (4 credits)

Continuation of AERO 321.

Prerequisite: AERO 321 or permission of instructor

### AERO 421 National Security Affairs I (4 credits)

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 and AFROTC Physical Fitness Laboratory complements this course by providing advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course.

Prerequisite: AERO 322 or permission of instructor

### AERO 422 National Security Affairs II (4 credits)

Continuation of AERO 421.

Prerequisite: AERO 421

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 AERO 450 Four-Week Field Training (FT), except for cadets participating in AERO 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.

### AERO 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: AERO 212

### AERO 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.

### AERO 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 rela-

tions 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 Culture and Difference (ACST)**

College of Arts and Sciences, Interdisciplinary Program  
2093 Grand Ave, (651) 962-5649  
Contact: Kanishka Chowdhury

American culture and difference is an interdisciplinary minor that offers students a critical perspective on the diversity of “American culture.” Students consider ways in which music, film, advertisements, folklore, literature, television, and art shape daily life in the United States, form cultural and national identity, construct racial and ethnic identity, and create a sense of “high” and “low” culture. Drawing on perspectives from a number of participating departments and programs (e.g. Art History, Communication and Journalism, English, History, Music, Political Science, Sociology, Theater, Theology, and Women's Studies), the American culture and difference minor examines the symbols, practices, and histories which contribute to the complexity and variety of the “American” experience. 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. The minor re-examines representations of mainstream American culture and the productions of alternative and oppositional cultures, highlighting the experiences and struggles of communities that have been historically marginalized because of their class, gender, racial or sexual identities. Put simply, American culture and difference emphasizes diversity as a defining element of American culture. 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 culture and difference is particularly suited to provide students with the critical framework necessary to be effective and ethical participants in an increasingly globalized civic and economic environment.

#### **Minor in American Culture and Difference**

ACST 200 Introduction to American Culture and Difference (4 credits)

*Plus:*

Twenty additional credits (at least four credits from each of the categories below and no more than eight credits from a single department):

**American Cultures: History, Society, Politics**

- GEOG 340 Geography of the U.S. and Canada (4 credits)
- HIST 116 African American History in Global Perspective (4 credits)
- HIST 210 Modern Latin America 1800 to the Present (4 credits)
- HIST 361 American Thought and Culture since the Civil War (4 credits)
- HIST 465 Seminar in U.S. History (4 credits)
- POLS 301 American Political Behavior (4 credits)
- SOCI 251 Race and Ethnicity (4 credits)
- SPAN 332 Survey of Latin American Culture and Civilization (4 credits)

**American Cultures: Literature and the Arts**

- ARTH 284 Arts of the African Diaspora (4 credits)
- ARTH 320 Art and Culture of Colonial Mexico (4 credits)
- ARTH 321 The Art and Culture of Modern Mexico (1824-1940) (4 credits)
- ARTH 391 Native American Art (4 credits)
- ARTH 392 American Art (4 credits)
- ENGL 215 American Authors II (4 credits)
- ENGL 373 Contemporary American Literature (4 credits)
- ENGL 395 Issues in Literature and Culture (4 credits)
- MUSC 216 Jazz in America (4 credits)
- MUSC 217 Music of the Americas (4 credits)
- MUSC 218 Black American Music: A Historical Survey (4 credits)
- MUSC 219 Music in the United States (4 credits)
- THTR 223 American Theater (History of Theater III) (4 credits)

**American Cultures: Mass Culture, Popular Culture, and Communication Media**

- COJO 326 Modern American Rhetoric (4 credits)
- COJO 328 Communication of Race, Class, and Gender (4 credits)
- COJO 334 Literary Journalism (4 credits)
- COJO 338 Political Communication (4 credits)
- COJO 340 Television Criticism (4 credits)
- COJO 430 Society, Culture, and the Media (4 credits)

## American Culture and Difference – Art History

COJO 432 Media Structure and Power (4 credits)

### ACST 200 Introduction to American Culture and Difference (4 credits)

In ACST 200, students learn about the historical and theoretical foundations of Cultural Studies as an academic discipline and use cultural theory to analyze a variety of cultural products and representations. In this course, students look specifically at dominant and subversive constructions of gender, race, ethnicity, national and sexual identities, and how these constructions are deployed through cultural practices and productions such as sports, film and television, folklore and popular culture, youth subcultures, music, and so on. For example, the course may contain units on "nation" and the creation of American mythologies; the process of hero-making in American history; stereotypes and the representation of race and ethnicity in television and film; representations of gender and sexuality in advertising; as well as a section on American music from jazz, blues, folk and roots music, to rock and roll, punk, and hip-hop. This course fulfills the Human Diversity requirement in the core curriculum.

### Art History (ARTH)

College of Arts and Sciences, Department of Art History

2057 Portland Ave, (651) 962-5560

Stansbury-O'Donnell (chair), Barnes, Eliason, Kindall, Nordtorp-Madson, Risser, Shirey, Young

The Art History Department at St. Thomas explores the many dimensions of art in a broad range of periods and worldwide cultures. The courses and faculty of the department prompt students to become investigators, learning to ask and answer questions about art, from pottery to painting, from bronzes to buildings. Students are encouraged to conduct independent research and to present their findings to a broader audience and to make art accessible inside and outside of the classroom.

Art history embodies the study of the liberal arts by considering the work of art and architecture within its broader cultural context, including religion, economic production, politics, gender, and social identification. The liberal arts and interdisciplinary nature of the major can be combined effectively with other majors such as theology, history, philosophy, or with programs emphasizing professional skills, including journalism, communication, or elementary education. Recent graduates of the Art History program have pursued careers in education, art conservation, museum education and curatorship, art gallery direction, publishing and interior design.

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

ARTH 110 Introduction to Art History (4 credits)

ARTH 211 Methods, Approaches, and Problems in Art History (4 credits)

ARTH 481 Senior Paper and Presentation (4 credits)

*Plus eight credits chosen from two of the following three areas:*

Ancient Art

ARTH 260 Women in Ancient Art and Culture (4 credits)

ARTH 305 Greek Art and Archaeology (4 credits)

ARTH 310 Roman Art and Archaeology (4 credits)

or equivalent

Medieval Art

ARTH 330 Churches and Mosques in the First Millennium (4 credits)

ARTH 335 Cathedrals, Monasteries, and Caliphates (4 credits)

or equivalent

Renaissance & Baroque Art

ARTH 340 Southern Renaissance Art and Society (4 credits)

ARTH 345 Baroque and Rococo Art (4 credits)

or equivalent

*Plus eight credits of Global Art chosen from the following courses:*

ARTH 270 Pacific Art (4 credits)

ARTH 275 Buddhist Art (4 credits)

ARTH 284 Arts of the African Diaspora (4 credits)

ARTH 285 Arts of Africa (4 credits)

ARTH 286 Women's Art in Cross-cultural Perspective (4 credits)

ARTH 289 Asian Art (4 credits)

ARTH 291 Topics in Non-Western Art (4 credits)

ARTH 321 The Art and Culture of Modern Mexico (1824-1940)

ARTH 329 Chinese Painting (4 credits)

or equivalent

*Plus four credits of Modern Art, chosen from the following courses:*

ARTH 321 The Art and Culture of Modern Mexico (1824-1940)  
 ARTH 351 Romanticism to Impressionism (4 credits)  
 ARTH 352 Art in the United States (4 credits)  
 ARTH 356 Modernism in European Art (4 credits)  
 ARTH 361 Contemporary Art (4 credits)  
 ARTH 450 Modern Scandinavian Art History (4 credits)  
 or equivalent

*Plus four credits of Media Studies (architecture and media other than painting and sculpture), chosen from the following courses:*

ARTH 270 Pacific Art (4 credits)  
 ARTH 280 Sacred Architecture and Space (4 credits)  
 ARTH 282 The History of American Architecture (4 credits)  
 ARTH 285 Arts of Africa (4 credits)  
 ARTH 286 Women's Art in Cross-cultural Perspective (4 credits)  
 ARTH 339 Western Costume's Design and Visual Representation in Context (4 credits)  
 or equivalent

*Note:* 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 global 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 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**

*Four credits, chosen from the following three options:*

A fourth course in one foreign language  
 COJO 256 Design Concepts of Communication (4 credits)  
 COJO 260 Electronic Media Production (4 credits)  
 Language course 212 or higher

#### **Minor in Art History**

ARTH 110 Introduction to Art History (4 credits)

*Plus:*

Sixteen credits chosen with the approval of the department chair or a department adviser.

#### **ARTH 110 Introduction to Art History (4 credits)**

Through a series of case studies, this course examines the importance of art as cultural expression across time and from a global perspective. In each course section, students will analyze the style, subject, and patronage of works of art, and will explore art's relationship to religion, ideology, society and economy, gender roles, and the interaction of cultures. Case studies will include architecture, sculpture, painting, and other arts, such as ceramics, textiles, and photography. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum. Consult the department website for details about the specific sections offered.

#### **ARTH 211 Methods, Approaches, and Problems in Art History (4 credits)**

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: ARTH 110 or permission of chair

#### **ARTH 260 Women in Ancient Art and Culture (4 credits)**

The history of the ancient world—its politics, philosophy, and literature—is mostly silent or slanderous about the lives of women. In most times and places their role in public life and their ability to express themselves were severely circumscribed. However, a study of archaeological material, representations in art and literature, and the occasional writing of women themselves allows us to look behind the curtain that veiled their lives. This class will examine the evidence to reconstruct a picture of what the life of women was like in Egyptian, Greek, and Roman culture throughout the ancient Mediterranean. This course fulfills the Fine Arts and Human Diversity requirement in the core curriculum.

#### **ARTH 270 Pacific Art (4 credits)**

This course covers traditional as well as contemporary sculpture, painting, architecture, and body arts of Melanesia, Island Southeast Asia, Micronesia, and Polynesia. Students will learn how material culture, along with the concepts



## Art History

of mana and tapu sustained highly stratified cultures in places such as Hawaii and New Zealand. They will also study more egalitarian societies in which cultures maintained a balanced relationship with their environment through beliefs and social practices. Examples of such societies include the Asmat, Komoro, and culture groups that inhabit the Geelvink Bay region. Students will have the opportunity to work with objects from the American Museum of Asmat Art at the University of St. Thomas (AMAA@UST). This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

### ARTH 275 Buddhist Art (4 credits)

Following a brief introduction to the origins of Buddhist art in India, this course will examine a selection of primary monuments and objects associated with Buddhism as practiced in China and Japan. The historical context, iconography, style and religious function of individual sites and objects will be considered in roughly chronological order. Larger topics relating to the production and reception of Buddhist art, such as its functional/ritual context, patronage and iconographical development, will be examined in class discussions of select articles. The goal of this course is to provide students with a foundational knowledge of the art and issues associated with the practice of Buddhism in traditional China and Japan. This course will fulfill the Fine Arts and Human Diversity requirements in the core curriculum.

### ARTH 280 Sacred Architecture and Space (4 credits)

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.

### ARTH 282 The History of American Architecture (4 credits)

A survey of high style and vernacular architecture in the United States from the Native Americans to the present day. Upon completion of this course, the student will be able to: identify the major themes and styles in American architecture; recognize major monuments and their designers; and understand how an American identity was projected in architecture. This includes understanding American architecture and its relationship to corresponding developments in art, landscape, and the urban fabric. Emphasis will be placed on structures in Minnesota and the upper Midwest. This course fulfills the Fine Arts requirement in the core curriculum.

### ARTH 284 Arts of the African Diaspora (4 credits)

This course surveys the diverse arts produced by people of African descent in the Diaspora (Suriname, Brazil, Cuba, Haiti, the United States and England) from the Colonial period to the present. An examination of selected West and Central African cultural practices and art forms will serve as a basis for an understanding of creative transformations in the African Diaspora. Important issues to be addressed include art and resistance, survivals and transformations, and the construction of race and diasporic identity. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

### ARTH 285 Arts of Africa (4 credits)

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 sub-Saharan Africa, drawing on recent breakthroughs in archaeology, anthropology and art history to explore the diversity and creativity of past and present African artists. This course will explore material culture in its original context and seek to understand the social roles that art plays in all aspects of life, from religion and politics to personal relationships. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

### ARTH 286 Women's Art in Cross-cultural Perspective (4 credits)

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.

### ARTH 289 Asian Art (4 credits)

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.

### ARTH 291 Topics in Non-Western Art (4 credits)

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.

**ARTH 295, 296 Topics (2 credits)**

**ARTH 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

Topics listed under 297 fulfill the Fine Arts requirement in the core curriculum.

**ARTH 305 Greek Art and Archaeology (4 credits)**

A study 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.

**ARTH 310 Roman Art and Archaeology (4 credits)**

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.

**ARTH 321 The Art and Culture of Modern Mexico (1824-1940) (4 credits)**

This course examines the art and culture of Mexico from Independence through the Revolutionary and post-Revolutionary periods (c. 1824-1940). Painting, sculpture, architecture and popular arts are investigated in the context of broader political and intellectual movements during this period of tremendous societal change. The class begins with an overview of art history from the pre-Hispanic and Colonial periods. The core course content focuses on academic and popular arts following Mexico's independence; in this context we discuss the intense search for national identity, or *mexicanidad*, that marks the modern era. This class also explores the impact of the Mexican Revolution on the work of Diego Rivera, David Alfaro Siqueiros, José Clemente Orozco, Frida Kahlo and other artists of the period. Through critical readings of the biographies and autobiographies of Kahlo and Rivera alongside scholarly and popular texts, the course raises questions about the role of artist biography in our understanding of art works. In this course, Mexico is not seen in isolation; readings and discussions also investigate the work of Mexican-born artists in the United States and Europe as well as the ways in which outsiders conceived of and represented Mexico during the Revolutionary Period. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

**ARTH 329 Chinese Painting (4 credits)**

The goal of this course is to engage students in a comprehensive examination of the historical development of Chinese painting from the Paleolithic period to the 20th century. The issues to be addressed will include the stylistic development of figure and landscape painting; the major figures and the "monuments" of painting; the influence of format on Chinese painting; the classification of subject matter and favored themes of Chinese painters; the early emergence of art history in Chinese painting and its later effects; changes in the socio-political influences on painters and their work; and methodological differences between modern Chinese and Western art historians. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

**ARTH 330 Churches and Mosques in the First Millennium (4 credits)**

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.

**ARTH 335 Cathedrals, Monasteries, and Caliphates (4 credits)**

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 core requirement.

**ARTH 339 Western Costume's Design and Visual Representation in Context (4 credits)**

Clothing is not simply functional, but is also an expression of body ideals, class structure, gender, and historical development of technical and artistic change. This course looks at the materials, design, and use of textiles and garments from the early to the contemporary period in the West, with special stress on understanding the role of artistic representation and methodology in defining social status and standards of beauty. Attention will also be paid to the treatment of historic dress, both by authors of the period, and in popular culture. This course fulfills the Fine

## Art History

Arts requirement in the core curriculum.

### **ARTH 340 Southern Renaissance Art and Society (4 credits)**

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.

### **ARTH 345 Baroque and Rococo Art (4 credits)**

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.

### **ARTH 351 Romanticism to Impressionism (4 credits)**

This course will investigate the history of European painting and sculpture from 1800 to 1880. It will consider the major trends of Neoclassicism, Romanticism, Realism, and Impressionism. It will also address art's response to and role in a European society marked by colonialism, industrialization, and the rise of urban mass culture. This course fulfills the Fine Arts requirement in the core curriculum.

### **ARTH 352 Art in the United States (4 credits)**

This course will investigate the history of the visual arts (primarily painting and sculpture) in the United States from 1776 to 1960. Artists to be considered include colonial portraitists; Romantic landscape painters; Neoclassical sculptors; Realist, Luminist, and Impressionist painters; artists associated with New York Dada and the Harlem Renaissance; Precisionists, Regionalists and Social Realists; and Abstract Expressionists. Participants will consider artists' responses to key historical developments such as the founding of the nation, westward expansion, the Civil War, industrialization, and emergence as a superpower. Several issues will run throughout the course: What is the relationship between the art of Euro-Americans and that of Europe? and that of Native Americans? Is there something "American" about American art? How do the visual arts reinforce or challenge our sense of American history and identity? This course fulfills the Fine Arts requirement in the core curriculum.

### **ARTH 356 Modernism in European Art (4 credits)**

Modernist artists strove to find a visual language of expression appropriate to their time; yet many contemporaries found their works incomprehensible, as do many people today. An open-minded and historically informed investigation of modern art helps to make sense of it. This course will explore the history of European painting and sculpture from 1880 to 1940. It will consider the many movements that characterized modernism, such as Post-Impressionism, Symbolism, Fauvism, Cubism, Futurism, Expressionism, Dada, Surrealism, and Constructivism. Issues to be addressed include the rejection of tradition, the development of abstraction, the impact of World War I and its aftermath, the influence of science and technology on art, and the fate of modernism under Hitler's and Stalin's regimes. Particular attention will be paid to the theoretical underpinnings of modern art. This course fulfills the Fine Arts requirement in the core curriculum.

### **ARTH 361 Contemporary Art (4 credits)**

This course will investigate the history of the visual arts since 1960, from Pop Art and Minimalism through recent trends. Art from around the globe will be considered, but primary emphasis will be placed on art in the United States. In addition to surveying the most significant artists, works, and trends, participants will consider issues such as: the commodification of art; the dematerialization of the art object; art's role in sociopolitical discourse; definitions of postmodernism; the legitimating institutions that comprise the "artworld;" and the relationship of aesthetic or critical theory to artistic creation. This course fulfills the Fine Arts requirement in the core curriculum.

### **ARTH 450 Modern Scandinavian Art History (4 credits)**

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 austerity 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

### **ARTH 475, 476 Experiential Learning (2 credits)**

### **ARTH 477, 478 Experiential Learning (4 credits)**

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 “Curricula” section of this catalog.

Prerequisite: previous course or courses in art history

**ARTH 481 Senior Paper and Presentation (4 credits)**

During the senior year, art history majors are expected to write a major research paper with an abstract and to describe the results of their research in an oral presentation to a departmental symposium to be held prior to graduation. The purpose of this paper and presentation is to allow the student to demonstrate competency in art historical methodology and to gain experience from presenting the results to a group of peers and faculty. The topic and instructor must be chosen in consultation with the department chair during the semester prior to writing the senior paper.

Prerequisite: ARTH 110 and 211 and permission of department chair

**ARTH 483, 484 Seminar (2 credits)**

**ARTH 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**ARTH 487, 488 Topics (2 credits)**

**ARTH 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**ARTH 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**ARTH 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

Prerequisite: permission of the instructor or supervisor and previous work in art history

**Biochemistry**

College of Arts and Sciences, Interdisciplinary Program  
O’Shaughnessy Science Hall (OSS) 201, (651) 962-5599

Verhoeven (BIOL) committee chair; Advisory committee: Marsh (CHEM), Ditty (BIOL), Ippoliti (CHEM)

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, chemistry, and mathematics coursework in their freshman year. The Biochemistry Committee will coordinate advising. 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.

All graduating seniors are required to take achievement exams in both biology and chemistry for purposes of assessment of the major and College accreditation. Students choosing this major may not take a second major or a minor in either biology or chemistry.

**Graduation with Honors in Biochemistry**

Students graduating with a B.S. in biochemistry may also qualify for honors. Students interested in this designation must consult with the chair of the Biochemistry Committee one year or more prior to graduation.

Requirements include:

- An overall minimum cumulative GPA of 3.25.
- A cumulative GPA of 3.50 in the courses in both biology and chemistry combined.
- Completion of four credits in research. This may consist of a 4-credit course or two 2-credit courses in either biology or chemistry.
- Preparation of a written thesis in the form of the primary literature.
- Successful defense of the thesis before an examining panel which includes the thesis director, a representative from each of the departments of biology and chemistry, a faculty member from outside the departments of chemistry and biology and a faculty member from another institution. The panel members should be selected in consultation with the thesis adviser.
- Presentation of the research at an off-campus meeting.

*Note:* All requirements should be completed by April 20 for a spring graduation, or by November 15 for a fall graduation.

## Biochemistry – Biology

### Major in Biochemistry (B.S.)

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics, Evolution, and Ecology (4 credits)

BIOL 204 Cellular and Molecular Biology (4 credits)

*Plus:*

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

*or*

CHEM 115 Accelerated General Chemistry (4 credits)

*Plus:*

CHEM 201 Organic Chemistry I (4 credits)

CHEM 202 Organic Chemistry II (4 credits)

CHEM 440 Biochemistry I (4 credits)

CHEM 442 Biochemistry II (4 credits)

*Plus four credits from the following:*

CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)

CHEM 332 Quantum Chemistry and Molecular Spectroscopy (4 credits)

*Plus:*

Twelve additional credits numbered BIOL 295 or higher.

*Note:* Four credits must be at the BIOL 400-level, excluding Research. Four credits may be in Research at the BIOL 300-level.

Four additional credits in CHEM, selected in consultation with the adviser.

*Note:* CHEM 300 is strongly recommended for this elective.

*Plus:*

BCHM 301-303 Biochemistry Seminar Series (0-2 credits)

#### Allied requirements

MATH 113 Calculus I (4 credits) (or equivalent)

MATH 114 Calculus II (4 credits)

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

#### BCHM 301-303 Biochemistry Seminar Series (0-2 credits)

This sequence of courses is begun the first semester of the junior year and progresses for a total of three semesters. The first (BCHM 301) course is two credits and is graded on the usual letter grade scale. The second two courses (BCHM 302 and 303) are no credit and are graded on a pass-fail basis (S/R). The first course (BCHM 301) is an in-depth investigation of selected current topics in biochemistry designed to develop critical scientific reading, writing, and presenting skills while exploring biochemical primary literature. The subject matter will vary from year to year and will be available on the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>. The class will meet for one and a half hours once a week with evaluation based upon in-class discussion and quality of written and oral assignments. The second and third courses (BCHM 302 and 303) are a two-semester seminar requirement whereby students must attend Biology and Chemistry departmental seminars. Required of all biochemistry majors.

Prerequisites: CHEM 202, completion or current enrollment in BIOL 204, and junior standing

## Biology (BIOL)

College of Arts and Sciences, Department of Biology

Owens Science Hall (OWS) 352, (651) 962-5206

Lewis (chair), Carlson, Chaplin, Cruise, Ditty, Emms, Hartung, Illig, Kay, Lewno, Manske, Martin, Martinovic, Shroeder, Sherer, Trost, Verhoeven, Wilson, Zimmer

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, bioinformatics and genomic research, biotechnology, biomedical research, conservation biology, environmental science, forestry and wildlife management, medicine, dentistry, and other health professions, and veterinary medicine.

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.

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 (BIOL 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 (BIOL 301-399) build on this foundation and offer a broad range of topics at an intermediate level, including research (BIOL 391-392). Some second-tier courses may be taken by students prior to completion of BIOL 204 and/or 206.

All third-tier courses (BIOL 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 (BIOL 491-494) are available to students wishing to pursue in-depth studies in laboratory and/or field situations. Individual Study courses (BIOL 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 (BIOL 483-486) or Topics (BIOL 487-490) courses are available from time to time. Courses numbered between BIOL 483-498 may, with approval of the department chair, be used to fulfill the 400-level requirement for the major.

Courses numbered BIOL 101-199 are intended for students of majors other than those in the sciences 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. For biology courses numbered higher than BIOL 206, no more than 12 transfer credits can be counted towards the major. Of these 12, no more than 8 credits can be from academic institutions within the U.S.A, and no more than 8 credits can be from study abroad courses registered through St. Thomas.

Non-majors receiving a 4 or 5 on the Biology Advanced Placement Exam or 5-7 on the International Baccalaureate exam will receive college credit for BIOL 101 (fulfills a natural science with laboratory course requirement). Students intending to major in biology who score 4-5 on the AP exam or 5-7 on the IB exam will receive credit for the BIOL 201 lecture section (3 credits); such students will normally be required to take the BIOL 201 lab (1 credit) at St. Thomas.

### Extracurricular Expectations

All students are expected to participate in departmental assessment activities. In particular, graduating seniors are expected to take the Major Field Test in Biology and complete the departmental Senior Survey in the spring of their final year. All students are also strongly encouraged to attend the Biology Seminar Program on a regular basis.

### 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 Societies

*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.

*Nu Rho Psi*, the national Neuroscience Honor Society encourages professional interest and excellence in scholarship, particularly in neuroscience. The St. Thomas chapter was established in 2007. Students who have a 3.2 or higher overall grade point average and a 3.5 or higher grade point average in PSYC 204, PSYC 322 and PSYC 401 are eligible to apply. For more information, go to [www.stthomas.edu/psychology/studentresources/nurhopsi](http://www.stthomas.edu/psychology/studentresources/nurhopsi).

### Biology Honors Program

## Biology

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. Students interested in this program should begin planning early and in consultation with their academic advisor.

### Interdisciplinary Programs

The Department of Biology participates in three interdisciplinary degree programs, each of which leads to a Bachelor of Science degree: biochemistry (with Chemistry); environmental science (with Chemistry and Geology); and neuroscience (with Psychology). These programs are described elsewhere in the catalog. Students interested in concentrating in biology as part of the 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 advising committee. See Pre-Professional Programs in this catalog for coursework suggestions, internships, and other information.

### Life Science Education

For information on the teaching licensure program in Life Science, see the Education section of this catalog. Students interested in specializing in biology at the elementary school level should consider the integrated major in Science and Mathematics for Elementary Education (SMEE), also described in the Education section.

### Major in Biology (B.A.)

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics, Evolution, and Ecology (4 credits)

BIOL 204 Cellular and Molecular Biology (4 credits)

BIOL 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:*

BIOL 210 Introduction to Laboratory Research (2 credits)

BIOL 211 Introduction to Field Research (4 credits)

BIOL 243 Individual Study (2 or 4 credits)\*

BIOL 269 Research (2 or 4 credits)\*

BIOL 292 Topics without laboratory (4 credits)

BIOL 296 Topics (4 credits)

BIOL 298 Topics (4 credits)

BIOL 302 Animal Diversity (4 credits)

BIOL 315 Biology of Plants (4 credits)

BIOL 330 Animal Behavior (4 credits)

BIOL 333 Ecology (4 credits)

BIOL 335 Conservation Biology (4 credits)

BIOL 349 Comparative Anatomy and Physiology: Locomotion and Systems Regulation (4 credits)

BIOL 350 Comparative Anatomy and Physiology: Energy Acquisition and Processing (4 credits)

BIOL 353 Microscopic Anatomy (4 credits)

BIOL 354 Neurobiology (4 credits)

BIOL 356 Microbiology (4 credits)

BIOL 360 Genetics (4 credits)

BIOL 363 Immunology (4 credits)

BIOL 365 Developmental Biology (4 credits)

BIOL 371 Cell Biology (4 credits)

BIOL 389 Research (2 or 4 credits)\*

BIOL 396 Topics (2 credits)

BIOL 398 Topics (4 credits)

BIOL 415 Plant Physiology and Adaptations to Stress (4 credits)

BIOL 430 Evolutionary Ecology (4 credits)

BIOL 435 Aquatic Biology (4 credits)

BIOL 462 Molecular Biology (4 credits)

BIOL 464 Bioinformatics (4 credits)

BIOL 467 Biology of Emerging Infectious Diseases (4 credits)

BIOL 471 Evolution (4 credits)

BIOL 476 Experiential Learning (2 credits)

BIOL 478 Experiential Learning (4 credits)

BIOL 484 Seminar (2 credits)

BIOL 486 Seminar (4 credits)

BIOL 488 Topics (2 credits)  
 BIOL 490 Topics (4 credits)  
 BIOL 491 Research (2 or 4 credits)\*  
 BIOL 495 Individual Study (2 or 4 credits)\*  
 CHEM 440 Biochemistry I (4 credits)\*\*

\*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 (4 credits)  
 CHEM 112 General Chemistry II (4 credits)  
 CHEM 201 Organic Chemistry I (4 credits)

*Plus four credits from the following:*

STAT 220 Statistics I (4 credits)  
 MATH 303 Statistics for the Applied Sciences (4 credits)

*Note:* The normal expectation is that students will complete the above allied requirements by the end of the sophomore year.

*Plus at least two of the following selected in consultation with the departmental adviser:*

CHEM 202 Organic Chemistry II (4 credits)  
 MATH 109 Calculus with Review II (4 credits) *or* MATH 113 Calculus I (4 credits)  
 PHYS 109 General Physics I (4 credits) *or* PHYS 111 Introduction to Classical Physics I (4 credits)

*Note:* Alternative course combinations to satisfy elective allied requirements may be proposed for approval by the department chair.

#### Major in Biology (B.S.)

BIOL 201 Diversity and Adaptation (4 credits)  
 BIOL 202 Genetics, Evolution, and Ecology (4 credits)  
 BIOL 204 Cellular and Molecular Biology (4 credits)  
 BIOL 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 six credits from (at least four of which must be in courses numbered 400-498):*

BIOL 210 Introduction to Laboratory Research (2 credits)  
 BIOL 211 Introduction to Field Research (4 credits)  
 BIOL 243 Individual Study (2 or 4 credits)\*  
 BIOL 269 Research (2 or 4 credits)\*  
 BIOL 292 Topics without laboratory (4 credits)  
 BIOL 296 Topics (4 credits)  
 BIOL 298 Topics (4 credits)  
 BIOL 302 Animal Diversity (4 credits)  
 BIOL 315 Biology of Plants (4 credits)  
 BIOL 330 Animal Behavior (4 credits)  
 BIOL 333 Ecology (4 credits)  
 BIOL 335 Conservation Biology (4 credits)  
 BIOL 349 Comparative Anatomy and Physiology: Locomotion and Systems Regulation (4 credits)  
 BIOL 350 Comparative Anatomy and Physiology: Energy Acquisition and Processing (4 credits)  
 BIOL 353 Microscopic Anatomy (4 credits)  
 BIOL 354 Neurobiology (4 credits)  
 BIOL 356 Microbiology (4 credits)  
 BIOL 360 Genetics (4 credits)  
 BIOL 363 Immunology (4 credits)  
 BIOL 365 Developmental Biology (4 credits)  
 BIOL 371 Cell Biology (4 credits)  
 BIOL 389 Research (2 or 4 credits)\*  
 BIOL 396 Topics (2 credits)  
 BIOL 398 Topics (4 credits)  
 BIOL 415 Plant Physiology and Adaptations to Stress (4 credits)  
 BIOL 430 Evolutionary Ecology (4 credits)  
 BIOL 435 Aquatic Biology (4 credits)  
 BIOL 462 Molecular Biology (4 credits)  
 BIOL 464 Bioinformatics (4 credits)  
 BIOL 467 Biology of Emerging Infectious Diseases (4 credits)  
 BIOL 471 Evolution (4 credits)



## Biology

BIOL 476 Experiential Learning (2 credits)  
BIOL 478 Experiential Learning (4 credits)  
BIOL 484 Seminar (2 credits)  
BIOL 486 Seminar (4 credits)  
BIOL 488 Topics (2 credits)  
BIOL 490 Topics (4 credits)  
BIOL 491 Research (2 or 4 credits)\*  
BIOL 495 Individual Study (2 or 4 credits)\*  
CHEM 440 Biochemistry I (4 credits)\*\*

\*A maximum of eight credits in Research and/or Individual Study will be credited towards the requirements of the major.

\*\*CHEM 440 may be counted towards the major as a 300-level elective course.

### Allied requirements

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)  
*or* CHEM 115 Accelerated General Chemistry (4 credits)  
CHEM 201 Organic Chemistry I (4 credits)  
MATH 109 Calculus with Review II (4 credits) *or* MATH 113 Calculus I (4 credits)  
STAT 220 Statistics I (4 credits) *or* MATH 303 Statistics for the Applied Sciences (4 credits)

Note: The normal expectation is that students will complete the above allied requirements by the end of the sophomore year.

PHYS 109 General Physics I (4 credits) *or* PHYS 111 Introduction to Classical Physics I (4 credits)

### Other requirements

*Eight credits from the following*, selected in consultation with the departmental adviser. Alternative course combinations to satisfy this requirement may be proposed for approval by the department chair:

Any Biology courses numbered above 206  
CHEM 202 Organic Chemistry II (4 credits)  
CHEM 300 Quantitative Analysis (4 credits)  
CISC 230 Object-Oriented Design and Programming (4 credits)  
CISC 342 Computer Applications in Experimental Sciences (4 credits)  
ENGR 350 Introduction to Electronics (4 credits)  
GEOL 115 Environmental Geology (4 credits)  
GEOL 162 The Earth's Record of Climate (4 credits)  
GEOL 130 Earth History (4 credits)  
GEOG 223 Remote Sensing (4 credits)  
HLTH 400 Epidemiology (4 credits)  
IDSC 312 Gender and Science (4 credits)  
STAT 320 Statistics II (4 credits)  
MATH 114 Calculus II (4 credits)  
MATH 315 Applied Mathematics and Modeling I (4 credits)  
MATH 316 Applied Mathematics and Modeling II (4 credits)  
PHYS 110 General Physics II (4 credits) *or* PHYS 112 Introduction to Classical Physics II (4 credits)  
PSYC 206 The Brain and Human Behavior (4 credits)  
PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)  
PSYC 401 Physiological Psychology (4 credits)

### **Major in Biochemistry (B.S.)**

*See Biochemistry*

### **Major in Environmental Science (B.S.)**

*See Environmental Science*

### **Major in Neuroscience (B.S.)**

*See Neuroscience*

### **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 Education*

### **Minor in Biology**

BIOL 201 Diversity and Adaptation (4 credits)  
BIOL 202 Genetics, Evolution, and Ecology (4 credits)

*Plus:*

Twelve additional credits in biology courses numbered 200 or above, selected in consultation with the department chair.

Note: CHEM 440 Biochemistry I cannot be counted towards the Biology minor.

**BIOL 101 General Biology (4 credits)**

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. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Not open to biology majors, pre-professional students, or students who have completed BIOL 105 or BIOL 106.

**BIOL 102 Conservation Biology (4 credits)**

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. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning.

**BIOL 105 Human Biology (4 credits)**

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 university's pre-health professions advising committee. This course is designed to meet the needs of social work and psychology majors. Two laboratory hours per week. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Not open to biology majors, or students who have completed BIOL 101 or BIOL 106.

**BIOL 106 Women, Medicine and Biology (4 credits)**

This course addresses issues of biology from the perspective of women. The focus of the course will be to learn basic principles of biology in areas such as anatomy, physiology, genetics, cell biology, and microbiology in the context of issues relevant to women and women's health. Two laboratory hours per week. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Not open to Biology majors or students who have completed BIOL 101 or BIOL 105.

**BIOL 195, 196 Topics (2 credits)**

**BIOL 197, 198 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Not open to biology majors, pre-professional students, or students who have completed other BIOL course at the 100-level.

**BIOL 200 First Year Seminar in Biology (1 credit)**

This seminar is intended to provide an introduction to the Biology Department for incoming students. Through various topics, students will explore what it means to be a biologist. How do scientists approach problems? How do students of biology understand and critically analyze science as it is portrayed in the media and discussed in other courses? How can students best take advantage of their four years as a biology student? Faculty teaching the seminar will serve as academic advisers to the students in the seminar. Students will have opportunities to discuss course and curricular questions. Seminar topics will vary depending on the instructor. One hour per week. Pass/Fail grading.

**BIOL 201 Diversity and Adaptation (4 credits)**

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. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

Prerequisite: Concurrent registration in CHEM 111, CHEM 115, or CHEM 101 strongly recommended.

**BIOL 202 Genetics, Evolution, and Ecology (4 credits)**

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, macroevolution and phylogenetics, 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. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

Prerequisite: BIOL 201; concurrent registration in CHEM 112 strongly recommended.

**BIOL 204 Cellular and Molecular Biology (4 credits)**

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,

## Biology

metabolism, gene expression, and cellular differentiation. Laboratory work emphasizes experimental methods and data-based reasoning. Four laboratory hours per week.

Prerequisites: A minimum grade of C- in BIOL 202; CHEM 112 or CHEM 115, and concurrent registration in CHEM 201

### BIOL 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 teaching each section.

Prerequisites: BIOL 201 and 202; BIOL 204 and CHEM 101, CHEM 111, or CHEM 115 strongly recommended

### BIOL 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. First-year or sophomore status or permission of instructor

### BIOL 211 Introduction to Field Research (4 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, the Bahamas, 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.

### BIOL 243 Individual Study (2 or 4 credits)

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 at least one semester before the course is to be taken. Individual Study proposal forms must be completed and approved by the faculty member, the department chair, and the Dean of the College prior to registration.

Prerequisite: Permission of the instructor and the department chair

### BIOL 269 Research (2 or 4 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: Permission of the instructor and the department chair

### BIOL 292 Topics without laboratory (4 credits)

Same as BIOL 295-298 except that these courses do not have a laboratory component.

Prerequisite: Permission of the instructor

### BIOL 296 Topics (2 credits)

### BIOL 298 Topics (4 credits)

The subject matter of these courses 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. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

Prerequisite: Permission of the instructor

### BIOL 302 Animal Diversity (4 credits)

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. Students have access to marine and freshwater aquaria and to natural habitats for class study and individual projects. Four laboratory hours per week.

Prerequisite: BIOL 202 and CHEM 111 or CHEM 115

**BIOL 315 Biology of Plants (4 credits)**

This course explores the biology of plants from several perspectives. Major topics include the evolution and diversity of plants, plant structure, plant ecology, and an introduction to local flora. Special topics may include such areas as the history of agriculture and the use of medicinal plants. Four laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 202; completion of or concurrent registration in CHEM 101, CHEM 111, or CHEM 115 or permission of instructor

**BIOL 330 Animal Behavior (4 credits)**

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 analysis 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. Four laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 202; STAT 220 or MATH 303 recommended

**BIOL 333 Ecology (4 credits)**

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.

Prerequisite: A minimum grade of C- in BIOL 202; STAT 220 or MATH 303 recommended

**BIOL 335 Conservation Biology (4 credits)**

Using approaches from ecology and evolutionary biology, this course examines processes affecting populations of rare and endangered species, as well as control of introduced or pest species. Ecosystem and community-level management projects are addressed in addition to projects directly focused on individual species. Topics include populations, genetic diversity within populations, the interaction between population ecology and population genetics, and biological control of pests. Laboratory work includes field and laboratory study of species with broad ecological implications for the ecosystems and biological communities of the Upper Midwest. Four laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 202

**BIOL 349 Comparative Anatomy and Physiology: Locomotion and Systems Regulation (4 credits)**

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: A minimum grade of C- in BIOL 204 or permission of instructor

**BIOL 350 Comparative Anatomy and Physiology: Energy Acquisition and Processing (4 credits)**

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: A minimum grade of C- in BIOL 204 or permission of instructor

**BIOL 353 Microscopic Anatomy (Vertebrate Histology) (4 credits)**

Microscopic structure and its relationship to physiological function among the basic tissue types and in selected organ systems. Focus includes levels of biological organization from subcellular to organismal, with emphasis on humans and other mammals. Special consideration is given to the organization and function of integrating systems, including glandular, vascular, and neural, and to the molecular structure of, and functional integration among, cellular junctions and transport mechanisms, cytoskeletal components, and extracellular matrices. Opportunities for participation in experimental or other investigative projects are available. Four laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 204

**BIOL 354 Neurobiology (4 credits)**

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. Four laboratory hours per week.

Prerequisites: A minimum grade of C- in BIOL 204; completion or concurrent enrollment in CHEM 201, or permission of instructor

**BIOL 356 Microbiology (4 credits)**

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.

## Biology

Prerequisite: A minimum grade of C- in BIOL 204; completion of or concurrent registration in CHEM 201

### BIOL 360 Genetics (4 credits)

Detailed consideration of specific topics in transmission, molecular, and population genetics. Eukaryotic and prokaryotic systems discussed. Genetic reasoning and analysis will be emphasized. Four laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 204; CHEM 201

### BIOL 363 Immunology (4 credits)

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. Four laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 204

### BIOL 365 Developmental Biology (4 credits)

An examination of current concepts regarding the mechanisms, both genetic and epigenetic, underlying embryogenesis and metamorphosis in a wide variety of animal model systems and the experimental basis for those concepts. Laboratory work may include an experimental investigation culminating in a written report in scientific format based on that investigation and grounded in relevant primary literature. Four laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 204; CHEM 201.

### BIOL 371 Cell Biology (4 credits)

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: A minimum grade of C- in BIOL 204; CHEM 201

### BIOL 389 Research (2 or 4 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: BIOL 202 and permission of the instructor and the department chair

### BIOL 396 Topics (2 credits)

### BIOL 398 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses.

Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### BIOL 415 Plant Physiology and Adaptations to Stress (4 credits)

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.

Prerequisite: A minimum grade of C- in BIOL 204; any 300-level BIOL course

### BIOL 430 Evolutionary Ecology (4 credits)

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: A minimum grade of C- in BIOL 330 or 333, or in any two 300-level biology courses; STAT 220 or MATH 303 strongly recommended

### BIOL 435 Aquatic Biology (4 credits)

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 analysis. Both individual and class research projects focus on aquatic systems. Four laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 330 or 333, or in any two 300-level biology courses; STAT 220 or MATH 303 strongly recommended

### BIOL 462 Molecular Biology (4 credits)

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: A minimum grade of C- in BIOL 356, 360, or 371

### BIOL 464 Bioinformatics (4 credits)

Bioinformatics is an emerging field in the sciences that arise from the interaction of biology, biochemistry and computational science. The goal of bioinformatics is to find ways to sort, compare, and decode nucleotide and protein

sequences to identify underlying similarities and patterns that are biologically relevant. This knowledge of bioinformatics along with the advent of genome sequencing has changed how scientists investigate problems; instead of looking at how one gene or protein is affected by a particular problem, we now look at how the entire genome (genomics) or the entire organism (proteomics) responds. This course will introduce you to the tools that are available for these types of analysis and how the information gained from these tools is used to generate hypotheses in all areas of biological science. Four laboratory hours per week.

Prerequisite: Any two 300-level biology courses (one of which can be CHEM 400)

#### **BIOL 467 Biology of Emerging Infectious Diseases (4 credits)**

This course focuses on emerging infectious diseases from many different perspectives with particular attention to the ways in which human behavior is altering the ecology of infectious disease transmission, thereby promoting emergence of these diseases as a major global public health threat. The course will be a seminar format designed around case studies, discussion, guest speakers, and student projects. Laboratory will consist of an independent research project done in collaboration with the professor and peers. Four laboratory hours per week.

Prerequisite: Two Biology courses at the 300-level or above

#### **BIOL 471 Evolution (4 credits)**

An advanced exploration of the major concepts in modern evolutionary biology, including adaptation and natural selection, evolutionary genetics and microevolution, macroevolution, and molecular evolution. Applications of evolutionary thinking to such topics as medicine, aging, life history patterns, and behavior will be major foci. Four laboratory/recitation hours per week.

Prerequisites: A minimum grade of C- in BIOL 204; any 300-level BIOL course

#### **BIOL 476 Experiential Learning (2 credits)**

#### **BIOL 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog. These courses may, with approval of the department chair, be used to fulfill the 400-level requirement for the major.

#### **BIOL 484 Seminar (2 credits)**

#### **BIOL 486 Seminar (4 credits)**

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.

Prerequisite: Upper-class standing and permission of the instructor

#### **BIOL 488 Topics (2 credits)**

#### **BIOL 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

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.

Prerequisite: Permission of the instructor

#### **BIOL 491 Research (2 or 4 credits)**

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 or poster presentation of the work at a research symposium required. Students hoping to take a Research course for credit must make arrangements with the faculty supervisor at least one semester before the course is to be taken. Research proposal 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.

Prerequisite: Upper-class standing and permission of the instructor and the department chair

#### **BIOL 495 Individual Study (2 or 4 credits)**

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 at least one semester before the course is to be taken. Individual Study proposal 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.

Prerequisite: Permission of the instructor and the department chair

## Business Administration

### Business Administration - Opus College of Business

Opus College of Business  
McNeely Hall (MCH) 128, (651) 962-5544  
Fisher, Assistant Dean, Undergraduate Programs

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 as well as business ethics. These areas include accounting, entrepreneurship, finance, legal studies in business, 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 or electrical engineering. See the Department of Engineering section of this catalog for the curriculum or contact the Opus College 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 Opus College of Business combine excellent academic credentials with a wealth of practical experience in industry.

It is expected that students majoring in business administration will take their business courses at St. Thomas. Students must have prior approval before registering for a business course at another school. All students who major in business administration must take a minimum of 24 credits in Opus College of Business 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. Credits earned at ACTC colleges and through affiliated programs abroad do not count toward this residency requirement. All students majoring in the business communication concentration must take a minimum of 8 credits from the Department of Communication and Journalism at the University of St. Thomas. Students majoring in business administration must complete a minimum of 76 credits that are outside the Opus College of Business.

All Opus College of Business courses taken by business administration majors and minors must be taken for a letter grade. These courses may not be taken on a pass/fail basis.

Credits for Opus College of Business courses taken more than eight years ago (or more than five years ago for credits in a major concentration) will be accepted but may not fulfill current requirements.

#### **Major in Business Administration (B.A.)**

One of the business concentrations of:

- Accounting – see description below under Department of Accounting
- Business Communication – see description below under Department of Management
- Entrepreneurship – see description below under Department of Entrepreneurship
- Finance – see description below under Department of Finance
- Family Business - see description under Department of Entrepreneurship
- General Business
- Human Resource Management – see description below under Department of Management
- International Business
- Leadership and Management – see description below under Department of Management
- Legal Studies in Business – see description below under Department of Ethics and Business Law
- Marketing – see description below under Department of Marketing
- Operations Management – see description under Department of Operations and Supply Chain Management
- Real Estate Studies (B.S.) – see description below under Department of Finance

#### **Minor in Business Administration**

ACCT 210 Introduction to Financial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
MGMT 305 Management & Organizational Behavior (4 credits)

Plus four credits from the following:

ECON 251 Macroeconomics (4 credits)  
ECON 252 Microeconomics (4 credits)

Plus eight credits from the following:

BLAW 301 Legal Environment of Business (4 credits)

or

## Business Administration-- General Business Management

BLAW 302 Business Law for Accounting (4 credits)

or

BLAW 303 International Business Law (4 credits)

ENTR 300 Entrepreneurship for Non-Majors (4 credits)

FINC 300 Finance for Non-Business Majors (4 credits)

MKTG 300 Principles of Marketing (4 credits)

*Note:* Students must complete a minimum of 16 credits in Business Administration at St. Thomas. Coursework transferred to St. Thomas must be equivalent to St. Thomas coursework. All prerequisites for courses selected for the minor must be satisfied.

### **Concentration in General Business Management**

The general business management program consists of the core courses that all students majoring in business at the University of St. Thomas are required to take, regardless of their specialization. This program contains courses that will give the student an understanding of business fundamentals without emphasizing a particular area, such as accounting or marketing. With this concentration, the student will be described as a generalist, with a broad business base. Because fewer courses are required in this concentration, there is more room for elective courses. These elective courses may be taken in one department, giving a strong secondary academic concentration or a minor, or they can be related courses from different departments (*e.g.*, management marketing, finance). *Note:* a minimum of 76 credits outside the Opus College of Business are required for graduation.

Job titles of recent graduates with a general business concentration include business analyst, business consultant, account executive, service consultant, commodity manager, account analyst, customer service representative, merchandise coordinator, and marketing assistant.

#### **Business Core Courses**

ACCT 210 Introduction to Financial Accounting (4 credits)

ACCT 215 Managerial Accounting (4 credits)

BETH 301 Business Ethics (4 credits)

BUSN 200 Business Learning Through Service (0 credit)

OPMT 310 Operations Management (4 credits)

FINC 321 Financial Management (4 credits)

MGMT 305 Management & Organizational Behavior (4 credits)

MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)

BLAW 302 Business Law for Accounting (4 credits)

BLAW 303 International Business Law (4 credits)

#### **Concentration course**

MGMT 480 Strategic Management (4 credits)

#### **Allied requirements**

ECON 251 Principles of Macroeconomics (4 credits)

ECON 252 Principles of Microeconomics (4 credits)

STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)

MATH 109 Calculus with Review II (4 credits)

MATH 111 Calculus for Business and Social Science (4 credits)

MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)

COJO 105 Communication in the Workplace (4 credits)

COJO 370 Intercultural Communication (4 credits)

ENGL 205 or above

### **Concentration in International Business**

International business is an interdisciplinary major concentration dedicated to gaining an understanding of how to conduct business in foreign countries. To gain such an understanding requires study in courses taken in disciplines 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 sec-



## Business Administration- Accounting

tor is developed.

Of particular importance to this concentration is an understanding of another country and its culture. So, international business students must study abroad for at least one semester.

Specific courses taken in a foreign university may substitute for St. Thomas requirements. See undergraduate business program advisers to discuss those possibilities.

### Business Core Courses

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BLAW 303 International Business Law (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

### Concentration Courses

FINC 450 International Finance (4 credits) *or* MKTG 330 International Marketing (4 credits)  
MGMT 430 International Management (4 credits)

### *Plus:*

Two courses (minimum of six credits) in transnational business courses taken abroad with pre-approval of the student's business faculty adviser. The course content must address transnational business issues in accounting, finance, management, marketing, or law. (Three of the following core courses must be completed before taking IBUS courses: ACCT 210, BLAW 303, OPMT 310, FINC 321, MGMT 305, MKTG 300.) These courses will transfer to St. Thomas as two of the following:

IBUS 450 Transnational Business Issues in Management, Marketing, or Business Law (4 credits)  
IBUS 460 Transnational Business Issues in Finance or Accounting (4 credits)  
IBUS 470 Transnational Issues in International Business (4 credits)

### Allied requirements

COJO 370 Intercultural Communication (4 credits)  
ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

### *Plus eight credits from the following:*

ECON 346 Country and Area Studies in Economics (4 credits)  
ECON 348 International Economics (4 credits)  
ECON 349 Comparative Economic Systems (4 credits)  
GEOG 113 World Geography (4 credits)  
POLS 104 American Government in Comparative Perspective (4 credits)  
POLS 225 Introduction to World Politics (4 credits)  
POLS 321 Comparative Foreign Policy (4 credits)  
Foreign language at the 212 level or above

International or cross-cultural course(s) with prior approval of business faculty adviser

## **Accounting (ACCT)**

Opus College of Business

Department of Accounting

Saly (chair), Anctil, Asdemir, Blazovich, Chui, Coglitore, Davis, Felton, Gelardi, Grimm, Lunawar, Matson, Pitre, Polejewski, J. Raffield, Sathe, Shapiro, Yu

The University of St. Thomas accounting program meets the current education requirements set by the Minnesota Board of Accountancy to take the Certified Public Accountant (CPA) Examination, and for CPA licensure, in Minnesota. CPA licensure in Minnesota requires the applicant to have completed 150 semester hours of college or university education, passed the CPA Examination, and completed relevant work experience. (Most other states have similar requirements.) The University of St. Thomas offers alternatives by which students can meet the 150-hour requirement, including master's degrees (Master of Science in accountancy or Master of Business Administration) and

baccalaureate coursework. Questions should be directed to the chair of the Department of Accounting or to a department faculty member.

**Concentration in Accounting****Business Core Courses**

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management and Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

**Concentration Courses**

ACCT 311 Intermediate Accounting I (4 credits)  
ACCT 312 Intermediate Accounting II (4 credits)  
ACCT 314 Tax Accounting (4 credits)  
ACCT 316 Auditing (4 credits)  
ACCT 317 Cost Accounting (4 credits)  
ACCT 410 Advanced Accounting (4 credits)

**Allied requirements**

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
CISC 200 Introduction to Computer Technology and Business Applications (4 credits)  
CISC 419 Accounting Information Systems (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

**Entrepreneurship (ENTR)**

Opus College of Business  
Department of Entrepreneurship  
Spriggs (chair), Deeds, Dunham, Ebben, Johnson, McVea, Sorenson

The study of entrepreneurship prepares students for a variety of career and life experiences. Being an entrepreneur may mean starting your own business, or it may mean working in an existing business. The key is you learn to think like an entrepreneur. You will learn to identify and analyze new opportunities, to think creatively, and to be action oriented in order to seize opportunities that create real value. These skills are important in all types of organizations, from small start-ups to large corporate settings.

Students completing a concentration in entrepreneurship will have the skills to start a business venture, to contribute to an existing company, and to be business leaders in their local communities.

**Concentration in Entrepreneurship****Business Core Courses**

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)  
BLAW 304 Real Estate Law (4 credits)

## Business Administration- Family Business

### Concentration Courses

ENTR 200 Foundations in Entrepreneurship (4 credits)  
ENTR 450 Entrepreneurship: Management and Strategy (4 credits)

*Plus twelve credits from the following:*

ENTR 348 Franchising Management (4 credits)  
ENTR 349 Family Business Management (4 credits)  
ENTR 350 Entrepreneurial Research: Developing New Market Space (4 credits)  
ENTR 360 Creativity and Change (4 credits)  
ENTR 370 Entrepreneurial Financial Resource Management (4 credits)  
ENTR 380 Entrepreneurship in Practice (4 credits)

*One of the following may be substituted for ONE of the courses listed above:*

REAL 200 Real Estate Principles (4 credits)  
GEOG 330 Geography for Business and Planning (4 credits)  
THEO 422 Christian Faith and the Management Profession (only when team-taught by an ENTR faculty member)  
(4 credits)

### Allied requirements

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
COJO 370 Intercultural Communication (4 credits)  
ENGL 205 or above

### Concentration in Family Business

Family business is the most common type of business organization in the world. The concentration in family business prepare students to govern and manage family firms. The overlap of family, owner, and business systems provide unique challenges for families in business. Students learn to analyze those three systems and to work with family members in managing and governing the business. They are provided the business knowledge necessary to understand business performance and to make strategic decisions. Students are provided conceptual tools and approaches for family planning and organizing. Because the family business courses focus on applying knowledge in family firms, parents or other significant family members are encouraged to audit those classes or to actively participate by reading class materials and helping students with many course assignments. The courses are designed to help families begin to implement practices that they deem useful to their businesses.

### Business Core Courses

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 management of Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)  
BLAW 304 Real Estate Law (4 credits)

### Concentration Courses

ENTR 349 Family Business Management (4 credits)  
 ENTR 449 Family Business Strategy (4 credits)

*Plus eight credits selected from the following courses. They should be selected in consultation with your advisor and your family to meet the unique needs of your family business.*

ACCT 314 Tax Accounting (4 credits)  
 ENTR 200 Foundations of Entrepreneurship (4 credits)  
 ENTR 360 Creativity and Change (4 credits)  
 ENTR 370 Entrepreneurial Financial Resource Management (4 credits)  
 FINC 324 Corporate Finance (4 credits)  
 FINC 325 Investments (4 credits)  
 REAL 200 Real Estate Principles (4 credits)  
 REAL 360 Real Estate Property Management (4 credits)  
 MGMT 382 Leadership (4 credits)  
 MGMT 362 Attracting, Acquiring and Rewarding Talent (4 credits)  
 MKTG 360 Retailing (4 credits)  
 MKTG 390 Marketing Strategy (4 credits)

#### **Allied requirements**

ECON 251 Principles of Macroeconomics (4 credits)  
 ECON 252 Principles of Microeconomics (4 credits)  
 STAT 220 Statistics I (4 credits)

Note: STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
 MATH 109 Calculus with Review II (4 credits)  
 MATH 111 Calculus for Business and Social Science (4 credits)  
 MATH 113 Calculus I (4 credits)

Note: The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

COJO 472 Family Communication (4 credits)  
 PSYC 288 Psychology of Marriage and the Family (4 credits)  
 SOCI 321 Marriage and the Family (4 credits)

*Plus four credits not previously taken to meet concentration requirements from the following:*

COJO 220 Interpersonal Communication (4 credits)  
 COJO 274 Small Group Communication (4 credits)  
 COJO 320 Organizational Communication (4 credits)  
 COJO 472 Family Communication (4 credits)  
 PSYC 288 Psychology of Marriage and the Family (4 credits)  
 SOCI 321 Marriage and the Family (4 credits)

## **Ethics and Business Law (BLAW)**

Opus College of Business

Department of Ethics and Business Law

Elm (chair), Buckeye, Garrison, Glac, Goodpaster, R. Kennedy, Koehn, Kunkel, Marsnik, Michaelson, Naughton, Swink, Thompson, Wendt, Wettstein

Ethics and law play an increasingly prominent role in the workplace and in the global marketplace. Legal rules and regulations have proliferated at all levels of the organization, and successful managers must understand how to integrate legal considerations into their business planning and operations. Business leaders also need to be able to recognize the ethical dimensions of decisions and choose well in difficult situations. Our ethics and business law courses acquaint students with the tools of ethical decision-making and with the foundations of the legal environment of business, both domestic and international to enhance ethical thinking and problem solving.

The Department of Ethics and Business Law offers a legal studies in business concentration for undergraduate business majors. Students in this concentration explore the legal system and the ways in which legal rules and processes affect business decisions. Students also engage in legal reasoning, advocacy and the legal analysis of commercial transactions.

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**

## Business Administration- Finance

### Business Core Courses

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)

### Concentration Course

BLAW 401 Legal Research, Advocacy, and Dispute Resolution (4 credits)  
MGMT 480 Strategic Management (4 credits)

*Plus twelve credits from the following:*

One of BLAW 301, 302, or 303 not taken previously (Note: Students concentrating in Legal Studies in Business may NOT take both BLAW 301 and 302)  
BLAW 304 Real Estate Law (4 credits)  
BLAW 351 Environmental Law (4 credits)  
BLAW 352 Gender Issues and the Law (4 credits)  
BLAW 353 Employment & Labor Law (4 credits)  
BLAW 402 Law of Electronic Commerce (4 credits)  
One course (not previously taken) from Opus College of Business at the 300-level or above

### Allied requirements

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
COJO 370 Intercultural Communication (4 credits)  
ENGL 205 or above

## **Finance (FINC)**

Opus College of Business  
Department of Finance

Vang (chair), Barabanov, Baxamusa, Beckmann, Combs, Daugherty, Georgieva, Gray, Hamilton, Jaiswal-Dale, Jithendranathan, Mohanty, Musil, Oxman, Samarakoon, Shovein, Spry, M. Sullivan, Tousley

Students who concentrate in finance receive preparation for the financial service industries or for financial departments of non-financial corporations. Financial service industries 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 security and capital valuation, spreadsheet modeling, and will possess good writing skills.

### **Concentration in Financial Management**

#### Business Core Courses

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)

OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)  
BLAW 304 Real Estate Law (4 credits)

#### **Concentration Courses**

ACCT 311 Intermediate Accounting I (4 credits)  
FINC 324 Corporate Finance (4 credits)  
FINC 325 Investments (4 credits)

*Plus twelve credits from the following:*

FINC 410 Derivatives (4 credits)  
FINC 430 Financial Intermediaries (4 credits)  
FINC 440 Advanced Investments (4 credits)  
FINC 442 Fixed Income Securities (4 credits)  
FINC 450 International Financial Management (4 credits)  
FINC 480 The Chief Financial Officer (4 credits)  
REAL 460 Real Estate Finance and Investment (4 credits)

#### **Allied requirements**

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

ECON 311 Forecasting (4 credits)  
ECON 315 Empirical Methods in Economics (4 credits)  
ECON 335 Money, Financial Markets and Economics (4 credits)  
ECON 346 Country and Area Studies in Economics (4 credits)  
ECON 348 International Economics (4 credits)

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
ENGL 205 or above

#### **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 students 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.

#### **Business Core Courses**

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BLAW 304 Real Estate Law (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

## **Business Administration- Management**

### **Concentration Courses**

REAL 200 Real Estate Principles (4 credits)  
REAL 360 Real Estate Property Management (4 credits)  
REAL 370 Real Estate Market Analysis (4 credits)  
REAL 460 Real Estate Finance and Investments (4 credits)  
REAL 461 Real Estate Appraisal (4 credits)  
REAL 470 Real Estate Development (4 credits)

### **Allied requirements**

ECON 251 Principles of Macro-Economics (4 credits)  
ECON 252 Principles of Micro-Economics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
ENGL 205 or above

*Plus four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

ECON 333 Regional and Urban Economics (4 credits)  
GEOG 330 Geography for Business and Planning (4 credits)

## **Management (MGMT)**

Opus College of Business

Department of Management

Power (chair), Anderson, Brinsfeld, DeVaughn, Evers, Hedberg, Henderson, Johnson, Maloney, Militello, Owens, Pattit, Rothausen-Vange, Shepcke, Welsh, Wenzel, Young

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 study managerial skills.

### **Concentration in Business Communication**

There is an increasingly widespread desire within the business community for people who can communicate well, both in face-to-face and in electronically-mediated forms of communication. The concentration in business communication is designed to provide students a basic understanding of business fundamentals, plus background knowledge and skills in human message exchange. This exchange can occur in many forms: one-on-one, in groups, across cultures, and electronically.

In addition to the general business courses required of all business majors, students who elect to do concentrated study in business communication take four additional communication courses, selected with the guidance of their adviser. These courses can focus on working with people or with electronic media. Those communication courses that emphasize working with people, such as Organizational Communication or Small Group Communication, provide the foundation for effective interaction and discussion. Those courses that focus on electronic media, such as Electronic Media Production or writing and design for the web, provide the basics for working with technology in the workplace and can help prepare students for business-related careers in the electronic media and broadcasting industry.

### **Business Core Courses**

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)

BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)

**Concentration Courses**

COJO 100 Public Speaking (4 credits) *or* COJO 105 Communication in the Workplace (4 credits)  
COJO 111 Communication and Citizenship (4 credits)  
MGMT 360 Organizational and Employee Development (4 credits) *or* MGMT 382 Leadership (4 credits)  
MGMT 480 Strategic Management (4 credits)

*Plus eight additional credits from the following COJO courses:* 211, 212, 213, 220, 230, 232, 234, 256, 258, 260, 263, 264, 270, 274, 276, 320, 328, 336, 366, 370, 372, 430, or 432

**Allied requirements**

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

**Concentration in Human Resource Management**

It is often said that people are an organization's greatest resource. People who work in human resource management provide specialized methods, techniques and professional judgment geared toward fair and effective employee selection, rewards, training, placement, management and development. By making effective use of employees' skills, and helping employees find satisfaction in their jobs and working conditions, both the employees and employers benefit from enhanced productivity.

People who work in human resource management have a wide range of responsibilities within a company. These include forecasting the organization's employee needs such as hiring, developing appraisal, compensation and professional development systems; establishing and maintaining effective labor relations; analyzing and improving the working environment; and interpreting employment regulations. Typical job titles found in human resource departments include benefits analyst, training services coordinator, HR administrator, employment and placement manager, job analyst, labor relations specialist, affirmative action manager, recruiter, and personnel development specialist.

**Business Core Courses**

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)

**Concentration Courses**

MGMT 360 Organizational and Employee Development (4 credits)  
MGMT 362 Attracting, Acquiring, and Rewarding Talent (4 credits)  
MGMT 364 Employee and Labor Relations and Organization Processes (4 credits)  
MGMT 460 Human Resource Strategy (4 credits)  
MGMT 480 Strategic Management (4 credits)

**Allied requirements**

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)



## Business Administration- Management

MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
COJO 370 Intercultural Communication (4 credits)  
ENGL 205 or above

### Concentration in Leadership and Management

The leadership and management curriculum provides a broad look at the science and art of “getting things done.” It will help the student develop philosophies and skills for leading people, processes, and projects across all aspects of an organization. It will provide the concepts and tools to establish long-term visions and goals for an organization and to effectively manage daily routines in a dynamic work environment – regardless of the type of organization or the particular area of a business.

The business world is changing quickly and current experience shows that university graduates can expect to change careers and employers many times before retiring. The leadership and management program will help the student initiate a course of action and take advantage of opportunities that arise within organizations. Leadership and management will prepare the student for positions throughout an organization. This concentration is designed for students majoring in business administration who are not interested in concentrating their studies in a particular discipline of business (*e.g.*, accounting, finance, marketing), but want more focus than the general business concentration provides.

### Business Core Courses

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)

### Concentration Courses

MGMT 382 Leadership (4 credits)  
MGMT 384 Project Management (4 credits)  
MGMT 386 Advanced Organizational Behavior (4 credits)  
MGMT 480 Strategic Management (4 credits)  
MGMT 482 Managerial Applications of Leadership (4 credits)

### Allied requirements

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
COJO 370 Intercultural Communication (4 credits)  
ENGL 205 or above

## **Marketing (MKTG)**

Opus College of Business  
Department of Marketing

Lundsten (chair), Abendroth, Alexander, Al-Khatib, Bennett, Brennan, Cavazos, Ferguson, Heckler, Heyman, Lanier, Malshe, Puto, Rader, Rexeisen, Robinson, Sackett, Sailors, Vuolo

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.

### **Concentration in Marketing Management**

#### **Business Core Courses**

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)

#### **Concentration Courses**

MKTG 340 Marketing Research (4 credits)  
MKTG 370 Consumer Behavior (4 credits)  
MKTG 430 Marketing Management (4 credits)

*Plus eight credits from the following:*

MKTG 310 Professional Selling (4 credits)  
MKTG 320 Integrated Marketing Communications (4 credits)  
MKTG 330 International Marketing (4 credits)

MKTG 350 Marketing Channels and Distribution (4 credits)  
MKTG 360 Retailing (4 credits)  
MKTG 390 Marketing Strategy (4 credits)  
MKTG 490 Topics (4 credits)

*Plus one additional course not previously taken from the following:*

BLAW 303 International Business Law (4 credits)  
ECON 346 Country and Area Studies in Economics (4 credits)  
ECON 348 International Economics (4 credits)  
FINC 450 International Financial Management (4 credits)  
GEOG 113 World Geography (4 credits)  
IBUS 4xx any IBUS course approved by adviser  
MGMT 430 International Management (4 credits)  
MKTG 330 International Marketing (4 credits)

#### **Allied requirements**

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

## **Business Administration- Operations and Supply Chain Management**

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
COJO 370 Intercultural Communication (4 credits)  
ENGL 205 or above

### **Operations and Supply Chain Management**

Opus College of Business

Department of Operations and Supply Chain Management

Olson (chair), Bordoloi, Gaffney, Kumar, Lawton, Lutz, Mallick, McNamara, W. Raffield, Ressler, Sanders, Southard, Vician, White

Operations and supply chain management is directly involved in the creation and delivery of an organization's goods and/or services. Operations management is not specific to any one industry, nor is it restricted to manufacturing enterprises. In fact, all organizations in the private and public sector systems--including airlines, hospitals, hotels, restaurants, insurance companies, and government agencies need to manage their operations vigilantly. Operations managers work with their organizations to find faster, better, and more economical ways to serve their customers. The operations management field offers a wide array of career paths from supply chain or service design analysis to manufacturing or service general management

### **Concentration in Operations Management**

#### **Business Core Courses**

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)

#### **Concentration Courses**

OPMT 320 Decision Analysis (4 credits)  
OPMT 330 Quality Management (4 credits)  
OPMT 340 Process Analysis & Improvement (4 credits)  
OPMT 350 Supply Chain Management (4 credits)  
OPMT 480 Operations Strategy with Integrative Project (4 credits)  
MGMT 480 Strategic Management (4 credits)

#### **Allied requirements**

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics I (4 credits)

*Note:* STAT 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 four credits from the following:*

MATH 101 Finite Mathematics (4 credits)  
MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

*Note:* The math requirement must be completed by the end of the sophomore year.

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
COJO 105 Communication in the Workplace (4 credits)  
COJO 370 Intercultural Communication (4 credits)  
ENGL 205 or above

### **Accounting Courses (ACCT)**

ACCT 210 Introduction to Financial Accounting (4 credits)

This course introduces the financial accounting cycle; the four primary financial statements for U.S. corporations;

basic accounting, valuation, and disclosure requirements for assets, liabilities, equities, revenues, and expenses; and financial statement analysis.

Prerequisites: Sophomore standing

**ACCT 215 Managerial Accounting (4 credits)**

This course is designed to give students an understanding of how accounting and business information is used in planning, budgeting, decision-making, and performance evaluation.

Prerequisite: ACCT 210

**ACCT 311 Intermediate Accounting I (4 credits)**

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, valuation of most assets, and revenue recognition.

Prerequisite: A minimum grade of C- in ACCT 210

**ACCT 312 Intermediate Accounting II (4 credits)**

A continuation of ACCT 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: A minimum grade of C- in ACCT 311; FINC 321 (make be taken concurrently)

**ACCT 314 Tax Accounting (4 credits)**

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: A minimum grade of C- in ACCT 210, Junior standing

**ACCT 315 Individual Income Tax (4 credits)**

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; concurrent or previous enrollment in ACCT 215 recommended

**ACCT 316 Auditing (4 credits)**

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: A minimum grade of C- in ACCT 312

**ACCT 317 Cost Accounting (4 credits)**

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: A minimum grade of C- in ACCT 215

**ACCT 410 Advanced Accounting (4 credits)**

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: A minimum grade of C- in ACCT 312, BETH 301 (or BUSN 201 from previous semesters), Senior standing or permission of department chair

**Business Courses (BUSN)**

**BUSN 200 Business Learning Through Service (0 credit)**

This co-curricular experience is required of all undergraduate students majoring or minoring within the Opus College of Business. The course allows students to embrace the University's Statement of Purpose to "develop morally responsible individuals who combine career competency...while fostering in the student a tradition of service to the public welfare." The purpose of the course is to: 1) providing students the opportunity to observe and participate in the partnerships of healthy, vital communities and healthy, vital businesses; 2) experiencing the business dynamics of non-profit organizations and explore career opportunities therein; 3) provide direct service in a non-profit while meeting individually established personal learning objectives; and 4) stretch students beyond their current comfort zones.

Students are encouraged to complete BUSN 200 either during the second semester of their sophomore year or the first semester of their junior year. BUSN 200 does not need to be completed within the traditional semester structure. Students can begin at any time during the year and engage in the course requirements until completed.

Students can, and are encouraged to, complete BUSN 200 while studying abroad. Additionally, BUSN 200 can be completed while away from campus during J-term or summer. NOTE: London Business Semester students complete their BUSN 200 course while studying in London; students considering participating in this program should wait to complete BUSN 200 until that semester.

Students begin their BUSN 200 course by attending an Opening Learning Seminar (OLS), the schedule of which

## Business Administration Courses

can be obtained from the Student Services Office in McNeely Hall. Students do not register for BUSN 200 prior to attending the OLS. At the OLS students will learn about the course requirements, how to locate a service site and the registration process - all registration for BUSN 200 is completed for the student.

This course is graded S/R.

**BUSN 295, 296 Topics (2 credits)**

**BUSN 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**BUSN 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

**BUSN 475, 476 Experiential Learning (2 credits)**

**BUSN 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**BUSN 483, 484 Seminar (2 credits)**

**BUSN 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**BUSN 487, 488 Topics (2 credits)**

**BUSN 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**BUSN 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**BUSN 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Business Ethics Courses (BETH)

**BETH 301 Business Ethics (4 credits)**

This course plays a critical role in the principle-based education of St. Thomas business students, especially in introducing the responsibilities of a business professional. Through analysis of case studies, readings and other experiential exercises, students will develop an understanding of professional business conduct and judgment grounded in moral principles. *This course is a pre-requisite for all 400 level business courses.*

Prerequisite: Junior standing and eight credits from ACCT, BLAW, DSCI or OPMT, FINC, MGMT, MKTG

## Business Law Courses (BLAW)

**BLAW 301 Legal Environment of Business (4 credits)**

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

**BLAW 302 Business Law for Accounting (4 credits)**

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 210 (or 205 from previous semesters)

**BLAW 303 International Business Law (4 credits)**

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

**BLAW 304 Real Estate Law (4 credits)**

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. Offered in spring semester.

Prerequisites: Junior standing

**BLAW 351 Environmental Law (4 credits)**

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

**BLAW 352 Gender Issues and the Law (4 credits)**

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

**BLAW 353 Employment & Labor Law (4 credits)**

This course addresses in-depth legal issues that every employer and employee needs to understand regarding the legal environment of employment, including federal and state employment discrimination laws, sexual harassment, workers' compensation, first amendment rights, privacy, wrongful termination, covenants not to compete, federal laws governing the right to organize and bargain collectively, and emerging employment law issues.

Prerequisite: Junior standing

**BLAW 401 Legal Research, Advocacy, and Dispute Resolution (4 credits)**

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 or consent of instructor; BETH 301 (or BUSN 201 from previous semesters)

**BLAW 402 Law of Electronic Commerce (4 credits)**

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; BETH 301 (or BUSN 201 from previous semesters)

**Entrepreneurship Courses (ENTR)**

**ENTR 200 Foundations of Entrepreneurship (4 credits)**

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, ENTR majors only

**ENTR 300 Entrepreneurship for Non-majors (4 credits)**

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. Not open to entrepreneurship majors.

Prerequisite: junior standing

**ENTR 348 Franchising Management (4 credits)**

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: junior standing

**ENTR 349 Family Business Management (4 credits)**

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: junior standing

**ENTR 350 Entrepreneurial Research: Developing New Market Space (4 credits)**

## Business Administration Courses

This course focuses on develop students' knowledge and thinking about opportunities by researching new business ideas and concepts in an entrepreneurial environment. The course requires students to complete a series of exploratory field studies, and develop an opportunity identification report for an original entrepreneurial concept.  
Prerequisites: ENTR 200 and MKTG 300

### ENTR 360 Creativity and Change (4 credits)

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

### ENTR 370 Entrepreneurial Financial Resource Management (4 credits)

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. Students are expected to have a proficiency in computer spreadsheet programming.

Prerequisites: ENTR 200, ACCT 210 (or 205 from previous semesters), and junior standing

### ENTR 380 Entrepreneurship in Practice (4 credits)

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 and junior standing

### ENTR 449 Family Business Strategy (4 credits)

Develop governance processes and plans for family firms. Apply financial, accounting, and management concepts in analyzing family firm performance. Review the roles of boards of advisors and effective participation in boards. Develop business strategies and make reinvestment decisions. Review and apply business valuation concepts. Review and update career plans. Parents or other significant family members are expected to either audit this course or actively participate in the course with their son or daughter.

Prerequisite: ACCT 210, FINC 300 or FINC321; ENTR 349; and senior standing.

### ENTR 450 Entrepreneurship: Management and Strategy (4 credits)

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. Students are expected to have a proficiency in computer spreadsheet programming.

Prerequisites: BETH 301 (or BUSN 201 from previous semesters), one ENTR elective, FINC 321, OPMT 310 (or DSCI 301 or 310 from previous semesters), and MKTG 300

## Finance Courses (FINC)

### FINC 300 Finance for Non-Business Majors (4 credits)

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. Not open to business majors.

Prerequisite: Junior standing

### FINC 321 Financial Management (4 credits)

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 210 (or 205 from previous semesters), STAT 220 (MATH 313 or STAT 314 for actuarial majors), ECON 251, 252, and junior standing

### FINC 324 Corporate Finance (4 credits)

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, and MATH 109 or 111 or 113 (may be taken concurrently)

### FINC 325 Investments (4 credits)

The focus of this course is to provide an overview of investment concepts and an exposure to a broad range of invest-

ment alternatives. The principle concern of the course is to develop skills necessary to make prudent investment decisions.

Prerequisites: FINC 321, and MATH 109 or 111 or 113

**FINC 410 Derivatives (4 credits)**

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 324 or 325, MATH 109 or 111 or 113, and BETH 301 (or BUSN 201 from previous semesters)

**FINC 430 Financial Intermediaries (4 credits)**

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, and BETH 301 (or BUSN 201 from previous semesters)

**FINC 440 Advanced Investments (4 credits)**

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 325, MATH 109 or 111 or 113, and BETH 301 (or BUSN 201 from previous semesters)

**FINC 442 Fixed Income Securities (4 credits)**

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, and BETH 301 (or BUSN 201 from previous semesters)

**FINC 450 International Financial Management (4 credits)**

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, and BETH 301 (or BUSN 201 from previous semesters)

**FINC 480 The Chief Financial Officer (4 credits)**

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.

Prerequisites: FINC 324, MATH 109 or 111 or 113, and BETH 301 (or BUSN 201 from previous semesters)

**International Business Courses (IBUS)****IBUS 450 Transnational Business Issues in Management, Marketing, or Business Law (4 credits)**

This course is to be taken abroad. Final determination as to the specific course will be decided before the course is taken in consultation with the international business adviser.

Prerequisite: Approval of undergraduate business adviser

**IBUS 460 Transnational Business Issues in Finance or Accounting (4 credits)**

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 undergraduate business adviser

**IBUS 470 Transnational Issues in International Business (4 credits)**

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 undergraduate business adviser

**Management Courses (MGMT)****MGMT 305 Management & Organizational Behavior (4 credits)**

This course is designed to introduce students to the complexities of working within organizations, regardless of whether it is a for-profit, non-profit, or governmental organization. Certain complexities are common across organi-



## Business Administration Courses

zations, irrespective of their goals or size. Understanding these complexities is critical to becoming an effective member of any organization, and this course will develop students' understanding and expertise in leading and managing themselves and others within organizations.

Prerequisite: Sophomore standing

### **MGMT 360 Organizational and Employee Development (4 credits) (formerly MGMT 390)**

This course focuses on the theories, concepts, research and practice of organization change and development, performance management, and employee training and development that impact organizational employee behavior. Topics include an overview of human resource management, organization entry and socialization, employee performance management, career choices, employee motivation, job design, organization structure, culture, group dynamics, teamwork, power and influence, organization restructuring, change management, and employee training and development.

Prerequisite: MGMT 305 and junior standing

### **MGMT 362 Attracting, Acquiring, and Rewarding Talent (4 credits) (formerly MGMT 392)**

This course focuses on the theories, concepts, research and practice of staffing and compensation/reward programs that impact organizational employee behavior. Topics include, law, labor markets, human resource planning, including recruiting, hiring and layoffs, job analysis, staffing and selection, compensation strategy, policies and practices, and benefits programs. Offered fall semester

Prerequisite: MGMT 305 and junior standing

### **MGMT 364 Employee and Labor Relations and Organization Processes (4 credits) (formerly MGMT 400)**

This course focuses on the theories, concepts, research and practice of employee and labor relations and related organization processes that impact organizational employee behavior. Topics include leadership, worker representation in the private and public sectors, conflict resolution and negotiation, employee counseling, employee dismissal and retirement, global and workplace diversity, and safety, health, and security. Offered spring semester.

Prerequisite: MGMT 305 junior standing

### **MGMT 382 Leadership (4 credits)**

This course explores the concepts and skills involved in exercising effective leadership from both an organizational and an individual perspective. The course covers the concepts of leadership in diverse cultures, how organizational conditions affect competent ethical leadership, and the actual work of leadership in organizations. Concepts such as shared-leadership and rotating leadership are explored. 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.

Prerequisites: MGMT 305 (or BUSN 201 from previous semesters) and Junior standing

### **MGMT 384 Project Management (4 credits)**

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 multiple roles of the project manager are explored. These include being a team leader responsible for timely execution, design and meeting specifications, budgeting, and managing people. The technical and human aspects of project management will receive approximately equal focus.

Prerequisite: Junior standing; MGMT 305 and OPMT 310 or DSCI 301 or 310 from previous semesters

### **MGMT 386 Advanced Organizational Behavior (4 credits)**

This course is designed to increase your effectiveness as a manager and team member by utilizing frameworks for understanding organizations and the behavior of people and groups within an organization. This course will focus on critical activities related to managerial and team effectiveness including managing interdependence, making decisions, motivating performance, negotiating differences, and working within an organization's structural, political, cultural, and global environment.

Prerequisites: MGMT 305 and Junior standing

### **MGMT 430 International Management (4 credits)**

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 customs, 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 work values.

Prerequisites: OPMT 310 or DSCI 301 or DSCI 310, FINC 321, MKTG 300 or concurrent registration and prerequisite waived by instructor, MGMT 305 (or BUSN 201 from previous semesters), BETH 301 (or BUSN 201 from previous semesters)

### **MGMT 460 Human Resource Strategy (4 credits)**

This course focuses on the theories, concepts, research, and practice of human capital management that impacts orga-

nizational employee behavior. Topics include systems theory, human capital strategy, human resource best practices, configurations or market and human capital practices, human resource metrics and ROI analysis, and the evolving role of the human resource function in contemporary organizations. Offered spring semester.

Prerequisites: MGMT 360 or 390 and MGMT 362 or 420

**MGMT 480 Strategic Management (4 credits)**

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. The focus of the course is to have you view the organization from the perspective of the president, rather than that of a manager of a particular function (*e.g.*, VP of marketing). It examines the development of core competence and a sustainable competitive advantage as part of an organization's strategic planning process. Offered each semester

Prerequisites: OPMT 310 or DSCI 301 or DSCI 310, FINC 321, MGMT 305 (or BUSN 201 from previous semesters), MKTG 300, BETH 301 (or BUSN 201 from previous semesters), and senior standing. Absolutely no exceptions will be made to these prerequisites.

**MGMT 482 Managerial Applications of Leadership (4 credits)**

This course addresses the application of leadership principles in the context of business, political, and social organizations. It emphasizes how leadership affects the functions of the organization, with social organizations. It emphasizes how leaders affect the functions of the organization, with particular emphasis on managerial applications. The course explores both current topics in leadership and examines historical and current leaders to examine how the personality, style, ethics and strategy of a leader affects their organization and community. Leadership examples are drawn from literature, film, and politics. Offered in spring semester.

Prerequisites: BETH 301 (or BUSN 201 from previous semesters), MGMT 382 and senior standing

**Marketing Courses (MKTG)****MKTG 300 Principles of Marketing (4 credits)**

This course uses a managerial point of view. It focuses on understanding the needs and desires of customers in order to develop effective strategies for business. Students are taught to consider organizational, social, competitive, technological, economic, behavioral, and legal forces in crafting effective marketing programs.

Prerequisites: Junior standing

**MKTG 310 Professional Selling (4 credits)**

In this course students learn how individuals interact with each other in a competitive environment. The course covers one-on-one selling techniques, persuasive communication, oral and verbal presentation skills useful for one-to-one presentations and when groups present to groups. The student will learn skills useful in both the industrial and consumer areas.

Prerequisite: MKTG 300

**MKTG 320 Integrated Marketing Communications (4 credits) (formerly Promotions Management)**

This course 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 and then integrated into case analysis.

Prerequisite: MKTG 300

**MKTG 330 International Marketing (4 credits)**

In this course students consider basic concepts, principles and theories of international marketing, as well as the essential and complex problems encountered in the international marketplace. The emphasis is on problem solving and decision-making within the international marketing environment.

Prerequisite: MKTG 300

**MKTG 340 Marketing Research (4 credits)**

In this course, students learn to develop surveys, observation, experiments, and other tools for learning about customer characteristics and requirements. They learn about analytical techniques, data sources, research planning and costs.

Prerequisites: MKTG 300, MATH 101 or 109 or 111 or 113, STAT 220

**MKTG 350 Marketing Channels and Distribution Systems (4 credits)**

Students examine relevant theories, concepts, and practices related to the flow of goods and services in and between organizations from the point of view of the total distribution system. The goal of the course is to help business students think about and learn to create and integrate marketing and logistics strategy.

Prerequisites: MKTG 300 and STAT 220

**MKTG 360 Retailing (4 credits)**

In this course students learn the principles and practices of retailing, non-store retailing services and direct marketing from a management perspective. Topics include roles-in-channel, demographics, consumer behavior, trends, strategy formulation, ownership and formats, trade area and location, buying and sourcing, store design and visual

## Business Administration Courses

merchandising, operations management promotion, service delivery, controls, non-store retailing, human resource issues, database management, and international retailing.  
Prerequisite: MKTG 300.

### **MKTG 370 Consumer Behavior (4 credits) (formerly Buyer Behavior)**

In this course, students examine how consumers and organizations go about making purchase decisions. Major theoretical contributions and empirical research findings from marketing and the behavioral sciences are reviewed and attention is given to applying this information to practical business and marketing situations.  
Prerequisite: MKTG 300

### **MKTG 390 Marketing Strategy (4 credits)**

This course provides the framework for developing and implementing strategies that are distinctive and sustainable. Topics include: market, industry and competitive analysis; market segmentation, targeting, positioning and branding; uses of secondary and marketing research information; analysis and development of market entry and strategy alternatives; and integration of marketing strategy with financial, operations and corporate culture on the firm. The course is designed for those who are involved in marketing strategies, doing marketing planning and managing markets.

Prerequisite: MKTG 300, MATH 101 or MATH 109 or 111 or 113; STAT 220

### **MKTG 430 Marketing Management (4 credits)**

Small Business Institute clients present student teams with business problems that require solutions. Student teams diagnose the client's problem and craft and present a solution to the client. Time is divided between reviewing and integrating the students' marketing background, facilitating the student contact with the client, and providing consulting to the client.

Prerequisites: MKTG 340 or 345; one additional Marketing elective; BETH 301 (or BUSN 201 from previous semesters); and senior standing

## **Operations and Supply Chain Management (Formerly DSCI)**

### **OPMT 310 Operations Management (4 credits) (formerly DSCI 301 or DSCI 310)**

Operations management focuses on planning, coordination and control of activities involved in the transformation of resources into goods and services. This course will examine the concepts and techniques utilized in the management of manufacturing and service operations. The course will focus on the strategic use of the tactical tools of operations management. Topics covered include the management of process, technology, production, six-sigma quality, inventory, supply chain, workforce, business process improvement and lean management in operating systems. After completing this course, students will have a great appreciation for the strategic power of the operations function and greater knowledge of how effective operations management can enable an organization to attain a sustainable competitive advantage.

Prerequisites: Junior standing; STAT 220; and MATH 101 or higher; concurrent or previous enrollment in MGMT 305 recommended

### **OPMT 320 Decision Analysis (4 credits) (formerly DSCI 320 or DSCI 345)**

This course is focused on developing the quantitative, analytical skills needed to gain insight into the resolution of practical business problems. Students will learn how to analyze and solve management problems using spreadsheet based methods. Specific methods for clarifying objectives, developing alternatives, addressing tradeoffs, and conducting a defensible quantitative analysis will be presented. Topics include spreadsheet modeling, linear programming, transportation modeling, decision analysis, project management, and simulation. Students will also be introduced to building decision support models using Visual Basic Applications (VBA). Offered fall semester.

Prerequisites: Junior standing, OPMT 310 or DSCI 301 or DSCI 310, STAT 220, and MATH 101 or higher

### **OPMT 330 Quality Management (4 credits) (formerly DSCI 330 or DSCI 347)**

This course provides an introduction to the principles and practices of quality management. The course focuses on the application of quality philosophies and quality tools in both manufacturing and service organizations. The course will provide practice in using the tools and techniques of quality such as Statistical Process Control (SPC) and Quality Function Deployment (QFD). Modern approaches to quality management such as the Baldrige criteria, ISO certification, and Six-Sigma programs will be included, as well as the philosophies of quality pioneers such as Deming and Juran. Offered spring semester.

Prerequisite: OPMT 310 or DSCI 301 or DSCI 310

### **OPMT 340 Process Analysis & Improvement (4 credits) (formerly DSCI 340)**

This course is focused on learning and applying the theories and techniques of process analysis and improvement. Students will learn how to analyze and improve business processes in different contexts, using different process improvement tools. In addition to simple process mapping, more programmatic improvement tools including Business Process Reengineering (BPR), Just-In-Time (JIT), lean/flexible/agile processes, and Theory of Constraints (TOC) will be included in this course. Offered spring semester.

Prerequisites: OPMT 310

## Business Administration Courses – Catholic Studies

### OPMT 350 Supply Chain Management (4 credits) (formerly DSCI 346 or DSCI 350)

This course will develop a basic understanding of supply chain management both within and beyond organizational boundaries. It will provide the conceptual and analytical framework for the materials management function of business including purchasing, inventory management (MRP), capacity planning, scheduling, and manufacturing planning and control systems; as well as a broader supply chain view. Offered fall semester.

Prerequisites: OPMT 310 and 320

### OPMT 480 Operations Strategy with Integrative Project (4 credits) (formerly DSCI 445 or DSCI 480)

This course is the capstone course for majors in operations management. This integrative course in Operations Strategy has a strong managerial focus on the operating decisions that can impact a firm's profitability in various manufacturing and service sectors. It serves as an integrator for the courses that had preceded it by giving students the opportunity to incorporate and refine the knowledge and skills developed in previous coursework. This course utilizes real-life cases and projects to understand managerial issues in operations and to develop a strategic perspective in the decision making process. Offered spring semester.

Prerequisites: Senior standing; BETH 301 (or BUSN 201 from previous semesters); OPMT 320, and 350; and concurrent or prior enrollment in OPMT 330 or DSCI 330

## Real Estate Courses (REAL)

### REAL 200 Real Estate Principles (4 credits)

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.

### REAL 360 Real Estate Property Management (4 credits)

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. Offered in fall semester.

Prerequisites: REAL 200 and junior standing

### REAL 370 Real Estate Market Analysis (4 credits)

This course provides students with the skills and knowledge necessary to evaluate the productive attributes of parcels of real estate as they relate to the demand for a particular use and the supply of competitive properties within a specified market. Focus is placed on the role of market analysis in real estate decision making and valuation. Students will learn the process of evaluative property analysis through the study of property productivity; demand for and supply of property; comparative analysis; and forecasting. Topics include the urban growth process; market conditions; market analysis; data collection; financing; governmental and legal considerations; and environmental issues.

Prerequisite: REAL 200 and Junior standing

### REAL 460 Real Estate Finance and Investment (4 credits)

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. Offered in spring semester.

Prerequisites: REAL 200 and FINC 321, or FINC 324 and 325; and BETH 301 (or BUSN 201 from previous semesters)

### REAL 461 Real Estate Appraisal (4 credits)

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. Offered in fall semester.

Prerequisites: REAL 200, FINC 321, and BETH 301 (or BUSN 201 from previous semesters)

### REAL 470 Real Estate Development (4 credits)

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. Offered in spring semester.

Prerequisites: REAL 460 or 461, and ECON 333 or GEOG 330 (may be taken concurrently), and BETH 301 (or BUSN 201 from previous semesters)

## Catholic Studies (CATH)

College of Arts and Sciences, Department of Catholic Studies

Sitzmann Hall, (55S) (651) 962-5703

Coulter (chair), Briel, Joncas, Junker, Keating, Kennedy, Naughton, Reichardt; Boyle (THEO), Wojda (THEO)

The Department of Catholic Studies allows students to encounter the broad and diverse expressions of Catholic cul-

## Catholic Studies

ture. While grounded in Catholic philosophy and theology, the curriculum engages students with the imaginative and sacramental expressions of Catholic life in literature, the arts, social systems and personal experience. The interdisciplinary dimension gives students insight into Catholicism's dynamic interaction with and interpenetration of cultures, traditions, and intellectual life throughout history. By examining the role it 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 are united by a profound respect for Catholicism, and are committed to a high degree of interaction among themselves as well as with students. Students thus enter into a community at once faithful and intellectual.

The curriculum can 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 36 credits: 16 credits in required core courses, 12 credits in required distribution area electives, and 8 credits in approved electives (4 credits in approved electives for double majors). No more than 12 credits, cross-listed or otherwise, in any one discipline outside of Catholic Studies may be applied toward the requirements for a major without permission of the chairs of both departments.

The minor consists of 20 credits: 8 credits in required core courses, 8 credits in required distribution area electives, and 4 credits in approved electives.

### **Major in Catholic Studies**

*Sixteen credits in core requirements:*

- CATH 101 The Search for Happiness (4 credits)
- CATH 201 Paths and Practices of Catholic Spirituality (4 credits)
- CATH 301 The Catholic Vision (4 credits)
- CATH 401 The Church and Culture: Social Dimensions of Catholicism (4 credits)

*Plus:*

Twelve credits in approved electives chosen from the following three categories:

- One philosophically-based course
- One historically-based course
- One aesthetically-based course

*Plus:*

Eight additional credits in approved electives (four additional credits for double majors)

### **Minor in Catholic Studies**

Eights credits chosen from the core requirements above

*Plus:*

Eight credits in approved electives chosen from the following three categories:

- One philosophically-based course
- One historically-based course
- One aesthetically-based course

*Plus:*

Four additional credits chosen from among any of the approved electives.

Approved electives include (but may not be limited to) the following courses. Please consult the office of the department chair for an up-to-date list of approved courses.

*Philosophically Based courses:*

- CATH 240 Faith and Doubt (4 credits)
- CATH 250 Christian Mysteries from a Philosophical Viewpoint (4 credits)
- CATH 234 Love, Sex and Friendship (4 credits)
- CATH 272 Evolution and Creation (4 credits)
- CATH 297/397 Topics in Catholic Studies (4 credits each)
- PHIL 340 Thought of Thomas Aquinas (4 credits)

*Literary or Aesthetics Based courses:*

- CATH 222 The Catholic Literary Tradition (4 credits)
- CATH 334 Literature from a Christian Perspective (4 credits)
- CATH 357 Sacred Music of the Catholic Heritage (4 credits)
- CATH 297/397 Topics in Catholic Studies (4 credits each)
- ARTH 280 Sacred Architecture and Space (4 credits)
- ARTH 330 Churches and Mosques in the First Millennium (4 credits)

ARTH 335 Cathedrals, Monasteries, and Caliphates (4 credits)  
 ARTH 340 Southern Renaissance Art and Society (4 credits)  
 ARTH 345 Baroque and Rococo Art (4 credits)

*Historically Based courses*

CATH 312 Catholic Social Thought (4 credits)  
 CATH 297/397 Topics in Catholic Studies (4 credits each)  
 HIST 310 The Making of Europe: Middle Ages to 1000 (4 credits)  
 HIST 311 The Dawn of a New Era: Europe from 1000 to 1450 (4 credits)  
 HIST 312 Early Modern Europe: 1450-1750 (4 credits)  
 HIST 366 The History of the Catholic Church in the United States (4 credits)

*Other Approved Electives:*

CATH 306 Christian Faith and Management Professions (4 credits)  
 CATH 308 Woman and Man (4 credits)  
 CATH 346 Christian Faith and the Education Profession (4 credits)  
 CATH 364 Science and Christian Theology (4 credits)  
 CATH 366 Psychology and Moral Theology (4 credits)  
 CATH 378 Christian Faith and the Legal Profession (4 credits)  
 CATH 379 Christian Faith and the Medical Profession (4 credits)  
 CATH 297/397 Topics in Catholic Studies (4 credits each)

**CATH 101 The Search for Happiness (4 credits)**

This course provides a critical investigation into the quest for meaning and happiness as found in the Catholic tradition. Beginning with fundamental Catholic claims about what it means to be a human being, this course explores the call to beatitude in materials from several disciplines, including theology, philosophy, literature, and art, as well as ancient, medieval, and contemporary sources. Topics explored include a consideration of human beings in relation to divine beings, the supernatural end to human life, the human being as experiencing desire and suffering, the Christian paradox that joy may be found in the giving of one's self, and the search for happiness through friendship and love. Through all these topics, the course particularly examines the question, "What is the specifically unique character of Christian happiness?"

**CATH 201 Paths, Expressions and Practices in Catholic Spirituality (4 credits)**

This course provides an investigation into the various forms and expressions of spirituality which derive their inspiration from a common origin in Christian Revelation and the teachings of the Catholic Church. We will examine in depth a selection of topics and themes having to do with differing expressions and practices of Catholic spirituality across a number of historical eras and cultures. Possible topics include prayer and contemplation; the varieties of lay and religious spiritualities in both their solitary and communal dimensions; virtue; and vocation and work. Interdisciplinary course materials will draw on sources in theology, philosophy, history, literature, and art or music.

**CATH 222 The Catholic Literary Tradition: Medieval to Modern (4 credits) (equivalent to 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

**CATH 234 Love, Sex and Friendship (4 credits) (equivalent to 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

**CATH 240 Faith and Doubt (4 credits) (equivalent to 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

**CATH 250 Christian Mysteries from a Philosophical Viewpoint (4 credits) (equivalent to 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

**CATH 295, 296 Topics (2 credits)**

**CATH 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions

## Catholic Studies

of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### CATH 301 The Catholic Vision (4 credits)

At the center of the Catholic vision are the two great works of divine love: creation and redemption. This course considers the implications of these divine works for a radical reconsideration of the world and the human person. Students will examine characteristic Catholic approaches to and emphases concerning creation, redemption and ecclesiology, and discuss how Catholic understandings of creation and redemption inform, respond to, and critique Catholic practices in various cultural settings. In addition, the course will compare and contrast contemporary Catholic cultural monuments with that produced in earlier eras, and compare and contrast Catholic Christianity with other forms of Christian and non-Christian belief and practices. In illustrating its themes, the course draws upon sources in art, literature, history, philosophy, and theology with special attention given to the intellectual, spiritual, and cultural consequences of Catholic doctrine.

Prerequisites: Junior standing and CATH 101 and CATH 201

### CATH 306 Christian Faith and the Management Professions (4 credits) (equivalent to THEO 422)

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.

Prerequisites: THEO 101 (or 102 and 103) and one 200-level THEO course

### CATH 308 Woman and Man (4 credits)

This course examines the definition of “woman” and “man” from both the historical and the philosophical perspective. Readings and discussion center on the question of (1) whether there are important philosophical differences between women and men and (2) whether such differences are natural or socially constructed. The implications of various answers to those questions are then examined, with special attention given to the Catholic tradition’s reflections on the nature and ends of marriage, the character of priestly ordination, friendship between women and men, and human sexuality. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: PHIL 115

### CATH 334 Literature from a Christian Perspective (4 credits) (equivalent to 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

### CATH 346 Christian Faith and the Education Profession (4 credits)

This course explores education through its grounding in the Christian understanding of God and the human person. Theological topics relevant to education include: the nature of truth, the relationship between faith and reason, and freedom in moral and intellectual formation. We will also examine questions about faith-based education in a pluralistic context and the relevance of an interdisciplinary search for truth. In light of the growing trend toward academic specialization, this course aims to help students learn how various disciplines are integrated in the search for wisdom.

Prerequisites: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### CATH 357 Sacred Music of the Catholic Heritage (4 credits) (equivalent to 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.

Prerequisites: THEO 101 (or 102 and 103) and one 200-level THEO course

### CATH 364 Science and Christian Theology (4 credits) (equivalent to THEO 434)

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 (or 102 and 103) and one 200-level or 300-level THEO course, PHIL 115, some college-level background in science, preferably biology, physics, or chemistry

### CATH 366 Psychology and Moral Theology (4 credits) (equivalent to THEO 366)

Although the fields of psychology and moral theology are in some ways similar in that they each address questions of human nature and human growth, they are also quite distinct in their conceptions of the human person. This course will explore some of the relationships between psychology and moral theology, especially in matters of human well-being and personal well-being. Areas of disparity between the disciplines as well as points of commonality and fruit-

ful exchange will be discussed.

Prerequisites: THEO 101 (or 102 and 103) and one 200-level THEO course

**CATH 397, 398 Topics (4 credits)**

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? The odd number is used if the course fulfills a core curriculum requirement.

**CATH 378 Christian Faith and the Legal Profession (4 credits) (equivalent to THEO 436)**

If to work is to share in the creative activity of God, then what specific challenge does this pose for an attorney given the grinding realities of the legal profession? If to be a professional is to live out a tripartite relationship between self, client, and a higher standard, then how does an attorney determine, much less respond to such a standard? Through a close reading of a variety of theological texts, treatises, case studies and rules of professional conduct, this course will address these questions and, in so doing, attempt to fashion a paradigm for the Christian practice of law. Within this paradigm, emphasis will be placed on the meaning of justice, law, rights and responsibilities. An ethic of care that fosters the development of a compassionate world and a common life will be emphasized.

Prerequisites: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

**CATH 379 Christian Faith and the Medical Profession (4 credits) (equivalent to THEO 437)**

What is a good doctor? This course pursues this question and possible answers to it, from a historical, moral, and theological point of view. Reading and discussion will be guided by a detailed investigation of the scientific/technological, economic, and cultural forces that are presently complicating our traditional understanding of medical practice. Emphasis throughout will be on the Christian tradition of moral inquiry as a resource for responding to this question.

Prerequisites: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

**CATH 401 Church and Culture: Social Dimensions of Catholicism (4 credits)**

This course provides an investigation into the ways in which Catholicism is inherently social and ecclesial. Its specific focus is on the Christian engagement with the world. The course's framework will be taken from the analysis of society into three spheres of action (culture, politics, and economics) as described in *Centesimus annus*. We will examine the ways that Revelation, the sacramental life, and the teachings of the Church call Catholics to seek holiness and to witness to their faith in the world. Specific topics may include social and economic justice, politics and public policy, lay and religious apostolates, education, and marriage and family. Course material may include sources from philosophy, theology, history, economics, and political science.

Prerequisite: CATH 101 and Junior standing

**CATH 483, 484 Seminar (2 credits)**

**CATH 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**CATH 487, 488 Topics (2 credits)**

**CATH 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**CATH 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**CATH 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Chemistry (CHEM)

College of Arts and Sciences, Department of Chemistry

O'Shaughnessy Science Hall (OSS) 402, (651) 962-5575

Brom (chair), Borgerding, Donato, Guino-o, Ippoliti, Mabbott, Marcus, Marsh, Ojala, Prevette, Wammer; Cain, Krueger

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 accredited 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.S. degree is also an advantage to those students who choose to work as a profession-



## Chemistry

al chemist in industry immediately following graduation.

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 providing the student with 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.

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, comprehend, write, and speak with clarity and understanding in technical areas. They will constantly apply 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.

Chemistry is an excellent major for students interested in chemistry, biochemistry, food science, forensic science, medicine, medicinal chemistry, dentistry, pharmaceutical chemistry, pharmacology, pharmacy, 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 interested in teacher licensure should consider the various combinations of science education in the Department of Teacher Education in this catalog.

The Departments of Chemistry and Biology jointly offer a B.S. degree in biochemistry. The curriculum for this degree may be found under "Biochemistry" 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 four credits in research (CHEM 492-494); (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 ACS 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 early enough to allow for notification of the registrar and academic dean when graduating in another term.

### Major in Chemistry (B.S.) (ACS-certified)

CHEM 111 General Chemistry I (4 credits) and CHEM 112 General Chemistry II (4 credits)

or

CHEM 115 Accelerated General Chemistry (4 credits)

Plus:

CHEM 201 Organic Chemistry I (4 credits)

CHEM 202 Organic Chemistry II (4 credits)

CHEM 300 Quantitative Analysis (4 credits)

CHEM 320 Instrumental Analysis (4 credits)

CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)

CHEM 332 Quantum Chemistry and Molecular Spectroscopy (4 credits)

CHEM 340 Organic Spectroscopy (2 credits)

CHEM 400 Advanced Inorganic Chemistry (4 credits)

Note: CHEM 332 is a prerequisite for CHEM 400

CHEM 440 Biochemistry I (4 credits)

CHEM 481-484 Student Seminar Sequence (2 credits total)

CHEM 492 Research (2 credits) (or a summer research project approved by the department)

*Plus four credits from:*

CHEM 250 Organometallic Chemistry (2 credits)  
 CHEM 295 Topics (2 credits)  
 CHEM 296 Topics (2 credits)  
 CHEM 298 Topics (4 credits)  
 CHEM 391, 392 Research (1 credit each)  
 CHEM 420 Bioanalytical and Forensic Chemistry (2 credits)  
 CHEM 430 Polymer Chemistry (2 credits)  
 CHEM 442 Biochemistry II (4 credits)\*  
 CHEM 488 Topics (2 credits)  
 CHEM 492 Research (2 credits each)  
 CHEM 494 Research (4 credits each)

\*required for a B.S. in Chemistry with a biochemistry concentration, plus a research project in biochemistry

#### Allied requirements

MATH 113 Calculus I (4 credits) (or equivalent)  
 MATH 114 Calculus II (4 credits)  
 PHYS 111 Introduction to Classical Physics I (4 credits)  
 PHYS 112 Introduction to Classical Physics II (4 credits)

*Strongly recommended:*

MATH - additional courses numbered 200 or above (MATH 200 and 240 are highly recommended).

#### Course Sequence

All chemistry majors are advised to take General Chemistry (CHEM 111-112 or CHEM 115) and MATH 113-114 (Calculus) during the freshman year, then CHEM 201-202 and PHYS 111-112 (Introductory Physics) 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 Biochemistry*

#### **Major in Chemistry (B.A.)**

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

*or*

CHEM 115 Accelerated General Chemistry (4 credits)

*Plus:*

CHEM 201 Organic Chemistry I (4 credits)  
 CHEM 202 Organic Chemistry II (4 credits)  
 CHEM 300 Quantitative Analysis (4 credits)  
 CHEM 320 Instrumental Analysis (4 credits)  
 CHEM 481-484 Seminar (2 credits total)

*Plus four credits from the following:*

CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)  
 CHEM 332 Quantum Chemistry and Molecular Spectroscopy (4 credits)

*Plus at least eight credits in courses chosen from the following list:*

CHEM 250 Organometallic Chemistry (2 credits)  
 CHEM 295 Topics (2 credits)  
 CHEM 296 Topics (2 credits)  
 CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)  
 CHEM 332 Quantum Chemistry and Molecular Spectroscopy (4 credits)  
 CHEM 340 Organic Spectroscopy (2 credits)  
 CHEM 391, 392 Research (1 credit)  
 CHEM 400 Advanced Inorganic Chemistry (4 credits)

*Note:* CHEM 332 is a prerequisite for CHEM 400

CHEM 420 Bioanalytical and Forensic Chemistry (2 credits)  
 CHEM 430 Polymer Chemistry (2 credits)  
 CHEM 440 Biochemistry I (4 credits)  
 CHEM 442 Biochemistry II (4 credits)  
 CHEM 492 Research (2 credits each)  
 CHEM 494 Research (4 credits each)

*Note:* Only 4 credits of research may be applied to the degree.

#### Allied requirements

MATH 113 Calculus I (4 credits) *and* MATH 114 Calculus II (4 credits)\*

## Chemistry

PHYS 111 Introductory Physics I (4 credits) *and* PHYS 112 Introductory Physics II (4 credits)

\*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 specified above. MATH 200 and 240 are highly recommended.

### 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 Education*

### Minor in Chemistry

A minor in chemistry shall consist of 24 credits in chemistry courses. A minimum of 8 credits in chemistry must be successfully completed at St. Thomas to earn a minor in the field.

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

*or*

CHEM 115 Accelerated General Chemistry (4 credits)

*Plus:*

CHEM 201 Organic Chemistry I (4 credits)

*Plus sufficient credits from the following to yield a total of 24:*

*Note:* Some of these courses have prerequisites beyond the core, or require permission of the instructor.

CHEM 202 Organic Chemistry II (4 credits)

CHEM 250 Organometallic Chemistry (2 credits)

CHEM 295 Topics (2 credits)

CHEM 296 Topics (2 credits)

CHEM 298 Topics (4 credits)

CHEM 300 Quantitative Analysis (4 credits)

CHEM 320 Instrumental Analysis (4 credits)

CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)

CHEM 332 Quantum Chemistry and Molecular Spectroscopy (4 credits)

CHEM 340 Organic Spectroscopy (2 credits)

CHEM 420 Bioanalytical and Forensic Chemistry (2 credits)

CHEM 430 Polymer Chemistry (2 credits)

CHEM 440 Biochemistry I (4 credits)

CHEM 442 Biochemistry II (4 credits)

CHEM 492 Research (2 credits each)

CHEM 494 Research (4 credits each)\*

\*A student may take four credits of research for the minor with the approval of the department chair. No special approval is needed for CHEM 492 (2 credits).

### CHEM 100 Chemistry in Our World (4 credits) (CHEM 101)

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 to 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. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum for non-majors. Offered fall semester and summer (when enrollment allows).

NOTE: Students who receive credit for CHEM 100 may not receive credit for CHEM 101.

### CHEM 101 Environmental Chemistry (4 credits) (CHEM 100)

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 fundamentals lead to the study of currently relevant environmental problems and their proposed solutions, for example the depletion of ozone in the stratosphere, global warming, acid rain, smog, water pollution, and the study of energy resources. Lecture plus three laboratory hours per week. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum for non-majors. Offered spring semester.

NOTE: Students who receive credit for CHEM 101 may not receive credit for CHEM 100.

### CHEM 111 General Chemistry I (4 credits) (CHEM 100, 101, 115)

This course, together with CHEM 112, provides a two-semester introduction to chemistry. Topics include atomic structure, molecular structure, chemical bonding, the periodic table, states of matter, reaction types, stoichiometry, thermochemistry, intermolecular forces, and properties of the common elements and their ions in aqueous solution.

Lecture plus four laboratory hours per week. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered fall and spring semesters.

Prerequisite: Math placement at 108 or above

NOTE: Students who receive credit for CHEM 111 may not receive credit for CHEM 100, 101, or 115.

#### **CHEM 112 General Chemistry II (4 credits) (CHEM 115)**

This course continues the study of chemistry begun in 111. Topics include thermodynamics, kinetics, equilibrium, acid-base chemistry, electrochemistry, and nuclear chemistry. Lecture plus four laboratory hours per week. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered spring semester and summer (when enrollment allows).

Prerequisite: A minimum grade of C- in CHEM 111

NOTE: Students who receive credit for CHEM 112 may not receive credit for CHEM 115.

#### **CHEM 115 Accelerated General Chemistry (4 credits) (CHEM 100, 101, 111, 112)**

A one semester general chemistry class that blends significant topics from CHEM 111 and 112 for very strong students interested in majoring in science or engineering. Approximately one-third of the course content is drawn from CHEM 111 with the balance coming from CHEM 112. Topics include atomic theory, stoichiometry, gas laws, phases of matter, atomic and molecular structure, bonding, kinetics, thermodynamics, equilibrium, electrochemistry, nuclear chemistry, and descriptive chemistry. Lecture plus four laboratory hours per week. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered fall semester.

Prerequisite: Math placement at the 113 level, high school chemistry, and satisfactory performance on the chemistry placement examination.

NOTE: Students who receive credit for CHEM 115 may not receive credit for CHEM 100, 101, 111, or 112.

#### **CHEM 201 Organic Chemistry I (4 credits)**

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. Offered fall semester.

Prerequisite: A minimum grade of C- in CHEM 112 or 115

#### **CHEM 202 Organic Chemistry II (4 credits)**

Continuation of 201. Offered spring semester.

Prerequisite: A minimum grade of C- in CHEM 201

#### **CHEM 250 Organometallic Chemistry (2 credits)**

A study of the structure, bonding, and reactions of compounds that contain direct metal-carbon bonds. Emphasis is placed on the role these compounds play as stoichiometric and catalytic reagents in organic and inorganic synthesis. Additional topics include electronic and structural theory, reaction mechanisms, and the role of organometallics in biochemistry and material science. Offered alternate January terms.

Prerequisite: CHEM 201

#### **CHEM 295, 296 Topics (2 credits)**

#### **CHEM 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

#### **CHEM 300 Quantitative Analysis (4 credits)**

An introduction to quantitative chemical analysis. Topics include sample treatment, the statistical handling of data, equilibria governing acid/base chemistry and complex formation, and fundamentals underlying measurements using the following techniques: titrimetry (using acid/base, complexation and redox reactions), spectrophotometry (atomic absorption and emission spectroscopy and molecular absorption spectroscopy), and analytical separations (GC, HPLC, and capillary electrophoresis). Lecture plus four laboratory hours per week. Offered fall and spring semesters.

Prerequisite: A minimum grade of C- in CHEM 112 or 115

#### **CHEM 320 Instrumental Analysis (4 credits)**

Principles and techniques of operation of modern chemical instrumentation not covered in CHEM 300. Topics include the capabilities, limitations and data interpretation of advanced optical spectroscopies (luminescence, Raman, etc.), voltammetry, potentiometry, differential scanning calorimetry, thermal gravimetric analysis and mass spectrometry. Fundamentals of signal processing, basic circuitry and optical components are also included. The laboratory consists of both structured exercises and a student designed project and report based on an industrial problem or on an analysis problem of interest to the student. Lecture plus four hours of lab each week. Offered spring semester.

Prerequisites: CHEM 202, 300

#### **CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)**

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,

## Chemistry

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. Offered fall semester.

Prerequisites: CHEM 202, MATH 114 and PHYS 111

### CHEM 332 Quantum Chemistry and Molecular Spectroscopy (4 credits)

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. Offered spring semester.

Prerequisites: CHEM 202, MATH 114 and PHYS 112

### CHEM 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. Offered spring semester.

Prerequisite: A minimum grade of C- in CHEM 202

### CHEM 391 Research (1 credit)

Work on a problem under the direction of the staff. Primarily literature work.

Prerequisite: Permission of the department chair

### CHEM 392 Research (1 credit)

Work on a problem under the direction of the staff. Primarily laboratory work.

Prerequisite: CHEM 391

### CHEM 400 Advanced Inorganic Chemistry (4 credits)

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. Offered fall semester.

Prerequisites: CHEM 202 and 332 or permission of the instructor

### CHEM 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, mass spectrometry and spectral interpretation, 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. Offered alternate January terms.

Prerequisite: CHEM 201

### CHEM 430 Polymer Chemistry (2 credits)

An introduction to the science associated with polymers accomplished by discussing some of the fundamental aspects of polymer science and engineering. Three general subject areas will be addressed: 1) polymer synthesis and characterization, 2) polymer structure including melt, glassy, semicrystalline, rubbery, and solution states, and 3) selected physical properties (e.g. viscoelasticity, toughness, failure, permeability) and processing characteristics. Offered spring semester every other year.

Prerequisite: CHEM 202

### CHEM 440 Biochemistry I (4 credits)

The first course in a two-semester sequence examining the chemistry underlying biological processes. The topics addressed include a review of the properties of aqueous solutions and buffers; the structure and function of proteins, carbohydrates and lipids; an introduction to the properties, reaction kinetics and catalytic mechanism of enzymes; membrane structure and function; qualitative and quantitative models of bioenergetics; and an introduction to metabolic regulation and control featuring carbohydrate metabolism as well as the citric acid cycle. Lecture plus four laboratory hours per week. Offered fall semester.

Prerequisite: A minimum grade of C- in CHEM 202

### CHEM 442 Biochemistry II (4 credits)

The second course in a two-semester sequence examining the chemistry underlying biological processes. Topics include a continued investigation of bioenergetics focusing on oxidative phosphorylation and photophosphorylation; fatty acid metabolism; amino acid metabolism; nucleotide synthesis; mechanisms and regulation of gene expression; protein synthesis; and methods in genetic engineering. Lecture plus four laboratory hours per week. Offered spring semester.

Prerequisite: A minimum grade of C- in CHEM 440

### CHEM 475, 476 Experiential Learning (2 credits)

### CHEM 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**CHEM 481, 484 Student Seminar (1 credit)**

**CHEM 482, 483 Student Seminar (0 credit)**

This sequence of courses begins in the fall semester of the junior year and progresses for a total of four semesters. The first (CHEM 481) and last (CHEM 484) courses are each one credit and are graded on the usual letter grade scale. The interior two courses (CHEM 482, 483) are zero credit and are graded on a pass-fail basis (S/R). Seminars are presented by guest speakers, St. Thomas faculty, and St. Thomas students throughout all four courses. In CHEM 481, juniors are introduced to the chemical literature, literature search techniques including use of computer databases, and write a short paper based on literature research. In CHEM 483 seniors meet in small groups with faculty and discuss articles from the current literature. In CHEM 484, seniors research a topic from the chemical literature and present it in both written and oral formats. Information about career opportunities for students holding a chemistry degree is presented throughout the seminar sequence. Required of all chemistry majors. CHEM 481 and 483 are offered fall semester. CHEM 482 and 484 are offered spring semester.

**CHEM 487, 488 Topics (2 credits)**

**CHEM 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**CHEM 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**CHEM 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## **Classical Civilization (CLAS)**

College of Arts and Sciences, Interdisciplinary Program  
O’Shaughnessy Education Center (OEC) 205B, (651) 962-5163  
Quartarone, 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 (4 credits)

CLAS 397 Topics (4 credits)

CLAS 480 Senior Paper (4 credits)

ENGL 220 The Classical Tradition (4 credits)

HIST 111 Origins of the Modern World to 1550 (4 credits)

HIST 300-level ancient history course approved by director

PHIL 200 Ancient Philosophy (4 credits)

*Plus four credits from the following:*

GREK 212 Intermediate Greek II (4 credits) (prerequisites may be necessary)

LATN 212 Intermediate Latin II (4 credits) (prerequisites may be necessary)

GREK or LATN - Four credits numbered above 212

*Plus four credits from the following:*

ARTH 305 Greek Art and Archaeology (4 credits)

ARTH 310 Roman Art and Archaeology (4 credits)

*Plus eight credits from the following courses not already taken above:*

ARTH 305 Greek Art and Archaeology (4 credits)

ARTH 310 Roman Art and Archaeology (4 credits)

GREK 342 Greek Reading and Exegesis: John (4 credits)

GREK - additional course

HIST 302 Classical and Early Hellenistic Greece (4 credits)

HIST 304 The Roman Republic and the Early Principate (4 credits)

LATN 360 Philosophy in Latin Texts (4 credits)

## Classical Civilization

LATN - additional course  
PHIL 230 Greek Philosophers on the Foundations of Knowledge (4 credits)  
PHIL 320 Aristotelian Logic (4 credits)  
THEO 210 New Testament (4 credits)  
THEO 220 Early Christian Theology (4 credits)

### **Minor in Classical Civilization**

The minor in Classical Civilization will be comprised of four components: 1) Language courses, 2) Foundations courses, 3) History courses, and 4) Elective courses.

#### **Concentration Courses**

CLAS 245 Classical Mythology (4 credits)  
CLAS 225 The Classical Hero and Contemporary Film (4 credits)  
CLAS 397 Topics (4 credits)

*Plus four credits from the following:*

GREK or LATN - Four credits numbered above

*Plus four credits from the following:*

HIST 301 Egypt and the Near East, 8000 BC to AD 750 (4 credits)  
HIST 302 The Ancient Greek World (4 credits)  
HIST 304 History of the Roman World (4 credits)  
HIST 386 Historical Archaeology (4 credits)

#### **CLAS 225 The Classical Hero and Contemporary Film (4 credits)**

This Course focuses on analyzing and understanding Classical epic poetry, the ancient presentation of heroic figures and heroic exploits, and recognizing the influence of epic/heroic literature on the modern storytelling device of film. While the genre of epic is central to the course, other genres (both literary and cinematic) which present heroic figures, e.g., tragedy, history, comedy, action, fantasy, will also be explored. Analyzing the works read or viewed via writing and class discussion will constitute the primary course activities; students will engage in reading, viewing and writing outside of class, while class time will include some writing, viewing and discussion. In order to allow ample time for discussion and analysis, the majority of films in their entirety will be viewed outside of class. The course grade will be based substantially on written analysis (i.e., essays, papers) of the texts and films studied.

#### **CLAS 245 Classical Mythology (4 credits)**

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.

#### **CLAS 397 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

#### **CLAS 475, 476 Experiential Learning (2 credits)**

#### **CLAS 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

#### **CLAS 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.

#### **CLAS 483, 484 Seminar (2 credits)**

#### **CLAS 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

#### **CLAS 487, 488 Topics (2 credits)**

#### **CLAS 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

#### **CLAS 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**CLAS 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**Communication and Journalism (COJO)**

College of Arts and Sciences, Department of Communication and Journalism  
O’Shaughnessy Education Center (OEC) 460, (651) 962-5250

Bunton (chair), Anderson, Armada, Bruess, Bryan, Connery, Cragan, Craig, Gavrilos, Guan, Neuzil, O’Donnell, Petersen, Purdy, Sauter, Scully, Vandegrift, Wyatt

In the Department of Communication & Journalism, we focus on the theory and practice of communication in all its forms – interpersonal, organizational, intercultural, and mass-mediated through advertising, journalism and public relations. We create effective messages with words, images and sounds that are presented as speeches, news stories, documentaries, web sites, and advertising or public relations campaigns. We study the processes by which messages are sent and received so that we understand the effects and meanings of communication. We teach students to think critically, to communicate clearly and accurately, and to consider their personal and professional obligations to serve the common good. We emphasize excellence in communication and journalistic practices that reflect the professional and ethical development of the whole person.

Our students take a core of courses that give them basic competence in writing and speaking, and then work with faculty advisers to select courses that help them specialize in a particular area of communication. All our students end their major with a capstone seminar in Communication Ethics, which ensures they understand how ethical principles apply to all forms of communication and are ready as professionals to work toward the common good. Ultimately, courses in communication and journalism prepare students for a variety of careers in advertising and public relations agencies, in news organizations that publish newspapers, magazines or web sites, in broadcast and digital media operations, in corporate, government, political, advocacy and non-profit organizations, or for graduate or law school.

Student media opportunities can be found on the TommieMedia.com web-based news organization, which provides news and advertising for UST students and the larger university community. A digital television studio, Mac-equipped graphics labs and an Avid video-editing lab support student work. Student organizations include chapters of the American Advertising Federation, Communication Club, the Lambda Pi Eta honorary, Public Relations Student Society of America and the Society of Professional Journalists.

COJO majors must complete six of their 11 courses in COJO at UST. COJO minors must complete three of their five courses in COJO at UST.

**Major in Communication and Journalism**

All communication and journalism majors must take 11 courses totaling 44 credits.

COJO 111 Communication and Citizenship (4 credits)

COJO 112 Public Communication: Speaking and Writing (4 credits)

*Note:* COJO 111 is the prerequisite course for most other courses in the department, but will be waived by the department chair for students seeking education licensure who are required to take upper-level COJO courses. It may also be waived by the department chair for students majoring in Business Communication. It will not be waived for COJO majors.

*Note:* COJO majors are strongly encouraged to complete COJO 112 before enrolling in any 300- or 400-level COJO courses.

*Plus one theory and research course (4 credits) from the following:*

COJO 211 Communication Theories and Methods (4 credits)

COJO 212 Rhetorical Criticism (4 credits)

COJO 213 Mass Communication Research (4 credits)

*Plus three theory and analysis courses (12 credits), with at least two numbered 300 or above, from the following:*

COJO 211 Communication Theories and Methods (4 credits)

COJO 212 Rhetorical Criticism (4 credits)

COJO 213 Mass Communication Research (4 credits)

*Note:* majors may count these courses in this category only if they have not used them to fulfill the above theory and research requirement

COJO 220 Interpersonal Communication (4 credits)

COJO 230 Foundations in Media and Society (4 credits)

COJO 232 Visual Communication (4 credits)

COJO 234 Principles of Advertising and Public Relations (4 credits)

COJO 320 Organizational Communication (4 credits)



## Communication and Journalism

COJO 326 Modern American Rhetoric (4 credits)  
COJO 328 Communication of Race, Class, and Gender (4 credits)  
COJO 330 Communication History (4 credits)  
COJO 332 Documentary in American Culture (4 credits)  
COJO 334 Literary Journalism (4 credits)  
COJO 336 Media Law (4 credits)  
COJO 338 Political Communication (4 credits)  
COJO 340 Television Criticism (4 credits)  
COJO 372 Environmental Communication (4 credits)  
COJO 430 Society, Culture and the Media (4 credits)  
COJO 432 Media Structure and Power (4 credits)

*Plus three practice and application courses (12 credits), with at least one numbered 300 or above, from the following:*

COJO 251 Multimedia Reporting (4 credits)  
COJO 252 Editing (4 credits)  
COJO 254 Photojournalism (4 credits)  
COJO 256 Design Concepts of Communication (4 credits)  
COJO 258 Writing and Designing for the Web (4 credits)  
COJO 260 Electronic Media Production (4 credits)  
COJO 262 Radio Production (4 credits)  
COJO 264 Media Communication Skills (4 credits)  
COJO 268 Advertising Copywriting (4 credits)  
COJO 270 Public Relations Writing (4 credits)  
COJO 272 Advertising Media and Connections Planning (4 credits)  
COJO 274 Small Group Communication (4 credits)  
COJO 276 Argumentation and Advocacy (4 credits)  
COJO 350 Magazine Writing (4 credits)  
COJO 360 Videography: TV Production in the Field (4 credits)  
COJO 366 Persuasion (4 credits)  
COJO 368 Advanced Advertising Copywriting (4 credits)  
COJO 370 Intercultural Communication (4 credits)  
COJO 451 Advanced Multimedia Reporting (4 credits)  
COJO 456 Graphic Design Studio (4 credits)  
COJO 460 Advanced Video Production (4 credits)  
COJO 470 Advertising and Public Relations Campaigns (4 credits)  
COJO 472 Family Communication (4 credits)

*Note:* To develop a coherent area of emphasis in these six courses, students must consult their COJO major field advisers and obtain the department chair's signature on a COJO major planning form.

*Plus:*

One elective course (4 credits) taken from any category and level in COJO, which may include independent study, experiential learning (internship) credit, a study abroad course or a topics course.

*Plus a senior capstone seminar:*

COJO 480 Communication Ethics (4 credits)

*Majors may not take these two courses:*

COJO 100 Public Speaking (4 credits)

COJO 105 Communication and the Workplace (4 credits)

### **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 Education*

### **Minor in Communication and Journalism**

*All communication and journalism minors must take five courses totaling 20 credits, as follows:*

COJO 111 Communication and Citizenship (4 credits)

COJO 100 Public Speaking *or* COJO 105 Communication in the Workplace *or* COJO 112 Public Communication: Speaking and Writing (4 credits)

Any three other COJO courses (12 credits), with one course from the Theory and Analysis category *and* one course from the Practice and Application category *and* one course numbered 300 or higher

**COJO 100 Public Speaking (4 credits) (formerly COMM 100)**

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. This class is not open to Communication and Journalism majors.

**COJO 105 Communication in the Workplace (4 credits) (formerly COMM 105)**

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 and Journalism majors.

**COJO 111 Communication and Citizenship (4 credits)**

Communication and Citizenship presents theories and principles of communication in all its forms (interpersonal, intercultural, organizational, rhetorical and mass-mediated) and emphasizes relationships between communication and the public realm. The course encourages students to develop a sense of their own agency in the communication process, whether they're creating interpersonal and mediated messages as communication professionals, or receiving and evaluating messages as citizens. It also helps students recognize what inhibits individuals and groups from being full citizens, and it helps students discover ways of empowering those individuals and groups through communication. Finally, the course aims to foster in students a commitment to being critically reflective, informed and active citizens.

**COJO 112 Public Communication: Speaking and Writing (4 credits)**

This course prepares students to communicate thoughtfully, professionally and ethically with a variety of public audiences. Essential writing and public speaking skills are paired so that students master a writing style and then convert that writing to an oral presentation, or vice versa. Students learn how to appropriately and effectively speak and write to academic, professional and citizen audiences. The course may be taken concurrently with COJO 111. Students are strongly encouraged to complete this course before taking any 300- or 400-level COJO courses.

**COJO 211 Communication Theories and Methods (4 credits) (formerly COMM 120)**

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 nonverbal 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.

Prerequisite: COJO 111 or permission of instructor

**COJO 212 Rhetorical Criticism (4 credits) (formerly COMM 140)**

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 an 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.

Prerequisite: COJO 111 or permission of instructor

**COJO 213 Mass Communication Research (4 credits) (formerly JOUR 300)**

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: COJO 111 or permission of instructor

**COJO 220 Interpersonal Communication (4 credits) (formerly COMM 222)**

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: COJO 211 or sophomore standing

**COJO 230 Foundations in Media and Society (4 credits) (formerly COMM 264)**

A survey of the media industry, providing a fundamental grounding in the history, regulation, programming strategies, advertising and rating systems of television, radio, and new forms of media. The course will develop an increased awareness of the social, economic, and political roles that the media play in our society.

Prerequisite: COJO 111 or sophomore standing

**COJO 232 Visual Communication (4 credits) (formerly JOUR 105)**

Introduction to the history, theory and principles of communicating visually through art, illustration, photography, design, typography, film, video and other visual forms.

Prerequisite: COJO 111 or permission of instructor

## Communication and Journalism

**COJO 234 Principles of Advertising and Public Relations (4 credits) (formerly JOUR 240 and JOUR 250)**  
An integrated approach to advertising and public relations, highlighting how these disciplines relate to marketing, business and media institutions. Incorporates a case study approach to understanding the principles and practices of the strategic communication process of research, planning, communication and evaluation.  
Prerequisite: COJO 111 or permission of instructor

**COJO 251 Multimedia Reporting (4 credits)**  
This course concentrates on news reporting, teaching skills in news judgment, observation, interviewing, information gathering, organization and writing. Students learn to report news for a variety of media platforms, preparing text audio and video versions of stories for the web, television, print and radio.  
Prerequisite: COJO 112

**COJO 252 Editing (4 credits) (formerly JOUR 211)**  
Preparation of copy for publication; evaluation of news; headline writing; news display, including typography; picture editing; and editing magazines.  
Prerequisite: COJO 112

**COJO 254 Photojournalism (4 credits) (formerly JOUR 230)**  
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: COJO 232 or permission of instructor

**COJO 256 Design Concepts of Communication (4 credits) (formerly JOUR 220)**  
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.  
Prerequisite: COJO 111 or permission of instructor

**COJO 258 Writing and Designing for the Web (4 credits) (formerly JOUR 225)**  
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.

**COJO 260 Electronic Media Production (4 credits) (formerly COMM 160)**  
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.  
Prerequisite: COJO 112 or permission of instructor

**COJO 262 Radio Production (4 credits) (formerly COMM 260)**  
An introduction to radio production. Students will produce projects digitally that are designed to acquaint them with genres, styles and production techniques, with emphasis on the radio industry. Production planning, scripting, the use of sound effects, field production, multi-track recording, mixing and editing are covered. In addition, the students in this course will produce shows for KUST, the university's Internet radio station, which is also cablecast on campus. Each student will learn how to operate live production techniques, as with radio DJs, announcers and interviewers.  
Prerequisite: COJO 112

**COJO 264 Media Communication Skills (4 credits) (formerly COMM 315)**  
The components and requirements of effective media performance are addressed. Development of critical assessment skills is emphasized via the evaluation of news, commercial and informational broadcasts in both the audio and video media. Particular attention is given to students' development of performance techniques, emphasizing the use of voice, interviewing, ad-libbing and TelePrompTer use. Application and evaluation of performance choices are achieved through the production of video and audio projects.  
Prerequisite: Sophomore standing

**COJO 268 Advertising Copywriting (4 credits) (formerly JOUR 340)**  
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: COJO 112 and COJO 234

**COJO 270 Public Relations Writing (4 credits) (formerly JOUR 350)**  
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.  
Prerequisites: COJO 112 and COJO 234

**COJO 272 Advertising Media and Connections Planning (4 credits) (formerly JOUR 345)**

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: COJO 112 and COJO 234

**COJO 274 Small Group Communication (4 credits) (formerly COMM 220)**

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: COJO 211 or sophomore standing

**COJO 276 Argumentation and Advocacy (4 credits) (formerly COMM 250)**

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: COJO 212 or sophomore standing

**COJO 295, 296 Topics (2 credits)**

**COJO 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**COJO 320 Organizational Communication (4 credits) (formerly COMM 320)**

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: COJO 211, 212, 213 or permission of instructor

**COJO 326 Modern American Rhetoric (4 credits) (formerly COMM 350)**

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, music, memorials, architecture and other nonverbal strategies. Topics of study may include: The rhetoric of domination and resistance, national identity formation, and the rhetoric of public memory. This course fulfills a requirement in American Culture and Difference.  
Prerequisite: Junior standing, or permission of instructor

**COJO 328 Communication of Race, Class, and Gender (4 credits) (formerly COMM 340)**

This course focuses on theories and research of the historical and contemporary correlation between gender, race, class, and communicative practices, including rhetorical practice and mass communication content. It includes the influence of gender and racial stereotypes on public speech and debate, political campaigns and communication, organizational leadership, news coverage and advertising. Topics include: gendered perceptions of credibility; who is allowed to communicate and who is silenced due to class and racial privilege; and the impact of gender, race and class stereotypes about human nature, expertise, and abilities on individuals and groups that want to participate in public culture and communication. Students analyze and evaluate their own communicative styles in light of course readings and activities. This course fulfills a requirement in American Culture and Difference, Justice and Peace Studies, Women's Studies, and the Human Diversity requirement in the core curriculum.  
Prerequisite: COJO 212, or junior standing, or permission of instructor

**COJO 330 Communication History (4 credits) (formerly JOUR 301)**

Early forms of communication, including art and symbols of ancient humans, civilizations without writing, the idea of an alphabet, medieval libraries, European background of the American news media system, development of American journalism, photography, film and telegraphy, and the mass media as a cultural institution.  
Prerequisite: COJO 111 or permission of instructor

**COJO 332 Documentary in American Culture (4 credits) (formerly COMM 365)**

This course provides an overview of documentary television and film as part of American culture. Class sessions will focus on how to analyze and interpret claims particular documentaries make, while providing a foundation for understanding aesthetic, rhetorical, and political economic conventions that help shape the meaning of each documentary. To this end, this course will center on current theoretical dilemmas and debates in documentary filmmaking, including questions of how to define documentary, what constitutes the ethical treatment of documentary subjects and subject matter, and how documentaries construct and position audiences. We will explore the concepts of reality, truth and authority, through a variety of readings and viewings.

**COJO 334 Literary Journalism (4 credits) (formerly JOUR 302)**

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 cen-

## Communication and Journalism

turies 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: Junior or senior standing, or permission of instructor

### COJO 336 Media Law (4 credits) (formerly JOUR 304)

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: COJO 111 and junior or senior standing, or permission of instructor

### COJO 338 Political Communication (4 credits) (formerly COMM 455)

Political Communication is a survey of how politicians use various communication strategies, particularly during campaigns, in local, state and national elections to influence public and legislative audiences. Examination of oral presentations, electronic media, written materials, and web-based appeals will be central to the course. Students will apply theory to specific political situations and candidates, will conduct interviews, and will write papers and make presentations on their findings.

Prerequisite: COJO 212 or junior standing

### COJO 340 Television Criticism (4 credits) (formerly COMM 360)

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 perspectives, watch programs such as comedies, dramas, news, advertisements, miniseries, etc., and write several critical analysis of the programs.

### COJO 350 Magazine Writing (4 credits) (formerly JOUR 370)

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.

Prerequisite: COJO 112

### COJO 360 Videography: Television Production in the Field (4 credits) (formerly COMM 270)

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.

Prerequisite: COJO 260

### COJO 366 Persuasion (4 credits) (formerly COMM 240)

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) that influence the persuasive process. Ethical consideration of persuasive tactics will be discussed. Students apply theory through analysis of, and practice in, written, mediated and oral forms of persuasion. A final project in applied persuasion is developed in the course.

Prerequisite: COJO 212 or sophomore standing

### COJO 368 Advanced Advertising Copywriting (4 credits) (formerly JOUR 440)

This course 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: COJO 268

### COJO 370 Intercultural Communication (4 credits) (formerly COMM 322)

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: COJO 211, 212 or 213 or permission of instructor

### COJO 372 Environmental Communication (4 credits) (formerly JOUR 316)

This course focuses on the communication of mediated information about the environment. Students will examine what makes (and what has made) the environmental stories we tell about ourselves, from writing about agriculture, nature and spirituality to green advertising, the rhetoric of the environmental movement, and environmental movies and music.

Prerequisite: COJO 111 or permission of instructor

### COJO 430 Society, Culture and the Media (4 credits) (formerly JOUR 402)

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 sub-cultural rituals. History, political economy, critical studies, cultural anthropology, semiotics and sociology are among the areas from which approaches for studying the media are considered in the course.

Prerequisite: COJO 211, 212 or 213, or permission of instructor

**COJO 432 Media Structure and Power (4 credits) (formerly JOUR 404)**

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: COJO 211, 212 or 213, or permission of instructor

**COJO 451 Advanced Multimedia Reporting (4 credits)**

This course concentrates on refining skills in interviewing, storytelling, use of documents, choice of media format, and creation of multi-part news stories. Students report news for a variety of media platforms, preparing text, audio and video versions of stories for the web, television, print and radio.

Prerequisite: COJO 251

**COJO 456 Graphic Design Studio (4 credits) (formerly JOUR 420)**

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: COJO 256 and permission of instructor

**COJO 460 Advanced Video Production (4 credits) (formerly COMM 370)**

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.

Prerequisites: COJO 360

**COJO 470 Advertising and Public Relations Campaigns (4 credits) (formerly JOUR 445 and JOUR 450)**

Students work as strategic communicators in advertising and public relations to develop an integrated communication campaign plan that will successfully influence key audiences' attitudes and behaviors for the ultimate goal of building and maintaining good relationships with audiences' key audiences.

Prerequisites: COJO 234 and COJO 268, or 270 or 272, or permission of instructor

**COJO 472 Family Communication (4 credits) (formerly COMM 425)**

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: COJO 211 and junior or senior standing, or permission of instructor

**COJO 480 Communication Ethics (4 credits) (formerly JOUR 480)**

This capstone seminar for graduating seniors explores ethical issues that confront communication professionals and audiences. Students explore theoretical perspectives on communication ethics, work from case studies to understand professional ethical standards, discuss current ethical issues in communication, work in teams to perfect oral and written ethical analysis skills, and write an individual thesis paper.

Prerequisites: graduating seniors only and permission of department chair

**COJO 475, 476 Experiential Learning (2 credits)**

**COJO 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog. COJO experiential learning credit is restricted to COJO majors and minors.

**COJO 483, 484 Seminar (2 credits)**

**COJO 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**COJO 487, 488 Topics (2 credits)**

**COJO 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**COJO 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**COJO 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Computer and Information Sciences

### Computer and Information Sciences (CISC)

College of Arts and Sciences, Department of Computer and Information Sciences  
O'Shaughnessy Science Hall (OSS) 402, (651) 962-5470  
Heltne (chair), Curran, Hansen, Jarvis, Komar, Pliego, Sturm, Werness, Yilek

Computer and Information Sciences is part of the liberal arts curriculum at the University of St. Thomas. Computing is constantly evolving. There is a growing family of computing related disciplines that have joined the initial discipline of Computer Science. Recognizing these many areas within the broader discipline in computing, this department offers five majors: (1) Computer Science, (2) Information Systems, (3) Information Technology, (4) Information Security, and (5) Statistics. In addition, a track within the Computer Science major is offered for those students who wish to complete a Master of Science degree in five years through the Graduate Programs in Software (GPS) degree. Each is described in detail below.

These majors are concerned with the collection, organization, processing, storage, retrieval, communication, and use of information in today's society. The emphasis is on the 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 database design, systems analysis, networking, security, artificial intelligence, statistics, and operations research. Program goals can be found on the department website: [www.stthomas.edu/cisc](http://www.stthomas.edu/cisc).

The department has arranged its program to prepare students 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 to encourage participation of students from other disciplines. The department encourages majors to obtain a minor in another field. Students interested in teacher licensure should see the various science and mathematics programs in the Department of Teacher Education section of this catalog. A dual degree program with Engineering is also available, which is described in the catalog section under *School of Engineering*.

#### Major in Computer Science

Computer Science is a foundation for many different computing careers. Computer scientists design and build software and create efficient solutions to real-world problems in such fields as robotics, computer architecture, software engineering, and computer networking.

CISC 130\* Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131\*

Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 131 is recommended for this major

CISC 210 Information Security (4 credits)

CISC 230\* Object-Oriented Design and Programming (4 credits)

CISC 231 Data Structures Using Object-Oriented Design (4 credits)

CISC 310 Operating Systems (4 credits)

CISC 340 Computer Architecture (4 credits)

CISC 370 Computer Networking (4 credits)

CISC 450 Database Design I (4 credits)

STAT 220 Statistics I (4 credits)

\* *Note:* A grade of C- or above must be earned by majors in these courses.

*Plus eight credits from the following:*

CISC 320 Systems Analysis and Design I (4 credits)

CISC 342 Computer Applications in Experimental Sciences (4 credits)

CISC 440 Artificial Intelligence and Robotics (4 credits)

CISC 451 Database Design II (4 credits)

#### Allied requirements

COJO 100 Public Speaking (4 credits) *or* COJO 105 Communications in the Workplace (4 credits)

MATH 114 Calculus II (4 credits)

MATH 128 Introduction to Discrete Mathematics (4 credits)

#### Fast track to a Master's Degree

The following is a track within the Computer Science major for those students who want to complete a Master of Science degree in five years through the Graduate Programs in Software (GPS) department. After obtaining their Bachelor's degree in CISC, students can go on and complete one more year in the GPS department and obtain a Master's degree. The following are the requirements for that program:

CISC 130\* Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131\*

Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 131 is recommended for this major

CISC 210 Information Security (4 credits)

CISC 230\* Object-Oriented Design and Programming (4 credits)

CISC 231 Data Structures Using Object-Oriented Design (4 credits)  
 CISC 310 Operating Systems (4 credits)  
 CISC 340 Computer Architecture (4 credits)  
 CISC 370 Computer Networking (4 credits)  
 CISC 605 Technical Communications (4 credits)  
 CISC 610 Software Engineering (4 credits)  
 CISC 625 Software Project Management (4 credits)  
 CISC 630 Database Design (4 credits)  
 STAT 220 Statistics I (4 credits)  
 One CISC or IDTH elective course numbered 100 through 499  
 \* *Note:* A grade of C- or above must be earned by majors in these courses.

**Allied requirements**

MATH 114 Calculus II (4 credits)  
 MATH 128 Introduction to Discrete Mathematics (4 credits)

**Major in Information Systems (IS)**

Information Systems majors design computing solutions that provide companies, non-profit organizations, and governments with the information they need to achieve their goals. They work with the life cycle of information systems, including efficiency and reliability, meeting customers' budgets, proper testing, and maintenance.

CISC 130\* Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131\*  
 Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 131 is recommended for this major

CISC 230\* Object-Oriented Design and Programming (4 credits)  
 CISC 320 Systems Analysis and Design I (4 credits)  
 CISC 321 Systems Analysis and Design II (4 credits)  
 CISC 325 E-Commerce (4 credits)  
 CISC 450 Database Design (4 credits)  
 STAT 220 Statistics I (4 credits)

\* *Note:* A grade of C- or above must be earned by majors in these courses.

*Plus eight credits from the following:*

CISC 110 Introduction to Information Processing (4 credits) *or* CISC 200 Introduction to Computer Technology and Business Applications (4 credits)  
 CISC 210 Information Security (4 credits)  
 CISC 270 Web Development (4 credits)  
 CISC 370 Computer Networking (4 credits)  
 CISC 419 Accounting Information Systems (4 credits)  
 CISC 430 Information Technology Management (4 credits)

**Allied requirements**

ACCT 210 Financial Accounting (4 credits)  
 COJO 100 Public Speaking (4 credits) *or* COJO 105 Communications in the Workplace (4 credits)  
 MGMT 305 Management & Organizational Behavior (4 credits)

*Plus four credits from the following:*

MATH 109 Calculus with Review II (4 credits)  
 MATH 111 Calculus for Business and Social Science (4 credits)  
 MATH 113 Calculus I (4 credits)

**Major in Information Technology (IT)**

Professionals in IT are involved in solving, supporting, troubleshooting and designing everything from web sites to networks, in organizations ranging from business and government to schools and health care.

CISC 130\* Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131\*  
 Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 131 is recommended for this major

CISC 230\* Introduction to Object-Oriented Programming (4 credits)  
 CISC 270 Web Development (4 credits)  
 CISC 320 Systems Analysis and Design I (4 credits)  
 CISC 370 Networks (4 credits)  
 CISC 430 Information Technology Management (4 credits)  
 CISC 450 Database Design (4 credits)  
 CISC 460 Senior Project/Practicum (4 credits)  
 STAT 220 Statistics I (4 credits)

\* *Note:* A grade of C- or above must be earned by majors in these courses.

*Plus eight credits from the following:*



## Computer and Information Sciences

CISC 210 Information Security (4 credits)  
CISC 321 Systems Analysis and Design II (4 credits)  
CISC 325 E-Commerce Systems (4 credits)  
IDTH 410 Operations Research I (4 credits)

### Allied requirements

COJO 100 Public Speaking (4 credits) *or* COJO 105 Communications in the Workplace (4 credits)  
MGMT 305 Management & Organizational Behavior (4 credits)

*Plus four credits from the following:*

MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

### Major in Information Security

Information security studies the problem of protecting information stored on computing systems and travelling on computer networks. The discipline has emerged from a synthesis of software engineering, network technology, sociology of computing, and the mathematics of computer science. The curriculum fulfills requirements for information security education established by the US Government. This major prepares students in the areas of computer security, network security, cryptography, and information assurance.

CISC 130\* Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131\*

Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 131 is recommended for this major

CISC 210 Information Security (4 credits)  
CISC 230\* Object-Oriented Design and Programming (4 credits)  
CISC 310 Operating Systems (4 credits)  
CISC 320 Systems Analysis and Design I (4 credits)  
CISC 370 Computer Networking (4 credits)  
CISC 410 Information Security Analysis (4 credits)  
STAT 220 Statistics I (4 credits)

\* *Note:* A grade of C- or above must be earned by majors in these courses.

*Plus eight credits from the following:*

CISC 270 Web Development (4 credits)  
CISC 321 Systems Analysis and Design II (4 credits)  
CISC 325 E-Commerce Systems (4 credits)

### Allied requirements

COJO 100 Public Speaking (4 credits) *or* COJO 105 Communications in the Workplace (4 credits)  
MATH 128 Introduction to Discrete Mathematics (4 credits) *or* ENGR 230 Digital Design (4 credits)

*Plus four credits from the following:*

MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

### Major in Statistics

This is an interdisciplinary major in the department of Mathematics and Computer and Information Sciences. This joint major allows students to pursue an interest in mathematical statistics, applied statistics, and related areas including biostatistics, operations research, and data mining.

*See Statistics*

### Teacher Licensure

Elementary Education with a co-major in Science and Mathematics for Elementary Education

*See Education*

### Minor in Computer and Information Sciences

Required: Five courses

CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131 Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 131 is recommended for this minor

Four additional CISC courses, at least two of which must be numbered 300 or above.

*Note:* One of these four may be chosen from IDTH numbered 300 or above.

Students should choose courses appropriate to their major field of study in consultation with the department chair or a member of the CISC department faculty.

### Minor in Information and Decision Theory

CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131 Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 131 is recommended for this minor

STAT 220 Statistics I (4 credits)  
 STAT 320 Statistics II (4 credits)  
 IDTH 460 Senior Project/Practicum (4 credits)

*Plus one elective IDTH course taken from this list:*

IDTH 400 Data Mining and Machine Learning (4 credits)  
 IDTH 410 Operations Research I (4 credits)  
 One approved IDTH Topics Course (IDTH 489 or 490)

**Allied requirements**

MATH 113 Calculus I (4 credits)

*Plus, depending on the IDTH Course choice, either:*

MATH 114 Calculus II (4 credits) or MATH 128 Introduction to Discrete Mathematics (4 credits)

**Computer and Information Sciences (CISC)**

**CISC 110 Introduction to Information Processing (4 credits) (CISC 200 or 216) (formerly QMCS 110)**

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. NOTE: Students who receive credit for CISC 110 may not receive credit for CISC 200 or 216.

**CISC 120 Computers in Elementary Education (4 credits) (formerly QMCS 120)**

This course is intended for elementary education majors. Topics include the role of the computer in elementary and middle-school education, computer applications in science and mathematics, data analysis, software packages for use in elementary and middle-school classrooms, Computer-Assisted-Instruction (CAI), multimedia, electronic portfolios, telecommunication and software creation using MicroWorlds and HTML. This course fulfills the third course in the Natural Science and Mathematical and Quantitative Reasoning.

Prerequisite: Elementary Education or SMEE major

**CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) (CISC 131) (formerly QMCS 130 and 230)**

Introduction to problem solving with computers, using programming languages common to science and engineering disciplines; logical thinking, design and implementation of algorithms; and basic programming structures. Introduction to hardware and software: how computers acquire, store, process, and output information; how computer systems are designed, programmed, and tested. Students will use both a scientific programming language and an application package designed to implement programming features at a level more accessible to non-programmers. This course is designed for students majoring in Engineering or the sciences. Majors in the Department of Computer and Information Sciences should take CISC 131. Please see your academic adviser to ensure you select the appropriate class. Lab included.

NOTE: Students who receive credit for CISC 130 may not receive credit for CISC 131.

**CISC 131 Introduction to Programming and Problem Solving (4 credits) (CISC 130) (formerly QMCS 130 and 230)**

Introduction to problem solving with computers: logical thinking, design and implementation of algorithms, and basic programming structures. Problems will be motivated by the computer science and management information science disciplines. Introduction to hardware and software: how computers acquire, store, process, and output information; how computer systems are designed, programmed, and tested. Students will use both a programming language and an application package designed to implement programming features at a level more accessible to non-programmers. This course is designed for students with majors the Department of Computer and Information Sciences. Engineering and science majors should take CISC 130. Please see your academic adviser to ensure you select the appropriate class. Lab included.

NOTE: Students who receive credit for CISC 131 may not receive credit for CISC 130.

**CISC 200 Introduction to Computer Technology and Business Applications (4 credits) (CISC 110 or 216) (formerly QMCS 200)**

This course will prepare students to use computers in a business environment and in daily life. Through application of basic computing fundamentals, students will be better prepared to purchase computers, diagnose and solve computer problems, use and build local area network/home networks, use and build common software applications, and design simple web pages. Student teams will transfer concepts and skills learned in the course as they assist organizations in the community with their technology needs.

NOTE: Students who receive credit for CISC 200 may not receive credit for CISC 110 or 216

**CISC 210 Information Security (4 credits)**

An introductory course in computer and network security including desktop security, LAN security, and large-scale system security. Topics include authentication, host-based access control, encryption, network access control, and network security protocols. These topics will be analyzed in the context of system requirements, security policy, and risk

## Computer and Information Sciences

assessment.

Prerequisites: 1) MATH 128 or ENGR 230 or STAT 220 (may be taken concurrently), and 2) CISC 130 or 131

### **CISC 216 Quantitative Techniques in Business (2 credits) (CISC 200) (formerly QMCS 216)**

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 CISC 200 and who are required to take CISC 200.

NOTE: Students who receive credit for CISC 216 may not receive credit for CISC 110 or 200.

### **CISC 230 Object-Oriented Design and Programming (4 credits) (formerly QMCS 281)**

Programming and problem solving using an object-oriented approach. Builds on the procedural language foundation developed in CISC 130 or 131. Topics include: how procedural design differs from object-oriented design, modeling, algorithms, classes, objects, behavior, state, class associations and hierarchies, polymorphism, inheritance, design requirements and representation, Uniform Modeling Language specification, testing and verification, file processing. Lab included.

Prerequisites: CISC 130 or 131

### **CISC 231 Data Structures Using Object-Oriented Design (4 credits) (formerly QMCS 350)**

Presents the fundamental suite of data structures and the algorithms used to implement them. Topics include: abstract data types, algorithm development and representation, searching, sorting, stacks, queues, lists, trees, measuring algorithm complexity, object-oriented design and implementation of moderately large and complex systems. Course assumes the student has proficiency in object-oriented specification, design, and implementation.

Prerequisites: CISC 230 and MATH 128

### **CISC 238 Software Design Using Business Languages (4 credits) (formerly QMCS 238)**

Introduction to software development using current and other business languages. Topics include algorithm development, sequential and direct-access file processing, tables, sorting, structured programming and software validation.

### **CISC 270 Web Management (4 credits) (formerly QMCS 310)**

This course will introduce students to the many technical and non-technical issues related to designing and constructing an effective World Wide Web (WWW) site. Students will be introduced to the Internet and the WWW, how they function, and what they do. The course will cover basic relational database principles and introduce the various tools necessary to implement an electronic commerce (e-commerce) WWW site. Students will work in small teams, using their own WWW server, and develop a fully functional site using many of the tools introduced in the course.

Prerequisite: CISC 230

### **CISC 295, 296 Topics (2 credits)**

### **CISC 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### **CISC 310 Operating Systems (4 credits) (formerly QMCS 360)**

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: MATH 128 or ENGR 230 or STAT 220 (may be taken concurrently), and CISC 230

### **CISC 320 Systems Analysis and Design I (4 credits) (formerly QMCS 420)**

A study of systems analysis methodologies used in the analysis and design of information systems. Emphasis on data, process, and modeling by use of a CASE tool: entity relationship diagrams and data normalization, data flow diagrams, use case diagrams, and data dictionaries. This is a “hands-on” course where students form teams to analyze the needs of a business client in the community.

Prerequisite: CISC 130 or 131; junior standing

### **CISC 321 Systems Analysis and Design II (4 credits) (formerly QMCS 421)**

Continuation of CISC 320. Concentration on user-centered design (UCD), physical design, low- and high- fidelity prototyping, and agile methods. Emphasis on managerial problems in systems development. Continued use of CASE and project-management tools. A “real world” design and prototyping project is an integral part of this course.

Prerequisite: CISC 320

### **CISC 325 E-Commerce (4 credits) (formerly QMCS 425)**

A study of relevant technologies and how they are used in today’s modern organizations to help manage the information resource of the organization. Emphasis is placed on the use of the Internet and World Wide Web and how they have changed organizational operations and strategies. This is an “active learning” course in which students will be researching current information systems technologies (such as Electronic Commerce [e-commerce]) and will be participating in the design and development of an e-commerce website for a fictitious organization.

Prerequisite: CISC 130 or 131; junior standing

**CISC 340 Computer Architecture (4 credits) (formerly QMCS 300 and 340)**

Structure and organization of computer systems and components, including the design of central processors, memory, and input/output systems. Instruction sets and basic machine language programming. Interfacing with simple external devices including switches, A to D, D to A, and communications.

Prerequisites: CISC 130 or CISC 131; and MATH 128

**CISC 342 Computer Applications in Experimental Sciences (4 credits) (formerly QMCS 342)**

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 in addition to LabVIEW programming. Topics include laboratory device interfacing, analog-signal acquisition and processing, frequency transformations, data analysis, image processing, and math modeling and simulation.

Prerequisites: CISC 130 or 131; MATH 109 or 111 or 113; one course in a laboratory science

**CISC 370 Computer Networking (4 credits) (formerly QMCS 370)**

An introduction to computer networking. Covers communication protocol concepts, local area networks, Internet protocols, network equipment, configuration, firewalls, and network security.

Prerequisites: MATH 128 or ENGR 230 or STAT 220 (may be taken concurrently); and CISC 130 or 131

**CISC 410 Information Security Analysis (4 credits)**

A capstone course that investigates the current state of the art in information security policy, technology, and assessment techniques.

Prerequisite: CISC 210, and previous or concurrent enrollment in CISC 310 and CISC 370

**CISC 419 Accounting Information Systems (4 credits) (formerly QMCS 419)**

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: CISC 110 or 200, and previous or concurrent enrollment in ACCT 316

**CISC 430 Information Technology Management (4 credits)**

Issues and topics surrounding the management of an Information Technology (IT) department within an organization: issues surrounding IT personnel and IT clients or customers; trade offs regarding IT – time versus money, technological elegance versus real-world applicability, use of new technologies versus organizational success; IT controls; and other current issues.

Prerequisites: CISC 320 and senior standing

**CISC 440 Artificial Intelligence and Robotics (4 credits) (formerly QMCS 380)**

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. Lab included.

Prerequisites: CISC 230 and STAT 220

**CISC 450 Database Design I (4 credits) (formerly QMCS 450)**

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, and database administration. Emphasis on general purpose relational database management systems using SQL.

Prerequisite: CISC 231 or 320 or 325

**CISC 451 Database Design II (4 credits)**

Advanced database analysis, design, and implementation including data warehousing, distributed databases, materialized views, grid computing, and replication. Storage and efficient retrieval of temporal data, objects, and non-textual information.

Prerequisite: CISC 450 or 630

**CISC 460 Senior Project (4 credits)**

Work on a software analysis, design, and implementation project or on a computer support project under the direction of a faculty member.

Prerequisite: Senior standing and permission of the instructor

**CISC 475, 476 Experiential Learning (2 credits)**

**CISC 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**CISC 483, 484 Seminar (2 credits)**

**CISC 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## Computer and Information Sciences

CISC 487, 488 Topics (2 credits)

CISC 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

CISC 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

CISC 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

CISC 605 Technical Communications (4 credits)

Instructors present the fundamentals of technical communication as practiced in industry, emphasizing clarity and organizational skills. Students engage in exercises that focus on technical writing, editing, public speaking and graphic design, and apply their skills across a broad range of activities, including critique of presentations and writing of proposals, reports, memoranda, user manuals, instructional modules, and specifications. The course includes techniques that assist an understanding of the structure of the language, and an appreciation for format and content, to better prepare students for project documentation.

*Note:* This course can only be taken by students who have been admitted to the *Fast Track to a Master's Degree* within the Computer Science major (see *Major in Computer Science*)

CISC 610 Software Engineering (4 credits)

This is a survey course covering software engineering concepts, techniques, and methodologies. Topics covered include software engineering; software process and its difficulties; software life-cycle models; project planning including cost estimation; design methodologies including structured design, data-structure oriented design, object-oriented design; and software testing. A brief review of data structures is included.

Prerequisite: CISC 231

*Note:* This course can only be taken by students who have been admitted to the *Fast Track to a Master's Degree* within the Computer Science major (see *Major in Computer Science*)

CISC 625 Software Project Management (4 credits)

Students gain a management perspective and a development process for planning, estimating, and controlling software development. They learn to develop a well-defined plan before beginning any software development effort; how to handle changes during the execution of the plan; how to incorporate quality criteria in the development cycle; and how to use methods to keep the project on track. Included in the course is the use of project management software and simulation software in the development and control of the project plan.

*Note:* This course can only be taken by students who have been admitted to the *Fast Track to a Master's Degree* within the Computer Science major (see *Major in Computer Science*)

CISC 630 Database Design (4 credits)

This course focuses on relational database design and system concepts. Database design includes database concepts, data models, conceptual (EER) and relational schema designs, query languages (SQL), physical data storage and access methods, and physical schema designs. Database systems includes query processing, transaction concepts and management such as concurrency control and recovery from failure, and database security and authorization. Students will complete a relational database design project.

*Note:* This course can only be taken by students who have been admitted to the *Fast Track to a Master's Degree* within the Computer Science major (see *Major in Computer Science*)

### Information and Decision Theory (IDTH)

IDTH 201 Introductory Statistics II (2 credits) (IDTH 220) (formerly QMCS 201)

This course is for students desiring to satisfy the coverage of STAT 220 or IDTH 220 (a full semester of statistics) when less than one full semester of statistics has been taken. Review of inferential statistics; sampling distribution of the sample mean and sample proportion, central limit theorem, confidence intervals and hypothesis tests for one and two means and one and two proportions. Introduction to basic applications: tests of independence, analysis of variance and linear regression. A statistical package must be used as tool.

Prerequisite: IDTH 206 or at least .35 semester, but less than one semester, of statistics

NOTE: Students who receive credit for IDTH 201 may not receive credit for STAT 220

IDTH 220 - See STAT 220 Statistics I

IDTH 295, 296 Topics (2 credits)

IDTH 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

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IDTH 320 - See STAT 320 Statistics II

## Computer and Information Sciences – Economics

### IDTH 360 Advanced Statistical Software (4 credits)

This course provides students with the knowledge and skills needed to effectively use advanced statistical software. Students learn how to create, modify, and merge data sets, write code, use different statistical procedures, create high-definition graphs, access data from outside sources, create and use macros, and use menu driven modules.

Prerequisites: STAT 220 Statistics I or STAT 314 Math Statistics (MATH 314)

### IDTH 400 Data Mining and Machine Learning (4 credits)

Introduction to statistical learning methods, from a statistical and computational perspective, to deal with massive and complex data. Topics include: Introduction; creating a project and diagram. Data preparation; defining and exploring data sources. Pattern discovery; cluster analysis, market basket analysis. Decision trees; cultivating and pruning decision trees, autonomous tree growth. Regression; transforming inputs, categorical inputs, polynomial regression. Neural Networks; input selection, stopped training. Model assessment; fit statistics, graphs, separate sampling. Model implementation; scored data sets, score code models. Applications. This course will give the basic ideas and intuition behind these methods, and special emphasis will be placed on their application through statistical software.

Prerequisites: MATH 113, and one of MATH 128 or MATH 240, and one of STAT 320 or STAT 333

### IDTH 410 Operations Research I (4 credits) (formerly QMCS 410)

Introduction to computer and analytic techniques to support the decision-making process. Topics include: Introduction to linear programming algorithms, sensitivity, duality, transportation, assignment, transshipment, integer linear programming, network models, project scheduling, inventory models, and waiting line models.

Prerequisites: MATH 113 or MATH 114 or MATH 128; and either STAT 220 or STAT 314

### IDTH 411 Operations Research II (4 credits) (formerly QMCS 411)

Advanced modeling and analytic techniques to support the decision-making process. Topics include: forecasting, decision analysis, multicriteria decision problems, simulation, Markov processes, dynamic programming, and non-linear programming.

Prerequisites: IDTH 410 and MATH 114

### IDTH 460 Senior Project (4 credits)

Work on a software analysis, design, and implementation project or on a computer support project under the direction of a faculty member.

Prerequisite: Senior standing and permission of the instructor

### IDTH 475, 476 Experiential Learning (2 credits)

### IDTH 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

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### IDTH 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### IDTH 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## Criminal Justice

See Sociology and Criminal Justice

## Economics (ECON)

College of Arts and Sciences, Department of Economics

O’Shaughnessy Education Center (OEC) 427, (651) 962-5675

Papagapitos (chair), Fairchild, Hartmann, Hendrickson, Kim, Marcott, Riley, Saad, Saavedra, Vincent, Walrath, Walsh, Wilson, Wisniewski, Wu

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,

## Economics

financial markets, international trade, poverty, income inequality, currency depreciation, monopoly power, bank failures, sports, 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 science, 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 deeper level would find the Bachelor of Science (B.S.) a better alternative.

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 equip the student with 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 electives 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 suitable to the different paths.

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 3.40 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 3.50 or higher in the major and 3.25 or higher overall.

### Major in Economics (B.A.)

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
ECON 315 Empirical Methods in Economics (4 credits)  
ECON 351 Macroeconomic Theory (4 credits)  
ECON 352 Microeconomic Theory (4 credits)

#### Plus:

Twelve credits in courses numbered 300 and above.

*Note:* Students are strongly encouraged to take ECON 315, 351 and 352 by the end of the junior year.

### Allied requirements

*Four credits from the following:*

MATH 109 Calculus with Review II (4 credits)  
MATH 111 Calculus for Business and Social Science (4 credits)  
MATH 113 Calculus I (4 credits)

#### Plus either:

STAT 220 Statistics I (4 credits) *or* MATH 303 Statistics for the Applied Sciences (4 credits)

*or*

MATH 313 Probability (4 credits) *and* STAT 314 Mathematical Statistics (4 credits)

### Major in Economics (B.S.)

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
ECON 315 Empirical Methods in Economics (4 credits)  
ECON 351 Macroeconomic Theory (4 credits)  
ECON 352 Microeconomic Theory (4 credits)

*Note:* Students are strongly encouraged to take ECON 315, 351 and 352 by the end of the junior year.

#### Plus:

A set of courses in one of the three paths below: Business, International, or Mathematical.

#### Allied requirements

*Four credits from the following:*

MATH 109 Calculus with Review II (4 credits)  
 MATH 111 Calculus for Business and Social Science (4 credits)  
 MATH 113 Calculus I (4 credits)

*Plus either:*

STAT 220 Statistics I (4 credits) *or* MATH 303 Statistics for the Applied Sciences (4 credits)

*or*

MATH 313 Probability (4 credits) *and* STAT 314 Mathematical Statistics (4 credits)

#### Business Economics

A path which emphasizes additional tools for analyzing business situations as well as incorporating a basic foundation in the field of business.

ECON 311 Forecasting (4 credits)  
 ECON 332 Industrial Organization (4 credits)  
 ECON 401 Managerial Decision Making (4 credits)

*Plus:*

Eight credits in elective economics courses numbered 300 or above

*Plus:*

ACCT 210 Introduction to Financial Accounting (4 credits)  
 MGMT 305 Management and Organizational Behavior (4 credits) (or BUSN 201 from previous semesters)

*Plus four credits from the following:*

FINC 300 Finance for Non-Business Majors (4 credits)  
 FINC 321 Financial Management (4 credits)

#### 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.

ECON 345 Economics of Development and Growth (4 credits)  
 ECON 346 Country and Area Studies in Economics (4 credits)  
 ECON 348 International Economics (4 credits)

*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.

ECON 355 Game Theory (4 credits)  
 ECON 418 Mathematical Economics (4 credits)

*Plus four credits from the following:*

ECON 301 History of Economic Thought (4 credits)  
 ECON 337 Economics of the Public Sector (4 credits)  
 ECON 339 Labor Economics (4 credits)  
 ECON 348 International Economics (4 credits)

*Plus:*

Eight credits in elective economics courses numbered 300 or above

*Plus:*

MATH 114 Calculus II (4 credits)  
 MATH 200 Multi-Variable Calculus (4 credits)  
 MATH 210 Introduction to Differential Equations and Systems (4 credits)  
*Note:* STAT 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 Education*

#### Minor in Economics

ECON 251 Principles of Macroeconomics (4 credits)



## Economics

ECON 252 Principles of Microeconomics (4 credits)

*Plus four credits from the following:*

ECON 351 Macroeconomic Theory (4 credits)

ECON 352 Microeconomic Theory (4 credits)

*Plus:*

Twelve credits in elective economics courses numbered 300 and above.

**ECON 211 Current Economic Issues (4 credits)**

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. This course fulfills the Social Analysis requirement in the core curriculum.

NOTE: Not open to students who have completed ECON 251 or 252.

**ECON 251 Principles of Macroeconomics (4 credits)**

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.

**ECON 252 Principles of Microeconomics (4 credits)**

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.

**ECON 295, 296 Topics (2 credits)**

**ECON 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**ECON 301 History of Economic Thought (4 credits)**

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: ECON 251 and 252

**ECON 311 Forecasting (4 credits)**

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.

Prerequisites: ECON 251, 252 and STAT 220

**ECON 315 Empirical Methods in Economics (4 credits)**

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.

Prerequisites: ECON 251 and 252, STAT 220 or MATH 303

**ECON 321 Law and Economics (4 credits)**

The relationship between legal and economic aspects of selected issues: property rights, liability laws, product-safety legislation, discrimination, crime control, and related topics.

Prerequisites: ECON 251 and 252 or permission of instructor

**ECON 326 Industry Studies (4 credits)**

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: ECON 251 and 252

**ECON 332 Industrial Organization (4 credits)**

Relationship between market structure, behavior and performance of business enterprises; government intervention and regulation; antitrust and other public-policy issues.

Prerequisites: ECON 251 and 252

**ECON 333 Regional and Urban Economics (4 credits)**

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: ECON 252

**ECON 335 Money, Financial Markets, and the Economy (4 credits)**

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: ECON 251 and 252

**ECON 337 Economics of the Public Sector (4 credits)**

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: ECON 252

**ECON 339 Labor Economics (4 credits)**

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: ECON 252

**ECON 345 Economics of Development and Growth (4 credits)**

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: ECON 251 and 252

**ECON 346 Country and Area Studies in Economics (4 credits)**

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, China, and Australia. Students may take this course more than once provided the specific country/region is not duplicated. Some offerings of this course fulfill the Human Diversity requirement in the core curriculum.

Prerequisites: ECON 251 and 252

**ECON 348 International Economics (4 credits)**

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: ECON 251 and 252

**ECON 349 Comparative Economic Systems (4 credits)**

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: ECON 251 and 252

**ECON 351 Macroeconomic Theory (4 credits)**

Theories of money, interest, income and expenditure, employment, and inflation; monetary and fiscal policies; introduction to the theory of growth.

Prerequisites: 251 and 252

**ECON 352 Microeconomic Theory (4 credits)**

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: ECON 251, 252, and MATH 109 or 111 or 113 or equivalent.

**ECON 355 Game Theory (4 credits)**

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 – Education

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: ECON 251 and 252, plus completion of the core curriculum mathematics requirement.

### ECON 360 Experimental Economics (4 credits)

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 goods and search theory.

Prerequisites: ECON 251, 252, and one additional ECON course numbered 300 or higher

### ECON 370 Environmental and Natural Resource Economics (4 credits)

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: ECON 252

### ECON 401 Managerial Decision Making (4 credits)

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: ECON 352, and STAT 220 or MATH 303 or permission of the instructor

### ECON 418 Mathematical Economics (4 credits)

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: ECON 352, and MATH 200 or MATH 114 with permission of instructor

### ECON 470 Research in Economics (4 credits)

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 ECON 315, or permission of the instructor

### ECON 475, 476 Experiential Learning (2 credits)

### ECON 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### ECON 483, 484 Seminar (2 credits)

### ECON 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### ECON 487, 488 Topics (2 credits)

### ECON 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### ECON 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### ECON 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Education (EDUC) - School of Education

School of Education, Department of Teacher Education

Minneapolis Opus Hall (MOH) 217, (651) 962-4550

Warring (chair), Cho, Hansen, Hunter, Nistler, Reif, Smith, Stouffer, Taylor

**Note:** The University of St. Thomas Teacher Education programs are in alignment with Minnesota state licensure reg-

ulations. Changes in state regulations could affect the programs described below. Please maintain contact with the Department of Teacher Education for the most current information.

The University of St. Thomas Department of Teacher Education offers a full range of undergraduate and graduate programs for persons who wish to teach in elementary, middle, and secondary school settings. Candidates who become educators through the Department are part of a proud tradition that goes back over three-quarters of a century, completing programs that embrace the liberal arts, emphasize ethical practice, and prepare creative, reflective educators dedicated to the success of all learners. Current programs are offered within the School of Education's mission:

Inspired by Catholic intellectual tradition, the University of St. Thomas School of Education educates practitioners to be morally responsible leaders who think critically, act wisely and work skillfully to advance the common good.

Department of Teacher Education programs are based on a 5x5x10 model framework, representing:

- the five dispositions of the Mission Statement
  1. morally responsible leaders who 2. think critically, 3. act wisely, and 4. work skillfully to 5. advance the common good;
- the five developmentally progressive program stages or blocks,
  1. Exploration, 2. Learning and Teaching, 3. Curriculum and Instruction, 4. Reflective Practice, and 5. Continuing Professional Development
- and the ten nationally accepted Standards of Effective Practice demonstrated competence in 1. subject matter, 2. student learning, 3. diverse learners, 4. instructional strategies, 5. learning environment, 6. communication, 7. planning instruction, 8. assessment, 9. reflection and professional development, and 10. collaboration, ethics, and relationships

The School of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE) and the North Central Association of Colleges and Secondary Schools. Programs 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. Ongoing state licensure rule changes make careful planning particularly important. Department and School of Education handbooks and information supplements outline specific departmental programs and policies and are available on the Teacher Education Blackboard site for students and in the Teacher Education Department office in Minneapolis Opus Hall (MOH 302).

#### Admission to the Program

Students typically begin their application for admission to the teacher education program during their sophomore year (but may begin as Freshman), while enrolled in Block 1, and complete their application during Block 2. Criteria for admission to the education program include:

- GPA/Grade minimum requirements:
  - Cumulative GPA of at least 2.75 for all credits earned at UST
  - A grade of "C" or better in all Education department courses
  - A grade of "C-" or better in all content area and allied courses that are counted towards licensure
- Positive recommendations from major or co-major adviser, education adviser and interview team
- Demonstrated ability to consistently exhibit all program disposition standards
- Evidence of a positive exploratory level field experience
- Completion of the MTLE or other Minnesota Board of Teaching (BOT) approved licensure examinations.
  - Students seeking licensure to teach in the state of Minnesota must complete (but not necessarily pass) all three components (reading, writing and mathematics) of the MTLE prior to program admission.
  - Candidates will need to pass all three components and all required MTLE II exams by the time of program completion in order to apply for licensure in the state of Minnesota.

#### Retention in the Program

Students accepted into the program must continue to meet all minimum admission requirements cited above and demonstrate appropriate progress on all required licensure standards in order to be placed for Clinical Practice (Student Teaching) and recommended for licensure. The department reserves the right to dismiss candidates from the licensure programs based on violations of the professional dispositions standards or unsatisfactory progress toward meeting state-mandated licensure standards.

#### Block 4 and Clinical Practice (Student Teaching)

In order to take Block 4 courses and participate in Clinical Practice, a candidate needs: senior status; successful completion of Assessment at Transition Points; satisfactory completion of all education courses in Blocks 1, 2, and 3 and licensure-related content courses; satisfactory demonstration of all Minnesota Standards of Effective Practice through portfolio presentation; plus admission to Clinical Practice. World Languages candidates must also arrange with the Modern Language Department to pass oral proficiency exams.

## Education

With Departmental approval, candidates may be able to complete half of their Clinical Practice in an international setting.

### Program Options

#### Plan A

Teacher education candidates who complete program and licensure requirements and graduate within four years follow Plan A.

#### Plan B

In some instances, teacher education candidates who find it difficult to complete their education program in four years may be able to complete licensure at the graduate level after earning their undergraduate degree. This option, called Plan B, is only available for candidates who complete a self-standing major (not just a co-major) and all other graduation requirements. Because of the planning involved, students who are contemplating the Plan B option should consult with a department adviser as early as possible in their programs. A formal application to use the Plan B option must be approved at least one semester prior to graduation.

### Program Completion

Following completion of all program requirements, a candidate may apply for Minnesota state licensure after passing all three sections of the MTLE exam and passing all required MTLE II psychology of learning and subject matter exams, or other Minnesota BOT approved licensure exams. On the basis of our approved Minnesota licensure program and our accreditation from the National Council for the Accreditation of Teacher Education (NCATE), many other states offer reciprocal entry licenses for candidates completing our program requirements. Since all states' requirements are unique, any candidate planning to teach in another state is strongly advised to check with that state in advance in order to satisfy those requirements.

## Elementary Education

Persons earning this major are licensed as K-6 generalists.

Majors must complete the following:

### 1) A second major in addition to Elementary Education

Note: The Co-major in Science and Mathematics for Elementary Education (SMEE) described at the end of this section is designed to fill the requirement for a second major.

### 2) Core Elementary Education (K-6) Requirements

#### Block 1

- EDUC 210 Education's Place in Society and Field Experience (4 credits)
- EDUC 212 Human Relations and Multicultural Education (4 credits)
- MTLE or other Minnesota BOT approved licensure exam required for admission to program

#### Block 2

- EDUC 330 Psychology for Teaching and Learning (4 credits)
  - EDUC 332 Field Experience II: Learning & Teaching (0 credit)
  - EDUC 350 Language Development, Literacy, and Literature I (4 credits)
- Note: Allied Math and Science requirements must be completed as a prerequisite to Block 3.

#### Block 3

- EDUC 370 Language Development, Literacy, and Literature II (4 credits)
- EDUC 371 Teaching Mathematics and Technology (4 credits)
- EDUC 372 Teaching Science and Healthy, Active Living (4 credits)
- EDUC 373 Teaching Social Studies and Fine Arts (4 credits)
- EDUC 337 Field Experience III: Curriculum & Instruction (0 credit)
- MTLE II & Content Area Exams required for licensure

#### Block 4

- EDUC 456 Inclusive School Communities (2 credits)
- EDUC 460 Clinical Practice: Student Teaching and Seminar (10 credits)

Plus:

Demonstrated competence on all required state standards

Plus:

Allied core curriculum math and science courses to meet state competencies:  
MATH 100 Mathematical Sampler (4 credits)  
MATH 121 Structures of Elementary Mathematics (4 credits)  
Two laboratory sciences (one each chosen from two different fields)

or

IDSC 150 Development of the Natural World (4 credits). If IDSC 150 is taken, an additional lab science is recommended but not required.

**Science and Mathematics for Elementary Education (SMEE)**

Rezac (MATH) (director), George (ENGR), Hartshorn (CHEM), Lamb (GEOL), Nollenberg (PHYS), Verhoeven (BIOL), Werness (CISC)

Co-major in Elementary Education (K-6).

*Note:* A Co-major cannot be a stand-alone major.

This co-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.

*Four credits from the following:*

GEOL 111 Introductory Physical Geology (4 credits)

GEOL 114 The Science of natural Disasters (4 credits)

GEOL 115 Environmental Geology (4 credits)

GEOL 162 The Earth's Record of Climate (4 credits)

*Plus either:*

BIOL 101 General Biology (4 credits)

*or the course sequence:*

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics, Evolution, and Ecology (4 credits)

BIOL 204 Cellular and Molecular Biology (4 credits)

*Plus either:*

CHEM 100 Chemistry in Our World (4 credits)

*or the course sequence:*

CHEM 111 General Chemistry I (4 credits)

CHEM 112 General Chemistry II (4 credits)

*or*

CHEM 115 Advanced General Chemistry (4 credits)

*Plus either:*

PHYS 101 Physics as a Liberal Art (4 credits)

*or the course sequence:*

PHYS 109 General Physics I (4 credits)

PHYS 110 General Physics II (4 credits)

*or the course sequence*

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

*Plus:*

SMEE 181 Science Seminar (0 credit)

SMEE 182 Science Seminar (0 credit)

SMEE 359 Integrated Studies in Science and Mathematics (4 credits)

*Plus:*

CISC 120 Computers in Elementary Education (4 credits)

*Plus:*

A *specialization sequence* consisting 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.

*Note:* PHYS 104 Astronomy (4 credits) is for persons who may want to add 5-8 general science. Please see your advisor.

**Middle/Secondary Level and K-12 Education**

Programs are designed to provide professional preparation for teaching in middle school, secondary, or K-12 settings. Licensure is available in the following areas:

Chemistry (9-12)

Communication Arts and Literature (5-12)

Earth and Space Science (9-12)

Health (5-12)

Life Science (9-12)

## Education

Mathematics (5-12)  
Music: Instrumental and Classroom (K-12)  
Music: Vocal and Classroom (K-12)  
Physical Education (K-12)  
Physics (9-12)  
Social Studies (5-12)  
World Languages and Cultures (French, German, Spanish) (K-12)

The following additional areas are offered in conjunction with the College of St. Catherine: Family and Consumer Science (5-12), Visual Arts (K-12). Please see an Education adviser for information.

NOTE: Students have the option of adding the **General Science (5-8) licensure** to 9-12 Chemistry, Earth and Space Science, Life Science, or Physics by taking the following courses:

BIOL 101 General Biology (4 credits)  
or BIOL 201 Diversity and Adaptation (4 credits) and BIOL 202 Genetics, Evolution, and Ecology (4 credits) and BIOL 204 Cellular and Molecular Biology (4 credits)  
PHYS 101 Physics as a Liberal Art (4 credits)  
or PHYS 109 General Physics I (4 credits) and PHYS 110 General Physics II (4 credits)  
or PHYS 111 Introduction to Classical Physics I (4 credits) and PHYS 112 Introduction to Classical Physics II (4 credits)  
GEOL 111 Introductory Physical Geology or one of GEOL 110, 113, 114, 115 (4 credits each)  
PHYS 104 Astronomy (4 credits)  
CHEM 100 Chemistry in Our World (4 credits)  
or CHEM 111 General Chemistry (4 credits) and CHEM 112 General Chemistry II (4 credits)  
or CHEM 115 Advanced General Chemistry (4 credits)

Majors must complete the following:

### 1) Core Secondary Education Requirements

#### Block 1

EDUC 210 Education's Place in Society and Field Experience (4 credits)  
EDUC 212 Human Relations and Multicultural Education (4 credits)  
MTLE or other Minnesota BOT approved licensure exams required for admission to program

#### Block 2

EDUC 330 Psychology for Teaching and Learning (4 credits)  
EDUC 332 Field Experience II: Learning & Teaching (0 credit)  
EDUC 355 Reading for the 5-12 Teacher (4 credits)\*  
\*Taken by all licensure areas except Music Education

#### Block 3

Methods Courses as noted in individual licensure area requirements  
Field Experience III: Curriculum & Instruction (0 credit)  
EDUC 336 Field Experience III: Communication Arts and Literature (0 credit)  
EDUC 337 Field Experience III: Elementary (0 credit)  
EDUC 339 Field Experience III: Health (0 credit)  
EDUC 341 Field Experience III: Mathematics (0 credit)  
EDUC 342 Field Experience III: Music (0 credit)  
EDUC 343 Field Experience III: Physical Education (0 credit)  
EDUC 344 Field Experience III: Science (0 credit)  
EDUC 346 Field Experience III: Social Studies (0 credit)  
EDUC 347 Field Experience III: World Languages (0 credit)  
MTLE II & Content Area Exams or other Minnesota BOT approved exams required for licensure

#### Block 4

EDUC 456 Inclusive School Communities (2 credits)  
EDUC 460 Clinical Practice: Student Teaching and Seminar (10 credits)

#### Plus:

Demonstrated competence on all required state standards

### 2) A Second Major or Co-Major and methods courses in the chosen area for licensure:

#### **Chemistry (9-12)**

Co-major in Chemistry (9-12) and a Co-major in Middle/Secondary Education.

Note: A Co-major cannot be a stand-alone major.

Note: Students have the option of adding the General Science (5-8) licensure

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

Plus Block 3 curriculum and instruction special methods course and field experience III:

EDUC 318 Curriculum and Instruction for Science (5-12) (4 credits)  
EDUC 344 Field Experience III: Science (0 credit)

*Plus:*

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

*or*

CHEM 115 Accelerated General Chemistry (4 credits)

*Plus:*

CHEM 201 Organic Chemistry I (4 credits)

CHEM 202 Organic Chemistry II (4 credits)

CHEM 300 Quantitative Analysis (4 credits)

CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)

CHEM 391 Research (1 credit)

CHEM 392 Research (1 credit)

CHEM 481 Seminar (1 credit)

CHEM 484 Seminar (1 credit)

MATH 113 Calculus I (4 credits)

MATH 114 Calculus II (4 credits)

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in Chemistry (B.A.), the following courses are required:*

CHEM 320 Instrumental Analysis (4 credits)

CHEM 482 Seminar (0 credit)

CHEM 483 Seminar (0 credit)

*Plus:*

Six credits from the list of elective chemistry courses found under Major in Chemistry (B.A.) (*see Chemistry*)

### **Communication Arts and Literature (5-12)**

Co-major in Communication Arts and Literature (5-12) and a Co-major in Middle/Secondary Education

*Note:* A Co-major cannot be a stand-alone major. Students seeking licensure in this area who also want to complete an English major and a Communication minor should consult the English Department section of the catalog and follow the Major in English with a Teacher Education Emphasis.

Blocks 1, 2, 3, and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods courses and field experience III:*

EDUC 345 Adolescent Literature (2 credits)

EDUC 316 Curriculum and Instruction for Communication Arts and Literature (5-12) (4 credits)

EDUC 336 Field Experience III: Communication Arts and Literature (0 credits)

*Plus:*

COJO 100 Public Speaking (4 credits)

COJO 211 Communication Theories and Methods (4 credits)

COJO 212 Rhetorical Criticism (4 credits)

COJO 260 Electronic Media Production (4 credits)

ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose (4 credits)

ENGL 112 Critical Reading and Writing II: Drama and Poetry (4 credits)

*Note:* Qualified students may substitute ENGL 190 and an additional upper-level literature course for ENGL 111 and 112

ENGL 300 Theory and Practice of Writing (4 credits)

ENGL 305 Linguistics: English Language (4 credits)

ENGL 361 Shakespeare and the Early Modern Period (4 credits)

ENGL 380 Issues in English Studies (4 credits)

*Plus four credits from each of the following areas for a total of sixteen credits:*

ENGL 211 British Authors I (4 credits) *or* ENGL 212 British Authors II (4 credits)

ENGL 214 American Authors I (4 credits) *or* ENGL 215 American Authors II (4 credits)

ENGL 220 The Classical Tradition (4 credits) *or* ENGL 221 The Modern Tradition (4 credits)

ENGL 217 Multicultural Literature (4 credits) *or* ENGL 218 Literature by Women: Critical History (4 credits)

*To complete a major in Communication, the following courses are required:*

Twelve additional upper division COJO credits

### **Earth and Space Science (9-12)**



## Education

Co-Major in Earth and Space Science (9-12) and a Co-Major in Middle/Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Note:* Students have the option of adding the General Science (5-8) licensure

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods course and field experience III:*

EDUC 318 Curriculum and Instruction for Science (5-12) (4 credits)

EDUC 344 Field Experience III: Science (0 credit)

*Plus four credits from the following:*

GEOL 111 Introductory Physical Geology (4 credits)

GEOL 114 The Science of Natural Disasters (4 credits)

GEOL 115 Environmental Geology (4 credits)

GEOL 162 The Earth's Record of Climate (4 credits)

*Plus:*

BIOL 201 Diversity and Adaptation (4 credits)

CHEM 111 General Chemistry I (4 credits)

CHEM 112 General Chemistry II (4 credits)

*or*

CHEM 115 Accelerated General Chemistry (4 credits)

GEOL 211 Earth Materials (4 credits)

GEOL 252 Earth Surface Processes and Geomorphology (4 credits)

GEOL 260 Regional Geology and Geological Field Methods (4 credits)

GEOL 320 Sedimentology and Stratigraphy (4 credits)

GEOL 340 Fundamentals of the Lithosphere I (Petrology) (4 credits)

GEOL 360 Fundamentals of the Lithosphere II (Structural Geology) (4 credits)

GEOL 430 Advanced Earth History (4 credits)

PHYS 101 Physics as a Liberal Art (4 credits)

PHYS 104 Astronomy (4 credits)

*Plus either:*

MATH 113 Calculus I (4 credits)

*or*

MATH 108 Calculus with Review I (4 credits) *and* MATH 109 Calculus with Review II (4 credits)

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in Geology, the following is required:*

Four additional GEOL credits numbered 200 or above, four credits of which must be a 400 level course

## Health Education (5-12)

Major in Health Education-Teaching (5-12) and a Co-major in Middle/Secondary Education.

*Note:* A Co-major cannot be a stand-alone major.

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods courses and field experience III:*

HLTH 440 Health Education: 5-12 Curriculum Assessment and Administration (4 credits)

HLTH 450 Health Education: 5-12 Methods, Resources and Partnerships (4 credits)

EDUC 339 Field Experience III: Health Education (0 credit)

*Plus:*

HLTH 345 Nutrition for Health and Fitness (4 credits)

HLTH 350 Personal Health and Wellness (4 credits)

HLTH 353 Consumer, Community and Environmental Health (4 credits)

HLTH 375 Lifelong Stress Management (2 credits)

HLTH 400 Epidemiology (4 credits)

HLTH 462 Human Sexuality Education (4 credits)

HLTH 464 Critical Issues in Health Education (4 credits)

*Plus four credits from the following:*

BIOL 101 General Biology (4 credits)

BIOL 105 Human Biology (4 credits)

*Plus four credits from the following:*

BIOL 251C Human Anatomy and Physiology I (CSC) (4 credits)

PHED 410 Human Anatomy and Physiology (4 credits)

*Plus four credits from the following:*

CHEM 100 Chemistry in our World (4 credits)  
 CHEM 101 Environmental Chemistry (4 credits)  
 CHEM 111 General Chemistry (4 credits)

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
 COJO 105 Communication in the Workplace (4 credits)

*Plus four credits from the following:*

PSYC 111 General Psychology (4 credits)  
 SOCI 100 Introduction to Sociology (4 credits)

**Recommended:**

PSYC 200 Psychology of Infancy and Childhood (4 credits)  
 PSYC 203 Psychology of Adolescence (4 credits)

**Life Science (9-12)**

Co-Major in Life Science (9-12) with Co-Major in Middle/Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Note:* Students have the option of adding the General Science (5-8) licensure

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods course and field experience III:*

EDUC 318 Curriculum and Instruction for Science (5-12) (4 credits)  
 EDUC 344 Field Experience III: Science (0 credit)

*Plus:*

BIOL 201 Diversity and Adaptation (4 credits)  
 BIOL 202 Genetics, Evolution, and Ecology (4 credits)  
 BIOL 204 Cellular and Molecular Biology (4 credits)  
 BIOL 206 Global Ecology (2 credits)  
 CHEM 111 General Chemistry I (4 credits)  
 CHEM 112 General Chemistry II (4 credits)  
 CHEM 201 Organic Chemistry I (4 credits)  
 GEOL 111 Introductory Physical Geology *or one of* GEOL 110, 113, 114, 115 (4 credits each)  
 PHYS 104 Astronomy (4 credits)

*Plus:*

Sixteen additional BIOL credits in courses numbered 200 or above, chosen in consultation with an adviser

*To complete a major in Biology, the following courses are required:*

Six additional BIOL credits numbered 200 or above

*Plus four credits from the following:*

STAT 220 Statistics I (4 credits)  
 MATH 303 Statistics for the Applied Sciences (4 credits)

*Plus at least two of the following, selected in consultation with the departmental adviser:*

CHEM 202 Organic Chemistry II (4 credits)  
 MATH 109 Calculus with Review II (4 credits) *or* MATH 113 Calculus I (4 credits)  
 PHYS 109 General Physics I (4 credits) *or* PHYS 111 Introduction to Classical Physics I (4 credits)

**Mathematics 5-12**

Major in Mathematics (5-12) and a Co-major in Middle/Secondary Education.

*Note:* A Co-major cannot be a stand-alone major.

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods course and field experience III:*

EDUC 317 Curriculum and Instruction for Mathematics (5-12) (4 credits)  
 EDUC 341 Field Experience III: Mathematics (0 credit)

*Plus:*

CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits)  
 MATH 113 Calculus I (or 108-109) (4 credits)  
 MATH 114 Calculus II (4 credits)  
 MATH 200 Multi-Variable Calculus (4 credits)  
 MATH 210 Introduction to Differential Equations and Systems (4 credits)  
 MATH 240 Linear Algebra (4 credits)  
 MATH 301 Abstract Algebra I (4 credits)

## Education

MATH 317 Real Analysis (4 credits)  
MATH 325 Geometry (4 credits)  
MATH 450 Advanced Mathematics: Exploration and Exposition (4 credits)

*Plus either:*

MATH 303 Statistics for the Applied Sciences (4 credits) *and* one additional MATH course numbered 300 or above

*or*

MATH 313 Probability (4 credits) *and* STAT 314 Mathematical Statistics (4 credits)

### **Instrumental Music Education (K-12) (BM)**

Co-major in Instrumental Music Education (K-12) and a Co-major in K-12 Music Education.

*Note:* A Co-major cannot be a stand-alone major.

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods courses and field experience III:*

EDUC 207 Early Elementary Music Methods (Pre K-2) (3 credits)  
EDUC 307 Intermediate Elementary Music Methods (Grades 3-5) (3 credits)  
EDUC 314 Secondary Music Methods (Grades 6-12) (3 credits)  
EDUC 342 Field Experience III: Music (0 credit)  
EDUC 418 Choral/Instrumental Music Methods (2 credits)

*Plus:*

EDUC 110 Introduction to Music Education I (1 credit)

*Plus the following Instrumental Concentrations:*

EDUC 218 Teaching Techniques for the Brass Family (2 credits)  
EDUC 220 Teaching Techniques for the Percussion Family (2 credits)  
EDUC 221 Teaching Techniques for the Woodwind Family (2 credits)  
EDUC 324 Teaching Techniques for the String Family (2 credits)  
EDUC 362 Vocal Pedagogy for Singers (1 credit)  
MUSC 354 Advanced Conducting and Materials: Instrumental Concentration (2 credits)

*Plus:*

MUSC 001 Student Convocation Hour (0 credits) (6 semesters)  
MUSC 101 Piano Skills I (1 credit)  
MUSC 102 Piano Skills II (1 credit)  
MUSC 113 Music Theory I (4 credits)  
MUSC 114 Music Theory II (4 credits)  
MUSC 133 Music of the United States: Aural and Written Traditions (4 credits)  
MUSC 140 Music Media (2 credits)  
MUSC 201 Piano Skills III (1 credit)  
MUSC 202 Piano Skills IV (1 credit)  
MUSC 213 Music Theory III (4 credits)  
MUSC 214 Music Theory IV (4 credits)  
MUSC 231 Introduction to Conducting I (1 credit)  
MUSC 232 Introduction to Conducting II (1 credit)  
MUSC 233 Music of the World: Aural and Written Traditions (4 credits)  
MUSC 341 Theory Elective: Musicianship Pedagogy for Music Educators (2 credits)  
MUSC 411 History and Literature of Music I (4 credits)  
MUSC 412 History and Literature of Music II (4 credits)  
MUSN 1xx Ensemble (6 semesters) (0 credits each semester)\*  
MUSP 103 Skills for Piano Proficiency (0 credit) - Piano Majors Only  
MUSP 3xx Performance studies (6 semesters) (2 credits each semester)  
MUSR 200 Piano Proficiency (0 credit)  
MUSR 270 Level I Recital (0 credit)  
MUSR 350 Level II Recital (0 credit)

\*Guidelines for choosing an ensemble:

Students must spend 6 semesters in a large instrumental ensemble.

Instrumental majors must spend at least 6 semesters in MUSN 185 or MUSN 186.

**Allied Requirements:**

PHYS 105 Musical Acoustics (4 credit hours)

### **Vocal Music Education (K-12) (BM)**

Co-major in Vocal Music Education (K-12) and a Co-major in K-12 Music Education.

*Note:* A Co-major cannot be a stand-alone major.

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods courses and field experience:*

EDUC 207 Early Elementary Music Methods (Pre K-2) (3 credits)  
 EDUC 307 Intermediate Elementary Music Methods (Grades 3-5) (3 credits)  
 EDUC 314 Secondary Music Methods (Grades 6-12) (3 credits)  
 EDUC 342 Field Experience III: Music (0 credit)  
 EDUC 418 Choral/Instrumental Music Methods (2 credits)

*Plus:*

EDUC 110 Introduction to Music Education I (1 credit)

*Plus the following for Vocal Concentrations:*

EDUC 176 German Diction for Singers (1 credit)  
 EDUC 177 French Diction for Singers (1 credit)  
 EDUC 324 Teaching Techniques for the String Family (2 credits)  
 EDUC 362 Vocal Pedagogy for Singers (2 credits)  
 MUSC 355 Advanced Conducting and Materials: Vocal Concentration (2 credits)

*Plus:*

MUSC 001 Student Convocation Hour (0 credits) (6 semesters)  
 MUSC 101 Piano Skills I (1 credit)  
 MUSC 102 Piano Skills II (1 credit)  
 MUSC 113 Music Theory I (4 credits)  
 MUSC 114 Music Theory II (4 credits)  
 MUSC 133 Music of the United States: Aural and Written Traditions (4 credits)  
 MUSC 140 Music Media (2 credits)  
 MUSC 201 Piano Skills III (1 credit)  
 MUSC 202 Piano Skills IV (1 credit)  
 MUSC 213 Music Theory III (4 credits)  
 MUSC 214 Music Theory IV (4 credits)  
 MUSC 231 Introduction to Conducting I (1 credit)  
 MUSC 232 Introduction to Conducting II (1 credit)  
 MUSC 233 Music of the World: Aural and Written Traditions (4 credits)  
 MUSC 341 Theory Elective: Musicianship Pedagogy for Music Educators (2 credits)  
 MUSC 411 History and Literature of Music I (4 credits)  
 MUSC 412 History and Literature of Music II (4 credits)  
 MUSN 1xx Ensemble (6 semesters) (0 credits each semester)\*  
 MUSP 103 Skills for Piano Proficiency (0 credit) - Piano Majors Only  
 MUSP 3xx Performance studies (6 semesters) (1 credits each semester)  
 MUSR 200 Piano Proficiency (0 credits)  
 MUSR 270 Level I Recital (0 credits)  
 MUSR 350 Level II Recital (0 credits)

\*Guidelines for choosing an ensemble:

Students must spend 6 semesters in a large choral ensemble.

Voice majors must spend at least 4 semesters in MUSN 142 or MUSN 160.

#### **Allied Requirements:**

PHYS 105 Musical Acoustics (4 credit hours)

#### **Physical Education (K-12)**

Major in Physical Education-Teaching (K-12) and a Co-major in K-12 Teaching Physical Education.

*Note:* A Co-major cannot be a stand-alone major.

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods courses and field experience III:*

PHED 204 Physical Education Methods for Elementary School (4 credits)  
 PHED 304 Physical Education Methods for Middle and Secondary Schools (4 credits)  
 EDUC 343 Field Experience III: Physical Education (0 credit)  
 PHED 404 Physical Education Methods for Secondary School (4 credits)  
 PHED 405 Physical Education Methods for Teaching Aquatics/First Aid/CPR/AED (4 credits)

*Note:* Option to waive PHED 405 for those students who successfully complete American Red Cross Certifications in Water-Safety-Instruction, and First Aid/CPR/AED

*Plus:*

HLTH 350 Personal Health and Wellness (4 credits)

## Education

PHED 104 Physical Education Curriculum, Instruction, and Assessment (4 credits)  
PHED 215 Rhythms and Dance (2 credits)  
PHED 311 Motor Development (2 credits)  
PHED 351 Teaching of the Special Needs Student (4 credits)  
PHED 410 Human Anatomy and Physiology (4 credits)  
PHED 420 Kinesiology (4 credits)  
PHED 431 Exercise Physiology (2 credits)  
PSYC 111 General Psychology (4 credits)

*Plus four credits from the following:*

BIOL 101 General Biology (4 credits)  
BIOL 105 Human Biology (4 credits)

*Recommended:*

COJO 100 Public Speaking (4 credits)  
SOC1 100 Introduction to Sociology (4 credits)

### **Physics (9-12)**

Co-major in Physics (9-12) plus a Co-Major in Middle/Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

*Note:* Students have the option of adding the General Science (5-8) licensure

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods course and field experience III:*

EDUC 318 Curriculum and Instruction for Science (5-12) (4 credits)  
EDUC 344 Field Experience III: Science (0 credit)

*Plus:*

CHEM 111 General Chemistry I (4 credits)  
CHEM 112 General Chemistry II (4 credits)

*or*

CHEM 115 Advanced General Chemistry (4 credits)  
CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits)  
ENGR 350 Introduction to Electronics (4 credits)  
GEOL 111 Introductory Physical Geology *or one of* GEOL 110, 113, 114, 115 (4 credits each)  
MATH 113 Calculus I (4 credits)  
MATH 114 Calculus II (4 credits)  
MATH 200 Multivariable Calculus (4 credits)  
MATH 210 Introduction to Differential Equations and Systems (4 credits)  
PHYS 104 Astronomy (4 credits)  
PHYS 111 Introduction to Classical Physics I (4 credits)  
PHYS 112 Introduction to Classical Physics II (4 credits)  
PHYS 215 Foundations of Modern Physics: From the Atom to the Big Bang (4 credits)  
PHYS 225 Applications of Modern Physics: From the Atom to the Diode (4 credits)  
PHYS 323 Methods of Experimental Physics (4 credits)

*Plus:*

Four additional credits in PHYS courses other than 101

*Plus either:*

BIOL 101 General Biology (4 credits)  
*or the three-course sequence*  
BIOL 201 Diversity and Adaptation (4 credits)  
BIOL 202 Genetics, Evolution, and Ecology (4 credits)  
BIOL 204 Cellular and Molecular Biology (4 credits)

*Plus:*

Demonstrated competence on all required state standards

*To complete a major in Physics (B.A.), two of the following courses are required:*

PHYS 105 Musical Acoustics (4 credits)  
PHYS 331 Theoretical Mechanics (4 credits)  
PHYS 341 Electricity and Magnetism (4 credits)  
PHYS 342 Electromagnetic Waves (4 credits)  
PHYS 347 Optics (4 credits)  
PHYS 410 Statistical Mechanics and Thermodynamics (4 credits)  
PHYS 431 Quantum Mechanics (4 credits)  
PHYS 494 Research (4 credits)  
PHYS 498 Individual Study (4 credits)

**Social Studies (5-12)**

Co-Major in Social Studies (5-12) (Economics, Geography, History, Political Science, Psychology, or Sociology) with a Co-Major in Middle/Secondary Education

*Note:* A Co-major cannot be a stand-alone major.

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods course and field experience III:*

EDUC 319 Curriculum and Instruction for Social Studies (5-12) (4 credits)

EDUC 346 Field Experience III: Social Studies (0 credit)

*Plus:*

ENVR 151 Humans and the Environment (4 credits)

POLS 104 American Government in Comparative Perspective (4 credits)

PSYC 111 General Psychology (4 credits)

SOCI 100 Introduction to Sociology (4 credits)

SOCI 301 Cultural Anthropology (4 credits)

*Plus four credits from the following:*

ECON 211 Current Economic Issues (4 credits)

ECON 251 Principles of Macroeconomics (4 credits)

*Plus four credits from the following:*

HIST 111 Origins of the Modern World to 1550 (4 credits)

HIST 112 The Modern World Since 1550 (4 credits)

*Plus four credits from the following:*

HIST 113 Early America in Global Perspective (4 credits)

HIST 114 The Modern U.S. in Global Perspective (4 credits)

*Plus four credits from the following:*

HIST 210 Modern Latin America, 1800 to the Present (4 credits)

HIST 220 Introduction to Japanese History and Culture (4 credits)

HIST 340 Foundations of Chinese Civilization (4 credits)

HIST 341 The History of Modern China (4 credits)

HIST 345 Family and Women in Chinese History (4 credits)

*Plus four credits from the following:*

GEOG 111 Human Geography (4 credits)

GEOG 113 World Geography (4 credits)

*Plus:*

Twenty-four additional credits in courses in one of the social science disciplines (economics, geography, history, political science, psychology, or sociology). Choice of these courses are subject to the approval of the department involved.

*To complete a major in one of the Social Science disciplines, contact the chair of the department.*

**Theater Arts (K-12)**

Co-major in Theater Arts (K-12) and a Co-Major in K-12 Teaching Theater

*Note:* A Co-major cannot be a stand-alone major.

*Note Joint licensure with St. Catherine:* Please see an adviser for program information.

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods course:*

THTR 375 Methods of Teaching Theater (4 credits)

*Plus:*

THTR 105 Stagecraft (4 credits)

THTR 214 Beginning Acting (4 credits)

THTR 215 Beginning Directing (4 credits)

THTR 253 Creative Dramatics (4 credits)

THTR 412 Drama: Theory and Criticism (4 credits)

*Plus two of:*

THTR 221 World Theater, Origins to 17th Century (History of Theater I) (4 credits)

THTR 222 Modern and Contemporary World Theater (History of Theater II) (4 credits)

THTR 223 American Theater (History of Theater III) (4 credits)

*Suggested elective:*

THTR 231 Dance for Musical Theater (4 credits)

## Education

*Plus:*

Participation in at least two mainstage productions

*To complete a major in Theater (B.A.), the following additional courses are required:*

THTR 315 Advanced Directing (4 credits)

Plus eight credits of THTR electives (four of which may be THTR 231)

### **World Language and Cultures Education (K-12)**

Major in French (K-12), German (K-12), or Spanish (K-12) with a Co-Major in K-12 World Language and Cultures

*Note:* A Co-major cannot be a stand-alone major.

*Note:* Students wishing to be licensed to teach World Language and Cultures K-12 in the state of Minnesota must demonstrate advanced level speaking proficiency (as defined in the American Council on the Teaching of Foreign Languages [ACTFL] Proficiency Guideline) in both English and in the target language.

Blocks 1, 2, 3 and 4 as listed at the beginning of this section

*Plus Block 3 curriculum and instruction special methods course and field experience III:*

EDUC 380 Curriculum and Methods for World Language and Cultures (K-12) (4 credits)

EDUC 347 Field Experience III: World Language and Cultures (0 credit)

*Plus:*

Successful completion of Language Oral Proficiency Exam required for Clinical Practice (arranged through Modern Language Department)

*Plus a major in French, German, or Spanish:*

#### **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 GERM 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**

36 credits numbered SPAN 300 and above. All students must take SPAN 300, 301, 305 and 335, plus twenty additional credits following the requirements for the Cultural and Literary Studies Track or the Linguistics and Applied Language Studies Track.

*Plus:*

SPAN - A course in Hispanic linguistics

Note: Course numbers do not necessarily appear in block sequence.

#### **EDUC 110 Introduction to Music Education I (1 credit)**

An orientation to the profession of music education. Overview of historical, philosophical, sociological, and psychological foundations of music education and related music professions. Exploration of the relationships of these foundations to individual and group instructional settings, vocational issues, and concerns of musicians working as performers, teachers, administrators and business owners. Field observations in a variety of instructional settings. Offered fall semesters.

#### **EDUC 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. Offered fall semester of even years.

#### **EDUC 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. Offered fall semester of even years.

#### **EDUC 207 Early Elementary Music Methods (Pre K-2) (3 credits)**

Contemporary music pedagogy for children in pre-Kindergarten through Grade 2. Examination of goals, objectives, diverse music repertoire, spiral curriculum content and skill development, strategies, materials, and methods. Study of learning styles, developmental stages, and culturally sensitive materials. Designing lessons and classroom environments for effective music teaching and learning. Techniques for classroom management and discipline. National and state standards for music education relative to Grades Pre K-2 music curricula. Emphasis on artistic teaching. Instrument lab meets one hour per week: soprano recorder and dulcimer. Offered spring semester of odd numbered years. Taken concurrently with MUSC 341.

#### **EDUC 210 Education's Place in Society and Field Experience (4 credits)**

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 experience.

#### **EDUC 211 Field Experience I: Exploration (1 credit)**

Typically taken as an integrated component of EDUC 210, EDUC 211 is designed for persons who transfer into the program and have taken a foundations course but not a field experience. The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The first field experience is a 30-hour guided, reflective, in-school field experience that provides an opportunity for beginning teacher education candidates to explore schools, education, and teaching as well as their own motivation for choosing the profession of teaching. This field experience focuses on questions which begin a general exploration of the profession: What is a good school? What is a good education? What is good teaching? What filters and assumptions do I use in making these determinations? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: Permission of the Director of Clinical Experiences

#### **EDUC 212 Human Relations and Multicultural Education (4 credits)**

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.

#### **EDUC 218 Teaching Techniques for the Brass Family (2 credits)**

This course will acquaint the prospective music teacher with the basic knowledge and skills of performance pedagogy of brass instruments which include proper embouchure, tone production, intonation, breathing, articulation, posture, and fingering patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments, mouthpieces, and other equipment appropriate for elementary and secondary instrumental pupils. Offered fall semester of odd years.

#### **EDUC 220 Teaching Techniques for Percussion Family (2 credits)**

This course will acquaint the prospective instrumental music teacher with the basic knowledge and skills of performance pedagogy of percussion instruments which include proper technique, tone production, intonation, articulation, posture, and patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments and other equipment appropriate for elementary and secondary instrumental pupils. Offered fall semester of even years.

#### **EDUC 221 Teaching Techniques for the Woodwind Family (2 credits)**

This course will acquaint the prospective instrumental music teacher with the basic knowledge and skills of performance pedagogy of woodwind instruments that include proper embouchure, tone production, intonation, breathing, articulation, posture, and fingering patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments, mouthpieces, and other equipment appropriate for elementary and secondary instrumental pupils. Offered spring semester of even years.

#### **EDUC 295, 296 Topics (2 credits)**

#### **EDUC 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,



## Education

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### **EDUC 307 Intermediate Elementary Music Methods (Grades 3-5) (3 credits)**

Contemporary music pedagogy for children in Grades 3-5. Examination of goals, objectives, diverse music repertoire, spiral curriculum content and skill development, strategies, materials, and methods. Study of learning styles, developmental stages, and culturally sensitive materials. Designing lessons and classroom environments for effective music teaching and learning. Techniques for classroom management and discipline. National and state standards for music education relative to Grades 3-5 music curricula. Emphasis on artistic teaching. Instrument lab meets one hour per week: autoharp; pitched and unpitched percussion. Offered fall semester of odd numbered years.

Prerequisites: EDUC 207 and MUSC 341

### **EDUC 308 Pedagogy and Literature for Music Performers I (2 credits)**

Cross-listed with MUSC 308:

Section 1: Voice

Section 2: Keyboard

Section 3: Guitar

Section 4: Winds/Percussion/Brass

All 4 sections will meet concurrently.

This class will survey methods and materials for performance studies. Discussions will include principles of technique, learning theories, musicianship, and performance based upon a wide and diverse body of literature. Students should sign up for section numbers that correspond with primary area of performance.

### **EDUC 309 Pedagogy and Literature for Music Performers II (2 credits)**

Cross-listed with MUSC 309:

Section 1: Voice

Section 2: Keyboard

Section 3: Guitar

Section 4: Winds/Percussion/Brass

All 4 sections will meet concurrently.

A continuation of Pedagogy and Literature for Music Performers I, this class will survey methods and materials for performance studies. Discussions will include principles of technique, learning theories, musicianship, and performance based upon a wide and diverse body of literature. Students should sign up for section numbers that correspond with primary area of performance.

Prerequisite: EDUC 308/MUSC 308

### **EDUC 314 Secondary Music Methods (Grades 6-12) (3 credits)**

Contemporary music pedagogy for children in Grades 6-8. Examination of goals, objectives, diverse music repertoire, spiral curriculum content and skill development, strategies, materials, and methods. Study of learning styles, developmental stages, and culturally sensitive materials. Designing lessons and classroom environments for effective music teaching and learning. Techniques for classroom management and discipline. National and state standards for music education relative to Grades 6-8 music curricula. Emphasis on artistic teaching. Instrument lab meets one hour per week: guitar, small ensembles, beginning arranging. Offered spring semester of even numbered years.

### **EDUC 316 Curriculum and Instruction for Communication Arts and Literature (4 credits)**

This course is designed to prepare teachers who will effectively engage learners with the curriculum of Communication Arts and Literature. Emphasis is on developmentally appropriate practice for a range of learners in grades 5 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.

Prerequisite: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; and concurrent registration with EDUC 336.

### **EDUC 317 Curriculum and Instruction for Mathematics (4 credits)**

This course is designed to prepare teachers who will effectively engage learners with the curriculum of Mathematics. Emphasis is on developmentally appropriate practice for a range of learners in grades 5 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.

Prerequisite: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; and concurrent registration with EDUC 341.

### **EDUC 318 Curriculum and Instruction for Science (4 credits)**

This course is designed to prepare teachers who will effectively engage learners with the curriculum of Science. Emphasis is on developmentally appropriate practice for a range of learners in grades 5 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.

Prerequisite: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; and concurrent registration with EDUC 344.

### **EDUC 319 Curriculum and Instruction for Social Studies (4 credits)**

This course is designed to prepare teachers who will effectively engage learners with the curriculum of Social Studies. Emphasis is on developmentally appropriate practice for a range of learners in grades 5 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.

Prerequisite: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; and concurrent registration with EDUC 346.

#### **EDUC 324 Teaching Techniques for the String Family (2 credits)**

This course will acquaint the prospective instrumental music teacher with the basic knowledge and skills of performance pedagogy of string instruments which include proper technique, tone production, intonation, articulation, posture, and patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments and other equipment appropriate for elementary and secondary instrumental pupils. Offered spring semester of odd years.

#### **EDUC 330 Psychology for Teaching and Learning (4 credits)**

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.

Prerequisite: EDUC 210 and concurrent registration with 332

#### **EDUC 332 Field Experience II: Learning & Teaching (0 credit)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The second formal field experience is a supervised 30-hour guided, reflective, in-school field experience that focuses on questions involving the exploration of learning and teaching: Who are the learners and how do they learn? In what ways are they diverse? What general approaches can I use to meet each learner's needs? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 210 and concurrent registration with EDUC 330

#### **EDUC 336 Field Experience III: Communication Arts and Literature (0 credits)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332 and concurrent registration with EDUC 316

#### **EDUC 337 Field Experience III: Elementary (0 credits)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332 and concurrent registration with EDUC 440 and 450

#### **EDUC 339 Field Experience III: Health (0 credits)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332 and concurrent registration with HLTH 450

#### **EDUC 341 Field Experience III: Mathematics (0 credits)**

## Education

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332 and concurrent registration with EDUC 317

### **EDUC 342 Field Experience III: Music (0 credits)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332

### **EDUC 343 Field Experience III: Physical Education (0 credits)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332 and concurrent registration with PHED 404 or HLTH 450

### **EDUC 344 Field Experience III: Science (0 credits)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332 and concurrent registration with EDUC 318

### **EDUC 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.

Prerequisite: EDUC 210

### **EDUC 346 Field Experience III: Social Studies (0 credits)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332 and concurrent registration with EDUC 319

### **EDUC 347 Field Experience III: World Languages (0 credits)**

The University of St. Thomas Teacher Education program utilizes a progression of structured, in-school field experiences to expand the vision and professionalism of program candidates. Field experiences are designed to complement university classroom learning by providing opportunities for candidates to practice the knowledge, skills and dispositions of effective educators across the grade ranges for which they will be licensed and with diverse student populations. The third field experience is a supervised, reflective, in-school opportunity that focuses on questions involving the role of curriculum and instruction: What determines my curriculum choices? Why am I teaching what I'm teaching? What strategies can I use to differentiate instruction for diverse learners? How do I assess student learning?

ing? How can I maximize this opportunity to help me develop as a professional?

Prerequisite: EDUC 330, 332 and concurrent registration with EDUC 380

#### **EDUC 350 Language Development, Literacy, and Literature I (4 credits)**

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: EDUC 210 and 212

#### **EDUC 355 Reading for the 5-12 Teacher (4 credits)**

This course is designed to explore how teachers can assist students to more easily deal with content area reading materials to include textbooks, written directions, newspapers, graphs/charts/maps, and manuals; and at the same time to encourage positive attitudes toward reading and writing in content areas.

#### **EDUC 362 Vocal Pedagogy for Singers (1-2 credits)**

Study of the physical structure of the vocal mechanism. Development of teaching techniques to promote life-long healthy singing, including appropriate vocal exercises and choral and solo repertoire; Special attention to unchanged child voice, adolescent changing voice, and adult singer. Offered fall semester of odd years.

#### **EDUC 370 Language Development, Literacy, and Literature II (4 credits)**

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: EDUC 330, 332 and 350; successful completion of Assessment II and admission to advanced candidacy; concurrent registration with EDUC 337, 371, 372, 373; and permission of chair

#### **EDUC 371 Teaching Mathematics and Technology (4 credits)**

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: EDUC 330, 332 and 350; successful completion of Assessment II and admission to advanced candidacy; concurrent registration with EDUC 337, 370, 372, 373; and permission of chair

#### **EDUC 372 Teaching Science and Healthy, Active Living (4 credits)**

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: EDUC 330, 332 and 350; successful completion of Assessment II and admission to advanced candidacy; concurrent registration with EDUC 337, 370, 371, 373; and permission of chair

#### **EDUC 373 Teaching Social Studies and Fine Arts (4 credits)**

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: EDUC 330, 332 and 350; successful completion of Assessment II and admission to advanced candidacy; concurrent registration with EDUC 337, 370, 371, 372; and permission of chair

#### **EDUC 380 Curriculum and Instruction for World Languages (K-12) (4 credits)**

This course is designed to prepare teachers who will effectively engage learners with the curriculum of world languages. 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.

Prerequisites: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; con-

## Education

current registration with EDUC 347

### **EDUC 418 Choral/Instrumental Music Methods (2 credits)**

Contemporary music pedagogy for children in Grades 9-12. Examination of goals, objectives, diverse music repertoire, spiral curriculum content and skill development, strategies, materials, and methods. Study of learning styles, developmental stages, and culturally sensitive materials. Designing lessons and classroom environments for effective music teaching and learning. Techniques for classroom management and discipline. National and state standards for music education relative to Grades 9-12 music curricula. Emphasis on artistic teaching. Instrument lab meets one hr. per week: electronic applications, advanced arranging, non-traditional ensembles. Offered fall semester of even years.

### **EDUC 424 Instrument Techniques for Vocal Music Educators (2 credits)**

This course will acquaint the prospective choral music teacher with the basic knowledge and skills of performance pedagogy of woodwind, brass, percussion and string instruments which include proper embouchure, tone production, intonation, breathing, articulation, posture, bowing and fingering patterns. Students will become familiar with the construction and operation of these instruments and be able to make minor repairs. The students will gain knowledge of representative beginning through grade 12 solo and ensemble repertoire from diverse periods and become acquainted with instructional materials for beginning, intermediate, and advance levels of students. Students will learn how to select instruments, mouthpieces, and other equipment appropriate for elementary and secondary instrumental pupils. Offered fall semester of even years.

### **EDUC 456 Inclusive School Communities (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: MTLE; and concurrent registration in EDUC 460 or 463

### **EDUC 460 Clinical Practice: Student Teaching and Seminar (10 credits)**

As the culminating experience of the teacher licensure program, clinical practice (student teaching) provides the opportunity for candidates to apply their knowledge and skills of teaching and learning in a classroom setting. Accompanying seminars assist candidates to reflect upon the experience and to increase their repertoire of strategies for dealing with topical, relevant issues. Clinical practice, along with the accompanying seminars and the final components of EDUC 456, is a full-time, full-semester commitment under the supervision of university and school-based professionals.

Prerequisites: Senior status; unconditional admission to the teacher education program; satisfactory completion of all education courses in Blocks 1, 2, and 3; plus satisfactory completion of all licensure-related content courses; plus admission to clinical practice, and concurrent registration with EDUC 456.

01 (K-8)

02 (5-12)

03 (K-12)

### **EDUC 463 Clinical Practice: Student Teaching and Seminar Dual License (12 credits)**

This clinical practice section is intended for candidates 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, clinical practice 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. Clinical practice 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 1, 2, and 3, plus unconditional admission to the teacher education program, plus admission to clinical practice, senior status; concurrent registration with EDUC 456

### **EDUC 483, 484 Seminar (2 credits)**

### **EDUC 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### **EDUC 487, 488 Topics (2 credits)**

### **EDUC 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### **EDUC 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### **EDUC 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**Science and Mathematics for Elementary Education (SMEE)****SMEE 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.

**SMEE 182 Science Seminar (0 credit)**

Same as SMEE 181. This number is used for the second semester of the seminar.

**SMEE 359 Integrated Studies in Science and Mathematics (4 credits)**

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, CISC 120, GEOL 111 (or 110 or 113 or 114 or 115), MATH 100 and 121, PHYS 101. (In certain cases, permission of the SMEE Director may allow a substitution.)

**Special Education (SPUG)**

Vandercook (chair), Bush, Neilson Gatti, Rogers, Ryan, Stansberry Brusnahan, Westberg, Wolfe

**SPUG 405 Basic Skills Instruction: Mild/Moderate Handicaps (4 credits) (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

**SPUG 414 Collaboration Skills for School Professionals (4 credits) (SPED 714)**

The purpose of this course is to develop an ethic of collaboration and the knowledge and skills needed to effectively collaborate with faculty, administrators, paraprofessionals, students, families, and community members. Students will explore the fundamentals of collaboration; applications of collaboration related to consultation, interagency agreements, team membership, staff development, and co-teaching; and the pragmatic aspects of collaboration. Students will have the opportunity to develop the personal and interpersonal skills necessary to be an effective collaborative partner in meeting diverse students needs.

**SPUG 450 Survey of Exceptionality (4 credits) (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 individuals with exceptionalities are explored. These include but are not limited to: gifted and talented, learning disabilities, emotional and behavioral disorders, developmental disabilities, sensory disabilities, early childhood special education, speech and language disorders.

**SPUG 452 Fundamentals of Emotional and Behavioral Disorders (4 credits) (SPED 752)**

Provides an introduction to the dynamics of emotional and behavioral disorders, their effect on students' education, legal responsibilities of schools, and collaboration among schools and other agencies who serve these youth. Theories, definitions, and characteristics within the context of school, family, and community settings will be discussed.

**SPUG 453 Fundamentals of Developmental Disabilities (4 credits) (SPED 753)**

To learn about students with developmental disabilities. These are students with a broad range of cognitive impairments and deficits in adaptive behavior. Most recently these have been individuals who have been identified as having mental retardation or mental impairments. This course will focus upon definition, etiology, prevention, assessment, characteristics, programming, family issues, inclusion, collaboration, transition and other current issues related to persons with cognitive or developmental disabilities.

**SPUG 478 Fundamentals of Preschoolers (4 credits) (SPED 778)**

This course is designed to provide a foundation for working with preschoolers and their families in early childhood and early childhood special education programs. Emphasis is placed on early childhood typical and atypical development, developmentally appropriate practice, and developing curriculum that is functional, appropriate, adaptable and fun. Curriculum units are created that enhance child development and are adapted for children with a variety of disabilities.

**SPUG 485 Behavior Management (4 credits) (SPED 785)**

This course explores the idea of positive behavior support for promoting acceptable behavior in school and other settings where youth learn. This course, grounded in research-based interventions, is designed to assist all who work with students in special and regular education in developing skills to teach and support acceptable behavior that will be demonstrated in home, school and community settings.

**SPUG 486 Fundamentals of Learning Disabilities (4 credits) (SPED 786)**

Theoretical and practical knowledge about the field of learning disabilities. This course emphasizes school-based definitions, criteria, characteristics, and etiology, as well as community and family support systems. It includes an analy-

## Engineering

sis of current trends at the local, state, and national levels for students with learning disabilities.

### **Engineering (ENGR) - School of Engineering**

School of Engineering  
O'Shaughnessy Science Hall (OSS) 100, (651) 962-5750  
www.stthomas.edu/engineering

#### **Faculty:**

Weinkauf (dean), Abraham, Bennett, Ellingson, George (ME Program Director), Greene (EE Program Director), Hennessey, Jalkio, Mowry, Rajagopalan, Thomas, Wentz  
Faculty from other departments and adjunct faculty from industry teach specialized courses.

#### **Engineering Degrees and Tracks offered:**

The School of Engineering at the University of St. Thomas offers a range of tracks in engineering:

- B.S. in Electrical Engineering (BSEE)
- B.S. in Mechanical Engineering (BSME)
- Dual BS/BA degree programs with Business, Physics, and Computer & Information Sciences
- Fifth Year Masters of Science (MS) in Mechanical Engineering
- Pre-engineering and 3-2 program
- Minors in engineering
- Peace Engineering Option

#### **What is Engineering?:**

The value of an engineering education is a lifetime of opportunity. Engineering is the bridge between the ever expanding technological frontier and today's societal needs. Engineers use design, science, mathematics, creativity and business analysis to create solutions to improve almost every facet of human life. The production of food, energy, clean water, medicine, cars, transportation systems, building materials, robotic machines, computers, communications equipment, electronic devices, paper, plastics, and even clothing fibers is all driven by engineers. Engineering is central to the creation of new technologies such as fuel cells, medical devices, renewable energy, efficient engines, advanced materials, micro-machines, biotechnology, and nanotechnology. Engineers are also leaders in broader fields such as business, medicine, patent law and government.

#### **About Engineering at the University of St. Thomas:**

Our mission is to provide an applied, values-based learning experience that produces well rounded, innovative engineers and technology leaders who have the technical skills, passion and courage to make a difference. Our mechanical and electrical engineering programs are accredited by the Engineering Accreditation Commission of ABET, Inc.

Program outcomes and objectives are designed to provide the graduate with a rigorous engineering experience balanced with the perspective of a liberal arts foundation. The educational objectives of each engineering program describes what we expect our graduates to accomplish in their work after graduation, as follows:

1. Create with the Engineering Skills: Use engineering skills and principles to create systems, products, and services that meet articulated and unarticulated needs of people and improve the quality of their lives in a sustainable way.
2. Grow in a Learning Profession: Increase personal knowledge and skill through graduate or professional study, appropriate certifications, and work assignments.
3. Contribute through Citizenship: Contribute time, knowledge, and skills to the profession, community, and the world.
4. Lead through ones Work: Serve as a team member or team leader, demonstrating ethical behavior, social sensitivity, and professional responsibility.

All said, the students stand at the center of our work. Our faculty are dedicated teachers and practitioners and work to foster a vibrant educational environment. We strongly believe that an Engineering education is about rolling up your sleeves, getting your hands dirty on projects, and wrapping your mind around ideas which have the potential to change our world. Graduates will demonstrate competence in a variety of skills that enhance their ability to solve problems in diverse ways to meet the needs of the global community. Graduates will also develop teamwork and effective communication skills while gaining a comprehensive understanding of the design process and engineering systems.

The School of Engineering curricula and programs are designed to foster an engaging engineering experience for our students. The year-long Senior Design Clinic pairs teams of students with members of the industry in creating a prototype solution to a real technical problem in the field. Our industry partners in the Twin Cities area sponsor numerous co-op and summer internships for our students. Beyond the theory developed in the lectures, both the Electrical and Mechanical Engineering curricula are designed to continually develop the hands-on skills of our students. From the freshman to senior level laboratories, students continue to gain a working knowledge of the modern engineering tools necessary to solve advanced technical problems.

#### **Degree in Electrical Engineering (BSEE)**

The bachelor of science in electrical engineering (BSEE) curriculum includes courses in circuits and electronics, signal processing and control system design, digital electronics and microprocessors, and electromagnetic fields and waves with a focus on embedded system design. The electrical engineering program is academically rigorous, complemented with a full liberal arts experience of the University of St. Thomas Core Curriculum. The Electrical Engineering program outcomes and objectives may be found at: [www.stthomas.edu/engineering/electrical](http://www.stthomas.edu/engineering/electrical). In addition to satisfying the University of St. Thomas Core Curriculum requirements (see page 22), students earning a BSEE degree must also meet the Electrical Engineering Major requirements and the Electrical Engineering allied requirements listed below. A four year degree plan for the BSEE is available in the School of Engineering main office or from any Engineering faculty advisor.

#### **Electrical Engineering Major Requirements**

ENGR 150 Introduction to Engineering (1 credit)  
 ENGR 230 Digital Design (4 credits)  
 ENGR 240 Circuit Analysis (4 credits)  
 ENGR 330 Design with Microprocessors I (4 credits)  
 ENGR 331 Design with Microprocessors II (4 credits)  
 ENGR 340 Signals and Systems (4 credits)  
 ENGR 342 Electromagnetic Fields and Waves (4 credits)  
 ENGR 345 Electronics I (4 credits)  
 ENGR 346 Electronics II (4 credits)  
 ENGR 410 Control Systems and Automation (4 credits)  
 ENGR 431 Design of Embedded Systems (4 credits)  
 ENGR 480 Engineering Design Clinic I (4 credits)  
 ENGR 481 Engineering Design Clinic II (4 credits)

*Plus eight credits of engineering electives:*

#### **Electrical Engineering Allied Requirements**

CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131 Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 130 is recommended for this major

MATH 113 Calculus I (4 credits)  
 MATH 114 Calculus II (4 credits)  
 MATH 200 Multi-Variable Calculus (4 credits)  
 MATH 210 Introduction to Differential Equations and Systems (4 credits)  
 PHYS 111 Introduction to Classical Physics I (4 credits)  
 PHYS 112 Introduction to Classical Physics II (4 credits)  
 PHYS 225 Applications of Modern Physics (4 credits)  
 PHYS 341 Electricity and Magnetism (4 credits)

#### **Degree in Mechanical Engineering (BSME)**

The bachelor of science in mechanical engineering (BSME) is an applied-engineering program, blending theory and research with practical engineering fundamentals. The program is academically rigorous, complemented with a full Liberal Arts experience of the University of St. Thomas Core Curriculum. The mechanical engineering curriculum provides 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. The B.S.M.E. program is accredited by the Engineering Accreditation Commission (EAC) of ABET. Program outcomes and objectives may be found at: [www.stthomas.edu/engineering/mechanical/](http://www.stthomas.edu/engineering/mechanical/).

In addition to satisfying the University of St. Thomas Core Curriculum requirements (see page 22), students earning a BSME degree must also meet the Mechanical Engineering Major requirements and the Mechanical Engineering allied requirements listed below. A four year degree plan for the BSME is available in the School of Engineering main office or from any Engineering faculty advisor.

#### **Mechanical Engineering Major Requirements**

ENGR 150 Introduction to Engineering (1 credit)  
 ENGR 171 Engineering Graphics and design (4 credits)  
 ENGR 220 Engineering Mechanics I (4 credits)  
 ENGR 221 Engineering Mechanics II (4 credits)  
 ENGR 320 Machine Design and Synthesis (4 credits)  
 ENGR 350 Introduction to Electronics (4 credits)  
 ENGR 361 Engineering Materials (4 credits)  
 ENGR 371 Manufacturing Processes (4 credits)  
 ENGR 381 Thermodynamics (4 credits)  
 ENGR 382 Heat Transfer (4 credits)  
 ENGR 383 Fluid Mechanics (4 credits)



## Engineering

ENGR 410 Control Systems and Automation (4 credits)  
ENGR 480 Engineering Design Clinic I (4 credits)  
ENGR 481 Engineering Design Clinic II (4 credits)  
*Plus eight credits of engineering electives*

### **Mechanical Engineering Allied Requirements**

CHEM 109 Chemistry for Engineers (4 credits)  
CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131 Introduction to Programming and Problem Solving (4 credits)  
*Note:* CISC 130 is recommended for this major  
MATH 113 Calculus I (4 credits)  
MATH 114 Calculus II (4 credits)  
MATH 200 Multi-Variable Calculus (4 credits)  
MATH 210 Introduction to Differential Equations and Systems (4 credits)  
PHYS 111 Introduction to Classical Physics I (4 credits)  
PHYS 112 Introduction to Classical Physics II (4 credits)

### **Dual Degree in Electrical or Mechanical Engineering (BSEE or BSME) and General Business Management (B.A.)**

The dual degree program in electrical or 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 electrical or 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. Upon completion, students receive a B.A. degree in business administration and a B.S. in either electrical or mechanical engineering.

*Students must complete the appropriate Engineering Major Requirements and the respective Engineering allied requirements for the B.S. in Mechanical Engineering or Electrical Engineering listed above.*

*Plus:*

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
BETH 301 Business Ethics (4 credits)  
BUSN 200 Business Learning Through Service (0 credit)  
OPMT 310 Operations Management (4 credits)  
FINC 321 Financial Management (4 credits)  
MGMT 305 Management and Organizational Behavior (4 credits)  
MGMT 480 Strategic Management (4 credits)  
MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

BLAW 301 Legal Environment of Business (4 credits)  
BLAW 302 Business Law for Accounting (4 credits)  
BLAW 303 International Business Law (4 credits)

*Plus additional allied Requirements:*

ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
STAT 220 Statistics (4 credits)  
COJO 100 Communications in the Workplace (4 credits)

### **Dual Degree in Electrical Engineering (BSEE) and Physics (B.A.)**

The dual degree program in electrical engineering and physics is designed for students interested in combining lab skills and theory with engineering principles and practice. 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 may require an additional semester to complete. Upon completion, students receive a B.A. degree in physics and a B.S.E.E. degree accredited by EAC of ABET.

*Students must complete the Electrical Engineering major requirements (see above), the allied requirements for a B.S. in Electrical Engineering plus four credits of engineering electives.*

*Plus:*

PHYS 215 Foundations in Modern Physics (4 credits)  
*And four credits of physics electives*

### **Dual Degree in Electrical Engineering (BSEE) and Computer Science (B.A.)**

The dual degree program in electrical engineering and computer & information science is designed for students interested in both hardware and software aspects of computing. 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. Upon completion, students receive a B.A. degree in Computer Science and a B.S. degree in Electrical Engineering.

Students must complete the Electrical Engineering major requirements (see above) and the allied requirements for a B.S. in Electrical Engineering.

*Plus:*

CISC 210 Security (4 credits)  
 CISC 230 Object-Oriented Design and Programming (4 credits)  
 CISC 231 Data Structures Using Object-Oriented Design (4 credits)  
 CISC 310 Operating Systems (4 credits)  
 CISC 370 Networking (4 credits)  
 CISC 450 Database Design I (4 credits)

*Plus eight credits from the following:*

CISC 320 Systems Analysis and Design (4 credits)  
 CISC 342 Computer Applications in Experimental Science (4 credits)  
 CISC 440 Artificial Intelligence and Robotics (4 credits)  
 CISC 451 Database Design II (4 credits)

### **Pre-Engineering and 3-2 Programs**

*See Pre-Professional Programs*

### **Peace Engineering**

Designed for engineering students interested in becoming responsible critics of contemporary societies and effective agents for positive social transformations. Students should expect this program to take one additional semester. The study option leads to B.S. degrees in either Electrical or Mechanical Engineering and a minor in Justice and Peace Studies.

*Students must complete the major requirements and the allied requirements for a B.S. in either Electrical Engineering or Mechanical Engineering (see above).*

*Plus:*

JPST 250 Introduction to Justice and Peace Studies (4 credits)  
 JPST 280 Active Nonviolence (4 credits)  
 THEO 421 Theologies of Justice and Peace (4 credits)

*Plus:*

Eight additional credits to be selected with the approval of the JPST program director. Some of these courses may have additional prerequisites; students will either need to meet those prerequisites or negotiate in order to be admitted into the courses.

Appropriate courses include:

BLAW 351 Environmental Law (4 credits)  
 ECON 345 Economics of Development and Growth (4 credits)  
 ENVR 151 Humans and the Environment (4 credits)  
 ENVR 212 Social Dynamics and the Environment (4 credits)  
 ENVR 301 Environment Ethics (4 credits)  
 GEOG 111 Human Geography (4 credits)  
 GEOG 113 World Geography (4 credits)  
 POLS 326 International Law and Organizations (4 credits)  
 POLS 352 Third World Politics and Government (4 credits)  
 SOCI 301 Cultural Anthropology (4 credits)

*A significant experience is strongly recommended:*

Appropriate experience of poverty and/or issues of societal sustainability. May be done for credit through JPST 475-478 experiential learning and used towards the eight additional credits mentioned previously.

### **Minor in General Engineering**

The general engineering minor provides a broad overview of topics in both electrical and mechanical engineering. It offers the opportunity to explore the field of engineering and provides an understanding of the technology of products and processes. It also strengthens pre-med and pre-law candidates who intend to pursue specialized areas such as biomechanics or patent law. This minor is not available for students majoring in electrical or mechanical engineering.

## Engineering

Students must complete courses from the following list:

ENGR 150 Introduction to Engineering I (1 credit)  
ENGR 171 Engineering Graphics and Design (4 credits)  
ENGR 230 Digital Design (4 credits)

*Plus one of the following courses:*

ENGR 220 Engineering Mechanics I (4 credits)  
ENGR 240 Circuit Analysis (4 credits)  
ENGR 330 Microprocessors (4 credits)  
ENGR 381 Thermodynamics (4 credits)

*Plus four additional credits of engineering (ENGR) classes*

### **Minor in Electrical Engineering**

The electrical engineering minor is designed for students with majors in the sciences, mathematics, mechanical engineering, quantitative methods, and business. This minor serves both those who plan to go on to graduate school in engineering and those entering business and industry. The engineering minor offers the opportunity to explore the field of engineering and provides an understanding of the technology of products and processes. It also strengthens pre-med and pre-law candidates who intend to pursue specialized areas such as biomechanics or patent law.

*Students must complete sixteen credits from the following:*

ENGR 123 Energy and the Environment (4 credits)  
ENGR 230 Digital Design (4 credits)  
ENGR 240 Circuit Analysis (4 credits)  
ENGR 330 Design with Microprocessors I (4 credits)  
ENGR 331 Design with Microprocessors II (4 credits)  
ENGR 340 Signals and Systems (4 credits)  
ENGR 342 Electromagnetic Fields and Waves (4 credits)  
ENGR 345 Electronics I (4 credits)  
ENGR 346 Electronics II (4 credits)  
ENGR 350 Introduction to Electronics (4 credits)  
ENGR 410 Control Systems and Automation (4 credits)  
ENGR 431 Design of Embedded Systems (4 credits)  
ENGR 460 Engineering Economics and Project Management (4 credits)  
ENGR 470 Fundamentals of Mechatronic Engineering I (4 credits)

### **Minor in Mechanical Engineering**

The mechanical engineering minor is designed for students with majors in the sciences, mathematics, electrical engineering, quantitative methods, and business. This minor serves those who plan to go on to graduate school in engineering and those entering business and industry. The engineering minor offers the opportunity to explore the field of engineering and provides an understanding of the technology of products and processes. It also strengthens pre-med and pre-law candidates who intend to pursue specialized areas such as biomechanics or patent law.

*Students must complete Sixteen credits from the following:*

ENGR 123 Energy and the Environment (4 credits)  
ENGR 171 Engineering Graphics and Design (4 credits)  
ENGR 220 Engineering Mechanics I (4 credits)  
ENGR 221 Engineering Mechanics II (4 credits)  
ENGR 320 Machine Design and Synthesis (4 credits)  
ENGR 328 Fuel Cell Engineering (4 credits)  
ENGR 361 Engineering Materials (4 credits)  
ENGR 371 Manufacturing Processes (4 credits)  
ENGR 381 Thermodynamics (4 credits)  
ENGR 382 Heat Transfer (4 credits)  
ENGR 383 Fluid Mechanics (4 credits)  
ENGR 410 Control Systems and Automation (4 credits)  
ENGR 430 Applications of Thermodynamics (4 credits)  
ENGR 440 Polymer Materials Engineering (4 credits)  
ENGR 450 Vibration and Control Theory (4 credits)  
ENGR 460 Engineering Economics and Project Management (4 credits)  
ENGR 470 Fundamentals of Mechatronic Engineering I (4 credits)

### **Engineering Courses**

ENGR 123 Energy and the Environment (4 credits)

The course examines the core concepts of energy and power technologies. A hands-on laboratory will examine how refrigerators, swamp coolers, generators, turbines, car engines, and solar panels work. The class covers how electricity from fossil fuels is generated and transported, and the status of the technology behind harnessing geothermal resources, solar power, fuel cells, wind power, and biomass energy. Students will be introduced to the 1st and 2nd laws of thermodynamics, trade-off charts and the design process. The cultural, social, and economic impacts of energy production are discussed as well as their effects on the environment. (This course is limited to non-majors or students with Freshman or Sophomore standing).

**ENGR 150 Introduction to Engineering (1 credit)**

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.

**ENGR 171 Engineering Graphics and Design (4 credits)**

Through a combination of lectures, hands-on computer lab time, and design projects, students will learn to read, and create engineering drawings and use computer-aided design (CAD) terminology and technology. Topics covered will include the engineering design process, rapid prototyping, principles of projection, and introductory methods of representation and constructive geometry.

**ENGR 220 Engineering Mechanics I (4 credits)**

Principles of statics and dynamics including such topics as equilibrium, friction, distributed forces, work, kinetics of particles and rigid bodies, and vibrations.

Prerequisites: ENGR 171 and a minimum grade of C- in PHYS 111

**ENGR 221 Engineering Mechanics II (4 credits)**

Principles of deformable body mechanics including stress, strain, basic loading situations, transformations of stress and strain, beam theory, and energy methods.

Prerequisite: A minimum grade of C- in ENGR 220

**ENGR 230 Digital Design (4 credits)**

Introduction to the design of digital logic. Topics include Boolean logic, design and optimization of combinational and sequential logic, the use of programmable logic devices, logic hazards, electronic implementation of logic gates. Students will be expected to specify, design, simulate, construct, and test digital circuits and document all phases of the process.

**ENGR 240 Circuit Analysis (4 credits)**

Introduction to linear circuit analysis and basic electronic instrumentation. Students will learn linear models of passive components and sources as well as how real components depart from those models. Circuit analysis techniques including nodal and mesh analysis, equivalence theorems and computer simulation will be covered. Laplace transform techniques will be used to examine sinusoidal steady state and transient circuit behavior.

Prerequisites: A minimum grade of C- in PHYS 112 and concurrent registration with or prior completion of MATH 210

**ENGR 295, 296 Topics (2 credits)**

**ENGR 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**ENGR 320 Machine Design and Synthesis (4 credits)**

Focus is on advanced mechanics topics, failure theories (static and dynamic), and on an understanding of basic machine components. This course will develop the student's creative skills in conceptualizing machines to meet performance criteria by means of a design project. Machine designs will require the understanding and use of machine components such as springs, screws, bearings, basic 4-bar linkages, cams, and gears. Finally, a number of mini-labs/workshops on topics that support the design project such as dynamic analysis software, machine component design, and design for manufacture are given.

Prerequisite: A minimum grade of C- in ENGR 221

**ENGR 328 Fuel Cell Engineering (4 credits)**

A discovery-oriented class focused on fuel cell technology. Fuel cell types and their safety, cost and operation are examined. Time is spent on hydrogen generation, storage and distribution. The class examines how to collect new information, analyze it, and express an educated opinion about an emerging technology. Class time includes hands-on laboratories and projects as well as student-led discussion. The four-credit option requires a formal design of experiment and preparing for more than one student-led lecture.

Prerequisite: Junior standing or consent of instructor

**ENGR 330 Design with Microprocessors I (4 credits)**

Introduction to computer architecture and assembly language programming. Topics include I/O and memory addressing modes, communication and bus protocols, A/D and D/A conversion, interrupts and common microcontroller peripherals. Tradeoffs between architectures and design approaches will be discussed.

## Engineering

Prerequisites: A minimum grade of C- in ENGR 230 and CISC 130

### ENGR 331 Design with Microprocessors II (4 credits)

A continuation of ENGR 330.

Prerequisite: A minimum grade of C- in ENGR 330

### ENGR 340 Signals and Systems (4 credits)

To develop an understanding of the analysis of continuous and discrete systems using Fourier series, Fourier transform, and Z transforms, and an understanding of frequency domain characteristics, state space concepts, effects of sampling and modulation.

Prerequisites: A minimum grade of C- in ENGR 240 and MATH 210

### ENGR 342 Electromagnetic Fields and Waves (4 credits)

A continuation of PHYS 341. An introduction to the practical consequences of Maxwell's equations including propagation, reflection and absorption of electromagnetic waves. Applications include antennas, waveguides, transmission lines, and shielding from electromagnetic interference.

Prerequisite: A minimum grade of C- in PHYS 341

### ENGR 345 Electronics I (4 credits)

Analysis of electronic devices and circuits. Topics include linear and non-linear models of electronic devices, feedback and circuit design techniques. Applications include amplifiers, demodulation, oscillators, logic implementation.

Prerequisites: A minimum grade of C- in ENGR 240 and PHYS 225

### ENGR 346 Electronics II (4 credits)

Continuation of ENGR 345. Several special topics will be covered including an introduction to switch mode power supplies and an introduction to electrical noise and noise sources.

Prerequisite: A minimum grade of C- in ENGR 345

### ENGR 350 Introduction to Electronics (4 credits)

This course provides scientists and engineers with a background in electrical circuits, electronics and electric machines. Topics include DC, AC and transient circuit analysis, AC 3-phase and power, frequency response and filters, operational amplifiers and active filter, and electric machines; magnetism, magnetic materials, magnetic circuits, DC and AC motors and generators. The course consists of lectures, demonstrations, discussions and an associated hands-on laboratory.

Prerequisite: A minimum grade of C- in PHYS 112

### ENGR 361 Engineering Materials (4 credits)

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.

Prerequisites: CHEM 115 or concurrent registration in CHEM 109

### ENGR 371 Manufacturing Processes and Statistical Control (4 credits)

This course covers such basic principles as metal forming, metal cutting, plastic molding, and continuous processes. Students will receive hands-on experience with modern production equipment. Students will learn statistical evaluation tools such as the meaning of population distributions, means, medians, regression analysis, and standard deviations. Statistical process control and acceptance testing in the context of modern manufacturing processes will be covered.

Prerequisite: A minimum grade of c- in MATH 114

### ENGR 381 Thermodynamics (4 credits)

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). Major topics include the analysis of closed and opened (steady state and transient) systems, power cycles, thermophysical properties of substances, humidity, dew point and other characteristics of non-reacting mixtures.

Prerequisites: A minimum grade of C- in CHEM 115 or CHEM 109

### ENGR 382 Heat Transfer (4 credits)

Introduction to the fundamentals of heat transfer in the context of engineering applications. The major topics to be covered include conduction, convection, and radiation. Students will solve steady and unsteady conduction heat transfer problems in both one-dimensional and multi-dimensional coordinate systems. Internal and external convection will be covered as well as heat exchangers and natural convection.

Prerequisite: Grades of C- or higher in ENGR 381 and MATH 210

### ENGR 383 Fluid Mechanics (4 credits)

Introduction to the fundamentals of fluid mechanics in the context of engineering applications. Topics covered include hydrostatics and pressure variations in non-moving fluids, conservation laws of flowing fluids (mass, momentum, and energy), potential flow and viscous flow, boundary layer theory, internal flow, external flow, drag and lift. Also, the evaluation and design of turbomachinery and the use of pump/blower curves will be address. Use of

advanced CFD software is integrated into the course.  
Prerequisite: Grade of C- or higher in ENGR 382

**ENGR 410 Control Systems and Automation (4 credits)**

An introduction to the scope of control systems in manufacturing and their implementation. The course focuses on analog control loop theory, the use of transforms to describe and solve analog control systems. Emphasis is placed on the development and implementation of proportional, integral, derivative (PID) control algorithms. Simulation is emphasized as an important tool for plant design, layout and optimizing systems.

Prerequisites: A minimum grade of C- in ENGR 340 or 350, CISC 130, MATH 210

**ENGR 420 Advanced Computer Aided Design (4 credits)**

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: A minimum grade of C- in ENGR 171 and junior standing

**ENGR 430 Applications of Thermodynamics (4 credits)**

Introduction to principle industrial applications of thermodynamics. The course will cover theory of operation, economics, and design considerations of these systems as well as examples of thermodynamic engineering design. Topics include heating, ventilation, and air conditioning systems (HVAC), engines, refrigeration technologies, reacting mixtures, and turbomachinery.

Prerequisite: A minimum grade of C- in ENGR 381

**ENGR 431 Design of Embedded Systems (4 credits)**

Advanced interfacing and programming of microprocessor systems. Applications include machine control, digital signal processing, and real time communications. Students will design microprocessor based systems as part of this course.

Prerequisite: A minimum grade of C- in ENGR 331

**ENGR 440 Polymer Materials Engineering (4 credits)**

This course is an introduction to the field of polymers, providing an overview of structure, syntheses and use of these materials. Topics will include polymerization methods, molecular weight, polymer structure, characterization methods, mechanical and flow properties of polymer materials, polymer processing methods and applications. Special topics may include: liquid crystals (LCD), biopolymers, natural and synthetic biodegradable polymers, and the impact of polymers on the environment.

Prerequisites: A minimum grade of C- in CHEM 297 and ENGR 361

**ENGR 450 Vibration and Control Theory (4 credits)**

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: A minimum grade of C- in ENGR 410

**ENGR 460 Engineering Economics and Project Management (4 credits)**

Fundamentals of Engineering Economics and associated analysis: basis analysis tools including cost of money, break even points, impact on financial accounting, life cycle cost, and risk management. Analysis of common Engineering Management issues such as product cost, capital equipment purchase, determining operating expenses, and managing R&D expenses. Case study review of a major Engineering project or proposal.

Prerequisite: Junior standing

**ENGR 470 Fundamentals of Mechatronic Engineering (4 credits)**

Introduction to basic electronic devices and microprocessor systems for measurement 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: A minimum grade of C- in ENGR 410

**ENGR 475, 476 Experiential Learning (2 credits)**

**ENGR 477, 478 Experiential Learning (4 credits)**

Semester long internship or co-operative working experience in an engineering or technical field may be used to satisfy four credits of engineering electives. Students wishing to participate should contact the school of Engineering Co-op advisor.

**ENGR 480 Engineering Design Clinic I (4 credits)**

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

## Engineering – English

well.

Prerequisites: Either (ENGR 320 and 382) or (ENGR 331, 346, and 410)

### ENGR 481 Engineering Design Clinic II (4 credits)

A continuation of ENGR 480 the application of 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/build and evaluation/test of alternative solutions.

Prerequisite: ENGR 480

### ENGR 483, 484 Seminar (2 credits)

### ENGR 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### ENGR 487, 488 Topics (2 credits)

### ENGR 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### ENGR 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### ENGR 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## English (ENGL)

College of Arts and Sciences, Department of English

John Roach Center for the Liberal Arts (JRC) 333, (651) 962-5600

Scheiber (chair), An, Batt, Bouwman, Callaway, Chowdhury, Craft-Fairchild, Easley, Garritano, Hallman, Herrera, Jordan, Lai, Larson, Lawrence, Li, MacKenzie, Mikolajczak, Miller, Muse, Otto, Piorkowski, Powell, Redshaw, Scheurer, Warren, Wilkinson

The mission of the University of St. Thomas English Department is to foster empathy and imagination, critical insight, power of expression, and appreciation for the variety of human experience. We strive to create a community of readers and writers who value both tradition and innovation, and who understand literary art as a medium of moral reflection as well as aesthetic pleasure.

The Department of English offers three emphases.

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 combines a foundation of literary study with a sequence of writing courses focused on poetry, fiction, and literary nonfiction, or on a range of nonfiction prose forms, including analytical, persuasive, and academic writing.
3. The Minnesota teacher licensure program in Communication Arts and Literature that prepares students for teaching 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.

The study of English helps students develop a broad range of practices that are valuable for a variety of career paths and life aspirations. 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 resources. 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 be able to read sophisticated literary works with imagination and intelligence and will be able to respond critically to their empathic, ethical, and aesthetic dimensions.

The Major in English, the Major in English with Writing Emphasis, and the Major in English with a teacher education emphasis (5-12) consist of 44-credits each, including fulfillment of the core curriculum in literature and writing courses. The department offers courses for non-majors to fulfill the Literature and Writing component of the core curriculum and the Human Diversity requirement.

English majors and minors are encouraged to study abroad. Specific courses taken abroad may substitute for St. Thomas requirements. See the chair of the department, a study abroad advisor in the International Education Center, or Academic Information & Programs in the front section of this catalog for program options.

### 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 have completed at least three semesters of college are eligible to apply for membership.

### **Major in English**

ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose (4 credits) *or* ENGL 121: Critical Thinking: Literature and Writing (beginning fall 2011)

ENGL 112 Critical Reading and Writing II: Drama and Poetry (4 credits) *or* one of ENGL 201, 202, 203, 204 (beginning fall 2011)

*Note:* Qualified students who do not take ENGL 111 and 112 may substitute ENGL 190 Critical Reading and Writing: Major Genres or one of ENGL 201 through 204 plus one additional 4-credit literature course in English numbered 205 or above (includes ENGL 205, 211, 212, 214, 215, 217, 218, 220, 221, 222, 297, 324, 325, 334, 337, 341, 360, 361, 362, 364, 365, 366, 367, 370, 371, 372, 373, 390, and 395) or two 2-credit ENGL 295 courses during J-Term.

In addition to the above core curriculum courses, students must also select courses that fulfill the following *course level* and *area distribution* requirements:

#### *Course-Level Requirements*

At least 12 credits numbered ENGL 205-299

At least 16 credits numbered ENGL 300-399

*Note:* 4 of these credits must be from ENGL 380 Issues in English Studies (4 credits)

At least 4 credits numbered ENGL 400-499

*Note:* ENGL 481 Seminar in English (4 credits) is strongly recommended for all majors, especially those preparing for graduate or professional school

#### *Plus:*

4 additional credits numbered 205 or above

#### *Distribution Requirements*

##### Four credits in Early Literature

ENGL 211 British Authors I (4 credits)

ENGL 214 American Authors I (4 credits)

ENGL 220 The Classical Tradition (4 credits)

ENGL 221 The Modern Tradition (4 credits)

ENGL 325 Special Studies in Genre, Region, or Theme (4 credits) (section 11 only)

ENGL 360 Chaucer and the Medieval Period (4 credits)

ENGL 361 Shakespeare and the Early Modern Period (4 credits)

ENGL 362 Milton and Seventeenth-Century British Literature (4 credits)

ENGL 364 Eighteenth-Century British Literature: The Age of Satire and the Novel (4 credits)

ENGL 370 Colonial and Early-American Literature (4 credits)

ENGL 371 Nineteenth-Century American Literature (4 credits)

ENGL 390 Major Literary Figures (4 credits) (section 11 only)

ENGL 395 Issues in Literature and Culture (4 credits) (section 11 only)

##### Four credits in American Literature

ENGL 214 American Authors I (4 credits)

ENGL 215 American Authors II (4 credits)

ENGL 217 Multicultural Literature (4 credits) (section 21 only)

ENGL 324 Genre Studies (4 credits) (section 21 only)

ENGL 325 Special Studies in Genre, Region, or Theme (4 credits) (section 21 only)

ENGL 337 The Literature of Human Diversity (4 credits) (section 21 only)

ENGL 341 Literature by Women: Critical Questions (4 credits) (section 21 only)

ENGL 370 Colonial and Early-American Literature (4 credits)

ENGL 371 Nineteenth-Century American Literature (4 credits)

ENGL 372 Modern American Literature (4 credits)

ENGL 373 Contemporary American Literature (4 credits)

ENGL 390 Major Literary Figures (4 credits) (section 21 only)

ENGL 395 Issues in Literature and Culture (4 credits) (section 21 only)

##### Four credits in British Literature

ENGL 211 British Authors I (4 credits)

ENGL 212 British Authors II (4 credits)

ENGL 324 Genre Studies (4 credits) (section 31 only)

ENGL 325 Special Studies in Genre, Region, or Theme (4 credits) (section 31 only)

ENGL 341 Literature by Women: Critical Questions (4 credits) (section 31 only)

ENGL 360 Chaucer and the Medieval Period (4 credits)



## English

ENGL 361 Shakespeare and the Early Modern Period (4 credits)  
ENGL 362 Milton and Seventeenth-Century British Literature (4 credits)  
ENGL 364 Eighteenth-Century British Literature: The Age of Satire and the Novel (4 credits)  
ENGL 365 The Romantic Age in Britain (4 credits)  
ENGL 366 The Victorian Age in Britain (4 credits)  
ENGL 367 Twentieth-Century British Literature (4 credits)  
ENGL 390 Major Literary Figures (4 credits) (section 31 only)  
ENGL 395 Issues in Literature and Culture (4 credits) (section 31 only)

### Four credits in Diversity Literature

ENGL 217 Multicultural Literature (4 credits)  
ENGL 218 Literature by Women: Critical History (4 credits)  
ENGL 297 Topics (4 credits) (section 61 only)  
ENGL 325 Special Studies in Genre, Region, or Theme (4 credits) (section 61 only)  
ENGL 337 The Literature of Human Diversity (4 credits)  
ENGL 341 Literature by Women: Critical Questions (4 credits)  
ENGL 390 Major Literary Figures (4 credits) (section 61 only)  
ENGL 395 Issues in Literature and Culture (4 credits) (section 61 only)

### Four credits in Writing

ENGL 251 Writing in the Academy (4 credits)  
ENGL 252 Writing Nonfiction Prose (4 credits)  
ENGL 253 Writing Poetry and Fiction (4 credits)  
ENGL 255 Writing Poetry, Fiction, and Creative Nonfiction (4 credits)  
ENGL 300 Theory and Practice of Writing (4 credits)  
ENGL 321 Writing Poetry (4 credits)  
ENGL 322 Writing Fiction (4 credits)  
ENGL 323 Writing Creative Nonfiction (4 credits)  
ENGL 326 Topics in Creative Writing (4 credits)  
ENGL 401 Advanced Poetry or Fiction Writing (4 credits)  
ENGL 402 Writing Literary Nonfiction (4 credits)  
ENGL 403 Analytical and Persuasive Writing (4 credits)  
ENGL 405 Advanced Poetry, Fiction, or Creative Nonfiction Writing (4 credits)

### Four credits in Issues in English Studies

ENGL 380 Issues in English Studies (4 credits)

All English majors should complete 44 credits in English.

### **Major in English with Writing Emphasis**

ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose (4 credits) *or* ENGL 121 (beginning fall 2011)

ENGL 112 Critical Reading and Writing II: Drama and Poetry (4 credits) *or* one of ENGL 201, 202, 203, 204 (beginning fall 2011)

*Note:* Qualified students who do not take ENGL 111 and 112 may substitute ENGL 190 Critical Reading and Writing: Major Genres or one of ENGL 201 through 204 plus one additional 4-credit literature course in English numbered 205 or above (including ENGL 205, 211, 212, 214, 215, 217, 218, 220, 221, 222, 297, 324, 325, 334, 337, 341, 360, 361, 362, 364, 365, 366, 367, 370, 371, 372, 373, 390, and 395) or two 2-credit ENGL 295 courses during J-Term.

In addition to the above core curriculum courses, students must also select courses that fulfill the following *course level* and *area distribution* requirements:

#### *Course-Level Requirements*

At least 12 credits numbered ENGL 205-299

At least 16 credits numbered ENGL 300-399

*Note:* 4 of these credits must be from ENGL 380 Issues in English Studies

At least 4 credits numbered ENGL 400-499

Plus 4 additional credits numbered ENGL 205 or above

#### *Distribution Requirements*

Sixteen credits from the following writing courses:

ENGL 251 Writing in the Academy (4 credits)  
ENGL 252 Writing Nonfiction Prose (4 credits)  
ENGL 253 Writing Poetry and Fiction (4 credits)  
ENGL 255 Writing Poetry, Fiction, and Creative Nonfiction (4 credits)  
ENGL 300 Theory and Practice of Writing (4 credits)

ENGL 321 Writing Poetry (4 credits)  
 ENGL 322 Writing Fiction (4 credits)  
 ENGL 323 Writing Creative Nonfiction (4 credits)  
 ENGL 326 Topics in Creative Writing (4 credits)  
 ENGL 401 Advanced Poetry or Fiction Writing (4 credits)  
 ENGL 402 Writing Literary Nonfiction (4 credits)  
 ENGL 403 Analytical and Persuasive Writing (4 credits)  
 ENGL 405 Advanced Poetry, Fiction, or Creative Nonfiction Writing (4 credits)  
 ENGL 421 Literary Magazine Practicum, Part I (2 credits)  
 ENGL 422 Literary Magazine Practicum, Part II (2 credits)

*Note:* The writing courses should include one of the following sequences:

Academic and persuasive writing sequence:

first – ENGL 251  
 then – ENGL 300  
 then – ENGL 403

Creative writing sequence

first – ENGL 253 *or* ENGL 255  
 then – ENGL 321 *and/or* 322  
 then – ENGL 401 *and/or* 402 *or* ENGL 405  
*or*  
 first – ENGL 252 *or* ENGL 255  
 then – ENGL 323 *or* ENGL 326  
 then – ENGL 402 *or* ENGL 405

*Plus:*

Twelve credits in literature to include:

Four credits in Early Literature

ENGL 211 British Authors I (4 credits)  
 ENGL 214 American Authors I (4 credits)  
 ENGL 220 The Classical Tradition (4 credits)  
 ENGL 221 The Modern Tradition (4 credits)  
 ENGL 325 Special Studies in Genre, Region, or Theme (4 credits) (section 11 only)  
 ENGL 360 Chaucer and the Medieval Period (4 credits)  
 ENGL 361 Shakespeare and the Early Modern Period (4 credits)  
 ENGL 362 Milton and Seventeenth-Century British Literature (4 credits)  
 ENGL 364 Eighteenth-Century British Literature: The Age of Satire and the Novel (4 credits)  
 ENGL 370 Colonial and Early-American Literature (4 credits)  
 ENGL 371 Nineteenth-Century American Literature (4 credits)  
 ENGL 390 Major Literary Figures (4 credits) (section 11 only)  
 ENGL 395 Issues in Literature and Culture (4 credits) (section 11 only)

Four credits in Diversity Literature

ENGL 217 Multicultural Literature (4 credits)  
 ENGL 218 Literature by Women: Critical History (4 credits)  
 ENGL 297 Topics (4 credits) (section 61 only)  
 ENGL 325 Special Studies in Genre, Region, or Theme (4 credits) (section 61 only)  
 ENGL 337 The Literature of Human Diversity (4 credits)  
 ENGL 341 Literature by Women: Critical Questions (4 credits)  
 ENGL 390 Major Literary Figures (4 credits) (section 61 only)  
 ENGL 395 Issues in Literature and Culture (4 credits) (section 61 only)

Four additional English credits in literature numbered 205 or above (including ENGL 205, 211, 212, 214, 215, 217, 218, 220, 221, 222, 297, 324, 325, 334, 337, 341, 360, 361, 362, 364, 365, 366, 367, 370, 371, 372, 373, 390, and 395).

ENGL 380 Issues in English Studies (4 credits)

Four credits in another English course numbered 205 or above

All English with writing emphasis majors should complete 44 credits in English.

### **Major in English with a Teacher Education Emphasis (5-12)**

ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose (4 credits) *or* ENGL 121 (beginning fall 2011)

ENGL 112 Critical Reading and Writing II: Drama and Poetry (4 credits) *or* one of ENGL 201, 202, 203, 204 (beginning fall 2011)

*Note:* Qualified students who do not take ENGL 111 and 112 may substitute ENGL 190 Critical Reading and Writing: Major Genres or one of ENGL 201 through 204 plus one additional 4-credit literature course in English

## English

numbered 205 or above (including ENGL 205, 211, 212, 214, 215, 217, 218, 220, 221, 222, 297, 324, 325, 334, 337, 341, 360, 361, 362, 364, 365, 366, 367, 370, 371, 372, 373, 390, and 395) or two 2-credit ENGL 295 courses during J-Term.

ENGL 211 British Authors I (4 credits) *or* ENGL 212 British Authors II (4 credits)  
ENGL 214 American Authors I (4 credits) *or* ENGL 215 American Authors II (4 credits)  
ENGL 217 Multicultural Literature (4 credits) *or* ENGL 218 Literature by Women: Critical History (4 credits)  
ENGL 220 The Classical Tradition (4 credits) *or* ENGL 221 The Modern Tradition (4 credits)  
ENGL 300 Theory and Practice of Writing (4 credits)  
ENGL 305 Linguistics: English Language (4 credits)  
ENGL 361 Shakespeare and the Early Modern Period (4 credits)  
ENGL 380 Issues in English Studies (4 credits)  
Four additional credits EITHER in English at the 300 or 400 level, *or* COJO 326 Modern American Rhetoric *or* COJO 328 Communication of Race, Class, and Gender

Students seeking licensure in Communication Arts and Literature (5-12) must also complete the following courses in Communication Studies: COJO 100, COJO 211, COJO 212, COJO 260, and the EDUC courses listed under Teacher Education for Communication Arts and Literature (5-12)\*. *See Education*

Students seeking elementary licensure (K-6) may complete the standard English major, the English major with a Writing Emphasis, or the English major with a Teacher Education Emphasis. For a complete listing of requirements in the area, *see Education*.

\*COJO 111, 326, 328 and 426 are not required for licensure, but a student completing COJO 111 and either COJO 326, 328 or 426 together with the COJO courses required for licensure will have also completed a minor in Communication and Journalism. To register for any of these courses without the prerequisite of COJO 111, please contact the chair of Communication and Journalism in advance of registration.

### **Literary Studies**

*See Literary Studies*

### **Minor in English**

The minor in English consists of twenty-four credits:

ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose (4 credits) *or* ENGL 121 (beginning fall 2011)

ENGL 112 Critical Reading and Writing II: Drama and Poetry (4 credits) *or* one of ENGL 201, 202, 203, 204 (beginning fall 2011)

*Note:* Qualified students who do not take ENGL 111 and 112 may substitute ENGL 190 Critical Reading and Writing: Major Genres or one of ENGL 201 through 204 plus one additional 4-credit literature course in English numbered 205 or above (including ENGL 205, 211, 212, 214, 215, 217, 218, 220, 221, 222, 297, 324, 325, 334, 337, 341, 360, 361, 362, 364, 365, 366, 367, 370, 371, 372, 373, 390, and 395) or two 2-credit ENGL 295 courses during J-Term.

Eight credits numbered ENGL 205-299

Eight credits numbered ENGL 300-399

### **ENGL 110 Intensive Writing (4 credits)**

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

### **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.

### **ENGL 111 Critical Reading and Writing I: Fiction and Nonfiction Prose (4 credits) (ends spring 2011)**

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, and ENGL 112 Critical Reading/Writing II, fulfills the Literature and Writing requirement of the core curriculum.

### **ENGL 112 Critical Reading and Writing II: Drama and Poetry (4 credits) (ends spring 2011)**

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, in addition to its ENGL 111 Critical Reading/Writing I prerequisite, fulfills the Literature and Writing requirement of the core curriculum.

Prerequisite: ENGL 111 or permission of department chair

**ENGL 121 Critical Thinking: Literature and Writing (4 credits) (begins fall 2011)**

Students will read and write about literary texts critically and closely. The course emphasizes recursive reading and writing processes that encourage students to discover, explain, questions and clarify ideas. To this end, students will study a variety of genres as well as terms and concepts helpful to close analysis of those genres. They will practice various forms of writing for specific audiences and purposes. Students will reflect on and develop critical awareness of their own strengths and weaknesses as readers and writers

**ENGL 190 Critical Reading and Writing: Major Genres (4 credits) (ends spring 2011)**

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, and an additional upper-level literature course, fulfills the Literature and Writing requirement in the core curriculum. Offered only in fall semester.

**Texts in Conversation Courses (ENGL 201-204)**

Students will develop their ability to read and write critically from a variety of perspectives with a specific focus. In these courses, students will read texts not only closely but also intertextually, understanding them in relationship to one another. They will develop reflective awareness of the process they use as readers and writers within a community. These courses emphasize how writing produced in the classroom engages a larger discourse community.

**ENGL 201 Texts in Conversation: Perspectives on Genre and Craft (4 credits) (begins fall 2011)**

This course examines the conventions of, and developments within, a literary genre during a specific period or across literary history. It may also explore the particular choices made by writers working in several genres and the effects of those choices on us as readers. The course will examine both the conventions and innovations practiced by writers working within one or more genres or periods, and may include study of the authors' reflections on their own work and the work of their fellow writers.

**ENGL 202 Texts in Conversation: Interdisciplinary Perspectives (4 credits) (begins fall 2011)**

This course examines a body of literary texts in the framework of a discipline other than literary or English studies per se—e.g., the physical or social sciences, religion/theology, history, the other arts.

**ENGL 203 Texts in Conversation: Thematic and Intertextual Perspectives (4 credits) (begins fall 2011)**

With its focus on thematic and intertextual perspectives, the readings in this course might be ordered any number of ways: according to theme, an idea that develops across genres or literary periods, or by their incorporation of specific oral or textual precedents (e.g. mythology, the Bible, classical writings, legends or folklore).

**ENGL 204 Texts in Conversation: Perspectives on Language, Culture, and Literacy (4 credits) (begins fall 2011)**

This course examines artifacts of language and literature in their functions as social and cultural phenomena. The course will explore angles of analysis appropriate to the study of one or more of the following: everyday language, public rhetoric, or the various forms of mass and popular culture (film, music, blogging/texting). The course may also examine essential but critically contested concepts such as literacy, culture, or literature.

**ENGL 205 Literature in Perspective (4 credits)**

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 211 British Authors I (4 credits)**

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 212 British Authors II (4 credits)**

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.

## English

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 214 American Authors I (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 215 American Authors II (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 217 Multicultural Literature (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 218 Literature by Women: Critical History (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 220 The Classical Tradition (4 credits)

This course will focus on representative texts of Western literature in translation, from the origins of Greek literature through Early Modern Europe. Authors may include Homer, Sappho, Aeschylus, Sophocles, Virgil, Ovid, Dante, and Marie de France.

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 221 The Modern Tradition (4 credits)

This course will focus on representative texts of Western literature in translation from the seventeenth century through the present, including some attention to the interactions of the European traditions with modern African, Latin American or Asian literatures. Authors may include Racine, Goethe, Flaubert, Dostoevsky, Sand, and Achebe.

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 222 The Catholic Literary Tradition: Medieval to Modern (4 credits) (equivalent to 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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 251 Writing in the Academy (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 252 Writing Nonfiction Prose (4 credits) (ends spring 2011)

This course will aim to develop fluency, voice and style in a range of rhetorical situations within the genre of nonfiction 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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 253 Writing Poetry and Fiction (4 credits) (ends spring 2011)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 255 Writing Poetry, Fiction, and Creative Nonfiction (4 credits) (begins fall 2011)

This course introduces students to skills necessary for imaginative writing. It includes close readings of literary texts

that model basic techniques, weekly writing exercises that encourage exploration and development of craft, and workshop discussions to develop students' critical skills. This course will include instruction in setting, character, voice, point of view, literal and figurative imagery, rhythm and sound patterns, and literary structures.

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 295, 296 Topics (2 credits)**

**ENGL 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 300 Theory and Practice of Writing (4 credits)**

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204; advanced writing skills

**ENGL 305 Linguistics: English Language (4 credits)**

The study of the historical, structural, and semantic features of the English language; systems of English grammar. Required for secondary licensure in communication arts and literature.

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 321 Writing Poetry (4 credits)**

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: ENGL 253 or 255 or permission of instructor.

**ENGL 322 Writing Fiction (4 credits)**

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: ENGL 253 or 255 or permission of instructor.

**ENGL 323 Writing Creative Nonfiction (4 credits) (begins 2011-2012)**

This intermediate course explores traditional and innovative patterns of creative nonfiction 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.

Prerequisites: ENGL 253 or 255 or permission of instructor

**ENGL 324 Genre Studies (4 credits)**

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 325 Special Studies in Genre, Region, or Theme (4 credits)**

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 326 Topics in Creative Writing (4 credits) (begins 2011-2012)**

This intermediate course explores traditional and innovative topics and forms of imaginative writing. Emphasis on experimentation with a variety of techniques and development of literary voices. The focus of genre and writing for each section offered will vary. Some examples of possible topics include Postmodern Poetry Forms, Writing Magical Realism, Contemporary Autobiography, and Submersion Journalism. This course will include peer review, readings to broaden possibilities of form and subject, and individual instruction.

Prerequisites: ENGL 252 or 253 or 255 or permission of the instructor

**ENGL 334 Literature from a Christian Perspective (4 credits) (equivalent to 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 theme as well as those which invite, or are enriched by, a Christian perspective.

## English

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 337 The Literature of Human Diversity (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 341 Literature by Women: Critical Questions (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 360 Chaucer and the Medieval Period (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 361 Shakespeare and the Early Modern Period (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 362 Milton and Seventeenth-Century British Literature (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 364 Eighteenth-Century British Literature: The Age of Satire and the Novel (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 365 The Romantic Age in Britain (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 366 The Victorian Age in Britain (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 367 Twentieth-Century British Literature (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 370 Colonial and Early-American Literature (4 credits)

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 371 Nineteenth-Century American Literature (4 credits)

This course offers an intensive focus on selected aspects of American literature from the early Romantic movement (approximately 1820) to the turn of the twentieth 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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 372 Modern American Literature (4 credits)**

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 373 Contemporary American Literature (4 credits)**

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, Bellows, Ginsberg, Tennessee Williams, Adrienne Rich.  
Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 380 Issues in English Studies (4 credits)**

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 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?  
Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204; at least two courses in ENGL beyond the literature and writing core curriculum course requirements

**ENGL 390 Major Literary Figures (4 credits)**

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: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 395 Issues in Literature and Culture (4 credits)**

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 this course may fulfill the Human Diversity requirement in the core curriculum.  
Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

**ENGL 401 Advanced Poetry or Fiction Writing (4 credits) (ends spring 2010)**

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: ENGL 321 or 322, or permission of instructor based on examination of a portfolio

**ENGL 402 Writing Literary Nonfiction (4 credits) (ends fall 2010) (ends fall 2010)**

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: ENGL 252 or 253 or permission of instructor based on examination of a portfolio

**ENGL 403 Analytical and Persuasive Writing (4 credits)**

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: ENGL 251 or 252 or 253 or permission of instructor

**ENGL 405 Advanced Poetry, Fiction, or Creative Nonfiction Writing (4 credits) (begins 2011-2012)**

This advanced course will focus on the students development of a substantial body of work in a chosen genre: poetry, fiction, or creative nonfiction. Students will review their previous writing, do further exploration of a chosen genre, and produce significant new work in that genre. Reading will include theoretical and creative texts.  
Prerequisite: ENGL 321 or 322 or 323 or permission of instructor based on examination of a portfolio.

**ENGL 411 Criticism of Literature (4 credits)**

Study in theoretical and applied literary criticism. Particular authors and works are closely examined in relation to various critical systems.  
Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203 or 204 and 380

**ENGL 421 and 422 Literary Magazine Practicum, Parts I and II**



## English

In this sequence of two, two-credit courses, participants will study the history and character of literary magazines from 1912 to the present, learn desktop publishing and Web design, and apply their knowledge to editing the university's literary and visual arts magazine. The two courses are integrated and mutually dependent on each other; ENGL 421 is an absolute prerequisite for ENGL 422.

### ENGL 421 Literary Magazine Practicum, Part I (2 credits)

Activities during the fall semester of the sequence include readings from *The Little Magazine: A History and Bibliography* and *The Little Magazine in America: A Modern Documentary History*; examining the design and content of fifteen professional literary magazines; learning InDesign CS3 desktop publishing program; creating preliminary Summit Avenue Review page designs; working collaboratively with other literary magazine editors to develop selection procedures and principles; and writing a comparison essay on two professional literary magazines.

Prerequisite: Previous or concurrent enrollment in ENGL 321 or 322 or 323 or instructor permission.

### ENGL 422 Literary Magazine Practicum, Part II (2 credits)

The spring semester component of the sequence includes readings from *The Art of Literary Editing*; active involvement with other editors in the selection process; learning and applying principles of literary copyediting; using desktop publishing to produce the new edition of Summit Avenue Review, from the creation of style sheets and master pages to final proofreading; writing a reflection essay on the editing process as you experienced it; examining the design and content of five professional literary magazine web sites; learning the Dreamweaver web design program; and managing the Summit Avenue Review web site.

Prerequisites: ENGL 421

### ENGL 450 Advanced Literary Studies (4 credits)

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 ENGL 100 level including ENGL 380. Open to limited undergraduate student enrollment by permission of instructor and the graduate program director.

### ENGL 475, 476 Experiential Learning (2 credits)

### ENGL 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### ENGL 481 Seminar in English (4 credits)

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 100-level, including ENGL 380; or, for non-majors, permission of the instructor and the department chair.

### ENGL 483, 484 Seminar (2 credits)

### ENGL 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### ENGL 487, 488 Topics (2 credits)

### ENGL 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

### ENGL 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### ENGL 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

Prerequisites: ENGL 111 and 112 or 190 or ENGL 201, 202, 203, or 204

## Theater Course Offerings (THTR)

The study of theater develops personal creativity and confidence, collaborative skills, and knowledge of an art form that played a central part in ancient cultures and continues to provide a source of excitement, entertainment, and meaning in the contemporary world. Courses in Theater teach the creative skills and techniques of theater performance, the history of theater, and the ideas that have informed theater practice and criticism. In addition, Theater courses offer opportunities to study the history and theory of film as an artistic medium, as well as some techniques related to performance and production in that medium.

Theater offerings include several courses that fulfill the Fine Arts component of the core curriculum and one course that fulfills both the Fine Arts and Diversity requirement of the core curriculum. (Note: Theater offerings are administered through the Department of English).

**THTR 111 Introduction to the Theater (4 credits)**

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.

**THTR 214 Beginning Acting (4 credits)**

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.

**THTR 218 Acting for the Camera (4 credits)**

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.

**THTR 221 World Theater, Origins to 17th Century (History of Theater I) (4 credits)**

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.

**THTR 222 Modern and Contemporary World Theater (History of Theater II) (4 credits)**

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.

**THTR 223 American Theater (History of Theater III) (4 credits)**

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 and the Human Diversity requirement in the core curriculum.

**THTR 259 Film I: Introduction to the Art of Film (4 credits)**

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.

**THTR 260 History of Film: The Silent Era (4 credits)**

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.

**THTR 261 History of Film: Sound Era, 1926 to Present (4 credits)**

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.

**THTR 295, 296 Topics (2 credits)**

**THTR 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

Topics listed under 297 fulfill the Fine Arts requirement in the core curriculum.

**THTR 359 Film II: Film Theory and Criticism (4 credits)**

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

**THTR 412 Drama: Theory and Criticism (4 credits)**

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.

## English – Environmental Science

THTR 475, 476 **Experiential Learning (2 credits)**

THTR 477, 478 **Experiential Learning (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

THTR 269, 389, 491 **Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

THTR 243, 393, 495 **Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## Entrepreneurship

See Business Administration

## Environmental Science (ESCI)

College of Arts and Sciences, Interdisciplinary Program

O’Shaughnessy Science Hall (OSS) 117, (651) 962-5241

Hickson (GEOL), program director; Environmental Science Committee: Emms (BIOL), Wammer (CHEM), and Amel (PSYC and ENVR program director, advisory)

Environmental science is an interdisciplinary science program focused on solving environmental problems that lie at the interface between biology, chemistry, and geology. Students participate in one of three concentrations (biology, chemistry, or geology) leading to the Bachelor of Science degree, each of which contains substantial coursework from each of these disciplines. This program provides excellent preparation for students wishing to pursue graduate degrees in conservation biology, environmental science, earth system science, or other environmentally-focused programs of study in the sciences. It also provides solid preparation for students planning other types of environmental careers, such as environmental consulting, law, policy, or research.

Students entering this program should contact the program director or a committee member. Each student will be assigned an adviser appropriate to the concentration that they choose for their course of study.

### Major in Environmental Science: Concentration in Biology (B.S.)

ESCI 310 Environmental Problem Solving (4 credits)

ESCI 390 Senior Research Seminar (4 credits)

*Biology courses (24 credits):*

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics, Evolution, and Ecology (4 credits)

BIOL 204 Cellular and Molecular Biology (4 credits)

BIOL 333 Ecology (4 credits)

BIOL 435 Aquatic Biology (4 credits) *or* BIOL 486 Environmental Physiology (4 credits)

*Plus:*

Four additional BIOL credits at the 300-level, selected in consultation with the academic adviser. BIOL 211, or Individual Study or Research courses in biology, may be substituted for this requirement with prior approval of the academic adviser.

*Engineering course (4 credits):*

ENGR 123 Energy and the Environment (4 credits)

*Geology courses (8 credits):*

GEOL 115 Environmental Geology (4 credits) *or* GEOL 162 Earth’s Record of Climate (4 credits)

GEOL 211 Earth Materials (4 credits) *or* GEOL 252 Geomorphology (4 credits) *or* GEOL 260 Regional Geology and Geological Field Methods (4 credits)

*Chemistry courses (8-12 credits):*

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

*or* CHEM 115 Accelerated General Chemistry (4 credits)

CHEM 201 Organic Chemistry I (4 credits)

*Mathematics courses (4-8 credits):*

MATH 108 Calculus with Review I (4 credits) *and* MATH 109 Calculus with Review II (4 credits)

*or*

MATH 113 Calculus I (4 credits)

*Statistics course (4 credits):*

STAT 220 Statistics I (4 credits) *or* MATH 303 Statistics for the Applied Sciences (4 credits)

*Humanities and Policy/Economics courses (choose two of the following)(8 credits):*

ECON 370 Environmental and Natural Resource Economics (4 credits)  
 ENVR 212 Social Dynamics and the Environment (4 credits)  
 ENVR 301 Environmental Ethics (4 credits) *or* PHIL 358 Environmental Ethics (4 credits)  
 ENVR 351 Environmental Policy (4 credits) *or* POLS 316 Environmental Policy (4 credits)

*NOTE:* Additional coursework in geographic information systems, environmental policy, economics, law, etc would lead to an even stronger degree program. ESCI and ENVR affiliated faculty can provide suggestions for additional courses, co-majors, and/or minors that might be applicable. Students pursuing graduate degrees in environmental science are strongly encouraged to take introductory physics courses (PHYS 111 and 112).

**Major in Environmental Science: Concentration in Chemistry (B.S.)**

ESCI 310 Environmental Problem Solving (4 credits)  
 ESCI 390 Senior Research Seminar (4 credits)

*Chemistry courses (20-24 credits):*

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)  
*or* CHEM 115 Accelerated General Chemistry (4 credits)  
 CHEM 201 Organic Chemistry I (4 credits)  
 CHEM 300 Quantitative analysis (4 credits)

*Plus eight credits from the following:*

CHEM 202 Organic Chemistry II (4 credits)  
 CHEM 320 Instrumental Analysis (4 credits)  
 CHEM 331 Chemical Thermodynamics and Reaction Dynamics (4 credits)  
 CHEM 332 Quantum Chemistry and Molecular Spectroscopy (4 credits)  
 CHEM 440 Biochemistry I (4 credits)

*Engineering course (4 credits):*

ENGR 123 Energy and the Environment (4 credits)

*Biology courses (8 credits):*

BIOL 201 Diversity and Adaptation (4 credits)  
 BIOL 202 Genetics, Evolution, and Ecology (4 credits)

*Geology courses (8 credits):*

GEOL 115 Environmental Geology (4 credits) *or* GEOL 162 Earth's Record of Climate (4 credits)  
 GEOL 211 Earth Materials (4 credits) *or* GEOL 252 Geomorphology (4 credits) *or* GEOL 260 Regional Geology and Geological Field Methods (4 credits)

*Mathematics courses (4-8 credits):*

MATH 108 Calculus with Review I (4 credits) *and* MATH 109 Calculus with Review II (4 credits)  
*or*  
 MATH 113 Calculus I (4 credits)

*Humanities and Policy/Economics courses (choose two of the following)(8 credits):*

ECON 370 Environmental and Natural Resource Economics (4 credits)  
 ENVR 212 Social Dynamics and the Environment (4 credits)  
 ENVR 301 Environmental Ethics (4 credits) *or* PHIL 358 Environmental Ethics (4 credits)  
 ENVR 351 Environmental Policy (4 credits) *or* POLS 316 Environmental Policy (4 credits)

*Plus eight credits from the following (it is strongly recommended that one of these courses be a field-based course):*

BIOL 211 Introduction to field research (4 credits)  
 BIOL 333 Ecology (4 credits)  
 BIOL 335 Conservation Biology (4 credits)  
 CHEM 491, 492 Research (4 credits)  
 GEOL 260 Regional Geology and Geological Field Methods (4 credits)  
 GEOL 310 Environmental Geochemistry (4 credits)  
 GEOL 410 Hydrogeology (4 credits)  
 STAT 220 Statistics I (4 credits)

*NOTE:* PHYS 111 or 112 and MATH 114 are required for those who wish to take CHEM 331 or CHEM 332 as a part of their chemistry coursework. Additional coursework in geographic information systems, environmental policy, economics, law, etc would lead to an even stronger degree program. ESCI and ENVR affiliated faculty can provide suggestions for additional courses, co-majors, and/or minors that might be applicable. Students pursuing graduate degrees in environmental science are strongly encouraged to take introductory physics courses (PHYS 111 and 112).

**Major in Environmental Science: Concentration in Geoscience (B.S.)**

ESCI 310 Environmental Problem Solving (4 credits)  
 ESCI 390 Senior Research Seminar (4 credits)

## Environmental Science

### *Geology courses (20 credits):*

GEOL 115 Environmental Geology (4 credits) *or* GEOL 162 Earth's Record of Climate (4 credits)  
 GEOL 211 Earth materials (4 credits)  
 GEOL 252 Geomorphology (4 credits)  
 GEOL 310 Environmental Geochemistry (4 credits)  
 GEOL 410 Hydrogeology (4 credits)

### *Field course (4 credits):*

GEOL 260 Regional Geology and Geological Field Methods (4 credits)  
 BIOL 211 Introduction to field research (4 credits)

### *Biology courses (12 credits):*

BIOL 201 Diversity and Adaptation (4 credits)  
 BIOL 202 Genetics, Evolution, and Ecology (4 credits)  
 BIOL 333 Ecology (4 credits) *or* BIOL 335 Conservation Biology (4 credits)

### *Engineering course (4 credits):*

ENGR 123 Energy and the Environment (4 credits)

### *Chemistry courses (4-8 credits):*

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)  
*or*  
 CHEM 115 Accelerated General Chemistry (4 credits)

### *Mathematics courses (4-8 credits):*

MATH 108 Calculus with Review I (4 credits) *and* MATH 109 Calculus with Review II (4 credits)  
*or*  
 MATH 113 Calculus I (4 credits)

### *Statistics course (4 credits):*

STAT 220 Statistics I (4 credits) *or* MATH 303 Statistics for the Applied Sciences (4 credits)

### *Humanities and Policy/Economics courses (choose two of the following)(8 credits):*

ECON 370 Environmental and Natural Resource Economics (4 credits)  
 ENVR 212 Social Dynamics and the Environment (4 credits)  
 ENVR 301 Environmental Ethics (4 credits) *or* PHIL 358 Environmental Ethics (4 credits)  
 ENVR 351 Environmental Policy (4 credits) *or* POLS 316 Environmental Policy (4 credits)

**NOTE:** Additional coursework in geographic information systems, environmental policy, economics, law, etc would lead to an even stronger degree program. ESCI and ENVR affiliated faculty can provide suggestions for additional courses, co-majors, and/or minors that might be applicable. Students pursuing graduate degrees in environmental science are strongly encouraged to take introductory physics courses (PHYS 111 and 112).

### **ESCI 310 Environmental Problem Solving (4 credits)**

This course explores methods of solving environmental problems. These problems are by nature, interdisciplinary and are rarely addressed in a substantive fashion in traditional science textbooks. In this course, students and faculty work together to develop a working model of a critical earth system or biogeochemical cycle (i.e. the carbon or nitrogen cycle), and learn how to make calculations of human-induced changes to that system. Students from all concentrations of the environmental science major will work together on this interdisciplinary research project using modeling and systems analysis software to more fully understand specific environments and the quantitative methods of assessing challenges to those environments. This course should be taken by all ESCI students during their junior year. Prerequisite: Environmental Science majors should have completed BIOL 204, CHEM 201, or GEOL 211/252. Environmental Studies (ENVR) majors that wish to take this course need to have completed one course each from BIOL, CHEM and GEOL.

### **ESCI 390 Senior Research Seminar (4 credits)**

This course is designed to fulfill the senior capstone experience in Environmental Science as it brings together students from all of the environmental science concentrations (biology, chemistry, and geology) to complete interdisciplinary research projects. In the semester prior to the course offering, Environmental Science majors, in consultation with their faculty advisers and the course instructor, will develop a research project that they will complete as part of this course. Students may also choose to more fully develop a research project in which they have been participating or propose a service-learning or community-based project. Furthermore, groups of students could propose to perform an interdisciplinary project. The format of this research is intentionally open-ended because it is meant to provide flexibility and choice to the students and the course instructor. Student-led seminars on topics of the students' choosing will comprise most weekly meetings, along with updates on research progress and a final presentation to the St. Thomas community on the outcome of the student's research projects. This course should be completed in the final Spring semester prior to graduation.

Prerequisite: ESCI 310 or permission of instructor; at least one ENVR course.

**Environmental Studies (ENVR)**

College of Arts and Sciences, Interdisciplinary Program

John Roach Center for the Liberal Arts (JRC) LL58, (651) 962-5046

Amel (PSYC), program director; Environmental Studies Committee: Emms (BIOL), Degnan (PHIL), Hickson (GEOL), Hoffman (POL), Lorah (GEOG), Scott (PSYC), Wammer (CHEM)

The Environmental studies program provides students with a broad interdisciplinary background as well as a 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 (e.g., engineering, math, journalism, justice & peace, geology, English, sociology, etc.).

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 6-course Concentration Area Proposal to the Governance Committee for approval. 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 encouraged 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 (4 credits)

ENVR 212 Social Dynamics and the Environment (4 credits)

ENVR 301 Environmental Ethics (4 credits)

ENVR 351 Environmental Policy Formation (4 credits)

ENVR 401 Field Seminar (4 credits)

*Plus one additional non-natural-science course from the following:*

BLAW 351 Environmental Law (4 credits)

COJO 372 Environmental Communication (4 credits)

ECON 370 Environmental and Natural Resource Economics (4 credits)

ENGR 123 Energy and the Environment (4 credits)

GEOG 331 Conservation Geography (4 credits)

PSYC 490 Eco-Psychology (4 credits)

PSYC 490 Conservation Psychology (4 credits)

Or other option with prior approval of the program director

*Plus four credits from the following:*

STAT 220 Statistics I (4 credits)

MATH 303 Statistics for the Applied Sciences (4 credits)

*Plus:*

BIOL 102 Conservation Biology (4 credits)

*or*

BIOL 201 Diversity and Adaptation (4 credits)

*Plus:*

CHEM 101 Environmental Chemistry (4 credits)

*or*

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

*or*

CHEM 115 Accelerated General Chemistry (4 credits)

*Plus:*

## Environmental Studies

GEOL 115 Environmental Geology *or one of* GEOL 110, 111, 113, 114 (4 credits each)

*Plus:*

Six courses in a Concentration Area determined in consultation with the program director. ESCI 310 and ESCI 390 are highly recommended.

### **Major in Environmental Studies: Concentration Area in Social Science, Business, or Humanities**

ENVR 151 Humans and the Environment (4 credits)

ENVR 212 Social Dynamics and the Environment (4 credits)

ENVR 301 Environmental Ethics (4 credits)

ENVR 351 Environmental Policy Formation (4 credits)

ENVR 401 Field Seminar (4 credits)

*Plus one of the four sequences below:*

BIOL 102 Conservation Biology (4 credits)

CHEM 101 Environmental Chemistry (4 credits)

GEOL 115 Environmental Geology *or one of* GEOL 110, 111, 113, 114 (4 credits each)

GEOL 252 Geomorphology (4 credits) *or* GEOL 260 Regional Geology and Geological Field Methods (4 credits) *or*

GEOL 220 Oceanography (4 credits)

*or*

BIOL 201 Diversity and Adaptation (4 credits)

BIOL 202 Genetics and Population Biology (4 credits)

CHEM 101 Environmental Chemistry (4 credits)

GEOL 115 Environmental Geology *or one of* GEOL 110, 111, 113, 114 (4 credits each)

*or*

BIOL 102 Conservation Biology (4 credits)

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits), *or* CHEM 115

Accelerated General Chemistry (4 credits)

GEOL 115 Environmental Geology *or one of* GEOL 110, 111, 113, 114 (4 credits each)

*or*

BIOL 102 Conservation Biology (4 credits)

CHEM 101 Environmental Chemistry (4 credits)

GEOL 115 Environmental Geology *or one of* GEOL 110, 111, 113, 114 (4 credits each)

ENGR 123 Energy and the Environment (4 credits)

*Plus four credits from the following:*

MATH 303 Statistics for the Applied Sciences (4 credits)

STAT 220 Statistics I (4 credits)

*Plus:*

Six courses in a Concentration Area determined in consultation with the program director. ESCI 310 and ESCI 390 are highly recommended.

### **Minor in Environmental Studies**

ENVR 151 Humans and the Environment (4 credits)

ENVR 212 Social Dynamics of the Environment (4 credits)

ENVR 301 Environmental Ethics (4 credits)

ENVR 351 Environmental Policy Formation (4 credits)

*Plus one additional environmentally-related course from the following:*

BLAW 351 Environmental Law (4 credits)

COJO 372 Environmental Communication (4 credits)

ECON 370 Environmental and Natural Resource Economics (4 credits)

ENGR 123 Energy and the Environment (4 credits)

GEOG 331 Conservation Geography (4 credits)

PSYC 490 Eco-Psychology (4 credits)

PSYC 490 Conservation Psychology (4 credits)

Or other option with prior approval of the program director

#### **ENVR 151 Humans and the Environment (4 credits)**

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.

#### **ENVR 212 Social Dynamics and the Environment (4 credits)**

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.

**ENVR 295, 296 Topics (2 credits)**

**ENVR 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**ENVR 301 Environmental Ethics (4 credits) (equivalent to 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: ENVR 151 and PHIL 214 or PHIL 215

**ENVR 351 Environmental Policy Formation (4 credits) (equivalent to POLS 309)**

An examination of environmental policy outcomes generated by institutions and organizations, including legislation, 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: ENVR 212

**ENVR 401 Field Seminar (4 credits)**

A capstone course that combines field experience with classroom seminar. Student teams will conduct collaborative, broadly interdisciplinary analysis 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: ENVR 301 and 351 or permission of the instructor

**ENVR 475, 476 Experiential Learning (2 credits)**

**ENVR 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**ENVR 483, 484 Seminar (2 credits)**

**ENVR 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**ENVR 487, 488 Topics (2 credits)**

**ENVR 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**ENVR 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**ENVR 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### **Family Studies (FAST)**

College of Arts and Sciences, Interdisciplinary Program  
O’Shaughnessy Education Center (OEC) 125C, (651) 962-5829  
Bruess (COJO), 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



## Family Studies

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

FAST 400 Family Studies Seminar (4 credits)

*Plus four credits from the following:*

COJO 472 Family Communication (4 credits)

PSYC 288 Psychology of Marriage and the Family (4 credits)

SOCI 321 Marriage and Families (4 credits)

*Plus twelve credits from the following:*

CDC 305 Chemical Dependency and the Family (4 credits)

COJO 472 Family Communication (4 credits)

ENTR 249 Introduction to Family Business

ENTR 349 Family Business Management (4 credits)

FAST 495, 496 Individual Study (2 credits each)

FAST 497, 498 Individual Study (4 credits each)

HLTH 462 Human Sexuality Education (4 credits)

IDSC 291 Anatomy of Violence (4 credits)

PSYC 200 Psychology of Infancy and Childhood (4 credits)

PSYC 202 Lifespan Development (4 credits)

PSYC 203 Psychology of Adolescence (4 credits)

PSYC 204 The Psychology of Adulthood and Aging (4 credits)

PSYC 288 Psychology of Marriage and the Family (4 credits)

SOWK 210 Relationship, Intimacy, and Sexuality (4 credits)

SOWK 340 Human Behavior and the Social Environment (4 credits)

SOWK 401 Generalist Practice with Individuals, Groups and Families (4 credits)

*NOTE: available only to Social Work majors*

SOWK 441 Family Resiliency and Diversity (4 credits)

SOCI 304 Adolescence in Society (4 credits)

SOCI 321 Marriages and the Families (4 credits)

SOCI 354 Sex in Society (4 credits)

THEO 423 Christian Marriage (4 credits)

FAST 295, 296 Topics (2 credits)

FAST 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

FAST 400 Seminar in Family Studies (4 credits)

This advanced capstone course for the Family Studies minor is a multidisciplinary seminar taken after a student 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: PSYC 288 or SOCI 321 or COJO 472 and three other courses from the list of approved courses for the minor.

FAST 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

FAST 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Finance

See Business Administration

## French (FREN)

See Modern and Classical Languages

**Geography (GEOG)**

College of Arts and Sciences, Department of Geography  
 John Roach Center for the Liberal Arts (JRC) 432, (651) 962-5569  
 Kelley (chair), Hansen, Lorah, Slaats, Werner

The Department of Geography offers a major and minor in geography, as well as a geographic information systems (GIS) minor (for non-geography majors) and a concentration area in GIS for majors. The GIS minor is well-adapted to majors in the physical and social sciences and complements studies in education, marketing, real estate, and entrepreneurship.

The department emphasizes GIS laboratory work, internships, collaborative faculty-student research and service learning to give our students a solid foundation in geographic principles and techniques, as well as an appreciation for the diversity of people and places. It makes extensive use of computer skills to explore a wide range of topics, from regional studies to remote sensing.

With foundations in both the natural and social sciences, geography prepares students for a wide range of careers in government, the private sector, and education. Geographers create digital maps, perform location analysis for retail and service stores, analyze land use and urban planning, work with census data, teach, and hold a wide variety of other jobs. Graduates also pursue advanced degrees in geography, business, urban and regional planning, community development, GIS, and natural resource management.

**Major in Geography**

GEOG 111 Human Geography (4 credits)  
 GEOG 112 Landscapes: Physical Systems (4 credits)  
 GEOG 113 World Geography (4 credits)  
 GEOG 480 Seminar in Geography (4 credits)

*Plus eight credits in methods courses:*

GEOG 221 Computer Skills in Geography (4 credits)  
 GEOG 223 Remote Sensing (4 credits)  
 GEOG 321 Geographic Information Systems (4 credits)  
 GEOG 322 Geographical Analysis (4 credits)  
 GEOG 421 Applied Geographic Information Systems (4 credits)

*Plus four credits in a topical course:*

GEOG 230 Weather and Climate (4 credits)  
 GEOG 330 Geography for Business and Planning (4 credits)  
 GEOG 331 Conservation Geography (4 credits)  
 GEOG 430 Urban Geography (4 credits)

*Plus four credits in a regional course:*

GEOG 241 Geography of Minnesota (4 credits)  
 GEOG 298 Special Topics in Geography (Africa, Latin America, etc.) (4 credits each)  
 GEOG 340 Geography of the U.S. and Canada (4 credits)  
 GEOG 384 Field Study in Geography (4 credits)

*Plus:*

Eight elective geography credits

Note: At least twelve of the credits used to fulfill the major must be at the 300-level or above.

**Major in Geography - Geographic Information Systems (GIS)**

GEOG 111 Human Geography (4 credits)  
 GEOG 112 Landscapes: Physical Systems (4 credits)  
 GEOG 113 World Geography (4 credits)  
 GEOG 221 Computer Skills in Geography (4 credits)  
 GEOG 321 Geographic Information Systems (4 credits)  
 GEOG 421 Applied Geographic Information Systems (4 credits)  
 GEOG 422 GIS Customization and Programming (4 credits)  
 GEOG 480 Seminar in Geography (4 credits)

*Plus eight credits from the following methods courses:*

GEOG 223 Remote Sensing (4 credits)  
 GEOG 322 Geographical Analysis (4 credits)  
 GEOG 330 Geography for Business and Planning (4 credits)  
 GEOG 331 Conservation Geography (4 credits)  
 GEOG 478 Experiential Learning (4 credits) *or* GEOG 494 Research (4 credits)

*Plus:*

STAT 220 Statistics I (4 credits)

## Geography

### **Minor in Geography**

Eight credits in core courses  
Eight credits in methods courses  
Eight elective geography credits

### **Minor in Geographic Information Systems (GIS)**

This minor is only available to non-geography majors.  
GEOG 221 Computer Skills in Geography (4 credits)  
GEOG 321 Geographic Information Systems (4 credits)  
GEOG 421 Applied Geographic Information Systems (4 credits)

*Plus eight credits from the following methods courses:*

GEOG 223 Remote Sensing (4 credits)  
GEOG 322 Geographical Analysis (4 credits)  
GEOG 330 Geography for Business and Planning (4 credits)  
GEOG 331 Conservation Geography (4 credits)  
GEOG 422 GIS Customization and Programming (4 credits)  
GEOG 478 Experiential Learning (4 credits) or GEOG 494 Research (4 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 Education*

### **GEOG 111 Human Geography (4 credits)**

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. Offered every semester. This course fulfills the Social Analysis and Human Diversity requirements in the core curriculum.

### **GEOG 112 Landscapes: Physical Systems (4 credits)**

This course asks why the natural environment looks and acts the way it does and addresses the interrelationships between climate, soils, water, landforms, and the biosphere. The emphasis of the course is on natural processes with some discussion of how humans interact with their surroundings. Exercises from a lab manual written specifically for this course provide hands-on experiences through inquiry-based learning and GIS. Offered every semester.

### **GEOG 113 World Geography (4 credits)**

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. Offered every semester. This course fulfills the Social Analysis and Human Diversity requirements in the core curriculum.

### **GEOG 221 Computer Skills in Geography (4 credits)**

A course with an emphasis on useful computing, especially computer-generated maps. Topics include the basic operation of a computer, editors and word processing, spreadsheets, databases, graphics, thematic maps, map design, and cartography. An applications-oriented course that teaches the use of ArcGIS. Offered every semester.

### **GEOG 223 Remote Sensing (4 credits)**

The principles and techniques of remotely sensed data are presented including photographic and digital sensing. The applicability of these techniques to land use analysis and environmental studies will be emphasized. Students will become familiar with aerial photography and digital imagery interpretation through inquiry-based learning and GIS. Offered alternate years.

### **GEOG 230 Weather and Climate (4 credits)**

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.

### **GEOG 241 Geography of Minnesota (4 credits)**

Minnesota is a land rich with diversity. In this course, students will explore the state's people, landscapes, natural resources, rural issues, economic opportunities, and many other aspects of Minnesota. The course will examine regional and topical issues to develop an understanding of what makes Minnesota unique. This will be accomplished through class discussions, hands-on activities, and readings.

### **GEOG 295, 296 Topics (2 credits)**

### **GEOG 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**GEOG 321 Geographic Information Systems (4 credits)**

A sequel to GEOG 221, the theme of this course is how to perform data analysis using 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 a variety of real-world applications from demography to environmental studies. Usually offered spring semester.

Prerequisite: A minimum grade of C- in GEOG 221 or consent of instructor

**GEOG 322 Geographical Analysis (4 credits)**

This project based course uses Geographic Information Systems (GIS) to explore, model and better understand the American landscape. It focuses on collecting, organizing, analyzing and presenting spatial data. Statistical methods are applied in a real-world context - providing insight into issues ranging from urban sprawl to rural economic. Offered alternate years.

Prerequisite: A minimum grade of C- in GEOG 221 or consent of instructor

**GEOG 330 Geography for Business and Planning (4 credits)**

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 marketing. Offered every semester.

**GEOG 331 Conservation Geography (4 credits)**

This course uses basic Geographic Information Systems (GIS) to study a wide range of conservation issues. GIS is ideal platform for exploring the relationships between the economic, political and environmental processes shaping our landscapes. Typical class projects include locating the best lands in Minnesota for carbon sequestration projects and helping the Minnesota Nature Conservancy target valuable forest habitat for conservation purchases.

Prerequisite: A minimum grade of C- in GEOG 221 or consent of instructor

**GEOG 340 Geography of the U.S. and Canada (4 credits)**

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.

**GEOG 384 Field Study in Geography (4 credits)**

A geographic analysis through field experience. Includes study-abroad courses.

Prerequisite: consent of instructor

**GEOG 421 Applied Geographic Information Systems (4 credits)**

A sequel to GEOG 321, this project-based course is designed around individual student interests to utilize advanced ArcGIS functions and analysis. Principles of geographic information systems will be implemented in a wide variety of applications. Usually offered fall semester.

Prerequisite: GEOG 321 or consent of the instructor

**GEOG 422 GIS Customization/Programming (4 credits)**

This course is an introduction to customization and programming based on Python for Geoprocessing in ArcGIS, and is designed for geography students. Basic concepts of object-oriented programming and scripting will be presented. Students will develop skills in customization techniques to explore, manipulate, and model spatial data using the Geoprocessor methods.

Prerequisite: Enrollment in the GIS program and a minimum grade of C- in GEOG 321, or consent of instructor

**GEOG 430 Urban Geography (4 credits)**

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.

Prerequisite: GEOG 111 or 113 or consent of instructor

**GEOG 475, 476 Experiential Learning (2 credits)**

**GEOG 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**GEOG 480 Seminar in Geography (4 credits)**

The seminar explores 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

**GEOG 481 Advanced Field Study in Geography (4 credits)**

A geographic analysis through field experience. Designed for advanced students in geography. Includes study-abroad

## Geography – Geology

courses.

Prerequisite: consent of instructor

**GEOG 483, 484 Seminar (2 credits)**

**GEOG 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**GEOG 487, 488 Topics (2 credits)**

**GEOG 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**GEOG 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**GEOG 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### Geology (GEOL)

College of Arts and Sciences, Department of Geology

Owens Science Hall (OWS) 153, (651) 962-5241

Lamb (chair), Hickson, McGuire, Theissen

Geologists do not simply study rocks, although rocks provide some of the fundamental clues to understanding a wide range of global issues that directly impact people’s lives. Some of the most relevant issues facing humanity have a fundamentally geological basis: the price and availability of oil, water quality, prediction and mitigation of natural disasters, climate change and mineral resource exploration and use. In the Geology Department, we strive to develop the whole student by emphasizing critical thinking and analytical, quantitative, public speaking and writing skills. Students have the opportunity to work collaboratively with geology faculty on research projects, in addition to learning the key field, lab and research skills of a professional geologist. These skills are transferable to many different fields and help prepare students for a range of career paths.

The geology curriculum has been designed to provide students with a solid core, but with sufficient flexibility to allow students with particular interests to pursue a more customized program. At the heart of this program is the field laboratory experience, a fundamental and basic component of a St. Thomas geoscience degree. Department faculty emphasize the fact that geology must be learned in the field and as a result offer field laboratory experiences in all courses that extend from a short afternoon trip to a multi-week field course on field methods and regional geology. Majors will visit many of the geologically significant localities throughout the upper Midwest as part of their program. Fieldwork experiences are complemented by laboratory opportunities, including learning the use of analytical instrumentation for geochemical analysis.

#### Major in Geology (B.A.)

*Four credits from the following:*

GEOL 110 Geology of the National Parks (4 credits)

GEOL 111 Introductory Physical Geology (4 credits)

GEOL 114 The Science of Natural Disasters (4 credits)

GEOL 115 Environmental Geology (4 credits)

GEOL 162 The Earth’s Record of Climate (4 credits)

*Plus:*

GEOL 211 Earth Materials (4 credits) *or* GEOL 310 Environmental Geochemistry (4 credits)

GEOL 260 Regional Geology and Geological Field Methods (4 credits)

GEOL 320 Sedimentology and Stratigraphy (4 credits)

GEOL 340 Fundamentals of the Lithosphere I (Petrology) (4 credits)

GEOL 360 Fundamentals of the Lithosphere II (Structural Geology) (4 credits)

GEOL 430 Advanced Earth History (4 credits)

*Plus twelve credits from the following (four credits of which must be at the 400-level):*

GEOL 130 Earth History (4 credits)

GEOL 161 Medical Geology (4 credits)

GEOL 162 The Earth’s Record of Climate (if not chosen above) (4 credits)

GEOL 211 Earth Materials (if not chosen above) (4 credits)

GEOL 220 Oceanography (4 credits)

GEOL 252 Earth Surface Processes and Geomorphology (4 credits)

GEOL 310 Environmental Geochemistry (4 credits) (if not chosen above)

GEOL 410 Hydrogeology (4 credits)  
 GEOL 460 Advanced Field Methods (4 credits)  
 GEOL 461 Medical Geology (unless receiving credit for 161) (4 credits)  
 GEOL 462 The Earth's Record of Climate (unless receiving credit for 162) (4 credits)  
 GEOL 494 Research (4 credits)

*Note:* GEOG 321 Geographic Information Systems and geology courses offered at Macalester College may fulfill one of these courses with permission of chair

#### Allied requirements

MATH 113 Calculus I (4 credits)

*or*

MATH 108 Calculus with Review I (4 credits) *and* MATH 109 Calculus with Review II (4 credits)

*Plus one of the following sequences:*

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

PHYS 111 Introduction to Classical Physics I (4 credits) *and* PHYS 112 Introduction to Classical Physics II (4 credits)

CHEM 111 General Chemistry I (4 credits) *and* PHYS 111 Introduction to Classical Physics I (4 credits)

*For students wishing to pursue careers in paleontology, geobiology, or geomicrobiology:*

BIOL 201 Diversity and Adaptation (4 credits) *and* BIOL 202 Genetics and Population (4 credits)

Biology may be substituted for one of the CHEM/PHYS sequences with permission of chair

*Strongly recommended for students considering graduate study:*

additional courses in the allied sciences and mathematics

#### **Major in Geology (B.S.)**

*Four credits from the following:*

GEOL 110 Geology of the National Parks (4 credits)

GEOL 111 Introductory Physical Geology (4 credits)

GEOL 114 The Science of Natural Disasters (4 credits)

GEOL 115 Environmental Geology (4 credits)

GEOL 162 The Earth's Record of Climate (4 credits)

*Plus:*

GEOL 211 Earth Materials (4 credits) *or* GEOL 310 Environmental Geochemistry (4 credits)

GEOL 260 Regional Geology and Geological Field Methods (4 credits)

GEOL 320 Sedimentology and Stratigraphy (4 credits)

GEOL 340 Fundamentals of the Lithosphere I (Petrology) (4 credits)

GEOL 360 Fundamentals of the Lithosphere II (Structural Geology) (4 credits)

GEOL 430 Advanced Earth History (4 credits)

*Plus twelve credits from the following (four credits of which must be at the 400-level):*

GEOL 130 Earth History (4 credits)

GEOL 161 Medical Geology (4 credits)

GEOL 162 The Earth's Record of Climate (if not chosen above)(4 credits)

GEOL 211 Earth Materials (if not chosen above) (4 credits)

GEOL 220 Oceanography (4 credits)

GEOL 252 Earth Surface Processes and Geomorphology (4 credits)

GEOL 310 Environmental Geochemistry (4 credits) (if not chosen above)

GEOL 410 Hydrogeology (4 credits)

GEOL 460 Advanced Field Methods (4 credits)

GEOL 461 Medical Geology (unless receiving credit for 161) (4 credits)

GEOL 462 The Earth's Record of Climate (unless receiving credit for 162) (4 credits)

GEOL 494 Research (4 credits)

*Note:* GEOG 321 Geographic Information Systems and geology courses offered at Macalester College may fulfill one of these courses with permission of chair

#### Allied requirements

MATH 113 Calculus I (4 credits) *or* MATH 109 Calculus with Review II (4 credits)

MATH 114 Calculus II (4 credits)

CHEM 111 General Chemistry I (4 credits)

CHEM 112 General Chemistry II (4 credits)

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

MATH 303 Statistics for the Applied Sciences (4 credits) *or* STAT 220 Statistics I (4 credits)

*For students wishing to pursue careers in paleontology, geobiology, or geomicrobiology:*

BIOL 201 Diversity and Adaptation (4 credits) *and* 202 Genetics and Population (4 credits)

## Geology

Biology may be substituted for one of the CHEM/PHYS sequences with permission of chair

Depending on a student's interest and career goals, substitutions may be made for other advanced courses in Biology, Chemistry, or Physics for certain listed courses, in consultation with the geology department chair.

### 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 Science (9-12) and a Co-major in Secondary Education

*See Education.*

### Minor in Geology

*Four credits from the following:*

GEOL 110 Geology of the National Parks (4 credits)

GEOL 111 Introductory Physical Geology (4 credits)

GEOL 114 Natural Disasters (4 credits)

GEOL 115 Environmental Geology (4 credits)

GEOL 162 The Earth's Record of Climate (4 credits)

*Plus four credits from the following:*

GEOL 211 Earth Materials (4 credits)

GEOL 310 Environmental Geochemistry (4 credits)

GEOL 320 Sedimentology and Stratigraphy (4 credits)

*Plus:*

GEOL 340 Fundamentals of the Lithosphere I (Petrology) (4 credits)

*Plus eight credits from the following (only four of which may be at the 100-level):*

GEOL 130 Earth History (4 credits)

GEOL 161 Medical Geology (4 credits)

GEOL 162 The Earth's Record of Climate (if not chosen above)(4 credits)

GEOL 211 Earth Materials (4 credits) (if not chosen above)

GEOL 220 Oceanography (4 credits)

GEOL 252 Earth Surface Processes and Geomorphology (4 credits)

GEOL 260 Regional Geology and Geological Field Methods (4 credits)

GEOL 310 Environmental Geochemistry (4 credits) (if not chosen above)

GEOL 320 Sedimentology and Stratigraphy (4 credits) (if not chosen above)

GEOL 360 Fundamentals of the Lithosphere II (Structural Geology) (4 credits)

GEOL 410 Hydrogeology (4 credits)

GEOL 461 Medical Geology (unless receiving credit for 161) (4 credits)

GEOL 462 The Earth's Record of Climate (unless receiving credit for 162) (4 credits)

### GEOL 102 Origins and Methods (4 credits) (GEOL 110, 111, 114, 115)

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 student will focus on the materials which make up the Earth and on the geologic processes that operate on these materials. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered in January term.

NOTE: Students who receive credit for GEOL 102 may not receive credit for GEOL 110, 111, 114, or 115.

### GEOL 110 Geology of the National Parks (4 credits) (GEOL 102, 111, 114, 115)

This course introduces fundamental geologic concepts, processes and materials using examples from the national parks. Emphasis is placed on the specific geologic materials, natural processes, landforms and sequence of events responsible for the outstanding scenery in selected U.S. national parks. Laboratories will include study of the rocks common to the national parks; analysis of geomorphic, topographic and geologic maps of the national parks; and field studies of local sites. Lecture and two laboratory hours per week. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

NOTE: Students who receive credit for GEOL 110 may not receive credit for GEOL 102, 111, 114, or 115.

### GEOL 111 Introductory Physical Geology (4 credits) (GEOL 102, 110, 114, 115)

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, and the geologic processes operating at the surface and in the interior. Lecture and two laboratory hours per week. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

NOTE: Students who receive credit for GEOL 111 may not receive credit for GEOL 102, 110, 114, or 115.

**GEOL 114 The Science of Natural Disasters (4 credits) (GEOL 102, 110, 111, 115)**

This introductory geology course focuses on how and why natural disasters occur, as well as on their effects and how scientists study them. The course will examine internal and external Earth processes and in particular how these processes impact humans. Course emphases will be upon the principles underlying natural disasters such as earthquakes, volcanic eruptions, landslides, floods, coastal processes, and extinctions. We will use case studies of recent and historic events to understand these natural processes. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

NOTE: Students who receive credit for GEOL 114 may not receive credit for GEOL 102, 110, 111, or 115.

**GEOL 115 Environmental Geology (4 credits) (GEOL 102, 110, 111, 114)**

This course emphasizes the interactions between humans and their environment, focusing on those processes and issues that are fundamentally geological in nature. Early in the course, students will be introduced to basic geoscience concepts and principals, the scientific method, plate tectonics, and Earth materials (rocks and minerals). The remainder of the course will focus on specific topics at the interface between humans and their environment, including volcanic and earthquake hazards, human impacts on the hydrological cycle, surface and groundwater contamination, climate and the carbon cycle, nuclear waste storage, soil erosion, non-renewable resources, and slope stability. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

NOTE: Students who receive credit for GEOL 115 may not receive credit for GEOL 102, 110, 111, or 114.

**GEOL 130 Earth History (4 credits)**

The course introduces fundamental geologic concepts while examining the major tectonic, chemical and biological events that shaped the Earth through time. It will include a study of fossils, sedimentary structures, depositional environments, radiometric dating techniques, and other tools geoscientists use to interpret the past. Throughout the course global events will be studied but focus will be on the North American continent. This course fulfills the core area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

**GEOL 161 Medical Geology (4 credits)**

The course explores the effects of geologic materials and processes on human health. Topics include, exposure to or deficiency of trace metals and minerals, inhalation of ambient and anthropogenic mineral dusts and volcanic emissions, transportation, modification and concentration of organic compounds and exposure to radionuclides, microbes and pathogens in various geologic settings. The knowledge and skills covered in this course will provide an understanding of the geological and biological processes controlling various public health concerns and thus provides a preparation to contribute to important societal questions.

Prerequisites: one of GEOG 110, 111, 114, 115, 130, 162, CHEM 100, 101, 111, 115 or permission of instructor

**GEOL 162 The Earth's Record of Climate (4 credits)**

Climate change is among the most pressing challenges in our world today. In this course we will explore the Earth's climate system and the climate changes that have occurred during the history of our planet. We will use a number of geological "fingerprints" to examine past climate and modern data to examine climate change in recent decades. You will gain hands-on experience collecting, analyzing, and interpreting climate data in several laboratory projects and in course exercises designed with an emphasis on scientific inquiry and problem solving.

**GEOL 211 Earth Materials (4 credits)**

Earth's materials record the vast history of the earth, help us understand current earth processes and are vital to our daily living. By the end of this course, you will be able to identify many common Earth materials and their components, describe how they formed, state where on or in Earth they typically form, and describe their economic and environmental importance. We will travel to the Badlands and Black Hills, SD, to collect data from several field sites for analysis during the rest of the semester. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

Prerequisite: one of GEOL 102, 110, 111, 114, 115, 130 or 162

**GEOL 220 Oceanography (4 credits)**

The Earth's surface is dominated by vast oceans known for the beauty of their wildlife and waters. The oceans are also increasingly recognized for their critical importance to the functioning of the Earth's climate system and for their endangered natural resources. For example, the ocean-atmospheric climate phenomenon known as the El Niño Southern Oscillation has gained household name recognition for its global impact on the weather, economy, and public health. In this course we will explore the physical, chemical, and biological processes that characterize the oceans. Students will develop research and analytical skills by making observations and interpretations of oceanographic processes using data, demonstrations, and field experiences. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

Prerequisite: one of GEOL 110, 111, 114, 115, 130, 162, or permission of the instructor

**GEOL 252 Earth Surface Processes and Geomorphology (4 credits)**

This course emphasizes the physical processes that are responsible for shaping the Earth's surface. The qualitative description of landforms is pursued, in light of student's newly-gained analytical and quantitative understanding of



## Geology

processes. The labs focus on techniques used by geomorphologists to characterize landforms, soils, and the processes that shape, including: air photo interpretation, analysis of digital topographic data, experimental simulation of landforms evolution, and field techniques in geomorphology. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning.

Prerequisite: one of GEOL 102, 110, 111, 114, 115, 130 or 162

### GEOL 260 Regional Geology and Geological Field Methods (4 credits)

The field is geology's laboratory. this course is an introduction to the major concepts of geology, as well as the methods of field geology. Students will learn how to collect, synthesize, and analyze geological data in the field. Techniques will be taught in the context of the regional geology of an area so students will gain a critical appreciation of a geological terrain outside of their usual experience. Students will spend 2-3 weeks in the field examining geological structures, modern-day faults, modern processes that shape the Earth's surface, and examining the ancient record of past climate and environments preserved in the rock record. Student teams will learn basic techniques and instruments of geological mapping and rock description, how to recognize geological structures like faults and folds, ways to interpret the evolution of the Earth from sedimentary, igneous, and metamorphic rocks, and to link surface processes with the rock record. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered in January-term.

Prerequisite: one of GEOL 102, 110, 111, 114, 115, 130, 162, or permission of instructor

### GEOL 295, 296 Topics (2 credits)

### GEOL 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### GEOL 310 Environmental Geochemistry (4 credits)

Environmental geochemistry is a growing and dynamic field in geology which explores past and present environments for their chemical characteristics and environmental quality. In this course we will explore the applications of chemistry to solve geological and environmental problems, with an emphasis on freshwater environments. Students will get hands-on field and laboratory experience investigating Minnesota rock formations and lake sediments using several different geochemical methods.

Prerequisite: one of GEOL 110, 111, 114, 115, 130, 162; and CHEM 111 or permission of instructor

### GEOL 320 Sedimentology and Stratigraphy (4 credits)

Sedimentology is the study of sediment, particularly focusing on how it is transported and deposited. Stratigraphy emphasizes the analysis of sedimentary strata, the layers of sedimentary (and some volcanic) rocks that cover about three-quarters of the Earth's surface. Sedimentary rocks illuminate many of the details of the Earth's history: effects of sea level change, global climate, tectonic processes, and geochemical cycles are all recorded in the sedimentary strata of the Earth. This course will cover basics of fluid flow and sediment transport, sedimentary structures and textures, and – forming the bridge between modern landforms and ancient rocks – depositional sedimentary environments.

Prerequisite: one of GEOL 110, 111, 114, 115, 130 or 162; GEOL 211 recommended

### GEOL 340 Fundamentals of the Lithosphere I (Petrology) (4 credits)

This is the first course in a year-long sequence that covers the fundamentals of petrology and structural geology in a global tectonic framework. The course begins with a discussion of plate tectonics and then examines each of the major plate settings and their boundaries. It will include the formation of igneous, sedimentary and metamorphic rocks. Labs will include hand specimen identification and the use of the petrographic microscope. The course will also examine the conditions of rock deformation and the typical structural features of each tectonic setting. Labs will cover structural geology techniques including recognition and analysis of features in the field and in hand samples. In the fall semester the focus will be on the petrology of the mantle and lithosphere as well as divergent margins. In the spring semester, the focus will be on convergent margins. There will be several field trips as part of this course, ranging from 1-4 days, in the early fall and late spring.

Prerequisites: one of GEOL 110, 111, 114, 115, 130 or 162; GEOL 211 and 320 or permission of the instructor

### GEOL 360 Fundamentals of the Lithosphere II (Structural Geology) (4 credits)

Continuation of GEOL 340.

Prerequisite: GEOL 260 and 340

### GEOL 410 Hydrogeology (4 credits)

This course focuses on groundwater and how geology influences its recharge, movement, storage, and withdrawal. The course will cover basic concepts of surface- and subsurface water flow, aquifer properties, well testing, heterogeneity in aquifers, groundwater chemistry and contamination, the role of groundwater in geological processes, and regional groundwater systems. Examples, labs, and projects will focus on groundwater in Minnesota and its immediate surroundings.

Prerequisite: one of GEOL 110, 111, 114, 115, 130 or 162; GEOL 360 recommended

### GEOL 421 Geophysics (4 credits)

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: GEOL 360

#### **GEOL 430 Advanced Earth History (4 credits)**

This course serves as a senior capstone experience in the geology major. Using the tools and concepts from previous coursework—including geochronology, plate tectonics, and other Earth processes—students will examine in-depth some aspect of Earth history. The specific subject matter and focus of this course will vary from year to year, and will be chosen based on input from the students in consultation with the instructor. Some examples of topics include: Precambrian tectonics of the Great Lakes region; Global Mesozoic tectonics; Sedimentary basins and basin analysis; or the Phanerozoic amalgamation of Asia.

Prerequisite: C- or better in GEOL 260, 320, and 340

#### **GEOL 460 Advanced Field Geology (4 credits)**

In this course, students will use skills developed in the introductory field methods course, Geology 260, to tackle more complex geologic problems. We will spend 3 weeks in the field mapping in an area that is more structurally complicated and learning additional techniques not introduced in the first course. Students will have the option of starting a research project and collecting data to be analyzed and written up in the following semester. Students not choosing this option will complete a field project during the course.

Prerequisites: GEOL 260 and permission of the instructor

#### **GEOL 461 Medical Geology (4 credits)**

The course explores the effects of geologic materials and processes on human health. Topics include, exposure to or deficiency of trace metals and minerals, inhalation of ambient and anthropogenic mineral dusts and volcanic emissions, transportation, modification and concentration of organic compounds and exposure to radionuclides, microbes and pathogens in various geologic settings. The knowledge and skills covered in this course will provide an understanding of the geological and biological processes controlling various public health concerns and thus provides a preparation to contribute to important societal questions.

Prerequisites: GEOL 310 or ESCI 310 or permission of instructor

NOTE: Students who receive credit for GEOL 161 may not receive credit for GEOL 461

#### **GEOL 462 The Earth's Record of Climate (4 credits)**

Climate change is among the most pressing challenges in our world today. In this course we will explore the Earth's climate system and the climate changes that have occurred during the history of our planet. We will use a number of geological "fingerprints" to examine past climate and modern data to examine climate change in recent decades. You will gain hands-on experience collecting, analyzing, and interpreting climate data in several laboratory projects and in course exercises designed with an emphasis on scientific inquiry and problem solving.

Prerequisites: GEOL 211, 220, 252 or 260 or permission of the instructor

NOTE: Students who receive credit for GEOL 162 may not receive credit for GEOL 462

#### **GEOL 475, 476 Experiential Learning (2 credits)**

#### **GEOL 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

#### **GEOL 483, 484 Seminar (2 credits)**

#### **GEOL 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

#### **GEOL 487, 488 Topics (2 credits)**

#### **GEOL 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

#### **GEOL 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

#### **GEOL 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### **German (GERM)**

See Modern and Classical Languages

### **Greek (GREK)**

## Health and Human Performance

See Modern and Classical Languages

### Health and Human Performance

College of Arts and Sciences, Department of Health and Human Performance  
O'Shaughnessy Hall (OSH) 220, (651) 962-5970  
Rohwer (chair); Carey, Duoos, Mutiga, Oliphant,

Health and Human Performance offers the following undergraduate professional programs of study:

1. a major in physical education teaching which leads to licensure at the elementary, middle, and secondary levels. 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 also 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.
2. a major in health education teaching, which leads to licensure at the middle and secondary school levels. 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.
3. a major in community health education, which prepares the student for work in community health. Students graduating with a major in community health education will be able to effectively apply the knowledge and skills required in community health education settings.
4. a major in health promotion prepares the student for work as a health promotion specialist outside the school setting. Students graduating with a major in health promotion will have had experience either at a work site or fitness setting. They will demonstrate the skill and knowledge expected of the entry-level exercise science professional in the areas of designing, implementing and evaluating health promotion programs, assessing fitness, prescribing exercise and facilitating lifestyle behavior change, both in a normal and special population. They will effectively assess theory and interface it with practice.
5. a major in health promotion science prepares the student for entrance into a doctor of physical therapy program or other related clinical fields. A student graduating with a major in health promotion science will be trained on highly sophisticated laboratory testing equipment and will have gained real-world experience in clinical settings outside the classroom.
6. a non-teaching major in health education or physical education prepares students who have career objectives that include completing teaching licensure in graduate school or at other licensing organizations.
7. a minor in community health education provides student with basic community health education concepts and skills that complement the student's major.

The department also offers a course to fulfill the Health and Fitness competency of the core curriculum.

#### Major in Community Health Education

HLTH 345 Nutrition for Health and Fitness (4 credits)  
HLTH 350 Personal Health and Wellness (4 credits)  
HLTH 353 Consumer, Community and Environmental Health (4 credits)  
HLTH 375 Lifelong Stress Management (2 credits)  
HLTH 400 Epidemiology (4 credits)  
HLTH 441 Community Health Education: Curriculum, Assessments, and Administration (4 credits)  
HLTH 451 Community Health Education: Methods, Resources, and Partnerships (4 credits)  
HLTH 462 Human Sexuality Education (4 credits)  
HLTH 464 Critical Issues in Health Education (4 credits)

*Plus one of the following:*

HLTH 470 Health Internship I (2 credits)  
HLTH 471 Health Internship II extended (4 credits)

#### Allied requirements

*Four credits from the following:*

BIOL 101 General Biology (4 credits)  
BIOL 105 Human Biology (4 credits)

*Plus four credits from the following:*

BIOL 251C Human Anatomy and Physiology I (CSC) (4 credits)  
PHED 410 Human Anatomy and Physiology (4 credits)

*Plus four credits from the following:*

PSYC 111 General Psychology (4 credits)  
SOC 100 Introduction to Sociology (4 credits)

*Plus four credits from the following:*

CHEM 100 Chemistry in our World (4 credits)  
CHEM 101 Environmental Chemistry (4 credits)  
CHEM 111 General Chemistry (4 credits)

*Plus four credits from the following:*

- COJO 100 Public Speaking (4 credits)
- COJO 105 Communication in the Workplace (4 credits)

*Recommended:*

- PSYC 200 Psychology of Infancy and Childhood (4 credits)
- PSYC 203 Psychology of Adolescence (4 credits)
- PSYC 204 Psychology of Adulthood and Aging (4 credits)

**Major in Health Education 5-12**

*See Education*

**Major in Health Promotion (B.S.)**

- HLTH 345 Nutrition for Health and Wellness (4 credits)
- HLTH 350 Personal Health and Wellness (4 credits)
- 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 (First Responder) (4 credits)
- PHED 410 Human Anatomy and Physiology (4 credits)
- PHED 420 Kinesiology (4 credits)
- PHED 426 Biomechanics (4 credits)
- PHED 430 Measurement and Evaluation (2 credits)
- PHED 431 Exercise Physiology (2 credits)
- PHED 432 Advanced Exercise Physiology (4 credits)
- PHED 433 Exercise in Special Populations (2 credits)
- PHED 449 Health Promotion Seminar (2 credits)

*Plus one of:*

- PHED 450 Health Promotion Internship I (2 credits)
- PHED 451 Health Promotion Internship II extended (4 credits)

**Allied requirements**

- MGMT 305 Management and Organizational Behavior (4 credits) (or BUSN 201 from previous semesters)
- MKTG 300 Principles of Marketing (4 credits)

*Plus four credits from the following:*

- BIOL 101 General Biology (4 credits)
- BIOL 105 Human Biology (4 credits)

*Plus four credits from the following:*

- CHEM 100 Chemistry in our World (4 credits)
- CHEM 111 General Chemistry (4 credits)

*Plus four credits from the following:*

- COJO 100 Public Speaking (4 credits)
- COJO 105 Communication in the Workplace (4 credits)

*Plus four credits from the following:*

- ENGL 251 Writing in the Academy (4 credits)
- ENGL 252 Written Nonfiction Prose (4 credits)

*Note:* Eighty-four credits are required outside the areas of PHED and HLTH.

**Major in Health Promotion – Science Emphasis (B.S.)**

This program is designed for students interested in applying to a doctor of physical therapy (DPT) program or other clinical graduate programs, such as physician assistant, chiropractic school or medical school. The University of St. Thomas has a cooperative program with the College of St. Catherine in that the College of St. Catherine holds three places per year for qualified UST students. Completion of this degree also enables students to apply to other DPT schools throughout the country. Students not accepted into a DPT program will be degreed and prepared to work in the field of Health Promotion.

- HLTH 345 Nutrition for Health and Fitness (4 credits)
- HLTH 350 Personal Health and Wellness (4 credits)
- PHED 113 Introduction to Health Promotion (2 credits)
- PHED 250 Emergency Care (First Responder) (4 credits)
- PHED 420 Kinesiology (4 credits)
- PHED 426 Biomechanics (4 credits)
- PHED 430 Measurement and Evaluation (2 credits)

## Health and Human Performance

PHED 431 Exercise Physiology (2 credits)  
 PHED 432 Advanced Exercise Physiology (4 credits)  
 PHED 433 Exercise in Special Populations (2 credits)  
 PHED 449 Health Promotion Seminar (2 credits)

*Plus one of the following:*

PHED 450 Health Promotion Internship I (2 credits)  
 PHED 451 Health Promotion Internship II extended (4 credits)

### Allied requirements

BIOL 201 Diversity and Adaptation (4 credits)  
 BIOL 202 Genetics and Population Biology (4 credits)  
 BIOL 251C Human Anatomy and Physiology I (CSC) (4 credits)  
 BIOL 252C Human Anatomy and Physiology II (CSC) (4 credits)  
 CHEM 111 General Chemistry I (4 credits)  
 CHEM 112 General Chemistry II (4 credits)  
 STAT 220 Statistics I (4 credits)  
 PHYS 109 General Physics I (4 credits)  
 PHYS 110 General Physics II (4 credits)  
 PSYC 111 General Psychology (4 credits)  
 PSYC 301 Psychopathology (4 credits)

*Plus one of the following:*

MATH 113 Calculus I (4 credits)  
 MATH 108 Calculus with Review I (4 credits) *and* MATH 109 Calculus with Review II (4 credits)

*Note:* Eighty four credits are required outside the areas of PHED and HLTH.

### Application Procedure for St. Catherine's DPT 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 of the senior year.

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 April 1.

### Major in Health Education – Non-Licensure

HLTH 345 Nutrition for Health and Fitness (4 credits)  
 HLTH 350 Personal Health and Wellness (4 credits)  
 HLTH 353 Consumer, Community and Environmental Health (4 credits)  
 HLTH 375 Lifelong Stress Management (2 credits)  
 HLTH 400 Epidemiology (4 credits)  
 HLTH 440 Health Education: Curriculum, Assessments, and Administration (4 credits)  
 HLTH 450 Health Education: Methods, Resources, and Partnerships (4 credits)  
 HLTH 462 Human Sexuality Education (4 credits)  
 HLTH 464 Critical Issues in Health Education (4 credits)

### Allied requirements

*Four credits from the following:*

BIOL 101 General Biology (4 credits)  
 BIOL 105 Human Biology (4 credits)

*Plus four credits from the following:*

BIOL 251C Human Anatomy and Physiology I (CSC) (4 credits)  
 PHED 410 Anatomy and Physiology (4 credits)

*Plus four credits from the following:*

PSYC 111 General Psychology (4 credits)  
 SOCI 100 Introduction to Sociology (4 credits)

*Plus four credits from the following:*

CHEM 100 Chemistry in Our World (4 credits)  
 CHEM 101 Environmental Chemistry (4 credits)  
 CHEM 111 General Chemistry (4 credits)

*Plus four credits from the following:*

COJO 100 Public Speaking (4 credits)  
 COJO 105 Communication in the Work Place (4 credits)

### Recommended:

American Red Cross Instructor Certifications: First Aid, CPR/AED

### Major in Physical Education (K-12)

See Education

### **Major in Physical Education - Non-Licensure**

HLTH 350 Personal Health and Wellness (4 credits)  
 PHED 104 Physical Education: Curriculum, Instruction, and Assessment (4 credits)  
 PHED 204 Physical Education: Methods for Elementary (4 credits)  
 PHED 215 Rhythms & Dance (2 credits)  
 PHED 304 Physical Education: Methods for Middle and Secondary Schools (4 credits)  
 PHED 311 Motor Development (2 credits)  
 PHED 351 Teaching Special Needs Students (4 credits)  
 PHED 405<sup>1</sup> Methods for Teaching WSI and First Aid/CPR/AED (4 credits)  
 PHED 410 Human Anatomy and Physiology (4 credits)  
 PHED 420 Kinesiology (4 credits)  
 PHED 431 Exercise Physiology (2 credits)

<sup>1</sup>Students may complete American Red Cross Certifications in Water Safety Instruction and Basic First Aid/CPR/AED, which when documentation is presented to HHP chair course PHED 405 would be waived.

### **Allied Course Requirements:**

PSYC 111 General Psychology (4 credits)

*Plus four credits from the following:*

BIOL 105 Human Biology (4 credits)  
 BIOL 101 General Biology (4 credits)

*Recommended Courses:*

COJO 100 Public Speaking (4 credits)  
 SOCI 100 Introduction to Sociology (4 credits)

### **Minor in Community Health Education**

HLTH 350 Personal Health and Wellness (4 credits)  
 HLTH 353 Consumer, Community and Environmental Health (4 credits)  
 HLTH 441 Community Health Education: Curriculum, Assessments, and Administration (4 credits)  
 HLTH 451 Community Health Education: Methods, Resources, and Partnerships (4 credits)  
 HLTH 470 Health Internship I (2 credits)

*Plus four credits from the following:*

HLTH 345 Nutrition (4 credits)  
 HLTH 462 Human Sexuality (4 credits)

### **Physical Education Courses (PHED)**

#### **PHED 101 Physical Fitness (2 credit)**

A physical activity course that will cover planned, structured and repetitive instruction to improve or maintain one or more components of physical fitness. These activity courses are also designed to improve proficiency in a selected physical activity. Students will learn basic skills, strategy and rules of the activity. Students will also learn how physical fitness can contribute to personal lifelong health and wellness through assessment, monitoring and discipline. There will be a written test(s) along with proficiency test(s) depending on the type of physical activity. Credits may be earned twice (for a maximum of 4 credits) under this number for different activities.

#### **PHED 104 Physical Education Curriculum, Instruction, and Assessment (K-12) (4 credits)**

Students will examine a variety of curriculum models and look at teaching as a goal-oriented activity, study criteria for learning experiences and the instructional process. Factors that influence learning, designing learning experiences, task presentation, content analysis and development will be experienced. Teaching strategies, teacher responsibilities, student motivation, and establishing goals and objectives for learning will be addressed. Evaluation and assessment of cognitive, psychomotor and affective effects in physical education will be studied.

#### **PHED 113 Introduction to Health Promotion (2 credits)**

This course is designed to expose the student to the many different career options available to them, both in health promotion and clinical settings. The student will gain practical experience in designing, implementing and evaluating health promotion programs. This course also exposes the student to the many different internship opportunities available to them later in their degree program. The learner will study the philosophies, theories, and current practices of Health Promotion as a means to gain a better understanding of the field. The student will have the opportunity to listen to and interact with employees in the field as they explain what they do, skills and competencies needed, and job marketability.

#### **PHED 204 Physical Education Methods for Elementary Level (4 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 activities and the different methods of presenting lessons. Students learn to perform and teach activities at each of the three developmental levels of elementary school children. Students will learn how to use the

## Health and Human Performance

AAHPERD Fitnessgram Computer Programs. Successful completion of a clinical site teaching experience at the elementary level is required.

### PHED 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.

### PHED 206 Principles of Aerobic Training (2 credits)

This course provides an overview of the principles of aerobic conditioning and the various methods used to test and train the general population. Students will be provided with the opportunity to gain practical, hands-on experience in assessing, designing, implementing and evaluating cardiovascular testing and training programs for a variety of clients.

### PHED 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. Students learn to write lesson plans, teach and assess rhythmic activities and dance.

### PHED 250 Emergency Care (4 credits)

This course is designed to develop the emergency-care skills and understanding currently considered to be within the scope of a first responder. This course consists of classroom, laboratory and internship experience. Upon satisfactory completion of this course, students will be first responder certified.

### PHED 295, 296 Topics (2 credits)

### PHED 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### PHED 304 Physical Education Methods for Middle and Secondary Level Schools (4 credits)

Orientation to the physical education profession pertaining to current trends and research in middle and secondary level schools physical education. Factors affecting adolescent and multicultural students in physical education will be discussed and analyzed. Appropriate and effective teaching methods utilizing the Tactical Approach to Teaching Games and the Sports Education Model will be introduced and practiced through peer and clinical site teaching experience. Successful completion of a clinical site teaching experience at the middle and secondary school level is required. Concurrent registration with EDUC 343.

### PHED 311 Motor Development (2 credits)

This course provides an overview of the principles of human growth, motor development and motor learning. Fundamental movement abilities, perceptual motor development and developmental physical activity will be studied in depth.

### PHED 351 Teaching of the Special-Needs Student (4 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.

### PHED 405 Physical Education Methods for Teaching Aquatics/First Aid (4 credits)

Learners will study the biomechanics of swimming, techniques for teaching and analyzing appropriate skill performance for the six strokes, long shallow dive, and standing dive. In addition water safety and victim assistance are addressed. Successful completion of this course will provide the learner with an American Red Cross Water Safety Instructor certification, in addition to one of the following: 1) a current American Red Cross Health and American Red Cross CPR certification, 2) an Instructor Candidate Training Certificate (Cert. 3007), issued within one year, 3) Successfully pass the pre-course written test and skills test. The written test and Skills 1-5 in the skills test are based on a proficiency level equal to the American Red Cross Community Water Safety course. Skills 6-10 in the skills test are based on a proficiency level equal to Level VI of the American Red Cross Learn-to-Swim program. Prospective candidates who hold current certification in Lifeguard Training will exceed the requirements for taking the safety skills pretest. However, all candidates must undergo pretesting.

\*Note: Students who complete American Red Cross Certifications in Water Safety Instruction and Basic First Aid/CPR/AED, which when documentation is presented to HHP chair, course PHED 405 would be waived.

### PHED 410 Human Anatomy and Physiology (4 credits)

This course is designed to meet the needs of students requiring fundamental knowledge of the structure and function of the human body. The human skeleton, bones, articulations and the muscular system will be examined in regards to human movement. The functions of the cardiovascular, respiratory, nervous, muscular and metabolic systems will be studied.

**PHED 420 Kinesiology (4 credits)**

Structure and function of the human skeletal and muscular systems with respect to movement will be examined. Neuromuscular aspects of movement, forces, torque, balance and stability are studied with applications to sport, physical activity and activities of daily living. Observing and analyzing skill performance are experienced.

Prerequisites: PHED 410 or BIOL 251C

**PHED 426 Biomechanics (4 credits)**

Principles of human movement with applications to sport, activity and activities of daily living are studied through hands-on experiences. Torque, angular momentum, projectiles, fluid forces, aerodynamics, hydrodynamics and throw-like and push-like movement patterns are examined. Research techniques will be covered and students will have the opportunity to design and conduct research in sports biomechanics.

Prerequisite: PHED 420 and PHED 430

**PHED 430 Measurement and Evaluation (2 credits)**

The primary objective of this course is to prepare the student to design, measure and evaluate original research. Topics include study design, descriptive statistics, frequency distribution, percentile ranks, correlation, z-scores, t-scores, and measurement error. This course prepares the student to conduct his/her original research for PHED 449.

**PHED 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. The student will gain an understanding of the acute and chronic long-term adaptation of the cardiovascular, respiratory, nervous, muscular and metabolic systems of the body. In addition, they will gain hands-on experience in testing and measurement in an exercise physiology laboratory.

Prerequisite: PHED 410 or BIOL 251C

**PHED 432 Advanced Exercise Physiology (4 credits)**

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.

Prerequisites: PHED 410 and PHED 431, or BIOL 251C

**PHED 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 Health Fitness Instructor (HFI) Certification Examination.

Prerequisite: PHED 431

**PHED 449 Health Promotion Seminar (2 credits)**

This seminar course provides Health Promotion majors with opportunities to enhance their expertise in a self-selected field related to their major. The student will choose a research topic in either the field of kinesiology, biomechanics or exercise physiology. The student will design a research study, recruit subjects, conduct testing, evaluate data, and give a PowerPoint presentation of their research to the Health and Human Performance Department at the end of the semester. The student must also choose one of a number of options to advance their career and/or to improve their marketability in the field (attain a certification, attend a professional conference, prepare a resume).

Prerequisite: Junior standing and PHED 420, 426, 430, 431 and HLTH 345, 350

**PHED 450 Health Promotion Internship I (2 credits)**

This course is one of two courses that meets the internship requirement for majors in the Health Promotion and Health Promotion Science programs. The internship experience provides majors with direct observation in clinic or agency settings so as to better prepare them for careers in health promotion. The required 100 observational hours also fulfills a requirement for application to graduate clinical programs (e.g., physical therapy, chiropractic school, physician assistant school) for the Health Promotion Science majors. For those majors who desire an extended internship experience, PHED 451 serves as an alternative. S-R grading option only.

Prerequisite: Permission of department chair

**PHED 451 Health Promotion Internship II extended (4 credits)**

This course is one of two courses that meet the internship requirement for majors in the Health Promotion and Health Promotion Science programs. This internship experience provides majors with direct observation in clinic or agency settings so as to better prepare them for careers in health promotion. The required 200 observational hours also fulfills a current 100 hour requirement for application to graduate clinical programs (e.g., physical therapy, chiropractic school, physician assistant school) for the Health Promotion Science majors. This course serves as an alternative for students who wish an extended internship experience. S-R grading option only.

Prerequisite: Permission of department chair

**PHED 475, 476 Experiential Learning (2 credits)**

**PHED 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.



## Health and Human Performance

PHED 483, 484 Seminar (2 credits)

PHED 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

PHED 487, 488 Topics (2 credits)

PHED 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

PHED 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

PHED 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### Health Courses (HLTH)

HLTH 345 Nutrition for Health and Fitness (4 credits)

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.

HLTH 350 Personal Health and Wellness (4 credits)

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.

HLTH 353 Consumer, Community and Environmental Health (4 credits)

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.

HLTH 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.

HLTH 400 Epidemiology (4 credits)

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: a course in BIOL is recommended

HLTH 440 Health Education: 5-12 Curriculum, Assessment and Administration (4 credits)

Learners will explore effective strategies for development and evaluation of 5-12 health education curriculum with emphasis on comprehensive and coordinated school health education concepts. This exploration will include growth and developmental concerns, innovative learning theories, learner-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.

HLTH 441 Community Health Education: Curriculum, Assessment and Administration (4 credits)

Learners will explore effective strategies for development and evaluation of Community Health Education curriculum with emphasis on comprehensive and coordinated 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.

**HLTH 450 Health Education: 5-12 Methods, Resources and Partnerships (4 credits)**

Learners will identify, practice, and demonstrate effective methods of facilitating 5-12 health education. Off-campus observations and teaching of health lessons in middle and secondary school settings are included in the requirements. An off-campus tutorial experience with middle school or high 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.

**HLTH 451 Community Health Education: Methods, Resources and Partnerships (4 credits)**

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.

**HLTH 462 Human Sexuality Education (4 credits)**

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

**HLTH 464 Critical Issues in Health Education (4 credits)**

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, national and global health issues, *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.

Prerequisites: HLTH 440/441 and 450/451 (may be taken concurrently) or permission of instructor

**HLTH 470 Health Internship I (2 credits)**

This is one of two internship courses that meets the internship requirement for a major or minor in Community Health Education. HLTH 470 is designed to provide the student with an opportunity to observe and when appropriate assist with a community health educational program in a medical clinic, community or public health center or agency setting. Students are required to complete 100 hours at a site that is directly involved in some aspect of the community health education field. Students will be under the direct guidance of an on-site community health supervisor. S-R grading option only.

Prerequisite: Permission of department chair

**HLTH 471 Health Internship II extended (4 credits)**

This is one of two internship courses that meets the internship requirement for a major or minor in Community Health Education. HLTH 471 is designed as an alternative to HLTH 470. HLTH 471 provides the student with an opportunity to extend the internship experience of observing and when appropriate assisting with a community health educational program in a medical clinic, community or public health center or agency setting. Students are required to complete 200 hours at a site that is directly involved in some aspect of the community health education field. Students will be under the direct guidance of an on-site community health supervisor. S-R grading option only.

Prerequisite: Permission of department chair

**HLTH 475, 476 Experiential Learning (2 credits)**

**HLTH 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**HLTH 483, 484 Seminar (2 credits)**

**HLTH 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**HLTH 487, 488 Topics (2 credits)**

**HLTH 489, 490 Topics (4 credits)**

## Health and Human Performance – History

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### HLTH 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### HLTH 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## History (HIST)

College of Arts and Sciences, Department of History

John Roach Center for the Liberal Arts (JRC) 413, (651) 962-5730

Cory (chair), Chrislock, Fitzharris, Foote, Howe, Klejment, Mega, Schrunck, Woytanowitz, Wright

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 China, 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 *Pbi 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

*Four credits from the following:*

- HIST 111 Origins of the Modern World to 1550 (4 credits)
- HIST 112 The History of the Modern World since 1550 (4 credits)

*Plus four credits from the following:*

- HIST 113 Early America in Global Perspective (4 credits)
  - HIST 114 The Modern U.S. in Global Perspective (4 credits)
- (no more than one additional 100-level course may be applied to major)

*Plus one thematic course from:*

- HIST 322 Tudor and Stuart Britain, 1485-1714 (4 credits)
- HIST 326 English Law and Government Before the American Revolution (4 credits)
- HIST 345 Family and Women in Chinese History (4 credits)
- HIST 360 Early American Thought and Culture (4 credits)
- HIST 361 American Thought and Culture Since the Civil War (4 credits)
- HIST 365 U.S. Constitutional History (4 credits)
- HIST 366 The History of the Catholic Church in the United States (4 credits)
- HIST 368 History of Women in the United States (4 credits)
- HIST 369 African-American History (4 credits)
- HIST 371 History of U.S. Foreign Policy (4 credits)
- HIST 373 Origins of War: 1850 to 1945 (4 credits)
- HIST 382 Careers in History (4 credits)
- HIST 384 Uses of History: Decision-Making (4 credits)

*Plus one limited period course from:*

- HIST 314 Modern Europe since 1945 (4 credits)
- HIST 327 18th Century Ireland and England (4 credits)

HIST 328 The French Revolution and Napoleonic Era (4 credits)  
 HIST 333 Eastern Europe, 1914 to the Present (4 credits)  
 HIST 341 The History of Modern China (4 credits)  
 HIST 353 History of the American Revolution (4 credits)  
 HIST 355 The Civil War Era (4 credits)  
 HIST 358 Twentieth-Century United States (4 credits)  
 HIST 372 The United States and Vietnam (4 credits)

*Plus four credits from the following:*

HIST 463 Seminar in European History (4 credits)  
 HIST 464 Seminar in Non-Western History (4 credits)  
 HIST 465 Seminar in U.S. History (4 credits)

*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 Education*

### **Minor in History**

Twenty credits in history, no more than eight of which may be at the HIST 100-level and four of which must be a HIST 400-level seminar (HIST 463, 464, or 465). Selection of the specific courses to fulfill the requirements should be done in consultation with a member of the department faculty.

#### **HIST 111 Origins of the Modern World to 1550 (4 credits)**

This course examines significant political, social, economic, religious and cultural developments of ancient Near East, ancient India, Greco-Roman civilizations, ancient and medieval China, ancient Japan, Islamic civilization, ancient African and American societies, and Medieval and Renaissance Europe. As beliefs and social-political concepts and practices of various civilizations formulated and developed during this period still heavily influence our modern world, this course provides a foundation to our understanding of the highly interdependent and interrelated contemporary world. This course fulfills the Historical Studies requirement in the core curriculum.

#### **HIST 112 The History of the Modern World since 1550 (4 credits)**

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.

#### **HIST 113 Early America in Global Perspective (4 credits)**

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.

#### **HIST 114 The Modern U.S. in Global Perspective (4 credits)**

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 racial minorities, ethnic groups, and immigrants 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 selected contemporary issues. This course fulfills the Historical Studies requirement in the core curriculum.

#### **HIST 115 The World Since 1900 (4 credits)**

This course is an introduction to the history of the world since 1900. Rather than surveying the history of the world's regions in turn the instructor focuses on the historical processes which led in the 20th century to the emergence of an interdependent world. Initially a background is provided on the establishment of Europe's world hegemony in the years leading up to World War I. The class examines the character of the international order in Europe, Asia, and Africa, and discusses the internal conflicts which beset European civilization in the years between the wars. In particular, the instructor emphasizes the rise of Communism and Fascism, and the world economic crisis of the 1930s which pushed Europe and Asia toward World War II. The class analyzes the character of the world order that emerged after 1945. Following an examination of the origins of the Cold War between the United States and the Soviet Union, the class looks at the problems of some of the nations newly emerging from colonial domination. Finally, we discuss

## History

the role of religion and international politics in one major world region: the Middle East. This course fulfills the Historical Studies requirement in the core curriculum.

### **HIST 116 African American History in Global Perspective (4 credits)**

An introductory social history survey of African-American experience in global perspective. This course will cover developments from the beginnings of the trans-Atlantic slave trade through the present. Topics include: West African cultures; origins of the international slave trade; African American life in the colonies and during the Revolution; development of slavery in global comparative perspective; resistance to slavery; and the role of African Americans in the Civil War and Reconstruction eras; Jim Crow culture; African American culture; migration; black nationalism and independent Africa; the freedom movements of the North and South; and African American popular culture. This course fulfills the Historical Studies requirement in the core curriculum.

### **HIST 210 Modern Latin America, 1800 to the Present (4 credits)**

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.

### **HIST 220 Introduction to Japanese History and Culture (4 credits)**

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; World War II and postwar occupation; and a look at contemporary Japan. This course fulfills the Human Diversity requirement in the core curriculum.

### **HIST 230 Canadian History (4 credits)**

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.

### **HIST 295, 296 Topics (2 credits)**

### **HIST 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### **HIST 301 Egypt and the Near East, 8000 B.C. to A.D. 750 (4 credits)**

A historical, comparative survey of the origins and diversity of human societies in northeastern Africa (Egypt, Nubia) and western Asia (Anatolia, Levant, Mesopotamia, Arabia, Persia), from the earliest organized political and religious communities to the Arab conquest. Historical processes of special emphasis will include: transition to agriculture; urbanization; state and empire building; emergence of major religious traditions; migrations and cultural crosscurrents. Topics will be explored taking into account the latest textual and archaeological evidence. The course should provide historical understanding of the current ethnic, linguistic, and religious diversity in the region.

### **HIST 302 The Ancient Greek World (4 credits)**

This course is a study of ancient Greek social structures, political processes, culture, beliefs, and moral values, from the Mycenaean society in the Bronze Age to the Hellenistic world of Alexander's legacy. The objective is to learn about major social, political, economic, and cultural change over time in the Greek world, with regard to the wider context of the surrounding cultures. We examine textual and material evidence in order to learn about the nature, value, and explication of primary sources and about historical, archaeological and anthropological methods of inquiry and analysis. Overall, we seek to understand the historic roots of modern issues and the relevance of past experiences, while keeping abreast of recent research and current scholarly debate.

### **HIST 304 History of the Roman World (4 credits)**

From Britain to Africa and from Spain to Iran, the Roman Empire seemingly united diverse peoples and cultures. All roads led to Rome, the City - Urbs, a cosmopolitan and overcrowded metropolis. In this course we study written records and material remains from the beginnings of Rome in the eighth century BCE to the late Empire in the fourth century of our era. We follow political, social, economic, and cultural changes over time, examining a variety of evidence and voices and keeping abreast of current problematic areas and scholarly debate. The Roman material is supplemented with comparative evidence from non-Roman societies within and bordering the Empire, as we account for the relevance of past experiences to our current issues.

### **HIST 310 The Making of Europe: Middle Ages to 1000 (4 credits)**

Origins of the middle ages: the late Roman Empire; Germanic migrations and settlements; the Frankish Dynasties of the Merovingians and Carolingians; Anglo-Saxon England; development of the early Medieval Papacy and Western Church. Recovery of Byzantine Empire; Islamic World under Umayyad and Abbasid Caliphates.

**HIST 311 The Dawn of a New Era: Europe from 1000 to 1450 (4 credits)**

Rebirth of Europe in the high and late Middle Ages: the Feudal Revolution; the world of knights and chivalry; the emergence of Western Monarchies; the Crusades; the Renaissance of the 12th Century; the rise of Medieval Christendom in the 13th century: papacy; mendicant orders; universities; heresy; Inquisition. Political and economic crises of the 14th century. Ecclesiastical crises of the later middle ages. Recovery and renaissance in the 15th century.

**HIST 312 Early Modern Europe: 1450-1750 (4 credits)**

Political, religious, and cultural development of the early modern Europe: Late Renaissance; Religious Reformations; Age of Discovery and the rise of the Atlantic Economy; State building in Early Modern Europe; the New Science.

**HIST 313 Europe 1750 to 1945 (4 credits)**

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.

**HIST 314 Modern Europe since 1945 (4 credits)**

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.

**HIST 322 Tudor and Stuart Britain, 1485-1714 (4 credits)**

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.

**HIST 323 A Survey of Irish History: Celtic Ireland to 1972 (4 credits)**

As a survey of Irish History, the course covers early Irish history and society, the Viking and Norman invasions, and special attention is given to the early modern period and the origins of Ulster during the Tudor-Stuart Period in English History. In the 18th century the origins of Irish nationalism and the Rising of 1798 is highlighted. In the 19th century the course covers Catholic Emancipation, the Great Famine and emigration and the movement for Home Rule. Twentieth century Ireland includes the creation of the Irish Free State and the history of contemporary Ireland to the present.

**HIST 324 Britain Since 1815 (4 credits)**

An examination of the British economy, society, politics and culture since 1815. The course examines the rise of modern Britain through a study of industrialization, democratic government, the empire, the two world wars and post 1945 issues such as the Cold War and the European Union.

**HIST 326 English Law and Government Before the American Revolution (4 credits)**

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.

**HIST 327 18th Century Ireland and England (4 credits)**

The course offers an examination of the predominant themes which run through 18th century Irish and English history: 17th century backgrounds (The Restoration, the Glorious Revolution and the Jacobite War); Queen Anne and The Ascendancy; Hanoverian England and Ireland; Jonathan Swift and the 18th century Enlightenment; colonialism and the American Revolution; The Industrial Revolution; England and Ireland in the French Revolutionary Era; and Wolfe Tone's Rising of 1798.

**HIST 328 The French Revolution and Napoleonic Era (4 credits)**

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.

**HIST 331 Eastern Europe, 1699-1914 (4 credits)**

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.

**HIST 333 Eastern Europe, 1914 to the Present (4 credits)**

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.

**HIST 340 Foundations of Chinese Civilization (4 credits)**

## History

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.

### **HIST 341 The History of Modern China (4 credits)**

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.

### **HIST 345 Family and Women in Chinese History (4 credits)**

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.

### **HIST 352 American Colonial History (4 credits)**

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.

### **HIST 353 History of the American Revolution (4 credits)**

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.

### **HIST 355 The Civil War Era (4 credits)**

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.

### **HIST 358 Twentieth-Century United States (4 credits)**

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.

### **HIST 360 Early American Thought and Culture (4 credits)**

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.

### **HIST 361 American Thought and Culture Since the Civil War (4 credits)**

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.

### **HIST 365 U.S. Constitutional History (4 credits)**

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.

### **HIST 366 History of the American Catholic Church (4 credits)**

Analysis of the American Catholic church from the mission era through the post Vatican II period, with emphasis on the diverse populations who have comprised the American Catholic church throughout its history. The focus of the course examines the changing relationship between Catholics, their church, and American society. Topics analyzed include anti-Catholicism and nativism; slavery and the other forms of racial and ethnic injustice; economic justice and peace; ethnic and gendered spiritualities; the nature of the pre-Vatican II and post-Vatican II Catholic church.

Extensive use of sources generated by minority American Catholics emphasize the rich thought and religious experiences of Catholics from diverse backgrounds. This course fulfills the Human Diversity requirement in the core curriculum.

**HIST 368 History of Women in the United States (4 credits)**

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.

**HIST 369 African-American History (4 credits)**

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.

**HIST 371 History of U.S. Foreign Policy (4 credits)**

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.

**HIST 372 The United States and Vietnam (4 credits)**

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.

**HIST 373 Origins of War: 1850 to 1945 (4 credits)**

The theme of the course is international relations, 1850-1945: the Crimean War, the unifications of Italy and Germany, the Peace of Paris—with emphasis on the origins of World War I, the war, and the Inter-war period and the origins of World War II. Any exploration of the origins of war must keep in mind several important factors. Power lies at the heart of nearly every explanation of why nations go to war. The influence of powerful leaders, their aims, policies, and decisions are crucial to any discussion of the origins of war. A harsh or lenient peace treaty is a further factor which can promote peace or encourage war. There is a clear link between a breakdown of diplomacy and the outbreak of war. Yet the most crucial factor in promoting war or peace is the prevailing balance of power between nations.

**HIST 374 World War II (4 credits)**

The Second World War was a cataclysmic event involving nearly every nation and affecting all nations and peoples. Some of the grandest heroics and greatest evils mark the era. The course starts in 1919 with the Paris Peace Conference and ends in the early years of occupation in Germany and Japan. The rise of militaristic and fascist or Nazi regimes, the origins and development of the "Holocaust," the causes of war in Asia (1937) and Europe, the engagement of America, global logistics, a coalition of Allies, and the use of atomic bombs are key components.

**HIST 376 Minnesota History (4 credits)**

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.

**HIST 377 The History of the Twin Cities (4 credits)**

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.

**HIST 382 Careers in History (4 credits)**

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.

**HIST 384 Uses of History: Decision-Making (4 credits)**

This course examines the uses of history in a manner that is both practical and challenging. Government, business and the military often use the past in evaluating the present and planning for the future. The course examines a number of historical topics in terms of their usefulness as analogies for decision-making. What is known, what is unclear, and what is presumed in each case is identified, and the usefulness of the analogy in later situations is critiqued. In



## History

the course students will gain valuable 'hands on' experience in the use of historical methodology through the examination of the specific and contextual backgrounds of various events, institutions and individuals followed by the consideration of their usefulness in future decision-making contexts. Some of the examples of specific events analyzed include: the Fall of France, the failure to prevent the 9-11 attacks, etc.

### **HIST 386 Historical Archaeology (4 credits)**

The course offers an understanding of archaeological theories, methods, and interpretations in discovering, reconstructing, and understanding past societies in Africa, the Americas, Asia, Australia, and Europe. Archaeology primarily deals with material remains of societies and time periods that lack written documents. Historical archaeology combines the methods of archaeology with analysis of written and oral sources. Together, archaeology and history provide a critical reappraisal of historical events and cultural change around the world.

### **HIST 398 History Internships (4 credits)**

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.

### **HIST 463 Seminar in European History (4 credits)**

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.

### **HIST 464 Seminar in Non-Western History (4 credits)**

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.

### **HIST 465 Seminar in U.S. History (4 credits)**

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.

### **HIST 475, 476 Experiential Learning (2 credits)**

### **HIST 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### **HIST 487, 488 Topics (2 credits)**

### **HIST 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### **HIST 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### **HIST 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## **Human Resource Management**

See Business Administration

## **Interdisciplinary Courses (IDSC)**

Cross-College Program

Michael C. Jordan, Director of Undergraduate Academic Affairs, director

### **IDSC 150 Development of the Natural World (4 credits)**

Minneapolis and St. Paul owe their existence and location to the Mississippi River. The "Mighty Mississippi" provides the focal point for an integrated exploration of the scientific disciplines of astronomy, biology, chemistry, geology, and physics. The past and present human impact on the water and land is also explored, including environmen-

tal and life style sustainability issues. Consisting of lectures, discussions, labs, and field trips, this course is designed for non-science majors and fulfills the laboratory science core requirement. This course also addresses the science content and skills required by the state of Minnesota for elementary and middle school teachers and models an inquiry-based pedagogy.

**IDSC 180 English as a Second Language I (4 credits)**

Special and individual attention to speaking, writing, reading, listening and study skills. For students whose native language is not English. Offered in fall semester.

**IDSC 181 English as a Second Language II (4 credits)**

Continuation of IDSC 180. Offered in spring semester.

Prerequisite: IDSC 180 or permission of instructor

**IDSC 260 Environment and Agriculture: Sustainable Food Systems (HECUA) (4 credits) (summer term)**

Explore sustainability first-hand through the lens of the U.S. food system. This interdisciplinary, field-based program analyzes the environment, economic, political, social, and cultural issues that define modern farming. A three-day farm stay is included in the program. Students will use critical frameworks to examine a variety of farms, farming communities, and research and food production facilities, and to understand the complex connections between the environment and agriculture. An optional 2-credit internship (a minimum of eighty hours) is available for students who want to contribute more deeply to sustainable agriculture, either directly on a farm or in an urban organization.

**IDSC 261 Civil Rights Movement: History and Consequences (HECUA) (4 credits) (summer term)**

Critically examine the events of the Civil Rights Movement by visiting important sites and interviewing leaders of the movement. After several days in the Twin Cities, students embark on a two-week field study tour through the South. A final week of integration seminars in the Twin Cities help students bring their experiences back to bear on their own lives. An optional 2-credit volunteer experience/internship is available at a Twin Cities-based organization addressing current issues of civil and human rights; eighty hours or structured volunteer work takes place within an eight-week period in July and August.

**IDSC 281 Topics in American Culture (4 credits)**

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.

**IDSC 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

**IDSC 287 The German Cultural Heritage (4 credits)**

An historic survey of German cultural development from the beginnings in antiquity through the present. Attention is given to significant events in the history of Germany, Austria, Switzerland and Liechtenstein and the development of historic events into the living German culture of today. Events and significant achievements in the areas of politics, music, literature, science, philosophy and theology are examined. The course is usually offered online with no classroom meetings.

**IDSC 291 The Anatomy of Violence (4 credits)**

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.

**IDSC 293 Grief, Loss and Coping (4 credits)**

This courses focuses on understanding loss and grief in the human experience. Emphasis is given to recognizing loss in various forms and to understand grief from different perspectives. Content includes theory from psychology, sociology, social work, and medicine/nursing along with materials from literature, lay persons and a spectrum of multi-cultural influences. Skills are taught for coping with personal loss and for relating in helpful ways to others who are experiencing grief. Special topics related to death and dying in our society including trauma, suicide, child loss and chronic illness are covered. A variety of teaching methods will engage learners to better understand the many influences on grief, loss and coping.

## Interdisciplinary Courses

### IDSC 295, 296 Topics (2 credits)

### IDSC 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### IDSC 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.

### IDSC 312 Gender and Science (4 credits)

This course examines women's participation in science currently and historically. Students will examine the contributions of women scientists and explore the question: Do women do science differently from men? The course explores the way science is used to study questions related to gender. In this course students will study the ways that scientific work has, at times, been a tool for challenging cultural stereotypes and biases. This course fulfills the Human Diversity requirement in the core curriculum.

### IDSC 313 A Vision of Community Action and Change in Guatemala (4 credits)

The majority of this course will occur among the Mayan people of the Guatemalan highlands. Students will study the politics, history, cultures and economy of Guatemala as a case study on some of the major issues facing many Third World countries at the beginning of the 21st century. Particular attention will be given to topics such as Guatemala's struggles over ethnic and national identity, its place in the global economy, its peace process, and the role of the church. Speakers, readings, and field trips will allow students to compare alternative models of social change and human development in the region. Complementing academic engagement with these issues, students will engage in practical service-learning activities that relate to the goals of the course. The class will also follow the VISION Program's six-point philosophy.

Prerequisite: Permission of the instructor

### IDSC 320 Seminar in the Human Side of Medicine: Patient and Physician (2 credits)

This course will concentrate on learning about how patients, their families, and professionals who care for them experience illness; how stories patients tell become the basis for diagnosis and therapeutic action; what it's like to be a physician; and the therapeutic relationship. Didactic presentations, interactive discussion using stories from patients', students' and the instructor's experience, and related literature will provide the content of the course. Others, including faculty members, professional colleagues, and patients will help provide material for the course work and participate in the discussions.

Prerequisite: Sophomore, junior or senior student interested in a career in medicine or related health profession

### IDSC 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.

### IDSC 333 Renaissance Program Studies (4 credits)

In accord with the Renaissance Program's commitment to foster the integration of theoretical and practical learning, 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.

### IDSC 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

### IDSC 455 Reading for Social Change (HECUA) (4 credits)

In this course, students critically examine the roles that creative writers and literature play in societies. Through readings and discussion, they identify ways in which creative writers and the literary arts impact social issues and help to create social change. Students read and critique a wide variety of academic and creative texts. They produce critical

and creative work examining the theories raised in readings and discussion.

**IDSC 456 Writing for Social Change: A Writing Workshop in Fiction, Poetry, and Creative Nonfiction (HECUA) (4 credits)**

This seminar challenges students to “test” the theoretical, political, social, and historical perspectives developed in Reading for Social Change by writing fiction, poetry, and creative nonfiction, and by engaging in intensive workshops to critique the work they produce. Through large and small group critiques, one-on-one mentoring, and an ongoing commitment to move their work from the initial “inspiration” stage into the work and craft of revision, students develop a strong portfolio of both creative and critical/analytical writing.

**IDSC 457 Writing for Social Change: Internship Integration Seminar (HECUA) (4 credits)**

In the Integration Seminar, students reflect on the successes and challenges of their internships and integrate their internship learning and their work in the Reading for Social Change and Writing for Social Change Seminars.

**IDSC 458 Writing for Social Change: Internship (HECUA) (4 credits)**

Writing for Social Change students work 16-20 hours a week, for a minimum of 200 hours, in an internship. Students may elect to work as reading and writing tutors with at-risk students in a K-12 school, or they may elect to work with a literary arts organization such as The Loft, SASE: The Write Place, the Minnesota Center for Book Arts, or one of the many small literary presses located in the Twin Cities. The goal of internship placements is to establish an internship that resonates with Writing for Social Change program themes, meets a need at the hosting organization, and fits students’ individual interests and objectives. the internship is comprised of professional, project-related work similar in composition to a staff position, with clerical duties limited to those specific to the students’ project or at the same shared level as other staff.

**IDSC 462 ESTC: Adaptive Ecosystem Management (HECUA) (4 credits)**

In Adaptive Ecosystem Management students gain a practical hands-on understanding of the basic ecological and physical processes that underlie environmental degradation. They develop a basic understanding of how to set up large and small scale ecological monitoring projects, and how to evaluate environmental decision making on appropriate time and spatial scales.

**IDSC 463 ESTC: Social Dimensions of Environmental Change (HECUA) (4 credits)**

In Social Dimensions of Environmental Change students explore how worldviews impact a society's underlying value system regarding the human relationship with the natural world. The course situates local environmental challenges in the context of global sustainability, and encourages students to reflect about the meaning of civic responsibility in local and global contexts.

**IDSC 464 ESTC: Field Research Methods and Investigation (HECUA) (4 credits)**

In the Field Methods course students have an opportunity to work with scientists and community members to conduct research in a methodologically rigorous manner. Students design and carryout either a social science or natural science based field project.

**IDSC 465 ESTC: Internship and Integration Seminar (HECUA) (4 credits)**

In their internships students interact with one of the most active networks of citizens' organizations in the country. Practitioners in the Twin Cities work on a wide range of environmental issues, and Minnesota's environmental policies are among the most progressive in the nation. Internships get students directly involved in this dynamic work.

**IDSC 466 City Arts: Creating Social Change: Art and Culture in Political, Social, and Historical Context (HECUA) (4 credits)**

Students critically examine the notion of dominant culture and the purposes of art and popular culture. They identify ways in which the arts and popular culture impact urban social issues and create social change. Students gain the tools to become critical analysts as both consumers and producers of art and popular culture.

**IDSC 467 City Arts: Arts Praxis: Social Justice Theory and Practice in the Field (HECUA) (4 credits)**

In the field seminar, students “test” theoretical perspectives by meeting with artists, policy makers, and community activists, as well as attending and participating in art and cultural activities. Students observe how art and popular culture maintain or change social structures.

**IDSC 468 City Arts: Internship (HECUA) (4 credits)**

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.

**IDSC 469 City Arts: Internship Seminar (HECUA) (4 credits)**

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.

**IDSC 471 Metro Urban Studies Term (MUST) Seminar: Contested Theories of Poverty, Inequality, and Social Change (HECUA) (4 credits)**

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

## Interdisciplinary Courses – International Studies

sprawl, segregation and racial, class and gender discrimination are also analyzed. Students examine an array of strategies to rebuild the city more equitably.

### **IDSC 472 Metro Urban Studies Term (MUST) Seminar: Social Policy and Anti-Poverty Strategies in Theory and Practice (HECUA) (4 credits)**

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.

### **IDSC 473 Metro Urban Studies Term (MUST): Urban Studies Internship (HECUA) (4 credits)**

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.

### **IDSC 474 Metro Urban Studies Term (MUST): Urban Studies Internship Seminar (HECUA) (4 credits)**

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.

### **IDSC 475, 476 Experiential Learning (2 credits)**

### **IDSC 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### **IDSC 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.)

### **IDSC 481 Seminar in International Studies (4 credits)**

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.

### **IDSC 483, 484 Seminar (2 credits)**

### **IDSC 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### **IDSC 487, 488 Topics (2 credits)**

### **IDSC 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### **IDSC 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### **IDSC 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## **International Studies**

College of Arts and Sciences, Interdisciplinary Program  
O’Shaughnessy Education Center (OEC) 433, (651) 962-5687  
Riley (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 (4 credits)

GEOG 113 World Geography (4 credits)

HIST 112 The Modern World Since 1550 (4 credits)

IDSC 481 Seminar in International Studies (4 credits)  
 POLS 104 American Government in Comparative Perspective (4 credits)

*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 (4 credits)  
 ECON 345 Economics of Development and Growth (4 credits)  
 ECON 346 Country and Area Studies in Economics (4 credits)  
 ECON 348 International Economics (4 credits)  
 ECON 349 Comparative Economic Systems (4 credits)

HIST 210 Modern Latin America, 1800 to the Present (4 credits)  
 HIST 220 Introduction to Japanese History and Culture (4 credits)  
 HIST 313 Europe 1750 to 1945 (4 credits)  
 HIST 314 Modern Europe since 1945 (4 credits)  
 HIST 340 Foundations of Chinese Civilization (4 credits)  
 HIST 341 History of Modern China (4 credits)  
 HIST 345 Family and Women in Chinese History (4 credits)  
 HIST 347 The Modernization of Taiwan, Hong Kong, and China (4 credits)  
 HIST 371 History of U.S. Foreign Policy (4 credits)

POLS 225 Introduction to World Politics (4 credits)  
 POLS 320 American Foreign Policy (4 credits)  
 POLS 326 International Law and Organizations (4 credits)  
 POLS 350 Comparative Politics of the New Europe (4 credits)  
 POLS 352 Third World Politics and Government (4 credits)  
 POLS 424 Seminar in International Politics (4 credits)  
 POLS 454 Seminar in Comparative Politics (4 credits)

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 fulfill 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 210 Introduction to Financial Accounting (4 credits)  
 BLAW 301 Legal Environment of Business (4 credits)  
 MGMT 305 Management and Organizational Behavior (4 credits)  
 MKTG 300 Principles of Marketing (4 credits)

**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.

**Irish Gaelic (IRGA)**

See Modern and Classical Languages

## Justice and Peace Studies

### Japanese (JAPN)

See Modern and Classical Languages

### Journalism and Mass Communication

See Communication and Journalism

### Justice and Peace Studies (JPST)

College of Arts and Sciences, Interdisciplinary Program  
John Roach Center for the Liberal Arts (JRC) 117, (651) 962-5332  
Schlabach (THEO) (director), Klein (JPST), Nelson-Pallmeyer (JPST), Andregg, Davidov

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. Core courses for the major and minor, and the pattern of the program in general, make use of the four stages of the *Circle of Praxis*:

1. *Experience* (actual and vicarious) of poverty, injustice, violence and marginalization.
2. *Descriptive analysis*: Empirical study of the economic, political, social, and cultural realities of society, and the historical events that produce them.
3. *Normative analysis*: Moral judgment on existing societies; study of alternative possibilities; 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 thought in the context of pluralistic world societies.

Students graduating with a major in justice and peace studies will understand how the circle of praxis works, as well as the role of each of its components (see above). They will also know how to use skills associated with each component. They will know the principles of active nonviolence, how it operates to promote social change, and several historical examples of its use. Students will also learn the techniques and uses of other methods of social change and how to judge when to use each method effectively. They will be able to engage in respectful dialogue with people who value and propose responses to violence and injustice that differ widely from their own. They will understand and be able to use conflict resolution skills in personal life and small groups, and they will understand how these techniques are used in inter-group and international conflicts. They will have developed the personal skills and confidence to work effectively in organizations committed to justice and peace.

While all core courses utilize all four steps of the circle of praxis, JPST 250 concentrates on experience and descriptive analysis, and THEO 421 concentrates on normative analysis. The others concentrate on action possibilities.

JPST 250 and THEO 421 require extensive student writing and discussion. One elective course, JPST 385, typically incorporates a service-learning, action research, or inquiry-based research component that connects the classroom setting to experiences in local, domestic or global communities.

#### Major in Justice and Peace Studies

JPST 250 Introduction to Justice and Peace Studies (4 credits)  
JPST 280 Active Nonviolence (4 credits)  
JPST 470 Conflict Resolution (4 credits)  
JPST 472 Justice and Peace Senior Seminar (4 credits)  
THEO 421 Theologies of Justice and Peace (4 credits)

#### *Plus a significant experience:*

Appropriate experience of poverty, injustice, violence, and/or marginalization. May be done for credit through 475-478 Experiential Learning.

It may also be done on a non-credit basis (*e.g.*, in the context of another course or through volunteer activities). Possibilities include a trip taken as part of JPST 385, Campus Ministry programs, and off-campus study through programs that expose students to poverty and oppression.

Examples of appropriate off-campus study programs include those run by HECUA (*e.g.*, conflict resolution in Northern Ireland, poverty in the Twin Cities; development in Ecuador; environment in Guatemala; immigration in Norway); Augsburg's Center for Global Education (*e.g.*, in Cuernavaca Mexico); American University's Washington Semester (*e.g.*, on homelessness); and UMAIE. Campus Ministry programs include VISION trips during January term, spring break or summer sessions (to Guatemala, Appalachia, the border of Mexico, a Native American reservation, *etc.*), and VIA programs located in the Twin Cities (*e.g.*, working at a shelter, tutoring immigrant students, *etc.*).

#### *Plus four additional credits in descriptive analysis*

##### *Appropriate courses include:*

ACST 200 Introduction to American Culture and Difference (4 credits)  
BIOL 102 Conservation Biology (4 credits)

COJO 326 Modern American Rhetoric (4 credits)  
 COJO 328 Communication of Race, Class, and Gender (4 credits)  
 COJO 370 Intercultural Communication (4 credits)  
 COJO 430 Society, Culture and the Media (4 credits)  
 COJO 432 Media Structure and Power (4 credits)  
 ECON 211 Current Economic Issues (4 credits)  
 ECON 337 Economics of the Public Sector (4 credits)  
 ECON 339 Labor Economics (4 credits)  
 ECON 345 Economics of Development and Growth (4 credits)  
 ENVR 151 Humans and the Environment (4 credits)  
 ENVR 212 Social Dynamics and the Environment (4 credits)  
 GEOG 111 Human Geography (4 credits)  
 GEOG 113 World Geography (4 credits)  
 GEOL 113 The Earth's Record of Climate (4 credits)  
 GEOL 115 Environmental Geology (4 credits)  
 GEOL 162 The Earth's Record of Climate (4 credits)  
 HIST 116 African American History in Global Perspective (4 credits)  
 HIST 210 Modern Latin America, 1800 to the Present (4 credits)  
 HIST 371 History of U.S. Foreign Policy (4 credits)  
 HIST 372 The United States and Vietnam (4 credits)  
 IDSC 467 City Arts: Field Seminar (HECUA) (4 credits)  
 IDSC 472 MUST Seminar: Field Studies in the Twin Cities (HECUA) (4 credits)  
 POLS 225 Introduction to World Politics (4 credits)  
 POLS 301 American Political Behavior (4 credits)  
 POLS 302 Women and Politics (4 credits)  
 POLS 314 Constitutional Rights and Liberties (4 credits)  
 POLS 326 International Law and Organizations (4 credits)  
 POLS 350 Comparative Politics of the New Europe (4 credits)  
 POLS 352 Third World Politics and Government (4 credits)  
 PSYC 121 Social Psychology (4 credits)  
 PSYC 151 Cross-Cultural Psychology (4 credits)  
 SOCI 110 Social Problems (4 credits)  
 SOCI 200 Introduction to Criminal and Juvenile Justice (4 credits)  
 SOCI 251 Race and Ethnicity (4 credits)  
 SOCI 301 Cultural Anthropology (4 credits)  
 SOCI 350 Social Inequality: Privilege & Power (4 credits)  
 SOCI 353 Global Perspectives on Gender (4 credits)  
 SOCI 365 Social Psychology (4 credits)  
 SOWK 340 Human Behavior and the Social Environment (4 credits)

*Plus four additional credits in normative analysis*

*Appropriate courses include:*

BETH 301 Business Ethics (4 credits)  
 BLAW 303 International Business Law (4 credits)  
 BLAW 351 Environmental Law (4 credits)  
 BLAW 352 Gender Issues and the Law (4 credits)  
 CATH 401 Church and Culture: Social Dimensions of Catholicism (4 credits)  
 COJO 276 Argumentation and Advocacy (4 credits)  
 COJO 366 Persuasion (4 credits)  
 ENGL 217 Multicultural Literature (4 credits)  
 ENGL 218 Literature by Women: Critical History (4 credits)  
 ENGL 337 The Literature of Human Diversity (4 credits)  
 ENGL 341 Literature by Women: Critical Questions (4 credits)  
 ENVR 301 Environmental Ethics (4 credits)  
 IDSC 291 The Anatomy of Violence (4 credits)  
 IDSC 466 City Arts: Reading Seminar (HECUA) (4 credits)  
 IDSC 471 MUST Seminar: Research on Urban Issues (HECUA) (4 credits)  
 PHIL 350 Advanced Ethical Theory (4 credits)  
 PHIL 353 Machiavelli, Hobbes, and Nietzsche (4 credits)  
 PHIL 357 Political Philosophy (4 credits)  
 POLS 275 Introduction to Political Thought (4 credits)  
 POLS 375 American Political Thought (4 credits)  
 THEO 325 The Catholic Social Traditions (4 credits)  
 THEO 365 Prophetic Literature of the Old Testament (4 credits)  
 THEO 422 Christian Faith and the Management Professions (4 credits)



## Justice and Peace Studies

THEO 423 Black Religious Experience (4 credits)  
THEO 447 Faith, Social Transformation and Social Work (4 credits)  
THEO 449 Christian Faith and the Engineering Profession (4 credits)  
THEO 454 The Morality of War (4 credits)  
THEO 455 The Church in Latin America (4 credits)  
THEO 456 Christianity and Consumer Culture (4 credits)  
THEO 457 Theology and Public Discourse (4 credits)  
THEO 458 The Bible from a Multicultural Perspective  
THEO 459 Theology and the Environment  
THEO 460 Christian Ethics and U.S. Immigration  
THEO 465 Justice and the Bible

*Note:* Additional 300 and 400-level Theology courses may also qualify, with approval of the JPST director.  
WMST 205 Foundations in Women's Studies (4 credits)

*Plus an internship and seminar in the area of justice and peace studies. The internship may, but need not, carry credit:*

JPST 473 Vocational Internship Seminar (0 credit)

Students are required to take this seminar during the semester they are doing an internship. At the core of this mini course is a reflective process designed to lead students to: a deeper understanding of the practical means of working for social change; an evaluation of their internship experience (both in terms of gaining a deeper understanding of their own vocation and a better understanding of the type of institutions they are working with); and applying these insights to future course work and career planning. Five 2-hour seminars through the course of the semester provide opportunities for those engaged in individual placements to get peer support for their discernment process.

The internships themselves involve 7-10 hours a week of justice and peace work. Acceptable placements include work with a nonprofit or governmental group doing direct service; education for peace and justice; political action for peace and justice; and leadership positions in UST's Students for Justice and Peace (SJP). There is no objection to using an appropriate internship from another major (such as social work) to fulfill this requirement as long as the student is enrolled in JPST 473 during the semester of the internship.

Alternatively, the internship and seminar requirement may be fulfilled by participating in appropriate off-campus academic programs which have reflective internship components, such as the programs of HECUA and Augsburg's Center for Global Education. Students may also get credit for doing further research on, and analysis of, their internship experience by enrolling in JPST 475-478 Experiential Learning.

*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 courses may deal with any part of the circle of praxis. Students seeking further opportunities to learn the theories behind, or honing of, skills for action might consider:

ENTR 360 Creativity and Change (4 credits)  
ENVR 351 Environmental Policy Formation (4 credits)  
JPST 385 Globalization and Social Movements (4 credits)  
SOWK 391 Social Policy for Social Change (4 credits)

Students majoring *only* in Justice and Peace Studies are strongly encouraged to take a "methods" course from a department that uses approaches relevant to the way they are choosing to complete the JPST major. The purpose of this recommendation is to strengthen abilities in data interpretation, manipulation and generation.

*Possibilities include:*

GEOG 221 Computer Skills in Geography (4 credits)  
POLS 205 Introduction to the American Public Policy Process (4 credits)  
SOC1 210 Research Methods in Sociology (4 credits)  
SOC1 220 Sociological Analysis (4 credits)

### **Minor in Justice and Peace Studies**

JPST 250 Introduction to Justice and Peace Studies (4 credits)  
JPST 280 Active Nonviolence (4 credits)  
THEO 421 Theologies of Justice and Peace (4 credits)

*Plus:*

Eight additional credits to be selected with the approval of the program director. At least four 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.

*Note:* A focused version of the JPST minor is available to Engineering students. See the sub-section on "Peace Engineering" in the Engineering (ENGR) section of the catalog.

### **JPST 250 Introduction to Justice and Peace Studies (4 credits)**

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.

**JPST 295, 296 Topics (2 credits)**

**JPST 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**JPST 280 Active Nonviolence (4 credits)**

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, Danish resistance to Nazi occupation, the struggle for interracial justice in the United State, an integrated Canada-to-Cuba peace-and-freedom walk, the campaign to close the U.S. Army School of the Americas (WHINSEC), fair trade movements, and the Honeywell Project. The course emphasizes the theory and active practice of nonviolence as well as oral histories of successful nonviolent movements. Usually offered every semester.

**JPST 385 Globalization and Social Movements (4 credits)**

Our class will analyze social movements through the events that shape their struggles for justice in the context of an increasingly interconnected, globalized world. Historical survey and key theoretical concepts will provide context for examining the methods used to advance social change and strengthen civil society. The course will give major attention to exploring the U.S. Civil Rights Movement through primary documents, video and classroom analysis, applying the lessons of this and other historical movements to contemporary movements. We will explore local manifestations of global movements through immersion, service-learning projects, guest speakers, student research and final presentations.

**JPST 470 Conflict Resolution (4 credits)**

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 figure into 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 *i.e.*, peace without justice.

**JPST 472 Justice and Peace Senior Seminar (4 credits)**

This seminar brings together what students have learned throughout their justice and peace studies, activities, internships and service projects and applies it to a project of their own choice negotiated with the professor through a learning contract. In carrying out that project, students will pay attention to the four steps of the circle of praxis. Results of the project are shared with the other members of the seminar. In addition, common topics studied include basic statistics needed to understand, judge, and use statistics responsibly; writings of key theoreticians in justice and peace studies; and an introduction to a broad range of organizations working for the relief of suffering and for structural and social change. Usually offered spring semester.

**JPST 473 Vocational Internship Seminar (0 credit)**

Students are required to take this seminar during the semester they are doing an internship of 7-10 hrs/wk. The seminar meets three times (at the beginning, middle, and end of the semester), to provide opportunities for those engaged in individual placements to get peer support for their discernment process. At its core is a reflective process designed to lead students to: a deeper understanding of the practical means of working for social change; an evaluation of their internship experience (both in terms of gaining a deeper understanding of their own vocation and a better understanding of the type of institutions they are working with); and applying these insights to future course work and career planning.

**JPST 475, 476 Experiential Learning (2 credits)**

**JPST 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**JPST 483, 484 Seminar (2 credits)**

**JPST 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Justice and Peace Studies – Legal Studies

JPST 487, 488 Topics (2 credits)

JPST 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

JPST 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

JPST 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### Latin (LATN)

See Modern and Classical Languages

### Legal Studies

College of Arts and Sciences, Interdisciplinary Program

John Roach Center for the Liberal Arts (JRC) 404, (651) 962-5721

Hatting (POLS), acting 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 (4 credits)

BLAW 302 Business Law for Accounting (4 credits)

BLAW 303 International Business Law (4 credits)

BLAW 304 Real Estate Law (4 credits)

BLAW 351 Environmental Law (4 credits)

BLAW 352 Gender Issues and the Law (4 credits)

BLAW 401 Legal Research, Advocacy, and Dispute Resolution (4 credits)

BLAW 402 Law of Electronic Commerce (4 credits)

COJO 336 Media Law (4 credits)

ECON 321 Law and Economics (4 credits)

HIST 326 English Law and Government before the American Revolution (4 credits)

HIST 365 U.S. Constitutional History (4 credits)

PHIL 357 Political Philosophy (4 credits)

PHIL 359 Philosophy of Law (4 credits)

PHIL 398 Advanced Critical Thinking (4 credits)

POLS 312 Judicial Process (4 credits)

POLS 313 Constitutional Law and Politics (4 credits)

POLS 314 Constitutional Rights and Liberties (4 credits)

POLS 326 International Law and Organizations (4 credits)

POLS 414 Seminar in Law and Judicial Politics (4 credits)

THEO 436 Christian Faith and the Legal Profession (4 credits)

### Legal Studies in Business

See Business Administration

### Literary Studies

College of Arts and Sciences, Interdisciplinary Program

John Roach Center for the Liberal Arts (JRC) 335, (651) 962-5611

Scheiber (English) and Miller (Modern and Classical Languages), 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.

### **Management**

See Business Administration

### **Marketing**

See Business Administration

### **Mass Communication**

See Journalism and Mass Communication

### **Mathematics (MATH)**

College of Arts and Sciences, Department of Mathematics

O'Shaughnessy Science Hall (OSS) 201, (651) 962-5520

Scholz (chair), Axtell, Dayananda, Dokken, Kemper, Kroschel, Loe, McLean, Rawdon, Rezac, Shakiban,

Shemyakin, Shvartsman, Stolarska, Van Fleet, Yang, Youn; Tiefenbruck

The Department of Mathematics offers major tracks that can satisfy a variety of student interests and careers. 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, engineering, finance, geology, physics, psychology and computer and information sciences 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, mathe-

## Mathematics

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 of the department's major tracks, a student must successfully complete at least 16 credits in mathematics courses numbered 300 and above at the University of St. Thomas.

A minor in mathematics is available to support majors in many other departments. A strong mathematical background is of great benefit to students majoring in engineering, actuarial science and the physical sciences.

In addition to the mathematics tracks described below, the department offers a major in actuarial science (see Actuarial Science) and has programs to prepare students for teacher licensure (see Education). An interdisciplinary major in statistics is offered jointly with the Department of Computer and Information Sciences (see Statistics).

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 (CAM) provides opportunities for students to work on significant mathematical problems of current interest to business, industry, and government. The CAM summer student research program funds a number of student projects each year.

### Major in Mathematics

MATH 113 Calculus I (4 credits) (or 108 and 109)

MATH 114 Calculus II (4 credits)

MATH 200 Multi-Variable Calculus (4 credits)

MATH 210 Introduction to Differential Equations and Systems (4 credits)

MATH 240 Linear Algebra (4 credits)

MATH 301 Abstract Algebra I (4 credits)

MATH 317 Real Analysis (4 credits)

### Allied requirement

CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* CISC 131 Introduction to Programming and Problem Solving (4 credits)

*Note:* CISC 130 is recommended for this major

*Plus one of the mathematics tracks below:*

### Pure Mathematics Track

*Eight credits from the following:*

MATH 302 Abstract Algebra II (4 credits)

MATH 419 Complex Variables (4 credits)

MATH 420 Topology (4 credits)

*Plus:*

eight credits of courses MATH 300 or higher not already taken

### Applied Mathematics Track

MATH 315 Applied Mathematics and Modeling I (4 credits)

MATH 316 Applied Mathematics and Modeling II (4 credits)

*Plus eight credits from the following:*

MATH 300 Advanced Differential Equations (4 credits)

MATH 303 Statistics for the Applied Sciences (4 credits)

MATH 313 Probability (4 credits)

STAT 314 Mathematical Statistics (4 credits)

MATH 385 Mathematical Methods of Numerical Analysis (4 credits)

MATH 400 Dynamical Systems and Chaos (4 credits)

MATH 419 Complex Variables (4 credits)

### Statistics Track

MATH 313 Probability (4 credits)

STAT 314 Mathematical Statistics (4 credits)

STAT 333 Applied Statistical Methods: Regression, Time Series, Forecasting (4 credits)

MATH 385 Mathematical Methods of Numerical Analysis (4 credits)

*Plus:*

STAT 320 Statistics II (4 credits)

### Math Education Track

MATH 325 Geometry (4 credits)

MATH 450 Advanced Mathematics: Exploration and Exposition (4 credits)

*Plus:*

MATH 313 Probability (4 credits) *and* STAT 314 Mathematical Statistics (4 credits)

*or*

MATH 303 Statistics for the Applied Sciences *and* any MATH 300+ not already included

**Minor in Mathematics**

MATH 113 Calculus I (4 credits) (or 108-109)

MATH 114 Calculus II (4 credits)

*Plus at least four credits from the following:*

MATH 200 Multi-Variable Calculus (4 credits)

MATH 210 Introduction to Differential Equations and Systems (4 credits)

*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 8 credits in mathematics numbered 200 and above at St. Thomas.

**Major in Actuarial Science**

*See Actuarial Science*

**Major in Statistics**

*See Statistics*

**Teacher Licensure**

Elementary Education with a Co-major in Science and Mathematics for Elementary Education

Major in Mathematics with a Co-major in Secondary Education (5-12)

*See Education*

**MATH 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. 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. Offered every semester.

**MATH 100 Mathematical Sampler (4 credits) (MATH 101)**

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, set theory, graph theory, an introduction to randomness, counting and probability, statistics and data exploration, measurement and symmetry, and recursion. This course fulfills the core-area in mathematics in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum and is also recommended as the first course in mathematics for prospective elementary teachers. Offered every semester.

Prerequisite: A satisfactory score on the mathematics placement exam

**MATH 101 Finite Mathematics (4 credits) (MATH 100)**

Elementary set theory, linear equations and matrices, linear programming, finite probability, applications primarily in business and the social sciences. This course fulfills the core-area in mathematics in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered every semester.

Prerequisite: A satisfactory score on the mathematics placement examination

**MATH 105 Precalculus (4 credits) (MATH 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 MATH 113 and does not fulfill a general graduation requirement.) Offered occasionally.

Prerequisite: A satisfactory score on the mathematics placement examination

NOTE: Students who receive credit for MATH 105 may not receive credit for MATH 108 or 109.

**MATH 108 Calculus with Review I (4 credits) (MATH 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 and graphing. 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. Offered every semester.

Prerequisite: A satisfactory score on the mathematics placement examination

NOTE: Students who receive credit for MATH 108 may not receive credit for MATH 105, 111, or 113.

**MATH 109 Calculus with Review II (4 credits) (MATH 105, 111, 113)**

The second course of a two-course sequence designed to integrate introductory calculus material with the algebraic

## Mathematics

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 core-area in mathematics in the Natural Science and Mathematical and Quantitative Reasoning. Offered every semester.

Prerequisite: a grade of C- or better in MATH 108

NOTE: Students who receive credit for MATH 109 may not receive credit for MATH 105, 111, or 113.

### **MATH 111 Calculus for Business and Social Science (4 credits) (MATH 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. This course fulfills the core-area in mathematics in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered every semester.

Prerequisite: a grade of C- or above in MATH 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 MATH 113.

NOTE: Students who receive credit for MATH 111 may not receive credit for MATH 108, 109, or 113.

### **MATH 113 Calculus I (4 credits) (MATH 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 core-area in mathematics in the Natural Science and Mathematical and Quantitative Reasoning. Offered every semester.

Prerequisite: a grade of C- or above in MATH 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.)

NOTE: Students who receive credit for MATH 113 may not receive credit for MATH 108, 109, or 111.

### **MATH 114 Calculus II (4 credits)**

Techniques of integration; applications of integration; infinite series; L'Hospital's rule; improper integrals. This course fulfills the core-area in mathematics or the third course in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered every semester.

Prerequisite: a grade of C- or above in MATH 113 or 109

### **MATH 121 Structures of Elementary Mathematics (4 credits)**

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, and mathematical problem-solving. This course is recommended as a second course in mathematics for prospective elementary teachers. It also fulfills the core-area in mathematics or the third course in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered every semester.

Prerequisite: MATH 100 and an EDUC course, or permission of the instructor

### **MATH 128 Introduction to Discrete Mathematics (4 credits)**

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. This course fulfills the core-area in mathematics or the third course in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered spring semester.

Prerequisite: MATH 111 or 113 or 109 (may be taken concurrently with consent of the instructor)

### **MATH 200 Multi-Variable Calculus (4 credits)**

Vector algebra in two and three dimensions, partial derivatives, multiple integrals, line integrals, surface integrals, Green's Theorem, Stoke's Theorem, divergence theorem. Offered every semester.

Prerequisite: a grade of C- or higher in MATH 114

### **MATH 210 Introduction to Differential Equations and Systems (4 credits)**

An introduction to ordinary differential equations (ODEs), with an emphasis on linear differential equations and linear systems, including applications. Topics covered include first-order equations, ODE models in the physical and biological sciences and engineering, numerical methods of solution, higher order linear equations, matrix tools, the role of eigenvalues and eigenvectors, and an introduction to nonlinear equations and systems, including linear approximations and stability analysis. Offered every semester.

Prerequisite: a grade of C- or above in MATH 114

### **MATH 240 Linear Algebra (4 credits)**

An introductory course in linear algebra, beginning with linear equations, matrix algebra and determinants and going on to study vector spaces, orthogonality, eigenvectors and inner products. The course combines theoretical and applied perspectives, including concepts of rigorous proof. Offered every semester.

Prerequisite: A grade of C- or above in MATH 200 (may be taken concurrently)

**MATH 259 Elements of Geometry and Statistics (4 credits)**

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. Offered spring semester of odd-numbered years.

Prerequisites: MATH 100 and 121, or permission of instructor

**MATH 295, 296 Topics (2 credits)**

**MATH 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**MATH 300 Advanced Differential Equations (4 credits)**

A second course in differential equations and their applications. Topics are selected from a continued study of linear differential equations and systems, Laplace transforms, series solution methods, non-linear equations and systems, partial differential equations and other topics chosen by the instructor. Offered spring semester of odd-numbered years.

Prerequisite: MATH 240

**MATH 301 Abstract Algebra I (4 credits)**

Properties of sets, relations and mappings; introduction to groups, rings and fields. Offered fall semester 2010, then spring semester, beginning 2012.

Prerequisite: MATH 240

**MATH 302 Abstract Algebra II (4 credits)**

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 fall semester of even-numbered years.

Prerequisite: MATH 301

**MATH 303 Statistics for the Applied Sciences (4 credits) (MATH 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. Offered fall semester.

Prerequisite: MATH 200

NOTE: Students who receive credit for MATH 303 may not receive credit for MATH 313 or STAT 314.

**MATH 313 Probability (4 credits) (MATH 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. Offered spring semester.

Prerequisites: MATH 200 (may be taken concurrently with consent of instructor)

NOTE: Students who receive credit for MATH 313 may not receive credit for MATH 303.

**STAT 314 (formerly MATH 314)**

*See Statistics*

**MATH 315 Applied Mathematics and Modeling I (4 credits)**

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. Offered fall semester.

Prerequisites: MATH 200 and 210, or permission of instructor

**MATH 316 Applied Mathematics and Modeling II (4 credits)**

This is a second topics course in applied mathematics offered through the Center for Applied Mathematics (CAM). It does not necessarily require MATH 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. Offered spring semester.

Prerequisites: MATH 200 and 210, or permission of instructor

**MATH 317 Real Analysis (4 credits)**

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: MATH 200 and 210

**MATH 325 Geometry (4 credits)**



## Mathematics

Axioms for geometries; geometrical transformations and their invariants; non-Euclidean geometries; additional topics. Offered spring semester of even-numbered years.

Prerequisites: MATH 200

### STAT 333 (formerly MATH 333)

*See Statistics*

### MATH 385 Mathematical Methods of Numerical Analysis (4 credits)

Rigorous mathematical treatment of standard topics in numerical analysis including solutions to linear and nonlinear 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 spring semester of odd-numbered years.

Prerequisites: MATH 210 and 240, or permission of instructor

### MATH 400 Dynamical Systems and Chaos (4 credits)

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. Offered spring semester of even-numbered years.

Prerequisite: MATH 210 or 317, or permission of instructor

### MATH 419 Complex Variables (4 credits)

Analytic functions; theorems of Cauchy; Laurent series; residue calculus; entire and meromorphic functions; conformal mapping. Offered fall semester of odd-numbered years.

Prerequisite: MATH 317

### MATH 420 Topology (4 credits)

Properties of Euclidean spaces; general spaces; mappings; separation properties; connectedness; compactness; metrizable spaces. Offered spring semester of even-numbered years.

Prerequisite: MATH 317

### MATH 450 Advanced Mathematics: Exploration and Exposition (4 credits)

A capstone mathematics course for students seeking to teach secondary mathematics. Students make substantial oral and written presentations. Topics are included from discrete and continuous mathematics. Students 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. Offered fall semester.

Prerequisite: one of MATH 301 or 317 with concurrent registration in the other; junior, senior, or graduate standing and declared intent to complete secondary licensure in mathematics. Other students having the course prerequisites may be admitted.

### MATH 475, 476 Experiential Learning (2 credits)

### MATH 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### MATH 483, 484 Seminar (2 credits)

### MATH 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### MATH 487, 488 Topics (2 credits)

### MATH 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### MATH 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### MATH 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Modern and Classical Languages

College of Arts and Sciences, Department of Modern and Classical Languages

O'Shaughnessy Education Center (OEC) 337, (651) 962-5150

Miller, D., (chair); **Arabic** – Khalek; **Classics** – Quartarone; **French** – Dziekowicz (coordinator), Lohse, Shams; **German** – Schons (coordinator); **Irish Gaelic** – Moore; **Japanese** – Dressen; **Spanish** – Badessich (coordinator), Ehrmantraut, Kroll, Nieto, Pinto, Raschio, Rey-Montejo, Scham, Tar, Tight

## Modern and Classical Languages - Arabic

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. Other language majors, minors and courses are available through the Associated Colleges of the Twin Cities. Language classes are also available in Arabic and Irish Gaelic. In cooperation with the ACTC, courses also are available in other languages.

The department also offers additional majors in International Business – language intensive (French, German and Spanish) and Literary Studies (foreign language and English literature).

Students graduating with a major in Classical Languages will have acquired a working vocabulary and a knowledge of the structures of Classical 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, listening 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, listening, reading, and writing. Additionally, they will have developed 1) the skills necessary for the study, analysis, and interpretation of a wide range of cultural and literary texts; or 2) a foundation in Hispanic linguistics from both a theoretical and an applied perspective.

The department also offers courses for the non-major to fulfill the Language and Culture requirement of the core curriculum.

### **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 Education*

### **Arabic**

#### **ARAB 111 Elementary Arabic I (4 credits)**

The first year of elementary Arabic is designed for non-native beginners in the Arabic language to primarily learn the formal form of Arabic also known as Modern Standard Arabic. During the year, students will learn how to express basic communication idioms and needs in Arabic. The year begins with learning the alphabet and progresses into learning how to read elementary level Arabic, writing simple sentences, and speaking basic and introductory idioms. Listening drills and exercises are also practiced in class and in the language lab.

#### **ARAB 112 Elementary Arabic II (4 credits)**

Continuation of ARAB 111.

Prerequisite: ARAB 111 or equivalent completed with a C- or better

#### **ARAB 211 Intermediate Arabic I (4 credits)**

Intermediate Arabic I is a continuation of Elementary Arabic II. It is designed to further develop language proficiency in modern standard Arabic in the four language skills. In speaking, the focus is on the use of everyday expressions through discussion and presentations. In reading, the focus is on reading authentic materials from Arabic journals and magazines. Writing is emphasized especially through writing weekly journals and homework assignments. Listening exercises and drills are utilized in class as well as in the language lab by listening and watching audio and video materials. The course is also aimed at familiarizing students with the cultures of the Arab world.

Prerequisite: ARAB 112 or equivalent completed with a C- or better

### **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**

A minimum proficiency in each language at the 211-level; a total of 28 credits in Greek and Latin. (see descriptions below under Greek and Latin)

## Modern and Classical Languages - Arabic, French

### *Plus:*

Twelve additional credits in Greek or Latin, ancient history, ancient philosophy, classical art, mythology, or classical literature in translation.

### **Minor in Classical Languages**

Twelve credits in Greek (see descriptions below under Greek)

Twelve credits in Latin (see descriptions below under Latin)

## **French**

The primary goal of the department is to provide opportunity to its majors for acquiring:

- A solid command of the French language
- A thorough introduction to the literary and cultural origins of France and the role of French in today's world
- 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
- The intellectual background which characterizes those educated in a liberal arts setting.

### **Major in French**

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 at the 300-level or above 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.

For administrative purposes, students will complete assessment measures at the beginning of their major (in their 300 class) and during their final semester.

### **Minor in French**

A minimum of sixteen credits at the 300-level or above is required for a French minor.

A minimum of eight credits in FREN must be completed at St. Thomas.

*A typical minor consists of courses in the following areas:*

Four credits in French language study at the FREN 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.

#### **FREN 111 Elementary French I (4 credits)**

Practice in understanding, speaking, reading and writing simple French for beginners.

#### **FREN 112 Elementary French II (4 credits)**

Continuation of FREN 111.

Prerequisite: FREN 111 or equivalent completed with a C- or better

#### **FREN 211 Intermediate French I (4 credits)**

Introduction to cultural and literary materials along with rapid review of basic skills in reading, speaking, writing and understanding oral French.

Prerequisite: FREN 112 or equivalent completed with a C- or better

#### **FREN 212 Intermediate French II (4 credits)**

Continuation of FREN 211 with emphasis on oral and written use of complex sentence structure.

Prerequisite: FREN 211 or equivalent completed with a C- or better

#### **FREN 295, 296 Topics (2 credits)**

#### **FREN 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

#### **FREN 300 Advanced Oral and Written French I (4 credits)**

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. Oral and written skills will be assessed.

Prerequisite: FREN 212 or equivalent completed with a C- or better

**FREN 301 French Poetry (4 credits)**

Individualized and group exercises in oral expression and comprehension focusing on the elements of French versification from the 16th century to the present.

Prerequisite: FREN 300 or equivalent

**FREN 302 *Questions de langage* (4 credits)**

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: FREN 300 or equivalent

**FREN 309 Introduction to French Literature I (4 credits)**

Excerpts of French literature from the Middle Ages to the 18th century 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: FREN 300 or equivalent

**FREN 310 Introduction to French Literature II (4 credits)**

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: FREN 300 or equivalent

**FREN 311 French Civilization I (4 credits)**

An introduction to the most significant historical, cultural, social, religious and economic realities of France from the prehistoric period through the 17th century.

Prerequisite: FREN 300 or equivalent

**FREN 312 French Civilization II (4 credits)**

An introduction to the most significant historical, cultural, social, religious and economic realities of France from the 18th century to the present.

Prerequisite: FREN 300 or equivalent

**FREN 370 French Phonetics (4 credits)**

A course designed to improve pronunciation and intonation by means of phonetic transcription and technological aids.

Prerequisite: FREN 300 or equivalent

**FREN 371 French Conversation (4 credits)**

Individualized French conversation practice in comprehension and speaking involving group and individualized activities.

Prerequisite: FREN 300 or permission of instructor

**FREN 401 French Theater (4 credits)**

Intensive study of the trends in French theater with analysis and interpretation of selected works from the seventeenth century to the present.

Prerequisite: FREN 300 or equivalent

**FREN 402 The French Novel (4 credits)**

In depth study of selected works of fiction primarily from the 19th and 20th centuries.

Prerequisite: FREN 300 or equivalent

**FREN 475, 476 Experiential Learning (2 credits)**

**FREN 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**FREN 483, 484 Seminar (2 credits)**

**FREN 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**FREN 487, 488 Topics (2 credits)**

**FREN 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

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**FREN 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Modern and Classical Languages - French, German

FREN 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### German

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

Completion of GERM 212 or its equivalent

GERM 300 Introduction to German Studies (4 credits)

*Plus:*

Twenty-four additional credits numbered above GERM 300

At least six of these 28 credits must be literature courses.

At least twelve of these 28 credits must be completed at the University of St. Thomas.

No more than twelve 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

For administrative purposes, students will complete assessment measures at the beginning of their major ( in their 300 class) and during their final semester.

### 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

Completion of GERM 212 or its equivalent

GERM 300 Introduction to German Studies (4 credits)

*Plus:*

Twelve additional credits numbered above GERM 300

At least three of these 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.

### GERM 111 Elementary German I (4 credits)

Introduction to fundamentals of language structure and vocabulary. Practice in speaking, reading, writing and understanding.

### GERM 112 Elementary German II (4 credits)

Continuation of GERM 111.

Prerequisite: GERM 111 or equivalent completed with a C- or better

### GERM 211 Intermediate German I (4 credits)

Review of fundamentals. Study of cultural texts with practice in speaking, reading, writing and understanding.

Prerequisite: GERM 112 or equivalent completed with a C- or better

### GERM 212 Intermediate German II (4 credits)

Continuation of GERM 211.

Prerequisite: GERM 211 or equivalent completed with a C- or better

### GERM 295, 296 Topics (2 credits)

### GERM 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### GERM 300 Introduction to German Studies (4 credits)

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. Oral and written skills will be assessed.

Prerequisite: GERM 212 or equivalent completed with a C- or better

**GERM 311 Conversation and Composition (4 credits)**

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: GERM 300

**GERM 315 Influential Ideas in Non-fictional German (4 credits)**

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: GERM 300

**GERM 320 Contemporary Germany and Current Events (4 credits)**

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: GERM 300

**GERM 341 Highlights of German Literature I (4 credits)**

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: GERM 300

**GERM 342 Highlights of German Literature II (4 credits)**

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: GERM 300

**GERM 345 Austria: The Golden Age (4 credits)**

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: GERM 300

**GERM 350 Genre Studies in German Literature (4 credits)**

This course will focus on genres of literature in German. The particular genres to be studied will vary with each offering. They will include German Drama, the German Novel of the 20th century, German Novellas, Modern German Drama, German Film, German Poetry.

Prerequisite: GERM 300

**GERM 401 German Poetry (4 credits)**

A critical study of selections from important German poets.

Prerequisite: GERM 300

**GERM 410 The German Opera (4 credits)**

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: GERM 300

**GERM 440 Introduction to Business German and German Business (4 credits)**

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: GERM 300

**GERM 475, 476 Experiential Learning (2 credits)****GERM 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Modern and Classical Languages - German, Greek

**GERM 483, 484 Seminar (2 credits)**

**GERM 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**GERM 487, 488 Topics (2 credits)**

**GERM 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**GERM 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**GERM 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### **Greek**

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, Latin, ancient history, ancient philosophy, classical art, mythology or classical literature in translation.

**GREK 111 Elementary Greek I (4 credits)**

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.

**GREK 112 Elementary Greek II (4 credits)**

Continuation of GREK 111.

Prerequisite: GREK 111 or equivalent completed with a C- or better

**GREK 211 Intermediate Greek I (4 credits)**

Selected readings in Greek prose; review of grammar.

Prerequisite: GREK 112 or equivalent completed with a C- or better

**GREK 212 Intermediate Greek II (4 credits)**

Readings in classical Greek prose, particularly Plato.

Prerequisite: GREK 211 or equivalent completed with a C- or better

**GREK 295, 296 Topics (2 credits)**

**GREK 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**GREK 342 Greek Reading and Exegesis: John (4 credits)**

Careful reading of the Gospel of John in Greek combined with theological commentary from the Greek text, adapted to intermediate-level Greek students.

Prerequisite: GREK 112 or equivalent (Recommended: THEO 205 or THEO 210)

**GREK 475, 476 Experiential Learning (2 credits)**

**GREK 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**GREK 483, 484 Seminar (2 credits)**

**GREK 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**GREK 487, 488 Topics (2 credits)**

**GREK 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions

## Modern and Classical Languages - Greek, International Business

of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### GREK 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### GREK 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “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.

## **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**

FREN 300 Advanced Oral and Written French (4 credits)

One course in French on contemporary France

#### *Plus:*

Twenty additional credits in French courses numbered above FREN 300, including literature and civilization, selected in consultation with the French section coordinator

### **International Business – German Intensive**

GERM 300 Introduction to German Studies (4 credits)

GERM 440 Introduction to Business German and German Business (4 credits)

#### *Plus:*

Twenty additional credits in German courses numbered above GERM 300

### **International Business – Spanish Intensive**

SPAN 300 Advanced Spanish Grammar (4 credits)

SPAN 301 Advanced Written Spanish and Culture (4 credits)

SPAN 305 Spanish Oral Expression (4 credits)

SPAN 320 Business Spanish (4 credits)

#### *Plus:*

Twelve additional credits in Spanish courses numbered above SPAN 300

### **Allied requirements for all languages**

Twenty credits in business administration

#### *Plus:*

CISC 200 Introduction to Computer Technology and Business Applications (4 credits)

ECON 251 Principles of Macroeconomics (4 credits)

ECON 252 Principles of Microeconomics (4 credits)

ECON 348 International Economics (4 credits)

#### *Plus four credits from the following:*

MATH 101 Finite Mathematics (4 credits)

MATH 111 Calculus for Business or Social Science (4 credits)

MATH 113 Calculus I (4 credits)

#### *Other recommended courses:*

ECON 345 Economics of Development and Growth (4 credits)

ECON 349 Comparative Economic Systems (4 credits)

IDSC 481 Seminar in International Studies (4 credits)

JPST 250 Introduction to Justice and Peace Studies (4 credits)

POLS 104 American Government in Comparative Perspective (4 credits)

POLS 326 International Law and Organizations (4 credits)

POLS 350 Comparative Politics of the New Europe (4 credits)

THEO 325 The Catholic Social Traditions (4 credits)

## **Irish Gaelic**

IRGA 111 Irish Gaelic I (4 credits)

Introduction to the pronunciation, structure, and culture of Irish Gaelic by developing basic skills in conversation, writing, and reading. Progress is evaluated through classroom interaction (dialogue, role-playing, oral drills, etc.), written assignments, song-learning, and an interview in Irish with the instructor.



## Modern and Classical Languages - Irish, Japanese

### IRGA 112 Irish Gaelic II (4 credits)

Continuation of IRGA 111 with further development of the same skills in conversation, writing, and reading and an expanded awareness of the culture of Irish Gaelic. Progress is evaluated through classroom interaction (dialogue, role-playing, oral drills, *etc.*), written assignments, and a brief presentation in Irish before the class at the end of the semester.

Prerequisite: IRGA 111 or equivalent completed with a C- or better

### IRGA 211 Irish Gaelic III (4 credits)

Continuation of IRGA 112 with an emphasis on increasing comprehension of, and fluency in, Irish Gaelic. The course will take place in a Gaelic-speaking community in Co. Galway, Ireland at a campus of the National University of Ireland. Students will learn and practice their Gaelic in the classroom and in the community with native speakers. Students will engage the Gaelic culture, history, and traditions at seminars in the late afternoon and evening and on four field trips to locations of literary and cultural importance. Students will be evaluated on the basis of three interviews with their instructor and a third party.

Prerequisite: IRGA 112 or equivalent with instructor's approval

## Japanese

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:

1. lay a solid foundation in the areas of speaking, listening, reading and writing. All three writing systems (hiragana, katakana and kanji) are covered.
  2. give students basic language skills sufficient to manage day-to-day life in Japan
  3. promote interest in Japan, Japanese people, and their culture
  4. help students fulfill professional and personal endeavors at an international level
  5. eliminate fear of speaking Japanese in front of people.
  6. To provide the foundation for earning a major or minor in the language.
- Students wishing to major or minor in Japanese may do so by special arrangement with Macalester College and approval of the St. Thomas Department of Modern and Classical Languages.

### Minor in Japanese

Completion of JAPN 212 or equivalent

*Plus:*

Eight additional credits selected in consultation with the department adviser

### JAPN 111 Elementary Japanese I (4 credits)

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.

### JAPN 112 Elementary Japanese II (4 credits)

Continuation of JAPN 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: JAPN 111 or equivalent completed with a C- or better

### JAPN 211 Intermediate Japanese I (4 credits)

Continuation of JAPN 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: JAPN 112 or equivalent completed with a C- or better

### JAPN 212 Intermediate Japanese II (4 credits)

Continuation of JAPN 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: JAPN 211 or equivalent completed with a C- or better

## Latin

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 prepares 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.

For administrative purposes, students will complete assessment measures at the beginning of their major ( in their 300 class) and during their final semester.

**Major in Latin**

Four years of high school Latin or the completion of LATN 212 or 255

*Plus:*

Twenty-eight credits in Latin numbered above LATN 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 LATN 211

*Plus:*

Eight additional credits in ancient history, ancient philosophy, classical art, mythology or classical literature in translation.

**LATN 111 Elementary Latin I (4 credits)**

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.

**LATN 112 Elementary Latin II (4 credits)**

Continuation of LATN 111. More graded readings, further mastery of forms, syntax and vocabulary.  
Prerequisite: LATN 111 or equivalent completed with a C- or better

**LATN 211 Intermediate Latin I (4 credits)**

Readings of narrative prose. Review and further study of grammar.  
Prerequisite: LATN 112 or equivalent completed with a C- or better

**LATN 212 Intermediate Latin II (4 credits)**

Selections from Vergil's epic poem, the Aeneid.  
Prerequisite: LATN 211 or equivalent completed with a C- or better

**LATN 255 Latin Readings in the Old and New Testament (4 credits)**

Readings from St. Jerome's Latin translation of the Old and New Testament.  
Prerequisite: LATN 211 or equivalent

**LATN 295, 296 Topics (2 credits)****LATN 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**LATN 311 Latin Composition (4 credits)**

A thorough review of Latin grammar. Practice in the writing of continuous Latin prose.  
Prerequisite: LATN 212 or 255 or equivalent

**LATN 320 Readings in St. Augustine (4 credits)**

Selected readings from the texts of St. Augustine. Focal points will include pertinent background on the author, his times, philosophical influences, and the grammatical features of Medieval Latin.

**LATN 325 Catullus and Horace (4 credits)**

Selections from the lyric poetry of Catullus and Horace. Poetic sources, influence, the principal lyric meters.  
Prerequisite: LATN 212 or 255 or equivalent

**LATN 360 Philosophy in Latin Texts (4 credits)**

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.

## Modern and Classical Languages - Latin, Russian

Prerequisites: LATN 211 and three courses in PHIL or permission of the instructor.

### LATN 421 Vergil (4 credits)

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: LATN 212 or 255 or equivalent

### LATN 430 Caesar and Cicero (4 credits)

Extensive reading of the Gallic War and of the Orations of Cicero. A study of the character and career of each author.

Prerequisite: LATN 212 or 255 or equivalent

### LATN 475, 476 Experiential Learning (2 credits)

### LATN 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### LATN 483, 484 Seminar (2 credits)

### LATN 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### LATN 487, 488 Topics (2 credits)

### LATN 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### LATN 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### LATN 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## Russian

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 special arrangement with Macalester College and approval of the chair of the Department of Modern and Classical Languages at the University of St. Thomas.

### Minor in Russian

Completion of RUSS 212 or equivalent

*Plus:*

Two advanced Russian language or literature courses

### RUSS 111 Elementary Russian I (4 credits)

Introduction to the Russian sound system and grammar encompassing reading, writing, speaking and listening skills. Some exposure to Russian culture. Offered in fall semester.

### RUSS 112 Elementary Russian II (4 credits)

Continuation of RUSS 111 with further development of same skills. Offered in spring semester.

Prerequisite: RUSS 111 or permission of instructor

### RUSS 211 Intermediate Russian I (4 credits)

Continuation of RUSS 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: RUSS 112 or permission of instructor

### RUSS 212 Intermediate Russian II (4 credits)

Further development of skills begun in RUSS 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: RUSS 211 or permission of instructor

## Spanish

The Spanish program provides students the opportunity to develop a solid command of the Spanish language, and an understanding of the literature, culture, and linguistics of the Hispanic world. Diverse course offerings allow students, in consultation with their advisers, to tailor a program of studies consistent with various goals: to prepare for graduate school, to usefully complement a variety of majors (business, political science, psychology, *etc.*), to interact with Spanish-speaking people in the US and abroad, to analyze the Spanish language and apply what is learned to a variety of contexts, and to read great Spanish and Spanish American literature. We offer (and strongly recommend) study abroad as a fundamental component of the Spanish major.

### Major in Spanish

In consultation with their major field adviser, students must complete thirty-six (36) credits in courses numbered 300 and above:

#### *Required Core Courses:*

- SPAN 300 Advanced Spanish Grammar (4 credits)
- SPAN 301 Advanced Written Spanish and Culture (4 credits)
- SPAN 305 Spanish Oral Expression and Culture (4 credits)
- SPAN 335 Introduction to Spanish Literature (4 credits)

Note: Students must earn a C- or better in each course

*Plus courses from one of the following tracks:*

#### **Cultural and Literary Studies Track (20 credits)**

##### *Required for track:*

- SPAN 331 Spanish Culture and Civilization (4 credits)
- SPAN 332 Latin American Culture and Civilization (4 credits)

*Plus an additional three elective courses (12 credits) selected from:*

- SPAN 340 Survey of Spanish Literature (4 credits)
- SPAN 380 Spanish/American Literature (4 credits)
- SPAN 405 Spanish Genre Studies (4 credits)
- SPAN 410 Women and Discourse of the Spanish-speaking World (4 credits)
- SPAN 411 Ethnicity and Multiculturalism of the Spanish-speaking World (4 credits)
- SPAN 412 Chicano and U.S. Latino Culture(s) and Literature(s) (4 credits)
- SPAN 415 Hispanic Cinema Studies (4 credits)

Students choosing the Cultural and Literary Studies Track may select one elective from the Linguistics and Applied Language Studies Track

#### **Linguistics and Applied Language Studies Track (20 credits)**

##### *Required for track:*

- SPAN 315 Hispanic Linguistics (4 credits)

*Plus additional four elective courses (16 credits) selected from:*

- SPAN 316 Studies in Spanish Linguistics (4 credits)
- SPAN 317 Spanish Phonetics and Pronunciation (4 credits)
- SPAN 320 Business Spanish (4 credits)
- SPAN 434 Spanish Applied Linguistics (4 credits)

Students choosing the Linguistics and Applied Language Studies Track may select one elective from the Cultural and Literary Studies Track

Students in teacher licensure programs must include a course in linguistics (recommended SPAN 315).

Students majoring in Spanish must take a minimum of twelve (12) credits in Spanish at the 300-level or above at St. Thomas or in a St. Thomas approved study abroad program.

Students must complete the introductory and intermediate language program (SPAN 111, 112, 211, 212), or its equivalent, with a B- average or above in all coursework before moving on to SPAN 300. Spanish majors/minors must complete SPAN 300, 301, and 305 with a C- or above in each course before proceeding on to further courses in the Spanish major.

For administrative purposes, students will complete assessment measures at the beginning of their major ( in their 300 class) and during their final semester.

Note: The rare student who majors in Spanish, but begins her/his language training at St. Thomas with SPAN 111 may need to complete 136 units to graduate rather than the normal 132.

## Modern and Classical Languages - Spanish

### **Minor in Spanish**

In consultation with their minor field adviser, students must complete twenty (20) credits in courses numbered 300 and above. After completing the core courses (SPAN 300, 301, 305), students may select two additional courses from any of the remaining upper division Spanish courses (numbered above 305). Students must complete the introductory and intermediate language program (SPAN 111, 112, 211, 212), or its equivalent, with a B- average or above in all coursework before moving on to SPAN 300. Spanish minors must complete SPAN 300, 301 and 305 with a C- or above in each course before proceeding on to further courses in Spanish.

Students minoring in Spanish must take a minimum of eight (8) credits in Spanish at the 300-level or above at St. Thomas or in a St. Thomas approved study abroad program.

### **SPAN 111 Elementary Spanish I (4 credits)**

Pronunciation, essentials of grammatical structures, aural-oral practice, writing, reading of simple Spanish prose, introduction to the culture of the Spanish-speaking world.

### **SPAN 112 Elementary Spanish II (4 credits)**

Continuation of SPAN 111. Emphasis on grammatical structure, aural-oral practice, writing, reading. Continuation of Hispanic culture.

Prerequisite: SPAN 111 or its equivalent completed with a C- or better.

### **SPAN 211 Intermediate Spanish I (4 credits)**

Designed to increase listening, speaking, reading, and writing skills in Spanish. Reinforcement of grammatical structures of Elementary Spanish I and II. Continued exposure to Hispanic culture.

Prerequisite: SPAN 112 or its equivalent completed with a C- or better.

### **SPAN 212 Intermediate Spanish II (4 credits)**

Continuation of SPAN 211. Emphasis on Hispanic culture, conversation, writing, and expansion of vocabulary based on thematic discussions and cultural readings.

Prerequisite: SPAN 211 or its equivalent completed with a C- or better.

### **SPAN 295, 296 Topics (2 credits)**

### **SPAN 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### **SPAN 300 Advanced Spanish Grammar (4 credits)**

Advanced Grammar with emphasis on review of grammatical structures, language development, mechanics, and expansion of vocabulary. Writing of basic structures in expository prose. Language skills will be assessed.

Prerequisite: Completion of SPAN 212 or its equivalent with a B- or better average in all lower division language courses (SPAN 111, 112, 211, 212).

### **SPAN 301 Advanced Written Spanish and Culture (4 credits)**

Intensive practice in written Spanish using selected materials to acquire a high level of competence in writing Spanish. This writing course aims to improve technique, expand syntactic depth, increase vocabulary and learn good writing through a process approach involving stages of idea development, thesis construction, structural development, bibliographic notation, evaluation of ideas and rewriting of the text. Lectures and class discussions are based on major topics that relate to the cultures of the Spanish-speaking world. Written skills will be assessed.

Prerequisite: Completion of SPAN 300 or its equivalent with a C- or better.

### **SPAN 305 Spanish Oral Expression and Culture (4 credits)**

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. This course is intended to stimulate creative, critical thinking in Spanish through activities that require students to argue, persuade, analyze, and interpret other points of view. Oral skills will be assessed.

Prerequisite: Successful completion of SPAN 300 or its equivalent with a C- or better. May be taken simultaneously with SPAN 301 or 315.

### **SPAN 315 Hispanic Linguistics (4 credits)**

An introduction to both contemporary and historical Hispanic linguistics. Descriptive Spanish phonetics and phonology. Systematic study of dialectal variation in both Spain and Spanish America. Offered in fall semester.

Prerequisites: Successful completion of SPAN 301 and 305 or their equivalents with a C- or better in each course, (may be taken simultaneously with SPAN 305).

### **SPAN 316 Studies in Spanish Linguistics (4 credits)**

This course provides an in-depth study into a particular area of Spanish Linguistics. Topics may vary with each offering and may include Phonology/Morphology, Syntax, Dialectology, Semantics/Pragmatics, Discourse Analysis, and

Second Language Acquisition. Credit may be earned more than once under this number for different emphases.  
Prerequisites: SPAN 301 or 305 or their equivalents with a C- or better in each course, (may be taken simultaneously with SPAN 305).

**SPAN 317 Spanish Phonetics and Pronunciation (4 credits)**

This course provides undergraduate students with an understanding of the basic concepts of phonetics and phonology. Students apply these concepts to achieve more native-like pronunciation in Spanish. Tasks include recognizing, producing, transcribing and describing in linguistic terms the sounds of Spanish.

Prerequisites: SPAN 301 or 305 or their equivalents with a C- or better in each course, (may be taken simultaneously with SPAN 305).

**SPAN 320 Business Spanish (4 credits)**

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.

Prerequisites: SPAN 301 or 305 or their equivalents with a C- or better in each course, (may be taken simultaneously with SPAN 305).

**SPAN 331 Survey of Spanish Culture and Civilization (4 credits)**

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.

Prerequisites: Successful completion of SPAN 300, 301, 305 or their equivalents with a C- or better in each course.

**SPAN 332 Survey of Latin American Culture and Civilization (4 credits)**

Physical and human geography. History of Latin America from pre-Hispanic civilizations through modern times. Political problems. Rural Latin America. Latin American society, cultural values. Religion. Economic problems.

Prerequisites: Successful completion of SPAN 300, 301, 305 or their equivalents with a C- or better in each course.

**SPAN 335 Introduction to Spanish Literature (4 credits)**

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: Successful completion of SPAN 300, 301, 305 or their equivalents with a C- or better in each course.

**SPAN 340 Survey of Spanish Literature (4 credits)**

Readings in the literatures and cultures of Spain. Ranging from the twelfth to the twenty-first century. The course includes masterworks of Spanish prose, poetry, and theater. Historical contexts and other artistic productions are considered as they illuminate the literary works in question.

Prerequisites: Successful completion of SPAN 300, 301, 305 and 335 or their equivalents with a C- or better in each course.

**SPAN 380 Spanish-American Literature (4 credits)**

Readings in literatures and cultures of Spanish-America from the pre-Columbian period through the 21st century. The course includes masterworks of Latin American prose, poetry, and theater. Historical contexts and other artistic productions are considered as they illuminate the literary works in question.

Prerequisites: Successful completion of SPAN 300, 301, 305 and 335 or their equivalents with a C- or better in each course.

**SPAN 405 Spanish Genre Studies (4 credits)**

An examination of particular genres of Spain and Spanish America during defined literary periods. Topics will vary with each offering and may include the novel, non-fictional prose, short story, poetry, and theater of Spain and Spanish America. Credit may be earned more than once under this number for different emphases. May be taken twice with different topics.

Prerequisites: Successful completion of SPAN 300, 301, 305 and 335 or their equivalents with a C- or better in each course.

**SPAN 410 Women and Discourse of the Spanish-Speaking World (4 credits)**

Focuses on the production of women's multiple discourses (including those of a literary, political, social and cultural register) as manifested across the centuries and throughout the Spanish-speaking world. Credit may be earned more than once under this number for different emphases. Possible course offerings may include: "Women and the Spanish Empire," "Women and the Spanish Civil War," "Memory, Trauma and Resistance in the Works of Southern Cone Women Writers," "Women and Contemporary Spanish Theater," among others.

Prerequisites: Successful completion of SPAN 300, 301, 305 and 335 or their equivalents with a C- or better in each course.

**SPAN 411 Ethnicity and Multiculturalism of the Spanish-speaking World (4 credits)**

This course aims to analyze the concepts of race, ethnicity and multiculturalism in the Spanish-speaking world. Due to the multiculturalism and diversity in the Hispanic world, this course could include topics such as literary/social interpretations of Islam, Judaism and Christianity in Muslim Spain, Gypsies in film, culture, music and poetry,

## Modern and Classical Languages - Spanish

Equatorial Guinean culture and the poetry of resistance and idealism, abolitionist and neo-slave narratives and their cultural contexts, indigenismo and indigenous cultures in Latin American literature, among many others. Emphasis will vary in the different offerings of the course. May be taken twice with different topics. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: Successful completion of SPAN 300, 301, 305, and 335 or their equivalents with a C- or better in each course.

### SPAN 412 Chicano and U.S. Latino Culture(s) and Literature(s) (4 credits)

Overview of the different issues that concern the U.S. Latino population. This course studies cultural artifacts and literary texts (in Spanish) relating to the multiple cultures of the Spanish-speaking U.S. Topics of class discussion could include: The United Farmers Workers and the Chicano Power movement in the 1960s, the role of César Chávez and Luis Valdez, and literary interpretations of the Hispanic/Latino/Chicano experience. Authors will be selected from a broad range of writers such as Cherríe Moraga, Sandra Cisneros, Rolando Hinojosa, Miguel Mendez, Julia Álvarez, Cristina García, Gustavo Pérez Firmat, Achy Obejas, Esmeralda Santiago, among others. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: Successful completion of SPAN 300, 301, 305, and 335 or their equivalents with a C- or better in each course.

### SPAN 415 Hispanic Cinema Studies (4 credits)

Examination of the cinematic arts as they relate to the cultures and literatures of the Spanish-speaking World. Course topics may include some of the following: gender, class, and/or ethnicity/race in Hispanic Cinema, discussion of film techniques, narrative structures, major directors, cinematic movements of Spain, Latin America, and/or U.S. Latino film, or the relationship of film to history, culture and society. May be taken twice with different topics. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisites: Successful completion of SPAN 300, 301, 305, and 335 or their equivalents with a C- or better in each course.

### SPAN 434 Spanish Applied Linguistics (4 credits)

This course focuses on the theory and development of the field of Spanish second language acquisition and pedagogy. Special attention will be dedicated to the most common grammatical, linguistic, and methodological issues related to teaching Spanish to English native speakers. Topics covered will also include the role of technology in language teaching and methods for evaluating the linguistic competence of learners of Spanish.

Prerequisites: Successful completion of SPAN 300, 301, 305, and 315 or their equivalents with a C- or better in each course.

### SPAN 475, 476 Experiential Learning (2 credits)

### SPAN 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### SPAN 483, 484 Seminar (2 credits)

### SPAN 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### SPAN 487, 488 Topics (2 credits)

### SPAN 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### SPAN 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### SPAN 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## Music (MUSC)

College of Arts and Sciences, Department of Music

Brady Education Center (BEC) 09, (651) 962-5850

George (chair), Broeker, Bryan, Cornett-Murtada, Gleason, Gonzo, Johnson, Kachian, Orzolek, Schmalenberger, Trinká, Allaire, Balder, Berget, Bower, Brown, Brudnoy, Cadwell, Capener, Douglas, Faricy, Garneau, Garvin, Gerth, Griffith, Haugen, Hauser, Itkin, Jacobson, Jenkins, Jensen, Jorstad, Kemperman, Kenó, Knoll, LeJeune, Mensah, Morgan, Reed, Rinear, Schons, Schroeffer, Schulz, Skaar, Strasser, Thygeson, Titus, Volpe, Zimmerman, Zocchi

The Mission of the University of St. Thomas Department of Music is to provide outstanding music instruction through our progressive curriculum; enable students to realize their full potential in the development of their musi-

cal, artistic and career goals; and instill ethical professional behavior. Our accomplished faculty offers musical and academic excellence while mentoring students in a creative environment, which enhances the cultural, spiritual and intellectual life of the university and community.

Students majoring in music take courses in six areas: performance studies, ensembles, music theory, musicology, music media, and conducting.

Through the study of music, students develop an aural comprehension of tonal and non-tonal music, an understanding of the harmonic language and voice-leading principles, and an understanding of musical vocabulary, analytical systems, and structural and formal principles. Students develop the necessary skills to read musical scores and to write in standard musical notation for a variety of instruments and voices. 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 to today's popular music. 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 understanding of repertoire by artistically performing music representing a variety of genres, stylistic periods and cultures.

Transfer students must:

- take a theory placement test. This placement test should be taken at the beginning of the first semester of studies at UST. Review sheets and information on time and place of the placement test are available from the Music Department Office (651) 962-5850.
- file an Application for Major Field with the department chair.
- take at least one semester of music history at UST.
- pass the performance level audition.
- take at least four semesters of performance level lessons at UST.
- perform their final level recital at UST.
- take a minimum of four semesters of an appropriate ensemble.
- complete 32 of their last 36 credits at UST.

Students intending on majoring in music must pass a performance audition. Students majoring in music may not have a letter grade lower than C- in a required music course.

For information concerning the department's current policies and procedures, consult the *Handbook for Music Majors and Minors*, which is available on the Music Department website.

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.

The department also offers a number of courses for non-majors that fulfill the Fine Arts and Human Diversity components of the core curriculum.

The University of St. Thomas is fully accredited by the National Association of Schools of Music.

### **Major in Music – Performance (B.M.)**

MUSC 001 Student Convocation Hour (0 credits) (6 semesters)

MUSC 101 Piano Skills I (1 credit)

MUSC 102 Piano Skills II (1 credit)

MUSC 140 Music Media (2 credits)

MUSC 113 Music Theory I (4 credits)

MUSC 114 Music Theory II (4 credits)

MUSC 133 Music of the United States: Aural and Written Traditions (2 credits)

MUSC 201 Piano Skills III (1 credit)

MUSC 202 Piano Skills IV (1 credit)

MUSC 213 Music Theory III (4 credits)

MUSC 214 Music Theory IV (4 credits)

MUSC 231 Introduction to Conducting I (1 credit)

MUSC 232 Introduction to Conducting II (1 credit)

MUSC 233 Music of the World: Aural and Written Traditions (4 credits)

MUSC 340 Theory Elective (2 semesters) (2 credits per semester)

MUSC 411 History and Literature of Music I (4 credits)

MUSC 412 History and Literature of Music II (4 credits)

MUSC 420 Senior Research Paper (2 credits)

MUSN 1xx Eight semesters of Ensemble participation (0 credits)

Guidelines for choosing an ensemble:

If principal instrument is:

Piano - at least two semesters in MUSN 171; at least two semesters in MUSN 172; at least two semesters in one of: MUSN 140, 142, 143, 160, 181, 185, 186, 190; two semesters may be in 161, 182, 183.

Voice - voice majors must participate in a minimum of eight semesters in MUSN 140, 142, 143, or 160.

Woodwind, Brass or Percussion - at least eight semesters in MUSN 185 or 186.

Orchestral String - at least eight semesters in MUSN 181.

Guitar - at least six semesters in MUSN 173; at least two semesters in MUSN 174.

Other Instruments - at least eight semesters chosen from: MUSN 140, 142, 143, 160, 171, 172, 185, 190.



## Music

MUSP 103 Skills for Piano Proficiency (0 credits) - Piano Majors Only  
MUSP 3xx Eight semesters of performance studies in the same performance medium (2 credits per semester)  
MUSR 200 Piano Proficiency (0 credits)  
MUSR 270 Level I Recital (0 credits)  
MUSR 350 Level II Recital (0 credits)  
MUSR 450 Level III Recital (0 credits)

*Plus:*

EDUC 308 Pedagogy and Literature for Music Performers I (2 credits)  
EDUC 309 Pedagogy and Literature for Music Performers II (2 credits)

**Allied Requirements:**

PHYS 105 Musical Acoustics (4 credit hours)

**Music Education – Instrumental Music Education (K-12) (B.M.)**

*See Education*

**Music Education – Vocal Music Education (K-12) (B.M.)**

*See Education*

**Major in Music (B.A.)**

MUSC 001 Student Convocation Hour (0 credits) (6 semesters)  
MUSC 101 Piano Skills I (1 credit)  
MUSC 102 Piano Skills II (1 credit)  
MUSC 113 Music Theory I (4 credits)  
MUSC 114 Music Theory II (4 credits)  
MUSC 140 Music Media (2 credits)  
MUSC 201 Piano Skills III (1 credit)  
MUSC 202 Piano Skills IV (1 credit)  
MUSC 213 Music Theory III (4 credits)  
MUSC 214 Music Theory IV (4 credits)  
MUSC 231 Introduction to Conducting I (1 credit)  
MUSC 411 History and Literature of Music I (4 credits)  
MUSC 412 History and Literature of Music II (4 credits)  
MUSN 1xx Six semesters of Ensemble participation (0 credits)  
    Guidelines for choosing an ensemble:  
    If principal instrument is:  
    Piano - at least two semesters in MUSN 171; at least two semesters in MUSN 172; at least two semesters in one of: MUSN 140, 142, 143, 160, 181, 185, 186, 190; two semesters may be in MUSN 161, 182, 183.  
    Voice - a minimum of six semesters in MUSN 140, 142, 143, or 160.  
    Woodwind, Brass or Percussion - at least six semesters in MUSN 185 or 186  
    Orchestral String - at least six semesters in MUSN 181.  
    Guitar - at least four semesters in MUSN 173; at least two semesters in MUSN 174.  
MUSP 103 Skills for Piano Proficiency (0 credit) - Piano Majors Only  
MUSP 2xx Six semesters of performance studies in the same performance medium (1 credit per semester)  
MUSR 200 Piano Proficiency (0 credit)  
MUSR 270 Level I Recital (0 credit)  
MUSR 350 Level II Recital (0 credit)

*Plus 7 credit hours selected from the following:*

MUSP 1xx Up to 2 credits on any secondary instrument, voice or composition (1 or 2 credit hours)  
MUSP 108 Class Voice (1 credit)  
MUSC 133 Music of the United States: Aural and Written Traditions (4 credits)  
MUSC 160 Introduction to Music Business (4 credits)  
MUSC 216 Jazz in America (4 credits)  
MUSC 218 Black American Music: A Historical Survey (4 credits)  
MUSC 223 Arranging (2 credits)  
MUSC 224 Composition/Song Writing (2 credits)  
MUSC 232 Introduction to Conducting II (1 credit)  
MUSC 260 Fundamentals of Musicianship in Popular Music (4 credits)  
MUSC 281 Introduction to Accompanying (2 credits)  
MUSC 308 Pedagogy and Literature for Music Performers I (2 credits)  
MUSC 309 Pedagogy and Literature for Music Performers II (2 credits)  
MUSC 340 Theory Elective: Topics (2 credits)  
MUSC 354 Advanced Conducting and Materials: Instrumental Conc. (2 credits)  
MUSC 355 Advanced Conducting and Materials: Vocal Concentration (2 credits)  
MUSC 360 History of Music Industry and Music Careers (4 credits)

**Allied requirements**

PHYS 105 Musical Acoustics (4 credits)  
Four credits in Art History or Theater

**Major in Music – Liturgical Music (B.A.)**

Note: This concentration is available only to students whose principal instrument is voice, keyboard, guitar, or by special permission of the chair.

MUSC 001 Student Convocation Hour (6 semesters) (0 credits)  
MUSC 101 Piano Skills I (1 credit)  
MUSC 102 Piano Skills II (1 credit)  
MUSC 113 Music Theory I (4 credits)  
MUSC 114 Music Theory II (4 credits)  
MUSC 140 Music Media (2 credits)  
MUSC 201 Piano Skills III (1 credit)  
MUSC 202 Piano Skills IV (1 credit)  
MUSC 213 Music Theory III (4 credits)  
MUSC 214 Music Theory IV (4 credits)  
MUSC 231 Introduction to Conducting I (1 credit)  
MUSC 232 Introduction to Conducting II (1 credit)  
MUSC 302 Introduction to Liturgical Music (2 credits)  
MUSC 355 Advanced Conducting and Materials: Vocal Concentration (2 credits)  
MUSC 411 History and Literature of Music I (4 credits)  
MUSC 412 History and Literature of Music II (4 credits)  
MUSN 1xx Eight semesters of Ensemble participation (0 credits)

Guidelines for choosing an ensemble:

If principal instrument is:

Piano - one semester in MUSN 171; one semester in MUSN 172; six semesters in MUSN 143.

Voice – a minimum of six semesters in MUSN 143. The remaining two semesters may be in MUSN 140, 142, 143, or 160.

Guitar – Six semesters in MUSN 143 and two semesters in MUSN 173

Other – a minimum of six semesters in ensemble chosen by consultation with the chair.

MUSP 103 Skills for Piano Proficiency (0 credits) - Piano Majors Only  
MUSP 2xx Performance Studies (8 semesters) (1 credit each 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)

*Plus four semesters (if principal instrument is not voice) (1 credit each semester)*

MUSP 133 Voice: Elective

**Allied requirements**

THEO 101 Christian Theological Tradition (4 credits)

*Plus four credits from the following:*

THEO 205 Old Testament (4 credits)

THEO 210 New Testament (4 credits)

*Plus four credits from the following:*

THEO 310 Christian Worship (4 credits)

THEO 313 Christian Sacramentality (4 credits)

*Plus four credits from the following:*

THEO 430 Music and the Bible (4 credits)

THEO 357 Sacred Music of the Catholic Heritage (4 credits)

*Plus:*

IDSC 478 Experiential Learning (4 credits)

PHYS 105 Musical Acoustics (4 credits)

*Plus four credits from the following:*

ARTH 280 Sacred Architecture and Space (4 credits)

ARTH 335 Cathedrals, Monasteries, and Caliphates (4 credits)

ARTH 340 Southern Renaissance Art and Society (4 credits)

ARTH 342 Renaissance and Reformation in Northern Europe (4 credits)

**Major in Music Business (B.A.)**

MUSC 001 Student Convocation Hour (6 semesters) (0 credits)

MUSC 101 Piano Skills I (1 credit)

MUSC 102 Piano Skills II (1 credit)

## Music

MUSC 113 Music Theory I (4 credits)  
MUSC 114 Music Theory II (4 credits)  
MUSC 133 Music of the United States: Aural and Written Traditions (2 credits)  
MUSC 140 Music Media (2 credits)  
MUSC 160 Introduction to Music Business (4 credits)  
MUSC 231 Introduction to Conducting I (1 credit)  
MUSC 233 Music of the World: Aural and Written Traditions (4 credits)  
MUSC 260 Fundamentals of Musicianship in Popular Music (4 credits)  
MUSC 360 History of Music Industry and Music Careers (4 credits)  
MUSC 480 Music Business Seminar (4 credits)  
MUSN 1xx Six semesters of Ensemble participation (0 credits)  
Guidelines for Choosing an Ensemble:  
If principal instrument is:  
Piano - at least two semesters in MUSN 171; at least two semesters in MUSN 172; at least two semesters in one of: MUSN 140, 142, 143, 160, 181, 185, 186, 190; two semesters may be in MUSN 161, 182, 183.  
Voice - a minimum of six semesters in MUSN 140, 142, 143, or 160.  
Woodwind, Brass or Percussion - at least six semesters in MUSN 185 or 186.  
Orchestral String - at least six semesters in MUSN 181.  
Guitar - at least four semesters in MUSN 173; at least two semesters in MUSN 174.  
Other Instruments - at least six semesters in ensemble chosen in consultation with the chair.  
MUSP 2xx Six semesters of performance studies in the same performance medium (1 credit per semester)  
MUSR 200 Piano Proficiency (0 credit)  
MUSR 270 Level I Recital (0 credit)  
MUSR 350 Level II Recital (0 credit)

### Allied requirements

ECON 252 Principles of Microeconomics (4 credits) (Social Analysis Core)  
IDSC 475-77 Experiential Learning: Music Business Internship (2-4 credits)  
PHYS 105 Musical Acoustics (4 credits) (Lab Science Core)

### *Business Courses:*

ACCT 210 Introduction to Financial Accounting (4 credits)  
BUSN 200 Business Learning Through Service (0 credits)  
FINC 300 Finance for Non-Business Majors (4 credits)  
MGMT 305 Management and Organizational Behavior (4 credits)  
MKTG 300 Principles of Marketing (4 credits)  
(additional business electives, for example advanced accounting, per student are optional)

### *Plus one of the following:*

BETH 301 Business Ethics (4 credits)  
BLAW 301 Legal Environment of Business (4 credits)  
ENTR 300 Entrepreneurship for Non-Business Majors (4 credits)

### **Minor in Music**

MUSC 113 Music Theory I (4 credits)  
MUSC 114 Music Theory II (4 credits)  
MUSC 115 Understanding Music and Culture (4 credits)  
MUSN 1xx Four semesters of appropriate Ensemble for principal instrument (1 credit per semester)  
MUSP 1xx Four semesters of performance studies in same performance medium (1 credit per semester)  
MUSR 270 Level I Recital (0 credits)

### *Plus four credits from the following:*

MUSC 216 Jazz in America (4 credits)  
MUSC 233 Music of the World: Aural and Written Traditions (4 credits)

### *Plus two credit hours selected from the following:*

MUSN 1xx Up to 2 semesters of appropriate Ensemble for principle instrument (1 credit per semester)  
MUSP 1xx Up to 2 semester of performance studies in any performance medium (1 credit per semester)  
MUSP 1xx Up to 2 credits on any secondary instrument or voice (1 credit per semester)  
MUSP 108 Class Voice (1 credit)  
Or any additional MUSC course not previously taken

### **Minor in Recording Arts**

MUSC 140 Music Media (2 credits)  
MUSC 160 Introduction to Music Business (4 credits)  
MUSC 161 Elements of Popular Music (4 credits)  
MUSC 205 Advanced Studio Recording (4 credits)  
MUSC 206 Advanced Location Recording (4 credits)

MUSC 224 Songwriting/Composition (2 credits)  
 MUSC 305 The Art of Mixing (4 credits)

### **Minor in Popular Music**

The Minor in Popular Music is designed to provide students performance experiences in popular music combined with an understanding of theoretical analysis, popular music history and development, songwriting, instrumental composition, arranging, and techniques in live studio recording.

MUSC 161 Elements of Popular Music (4 credits)  
 MUSC 224 Songwriting/Composition (2 credits)  
 MUSC 260 Fundamentals of Musicianship in Popular Music (4 credits)  
 MUSP 1xx Four semesters of performance studies (50-minute lessons) (1 credit per semester)  
 MUSR 270 Level 1 Recital (0 credit)

*Plus eight credits from the following:*

MUSC 130 Introduction to World Music (4 credits)  
 MUSC 140 Music Media (2 credits)  
 MUSC 162 The Roots of Blues, Rock and Country Music (4 credits)  
 MUSC 216 Jazz in America (4 credits)  
 MUSC 217 Music of the Americas (4 credits)  
 MUSC 218 Black American Music: A Historical Survey (4 credits)  
 MUSC 219 Music in the United States (4 credits)  
 MUSC 223 Arranging (2 credits)

*Plus four semesters in one or a combination of the following:*

MUSN 173 Guitar Ensemble (1 credit per semester)  
 MUSN 175 Popular Music Ensemble (1 credit per semester)  
 MUSN 182 Instrumental Jazz Ensemble (1 credit per semester)  
 MUSN 183 Jazz Singers (1 credit per semester)

### **Music Courses (MUSC)**

#### **MUSC 001 Student Convocation Hour (0 credit)**

The student convocation hour is for all music majors regardless of specialization. This course meets three times per semester for each semester of enrollment and gives the community of learners performance opportunities, lectures/discussions on topics applicable to all music concentrations, and lecture/discussions on topics specific to each music concentration.

#### **MUSC 101 Piano Skills I (1 credit)**

This course teaches the keyboard skills required for music majors whose principal instrument is not piano. It includes training in basic keyboard technique, sight reading, score reading, accompanying, transposing, playing by ear, harmonizing melodies, and making practical applications of music theory.

#### **MUSC 102 Piano Skills II (1 credit)**

This course teaches the keyboard skills required for music majors whose principle instrument is not piano. It includes training in basic keyboard techniques, sight reading, score reading, accompanying, transposing, playing by ear, harmonizing melodies, making practical applications of music theory, and the development of other skills studied in Piano Skills I.

#### **MUSC 113 Music Theory I (4 credits)**

This course, designed for those intending to major in music, covers basic materials and structures of music, approached through analysis and experience. This course is the first of a four-semester sequence that integrates sight-singing and ear training with the analysis of harmony, form and contrapuntal procedures from the 16th through the 20th centuries. Assignments include the development of compositional and arranging skills. Lecture plus 90 minutes laboratory per week. Offered fall semester.

#### **MUSC 114 Music Theory II (4 credits)**

Continuation of MUSC 113. Offered in spring semester.  
 Prerequisite: MUSC 113 or successful placement test

#### **MUSC 115 Understanding Music and Culture (4 credits) (MUSC 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, 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.

NOTE: Students who receive credit for MUSC 115 may not receive credit for MUSC 118 or 119.

#### **MUSC 120 Orchestral Literature (4 credits)**

This course presents an overview of orchestral and instrumental chamber music, combining a critical and historical

## Music

study of music with the regular experience of hearing live music. The course includes preparation for seven Thursday evening concerts at venues such as Orchestra Hall and the Ordway and elsewhere as well as in-class presentations that address critical listening skills, musical performance, and the creative process. Thursday class meetings designated as concert attendance sessions will necessarily convene later than the regular campus meeting times posted. Students will be expected to purchase their own tickets for admission to all required concert events (student discount prices will be available), and to arrange for transportation to concerts as part of the "Lab Fees" for this course. This course fulfills the Fine Arts requirement in the core curriculum.

### **MUSC 130 Introduction to World Music (4 credits)**

This course studies the phenomenon of music as an activity in people's lives. Students will be guided to think critically about music employing an anthropological and 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 from 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.

### **MUSC 133 Music of the United States: Aural and Written Traditions (2 credits)**

This course focuses on the study of U.S. music within its cultural context. The course, with its emphasis on listening, analysis, and vocabulary development will contain 1) music of aural traditions to include jazz, popular, and ethnic music and 2) music of written traditions to include art music and jazz.

### **MUSC 140 Music Media (2 credits)**

This course will serve to introduce first semester freshmen music majors to software, hardware, techniques and issues surrounding digital music media. Learners will engage in the retrieval, generation, and distribution of musical notation, digital recordings, and MIDI sequences.

### **MUSC 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.

### **MUSC 160 Introduction to Music Business (4 credits)**

This course provides an overview of the music industry, exploring and examining aspects of technology, economics, industry structures, marketing, audiences, and artistic innovations and trends. Students will begin exploring personal career interests.

### **MUSC 161 Elements of Popular Music (4 credits)**

This course will expose the student to the basic harmonic and rhythmic vocabulary used in popular music composition and explore analysis of modal and diatonic melodic content, upper structure harmony, and chord voicing. Further analysis of compositional techniques including form and style as employed by rock, blues, jazz, country, hip-hop, and pop will also be discussed. Additionally, this course will contain ear-training exercises designed for us in improvisation with the intent of providing the student with tools for musical composition. Topics include: scale and chord construction, rhythm applications, and analysis of song form.

### **MUSC 162 The Roots of Blues, Rock and Country Music (4 credits)**

This course examines the historical practices of these three important genres in American music by looking at their artistic and social functions in American society, their compositional intent, and the interactions between them.

### **MUSC 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. Offered fall semester of even years.

### **MUSC 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. Offered fall semester of even years.

### **MUSC 201 Piano Skills III (1 credit)**

This course teaches the keyboard skills required for music majors whose principal instrument is not piano. It includes training in basic keyboard technique, sight reading, score reading, accompanying, transposing, playing by ear, harmonizing melodies, and making practical applications of music theory, and the development of other skills in Piano Skills II.

### **MUSC 202 Piano Skills IV (1 credit)**

This course teaches the keyboard skills required for music majors whose principal instrument is not piano. It includes training in basic keyboard technique, sight reading, score reading, accompanying, transposing, playing by ear, harmonizing melodies, and making practical applications of music theory, and the development of other skills in Piano

Skills III.

**MUSC 205 Advanced Studio Recording (4 credits)**

This course will explore advanced recording techniques in a studio environment. Students will learn how to best record, manage, and edit studio recording sessions and projects. This course will meet off campus; students are required to provide their own transportation.

Prerequisite: MUSC 140

**MUSC 206 Advanced Location Recording (4 credits)**

This course will explore advanced recording techniques in a “live” or location context. Students will learn how to best record, manage, and edit a broad range of program material.

Prerequisite: MUSC 140

**MUSC 213 Theory III (4 credits)**

Continuation of MUSC 114. Offered in fall semester.

Prerequisite: MUSC 114 or successful placement test

**MUSC 214 Music Theory IV (4 credits)**

Continuation of MUSC 213. Offered in spring semester.

Prerequisite: MUSC 213 or successful placement test

**MUSC 216 Jazz in America (4 credits)**

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.

**MUSC 217 Music of the Americas (4 credits)**

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.

**MUSC 218 Black American Music: A Historical Survey (4 credits)**

An exploration of the components of Black American musical traditions from its West African and European roots to contemporary forms of expression in the United States. A primary goal of the course is to develop the student's understanding of how African Americans have used music to articulate issues of social justice, personal and community identity, and self-expression. In addition, students will learn to use musical terminology toward describing how a musical work, genre, or body of repertoire reflects significant historical events and perspectives of human societies past and present. Some coursework will require attendance at a variety of events and concerts off campus that relate to the course topics. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

**MUSC 219 Music in the United States (4 credits)**

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 distinctive 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.

**MUSC 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.

Prerequisite: MUSC 150

**MUSC 223 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. Offered alternate semesters to MUSC 140 Music Media.

Prerequisite: MUSC 161

**MUSC 224 Songwriting/Composition (2 credits)**

This course presents the basic principles related to the composition of popular vocal and instrumental forms: lyric, melody, progression, and rhythm. Applications of these elements in Rock, Pop, Jazz, Blues, Hip-Hop, Christian, and Country are explored.

## Music

### MUSC 231 Introduction to Conducting I (1 credit)

This course includes basic conducting patterns and gestures, general knowledge of score types (choral, band, orchestral, etc.), score study and basic rehearsal planning. Practice in conducting small ensembles will be provided. Offered fall semester.

### MUSC 232 Introduction to Conducting II (1 credit)

This course includes basic conducting patterns and gestures, general knowledge of score types (choral, band, orchestral, etc.), score study and basic rehearsal planning. Practice in conducting small ensembles will be provided. Offered spring semester.

### MUSC 233 Music of the World: Aural and Written Traditions (4 credits)

This course studies music as a ritual activity among the peoples of the non-Western world. It employs an anthropological approach that analyzes music in cultural context rather than as an object of art. The musical and cultural activities of a diverse number of countries will be investigated each semester.

### MUSC 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. Offered in spring semester.

Prerequisite: MUSC 220

### MUSC 260 Fundamentals of Musicianship in Popular Music (4 credits)

This course is designed to give the student a working knowledge of the skills required for popular music improvisation and performance. Study will include practical application of the rhythm, melody, and harmony of all styles of popular music. Genres that will be examined include: rock, blues, jazz, hip-hop, country and pop. This course is open to all instrumentalists and singers.

### MUSC 281 Introduction to Accompanying (2 credits)

This course focuses on topics related to the accompanying of singers and solo instrumentalists.

### MUSC 295, 296 Topics (2 credits)

### MUSC 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### MUSC 302 Introduction to Liturgical Music (2 credits)

Introduction to Liturgical Music is a study of instructions and guidelines for music in divine worship, and a survey of repertoire appropriate for use in liturgical celebrations.

### MUSC 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.

### MUSC 305 The Art of Mixing (4 credits)

This course will be an in depth exploration of mixing music in a studio environment. Students will begin to master digital plug-ins such as equalization, reverb, delay, compression, and other advanced mixing techniques currently used in commercial music.

Prerequisite: MUSC 205

### MUSC 308 Pedagogy and Literature for Music Performers I (2 credits)

Cross-listed with EDUC 308:

Section 1: Voice

Section 2: Keyboard

Section 3: Guitar

Section 4: Winds/Percussion/Brass

This class will survey methods and materials for performance studies. Discussions will include principles of technique, learning theories, musicianship, and performance based upon a wide and diverse body of literature. Students should sign up for the section number that corresponds with their primary area of performance.

### MUSC 309 Pedagogy and Literature for Music Performers II (2 credits)

Cross-listed with EDUC 309:

Section 1: Voice

Section 2: Keyboard

Section 3: Guitar

Section 4: Winds/Percussion/Brass

All 4 sections will meet concurrently.

A continuation of Pedagogy and Literature for Music Performers I, this class will survey methods and materials for performance studies. Discussions will include principles of technique, learning theories, musicianship, and performance based upon a wide and diverse body of literature. Students should sign up for the section number that corresponds with their primary area of performance.

Prerequisite: EDUC 308/MUSC 308

**MUSC 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 a diverse array of cultures.

**MUSC 340 Theory Elective: Topics (2 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**MUSC 341 Theory Elective: Musicianship Pedagogy for Music Educator (2 credits)**

Study and practical application of historical pedagogic systems for teaching melody, rhythm, form, and harmony, using moveable-do tonic solfège and rhythm syllables. Analysis of small forms in pentatonic, diatonic, and modal systems. Rhythmic and melodic improvisation and composition in question-answer, strophic, ABA, rondo forms. Offered spring semester of odd numbered years.

**MUSC 354 Advanced Conducting and Materials: Instrumental Concentration (2 credits)**

Advanced Conducting and Materials: Instrumental Concentration: Continuation of Introduction to Conducting I and II. Study of advanced conducting patterns and refined expressive gestures. Survey of orchestral and band literature and in-depth study of selected pieces. Rehearsal planning, rehearsal techniques, and classroom management. Offered fall semester of even years.

Prerequisite: MUSC 232

**MUSC 355 Advanced Conducting and Materials: Vocal Concentration (2 credits)**

Continuation of Introduction to Conducting I and II. Study of advanced conducting patterns and refined expressive gestures. Survey of choral literature and in-depth study of selected pieces. Rehearsal planning, rehearsal techniques, and classroom management. Offered fall semester of even years.

Prerequisite: MUSC 232

**MUSC 360 History of Music Industry and Music Careers (4 credits)**

Focusing on Western music (classical, popular, jazz, rock, folk, and other genres), this course explores the historical context of the music industry from a social and cultural perspective, along with the career development and opportunities of professional musicians within it, from about 1600 to the present day.

Prerequisite: MUSC 160 or permission of instructor.

**MUSC 411 History and Literature of Music I (4 credits)**

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. Students must be at junior-level standing and have passed at least Theory II before enrolling in this course. Offered in fall semester.

**MUSC 412 History and Literature of Music II (4 credits)**

A survey of Western European music from 1800 to the present: the Romantic period and the twentieth century. This course includes traditional music of the world and selected American popular styles. Emphasis is on social context and issues of meaning and expression. Continuation of MUSC 411. Students must be at junior-level standing and have passed at least Theory II before enrolling in this course. Offered in spring semester.

**MUSC 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: 114

**MUSC 420 Senior Research Paper (2 credits)**

This course allows music students to demonstrate research and writing skills by utilizing standard music resources (Music Index, RILM, Grove, Baker's, etc.). The paper may contain theoretical analysis, and/or it may be connected to the student's performance area or degree focus

Prerequisite: MUSC 412.

**MUSC 475, 476 Experiential Learning (2 credits)**

**MUSC 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**MUSC 480 Music Business Seminar (4 credits)**

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



## Music

under the direction of a faculty coordinator. A major research project is required.

Prerequisite: At least Junior standing

**MUSC 483, 484 Seminar (2 credits)**

**MUSC 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**MUSC 487, 488 Topics (2 credits)**

**MUSC 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**MUSC 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**MUSC 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “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: MUSN 140, 142, 143, 160, 185, 186. A total of four semesters in MUSN 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.

See specific ensemble requirements for various music major emphases in the first part of the music section of this catalog, or consult the *Handbook for Music Majors and Minors* available from the Department of Music office. Music majors audit all ensembles.

#### MUSN 140 Women’s Choir (0-1 credit)

A vocal ensemble that explores the wide variety of secular and sacred repertoire composed for women’s voices. Major performances are given each semester and may include exchange/joint concerts with other choirs. Two rehearsals a week. Membership by audition. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.

#### MUSN 142 Chamber Singers (0-1 credit)

A mixed vocal ensemble of 30-40 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.

#### MUSN 143 Liturgical Choir (0-1 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 fulfill the Fine Arts requirement in the core curriculum.

#### MUSN 151 Schola Cantorum (0-1 credit)

This vocal ensemble focuses primarily on early Plainchant from the Gregorian chant tradition as well as contemporary 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.

#### MUSN 160 Concert Choir (0-1 credit)

A mixed vocal ensemble that performs a variety of secular and sacred repertoire from the Middle Ages to the 21<sup>st</sup> 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.

#### MUSN 161 String Ensemble (0-1 credit)

Ensemble meets weekly and are conducted by a member of the string faculty. Membership by audition.

#### MUSN 162 Flute Ensembles (0-1 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.

**MUSN 163 Clarinet Ensembles (0-1 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.

**MUSN 164 Saxophone Ensembles (0-1 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.

**MUSN 165 Chamber Wind Ensemble (0-1 credit)**

Formation of mixed woodwinds, brass and percussion. Ensembles meet once a week and are conducted by a member of the faculty. Membership by audition.

**MUSN 166 Brass Choir (0-1 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.

**MUSN 167 Percussion Ensembles (0-1 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.

**MUSN 169 African Music Ensemble (0-1 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.

**MUSN 170 Handbell Choir (0-1 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.

**MUSN 171 Piano Ensembles (0-1 credit)**

Study and performance of duets and two-piano music. One major performance per semester. Membership by audition.

**MUSN 172 Accompanying Ensembles (0-1 credit)**

Qualified pianists have the opportunity to accompany solo vocalists and solo instrumentalists through individual instruction. Membership by audition.

**MUSN 173 Guitar Ensemble (0-1 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. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.

**MUSN 174 Guitar Small Ensemble (0-1 credit)**

The study and performance of all styles in popular and classical music for guitar and diverse instruments, including bass and drums.

**MUSN 175 Popular Music Ensemble (0-1 credit)**

This course provides individual coaching for small ensembles on the performance of all genres and types of American popular music.

**MUSN 181 Orchestra (0-1 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.

**MUSN 182 Instrumental Jazz Ensemble (0-1 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.

**MUSN 183 Jazz Singers (0-1 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.

**MUSN 185 Symphonic Band (0-1 credit)**

Study and performance of original works for wind-band; transcriptions, manuscripts, and solo repertoire with band

## Music

accompaniment. Two rehearsals per week; regular series of concerts, tours. Private lessons recommended. Membership by audition. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.

### **MUSN 186 Symphonic Wind Ensemble (0-1 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 symphonic 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 two times a week. Membership by audition. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.

### **MUSN 190 Music Theater Production (0-1 credit)**

Musical and dramatic preparation of a musical show or opera, leading to complete performance with costumes, set and orchestra. Participation by audition.

### **MUSN 191 Music Theater Scenes (0-1 credit)**

Musical and dramatic preparation of scenes from musical shows or operas. An informal performance may be presented. Participation by audition.

### **MUSN 196 Topics Ensembles (0-1 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. 30-minute or 50-minute lessons. 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.

### **MUSP 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 six students and meet for an hour each week. This course may be repeated.

### **MUSP 103 Skills for Piano Proficiency (piano majors) (0 credit)**

This course is designed to prepare students for the piano proficiency exam required of music majors whose principal instrument is piano.

### **MUSP 108 Class Voice (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.

### **MUSP 110 Digital Music Lessons (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

### **MUSP 121 Harpsichord: elective (1 credit)**

### **MUSP 122 Lute: elective (1 credit)**

### **MUSP 128 Recorder: elective (1 credit)**

### **MUSP 131 Piano: elective (1 credit)**

### **MUSP 133 Voice: elective (1 credit)**

### **MUSP 135 Organ: elective (1 credit)**

MUSP 136 Flute: elective (1 credit)

MUSP 137 Oboe: elective (1 credit)

MUSP 138 Clarinet: elective (1 credit)

MUSP 139 Bassoon: elective (1 credit)

MUSP 141 Saxophone: elective (1 credit)

MUSP 144 Trumpet: elective (1 credit)

MUSP 145 French horn: elective (1 credit)

MUSP 146 Trombone: elective (1 credit)

MUSP 147 Euphonium: elective (1 credit)

MUSP 148 Tuba: elective (1 credit)

MUSP 149 Percussion: elective (1 credit)

MUSP 152 Jazz/Pop Vocal: elective (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.

MUSP 153 Jazz Piano: elective (1 credit)

Individual studies with a jazz pianist, developing jazz style and working on improvisation.

Prerequisite: Some facility on the piano.

MUSP 154 Violin: elective (1 credit)

MUSP 155 Viola: elective (1 credit)

MUSP 156 Cello: elective (1 credit)

MUSP 157 Double Bass: elective (1 credit)

MUSP 158 Guitar: elective (1 credit)

Students will study all styles of music including classical, blues, rock, folk and others on acoustic, nylon and electric guitars. Topics include all forms of notation (standard, tab, chord symbols, etc.), improvisation and performance practice.

MUSP 159 Harp: elective (1 credit)

MUSP 165 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.

Prerequisite: MUSC 114 and permission of instructor

MUSP 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.

MUSP 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 .

MUSP 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. Students pursuing major in music, music business, or liturgical music should register for 2xx level lessons. Students pursuing a major in music education or performance should register for 3xx level lessons. 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

## Music

studies. See the current Handbook for Music Students.

MUSP 221 Harpsichord: performance (1 credit)

MUSP 231 Piano: performance (1 credit)

MUSP 233 Voice: performance (1 credit)

MUSP 235 Organ: performance (1 credit)

MUSP 236 Flute: performance (1 credit)

MUSP 237 Oboe: performance (1 credit)

MUSP 238 Clarinet: performance (1 credit)

MUSP 239 Bassoon: performance (1 credit)

MUSP 241 Saxophone: performance (1 credit)

MUSP 244 Trumpet: performance (1 credit)

MUSP 245 French horn: performance (1 credit)

MUSP 246 Trombone: performance (1 credit)

MUSP 247 Euphonium: performance (1 credit)

MUSP 248 Tuba: performance (1 credit)

MUSP 249 Percussion: performance (1 credit)

MUSP 254 Violin: performance (1 credit)

MUSP 255 Viola: performance (1 credit)

MUSP 256 Cello: performance (1 credit)

MUSP 257 Double Bass: performance (1 credit)

MUSP 258 Guitar: performance (1 credit)

MUSP 259 Harp: performance (1 credit)

MUSP 321 Harpsichord: performance (2 credits)

MUSP 331 Piano: performance (2 credits)

MUSP 333 Voice: performance (2 credits)

MUSP 335 Organ: performance (2 credits)

MUSP 336 Flute: performance (2 credits)

MUSP 337 Oboe: performance (2 credits)

MUSP 338 Clarinet: performance (2 credits)

MUSP 339 Bassoon: performance (2 credits)

MUSP 341 Saxophone: performance (2 credits)

MUSP 344 Trumpet: performance (2 credits)

MUSP 345 French horn: performance (2 credits)

MUSP 346 Trombone: performance (2 credits)

MUSP 347 Euphonium: performance (2 credits)

MUSP 348 Tuba: performance (2 credits)

MUSP 349 Percussion: performance (2 credits)

MUSP 354 Violin: performance (2 credits)

MUSP 355 Viola: performance (2 credits)

MUSP 356 Cello: performance (2 credits)

MUSP 357 Double Bass: performance (2 credits)

MUSP 358 Guitar: performance (2 credits)

### 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.

#### MUSR 200 Piano Proficiency (0 credit)

Required of all majors, piano proficiency should be completed by the end of the last semester of Piano Skills study. See the *Handbook for Music Students* for specific details of the proficiency examination.

#### MUSR 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.

#### MUSR 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: MUSR 270

#### MUSR 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.

#### MUSR 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: MUSR 350

## Neuroscience

College of Arts and Sciences, Interdisciplinary Program

John Roach Center for the Liberal Arts (JRC) LL56, (651) 962-5030

Illig (BIOL); Kay (BIOL); Prichard (PSYC); Robinson-Riegler (PSYC); Wolfe (PSYC)

Neuroscience is an interdisciplinary major that focuses on understanding nervous systems, neural processing, thought, and behavior. Training in neuroscience requires a broad foundation in both the natural sciences and in psychology. The major requires students to complete foundational courses in biology and psychology, and allows students flexibility at the upper level by encouraging further specialization in either discipline, or developing a broader perspective by taking a breadth of allied electives. Students completing this major should be well-prepared for graduate study in neuroscience or in related disciplines. Students choosing this major may not take a second major or minor in either biology or psychology.

### Neuroscience Honor Society

*Nu Rbo Psi*, the national Neuroscience Honor Society encourages professional interest and excellence in scholarship, particularly in neuroscience. The St. Thomas chapter was established in 2007. Students who have a 3.2 or higher overall grade point average and a 3.5 or higher grade point average in specific neuroscience courses are eligible to apply. For more information, go to [www.stthomas.edu/neuroscience/clubs/default.html](http://www.stthomas.edu/neuroscience/clubs/default.html).

### Major in Neuroscience (B.S.)

*Required Foundational Courses (8 courses, 32 credits):*

BIOL 201 Diversity & Adaptation (4 credits)

BIOL 202 Genetics Evolution and Ecology (4 credits)

CHEM 111 General Chemistry I (4 credits) *and* CHEM 112 General Chemistry II (4 credits)

*or* CHEM 115 Accelerated General Chemistry (4 credits)

CHEM 201 Organic Chemistry 1 (4 credits)

STAT 220 Statistics 1 (4 credits)

MATH 113 Calculus 1 (4 credits) *or* MATH 109 Calculus with review II (4 credits)

PSYC 111 General Psychology (4 credits)

## Neuroscience

*Plus Neuroscience Core Courses (4 courses, 16 credits):*

*Required courses:*

BIOL 204 Cellular and Molecular Biology (4 credits)  
PSYC 212 Research Methods (4 credits)

*Plus eight credits from the following:*

BIOL 330 Animal Behavior (4 credits)  
BIOL 354 Neurobiology (4 credits)  
PSYC 401 Physiological Psychology (4 credits)

*Plus Electives (5 courses, 20 credits):*

Students should, in consultation with their adviser, choose five additional elective courses that reflect the students' academic or professional goals. Students must take at least two courses from each of the biology and psychology lists.

**Biology Electives:**

BIOL 330 Animal Behavior (4 credits)  
BIOL 349 Anatomy & Physiology I (4 credits)  
BIOL 350 Anatomy & Physiology II (4 credits)  
BIOL 353 Microscopic Anatomy (4 credits)  
BIOL 354 Neurobiology (4 credits)  
BIOL 360 Genetics (4 credits)  
BIOL 365 Development Biology (4 credits)  
BIOL 371 Cell Biology (4 credits)  
BIOL 398 Immunology (4 credits)

**Psychology Electives:**

PSYC 206 The Brain and Human Behavior (4 credits)  
PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)  
PSYC 301 Psychopathology (4 credits)  
PSYC 315 Cognition (4 credits)  
PSYC 322 Sensation and Perception (4 credits)  
PSYC 323 Learning and Memory (4 credits)  
PSYC 401 Physiological Psychology (4 credits)  
PSYC 407 Seminar in Behavioral Neuroscience (4 credits)

**Allied Electives:**

CHEM 202 Organic Chemistry II (4 credits)  
CHEM 440 Biochemistry I (4 credits)  
CHEM 442 Biochemistry II (4 credits)  
CISC 230 Object-Oriented Design and Programming (4 credits)  
CISC 440 Artificial Intelligence and Robots (4 credits)  
MATH 114 Calculus II (4 credits)  
PHYS 109 General Physics I (4 credits) *or* PHYS 111 Introduction to Classical Physics I (4 credits)  
PHYS 110 General Physics II (4 credits) *or* PHYS 112 Introduction to Classical Physics II (4 credits)

*Plus Capstone Experience courses (1 course, 4 credits):*

**Capstone Courses:**

PSYC 415 Research Issues in Cognition (4 credits)  
BIOL 462 Molecular Biology (4 credits)  
BIOL 486 Seminar in Physiology (4 credits)  
BIOL 490 Topics: Bioninformatics (4 credits)  
BIOL 4xx Seminar in Neuroscience (4 credits)  
PSYC 4xx Seminar in Neuroscience (4 credits)

## Philosophy (PHIL)

College of Arts and Sciences, Department of Philosophy  
John Roach Center for the Liberal Arts (JRC) 241, (651) 962-5350  
Menssen (chair), Atkinson, Clemenson, Coulter, Deavel, Degnan, Frost, Giebel, Grant, Heaney, Kemp, Kronen, Laumakis, Lemmons, Lu, Pawl, Rosato, Rota, Stoltz, Sullivan, Toner, van Ingen, Winter

Philosophy engages questions such as:

- Is the human mind just a very complicated machine?
- Can we have free will if the mind is a machine?
- Must we have free will in order for life to be meaningful?

- What makes an act moral or immoral?
- When, if ever, can a government mandate moral acts or outlaw immoral acts?
- Is it ever permissible to start a war with a preemptive strike?
- Is the design in the world evidence that there is a God?
- Do the world's evils show that a good God cannot exist?
- What is the role of philosophy in dealing with questions about God?
- What is knowledge?
- Can we know anything with certainty?
- Are warrants for knowledge relative to particular cultures?

Philosophy considers these questions, and countless others, from the standpoint of human reason and experience. It emphasizes precise and careful argument, and sharpens your thinking skills.

The philosophy program at St. Thomas will introduce you to distinguished philosophical work over the centuries and into our own time. While attending carefully to philosophers whose works are foundational to the Catholic intellectual tradition, particularly Aristotle and Aquinas, the program is committed to broad integration of our understanding of reality. As you work to construct a philosophical worldview you will engage a variety of traditions, including non-Western, and confront questions prompted by the study of such subjects as the natural and social sciences, mathematics, medicine, business, law, theology, the fine arts, and literature.

### **Major in Philosophy**

PHIL 115 Philosophy of the Human Person (4 credits)

PHIL 214 Introductory Ethics (4 credits)

PHIL 220 Logic (4 credits)

*Plus eight credits in the history of philosophy*

Four credits in classical Western philosophy

PHIL 200 Ancient Philosophy (4 credits)

PHIL 202 Medieval Philosophy (4 credits)

PHIL 340 Thought of Thomas Aquinas (4 credits)

or another course approved by the department

Four credits in an elective in the history of philosophy

PHIL 200 Ancient Philosophy (4 credits)

PHIL 202 Medieval Philosophy (4 credits)

PHIL 204 Modern Philosophy (4 credits)

PHIL 208 Indian Philosophy (4 credits)

PHIL 210 Chinese Philosophy (4 credits)

PHIL 306 Contemporary Philosophy (4 credits)

PHIL 340 Thought of Thomas Aquinas (4 credits)

PHIL 353 Machiavelli, Hobbes, and Nietzsche (4 credits)

or another course approved by the department

*Plus:*

Twelve credits at the 300-level or above, including four credits at the 400-level (all 400-level courses require public presentation of a paper)

*Plus:*

Additional coursework in Philosophy to bring the total number of credits in philosophy either to forty-four (for single majors) or thirty-six (for double or triple majors).

### **Minor in Philosophy**

PHIL 115 Philosophy of the Human Person (4 credits)

PHIL 214 Introductory Ethics (4 credits)

*Plus:*

Twelve additional credits in philosophy. It is recommended that minors take PHIL 220 Logic (4 credits).

### **PHIL 115 Philosophy of the Human Person (4 credits)**

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.

**PHIL 200 Ancient Philosophy (4 credits)**



## Philosophy

A survey of the roots of philosophical inquiry in the classical period. The pre-Socratics, Plato, and Aristotle.  
Prerequisite: PHIL 115

### PHIL 202 Medieval Philosophy (4 credits)

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.  
Prerequisite: PHIL 115

### PHIL 204 Modern Philosophy (4 credits)

An examination of major philosophers of the early modern period from René Descartes to Immanuel Kant, with emphasis on methodology and claims to knowledge.  
Prerequisite: PHIL 115

### PHIL 208 Indian Philosophy (4 credits)

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. This course fulfills the Human Diversity requirement in the core curriculum.  
Prerequisite: PHIL 115

### PHIL 210 Chinese Philosophy (4 credits)

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. This course fulfills the Human Diversity requirement in the core curriculum.  
Prerequisite: PHIL 115

### PHIL 214 Introductory Ethics (4 credits) (PHIL 215)

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. The Aristotelian-Thomistic tradition receives special consideration. This course, with PHIL 115, fulfills the Moral and Philosophical Reasoning requirement in the core curriculum.  
Prerequisite: PHIL 115

NOTE: Students who receive credit for PHIL 214 may not receive credit for PHIL 215.

### PHIL 215 Introductory Ethics: East and West (4 credits) (PHIL 214)

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, a study-abroad version of PHIL 214 taught in locations that foster the study of Eastern thought, focuses on similarities and differences between important Eastern and Western ethical theories. Eastern theories may include Confucian, Hindu, Buddhist, or Taoist accounts of ethics. Among Western accounts the Aristotelian-Thomistic tradition receives special consideration. This course with PHIL 115 fulfills the Moral and Philosophical Reasoning requirement in the core curriculum. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: PHIL 115

NOTE: Students who receive credit for PHIL 215 may not receive credit for PHIL 214.

### PHIL 220 Logic (4 credits)

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 philosophical discourse.

Prerequisite: PHIL 115

### PHIL 234 Love, Sex and Friendship (4 credits) (equivalent to 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: PHIL 115

### PHIL 240 Faith and Doubt (4 credits) (equivalent to 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: PHIL 115

### PHIL 250 Christian Mysteries from a Philosophical Viewpoint (4 credits) (equivalent to 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: PHIL 115

**PHIL 272 Evolution and Creation (4 credits) (equivalent to 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: PHIL 115

**PHIL 295, 296 Topics (2 credits)**

**PHIL 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**PHIL 306 Contemporary Philosophy (4 credits)**

An investigation of major philosophical problems from the late nineteenth century to the present, with a focus on prominent philosophers and diverse traditions.

Prerequisite: PHIL 220

**PHIL 320 Aristotelian Logic (4 credits)**

A study of Aristotle's *Organon*, covering such topics as the categories, the nature of propositions, and forms of argument. Emphasis on demonstration (proof of necessary truths) and its distinction from dialectical reasoning. Applications to philosophical texts.

Prerequisite: PHIL 220

**PHIL 325 Intermediate Symbolic Logic (4 credits)**

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: PHIL 220

**PHIL 330 Philosophy of Mind (4 credits)**

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; and personal identity. Attention will be given to both the Aristotelian/Thomistic tradition and contemporary philosophy.

Prerequisites: PHIL 115; and 220 or permission of instructor

**PHIL 335 Aesthetics (4 credits)**

This course addresses philosophical questions that arise in connection with art and aesthetic experience. Possible topics include: the nature of beauty, artistic representation, aesthetic properties, and the relationship between art and insight, between art and emotion, between art and morality, and between art and religious experience.

Prerequisite: PHIL 115 and one other PHIL course

**PHIL 340 Thought of Thomas Aquinas (4 credits)**

An examination of some major topics in the philosophy of Thomas Aquinas's. Possible topics include: Aquinas' conception of philosophy and its relation to faith; God; and the destiny of the human being.

Prerequisite: PHIL 115 and one other PHIL course

**PHIL 350 Advanced Ethical Theory (4 credits)**

An advanced treatment of central aspects in ethical theory. Possible topics include metaethical issues (e.g. the is/ought problem, moral realism, naturalism) and the justification of normative theories (e.g., eudaimonism, deontology, consequentialism).

Prerequisite: PHIL 214 or 215

**PHIL 353 Machiavelli, Hobbes, and Nietzsche (4 credits)**

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: PHIL 214 or 215

**PHIL 354 Biomedical Ethics (4 credits)**

An investigation of ethical problems in medicine and biological technology. Possible topics include: genetic engineering, experimentation with human subjects, the right to health care, and the concept of mental illness.

Prerequisite: PHIL 214 or 215

**PHIL 356 Contemporary Social Issues (4 credits)**

An investigation into conceptions of the human person, ethics, and the law related to current issues with public policy implications. Issues chosen at the discretion of the instructor.

Prerequisite: PHIL 214 or 215

## Philosophy

### PHIL 357 Political Philosophy (4 credits)

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.

Prerequisite: PHIL 214 or 215

### PHIL 358 Environmental Ethics (4 credits) (equivalent to 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.

Prerequisites: PHIL 214 or 215; and ENVR 151 (ENVR 151 is waived for philosophy majors and minors)

### PHIL 359 Philosophy of Law (4 credits)

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, and the principles of legal interpretation and reasoning. Attention will be given to both classical and contemporary authors.

Prerequisite: PHIL 214 or 215

### PHIL 360 Philosophy of Religion (4 credits)

Western and non-Western philosophical arguments concerning the nature and justifying bases of religious belief, with special attention to the philosophical implications of religious pluralism.

Prerequisites: PHIL 115 and one other PHIL course

### PHIL 365 Natural Philosophy and Metaphysics (4 credits)

This course examines central topics in the philosophy of nature and in metaphysics. Possible topics include substance and accident, change and the conditions of substantial generation, matter and form, causality, necessity and possibility, time and persistence through time, universals and particulars, essence and existence, and the transcendentals (unity, truth, goodness, beauty). Attention will be paid both to classical and to contemporary authors.

Prerequisite: PHIL 220 and one other PHIL course

### PHIL 380 Epistemology (4 credits)

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.

Prerequisite: PHIL 220

### PHIL 385 Philosophy of Science (4 credits)

This course examines central topics in the philosophy of science. Possible topics include scientific explanation, realism and the nature of scientific theories, reductionism in science, and the nature of scientific change.

Prerequisite: PHIL 115; and PHIL 220 or consent of instructor. The prerequisite of PHIL 220 may be waived for science or math majors or minors.

### PHIL 398 Topics (4 credits)

The subject matter of the courses taught under PHIL 398 will vary from year to year, but will not duplicate existing courses. Descriptions of the courses are available from the philosophy department, and in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

Prerequisite: at least two philosophy courses (prerequisites may be further specified; see individual course descriptions).

### PHIL 410 Colloquium: Philosophical Research (4 credits)

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: PHIL 214 or 215; and 220

### PHIL 460 Philosophy of God (4 credits)

Systematic treatment of philosophical arguments concerning the existence and attributes of God.

Prerequisites: PHIL 220 and 365

### PHIL 475, 476 Experiential Learning (2 credits)

### PHIL 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### PHIL 483, 484 Seminar (2 credits)

### PHIL 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

PHIL 487, 488 Topics (2 credits)

PHIL 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

PHIL 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

PHIL 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## Physical Education

See Health and Human Performance

## Physics (PHYS)

College of Arts and Sciences, Department of Physics

Owens Science Hall (OWS) 153, (651) 962-5214

Johnston (chair), Green, Jalkio, Lopez del Puerto, Ohmann, Ruch; Blilie, Koser, Thomas

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.

For students interested in teacher licensure, see the various combinations of science education in the School of Education Department of Teacher Education in this catalog.

The department offers courses for non-majors to fulfill the laboratory science component of the core curriculum.

### Graduation with Honors in Physics

Students graduating with a B.A. or B.S. degree in physics may also qualify for departmental honors. Students interested in this designation must consult with the department chair one year or more before graduation. All requirements must be met one month before graduation.

1. Complete four credits in 400-level physics research or the equivalent research experience
2. Prepare a written thesis in the format of primary literature
3. Defend the thesis before a panel composed of:
  - thesis director (chair of committee)
  - two additional UST physics faculty
  - one UST faculty member outside of physics
4. Achieve a final cumulative grade point average in physics department courses of 3.50 and 3.50 overall
5. Present their research at a scientific meeting beyond the St. Thomas community

### Major in Physics (B.S.)

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

PHYS 215 Foundations of Modern Physics: From the Atom to the Big Bang (4 credits)

PHYS 225 Applications of Modern Physics: From the Atom to the Diode (4 credits)

PHYS 323 Methods of Experimental Physics (4 credits)

PHYS 331 Theoretical Mechanics (4 credits)

PHYS 341 Electricity and Magnetism (4 credits)

PHYS 347 Optics (4 credits)

PHYS 410 Statistical Mechanics and Thermodynamics (4 credits)

PHYS 431 Quantum Mechanics (4 credits)

*Plus:*

four PHYS credits 104 or greater

### Allied requirements

MATH 113 Calculus I (4 credits)

## Physics

MATH 114 Calculus II (4 credits)  
 MATH 200 Multi-Variable Calculus (4 credits)  
 MATH 210 Introduction to Differential Equations and Systems (4 credits)  
 MATH 240 Linear Algebra (4 credits)

*Plus:*

ENGR 350 Introduction to Electronics (4 credits)

*or*

ENGR 230 Digital Design (4 credits) *and* ENGR 240 Circuit Analysis (4 credits)

*Plus four credits from the following:*

CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) *or* either CISC 131 Introduction to Programming and Problem Solving (4 credits) *or* CISC 230 Object-Oriented Design and Programming (4 credits)

### **Major in Physics (B.A.)**

PHYS 111 Introduction to Classical Physics I (4 credits)  
 PHYS 112 Introduction to Classical Physics II (4 credits)  
 PHYS 215 Foundations of Modern Physics: From the Atom to the Big Bang (4 credits)  
 PHYS 225 Applications of Modern Physics: From the Atom to the Diode (4 credits)  
 PHYS 323 Methods of Experimental Physics (4 credits)

*Plus:*

four PHYS credits 104 or greater

eight PHYS credits above 301

#### **Allied requirements**

MATH 113 Calculus I (4 credits)  
 MATH 114 Calculus II (4 credits)  
 MATH 200 Multi-variable Calculus (4 credits)  
 MATH 210 Introduction to Differential Equations and Systems (4 credits)

*Plus either:*

ENGR 350 Introduction to Electronics (4 credits)

*or*

ENGR 230 Digital Design (4 credits) *and* ENGR 240 Circuit Analysis (4 credits)

*Plus four credits from the following:*

CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) *or either* CISC 131 Introduction to Programming and Problem Solving (4 credits) *or* CISC 230 Object-Oriented Design and Programming (4 credits)

*Note:* CISC 130 is recommended for this major

### **Pre-Engineering**

*See Pre-Professional 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) – Physics (9-12) and a Co-major in Secondary Education

*See Education*

### **Minor in Physics**

*Four credits from the following:*

PHYS 109 General Physics I (4 credits)  
 PHYS 111 Introduction to Classical Physics I (4 credits)

*Plus four credits from the following:*

PHYS 110 General Physics II (4 credits)  
 PHYS 112 Introduction to Classical Physics II (4 credits)

*Plus:*

twelve PHYS credits 104 or greater

### **PHYS 101 Physics as a Liberal Art (4 credits) (PHYS 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 meets three times a week for two

consecutive periods consisting of integrated 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. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered fall semester.

Prerequisite: Three years of high school mathematics

NOTE: Students who receive credit for PHYS 101 may not receive credit for PHYS 109 or 111.

#### **PHYS 104 Astronomy (4 credits)**

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. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered fall and spring semester

Prerequisite: Three years of high school mathematics

#### **PHYS 105 Musical Acoustics (4 credits)**

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 meets three times a week for two consecutive periods consisting of integrated lecture, discussion and laboratory. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning. Offered spring semester.

Prerequisites: High school algebra and a music background (one year practice, instrument or voice, or one course)

#### **PHYS 109 General Physics I (4 credits) (PHYS 111)**

This course and its continuation PHYS 110 serve as a two-semester introduction to classical and modern physics. Applications are chosen that focus on the life-sciences. Topics include principles of classical mechanics: description of motion, force, torque and rotational motion, energy, momentum and their conservation, fluid mechanics; thermodynamics. The course meets three times a week for two consecutive periods consisting of integrated lecture, discussion and laboratory. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered fall semester.

Prerequisite: Math placement at a level of MATH 111 or above.

NOTE: Students who receive credit for PHYS 109 may not receive credit for PHYS 111.

#### **PHYS 110 General Physics II (4 credits) (PHYS 112)**

Continuation of 109. Topics include oscillations, waves and sound, electricity and magnetism; light and optics; atomic, quantum and nuclear physics. The course meets three times a week for two consecutive periods consisting of integrated lecture, discussion and laboratory. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum. Offered spring semester.

Prerequisite: A minimum grade of C in PHYS 109 or 111

NOTE: Students who receive credit for PHYS 110 may not receive credit for PHYS 112.

#### **PHYS 111 Introduction to Classical Physics I (4 credits) (PHYS 109)**

This course and its continuation PHYS 112 serve as a two-semester introduction to classical physics. Applications are chosen that focus on engineering and the physical sciences. Topics include principles of classical mechanics: vectors, kinematics, particle and rigid body rotational dynamics and statics; conservation laws; and thermodynamics. The course meets three times a week for two consecutive periods consisting of integrated lecture, discussion and laboratory. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning. Offered fall and spring semester

Prerequisite: A minimum grade of C in MATH 113

NOTE: Students who receive credit for PHYS 111 may not receive credit for PHYS 109.

#### **PHYS 112 Introduction to Classical Physics II (4 credits) (PHYS 110)**

Continuation of PHYS 111. Topics include waves and sound; electricity and magnetism; geometric and physical optics. The course meets three times a week for two consecutive periods consisting of integrated lecture, discussion and laboratory. This course fulfills the core-area in natural science in the Natural Science and Mathematical and Quantitative Reasoning. Offered fall and spring semester.

Prerequisites: A minimum grade of C in both PHYS 111 and MATH 114

NOTE: Students who receive credit for PHYS 112 may not receive credit for PHYS 110.

#### **PHYS 215 Foundations of Modern Physics: From the Atom to the Big Bang (4 credits)**

This course connects the subatomic world of particle and nuclear physics to the evolution of the universe after the Big Bang through the study of relativity and the four fundamental forces of nature. The course consists of lecture, discussion and laboratory. Offered fall semester

Prerequisite: A minimum grade of C in either PHYS 110 or 112 and in MATH 114.

#### **PHYS 225 Applications of Modern Physics: From the Atom to the Diode (4 credits)**

This course investigates the quantum theory of light, wave-particle duality, quantum mechanics in one-dimension, statistical physics, lasers, and solid state physics. The course consists of lecture, discussion and laboratory.

## Physics

Prerequisites: A minimum grade of C in PHYS 112 and in MATH 200. Offered spring semester

### PHYS 295, 296 Topics (2 credits)

### PHYS 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### PHYS 323 Methods of Experimental Physics (4 credits)

Standard tools and techniques used in experimental physics are introduced while conducting an in-depth investigation of a non-linear system. Technical topics include: identifying and characterizing chaotic systems, data acquisition and instrument control using LabVIEW, signal conditioning, data and error analysis, and experimental design. This course consists of lecture, discussion and laboratory. Offered spring semester of odd-numbered years

Prerequisite: A minimum grade of C in PHYS 112 and MATH 200

### PHYS 331 Theoretical Mechanics (4 credits)

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. This course consists of lecture and discussion. Offered fall semester of odd-numbered years.

Prerequisites: A minimum grade of C in either PHYS 215 or 225 and in MATH 200 and MATH 210

### PHYS 341 Electricity and Magnetism (4 credits)

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. This course consists of lecture and discussion. Offered fall semester.

Prerequisites: A minimum grade of C in either PHYS 215 or 225 and in MATH 200 and MATH 210

### PHYS 342 Electromagnetic Waves (4 credits) (equivalent to ENGR 342)

A continuation of PHYS 341. An introduction to the practical applications of Maxwell's equations including propagation, reflection and absorption of electromagnetic waves. Applications include antennas, waveguides, transmission lines, and shielding from electromagnetic interference. This course consists of lecture and discussion. Offered spring semester.

Prerequisite: A minimum grade of C in PHYS 341

### PHYS 347 Optics (4 credits)

Foundations of geometric optics: Fermat's Principle of Stationary Time. Nature of electromagnetic waves: dipole radiation, energy, momentum, polarization, coherence, interference, diffraction, Fourier optics. Interactions between light and matter: scattering, reflection, refraction, absorption, dispersion, birefringence, dichroism, nonlinear effects. Quantum optics: nature of the photon, lasers, detectors, other modern topics. This course consists of lecture and laboratory. Offered fall semester.

Prerequisites: A minimum grade of C in PHYS 225, MATH 200, and MATH 210

### PHYS 410 Statistical Mechanics and Thermodynamics (4 credits)

Concepts and laws of thermodynamics and of statistical mechanics. Applications of these to various systems, including gases, liquids, solids and chemical systems. This course consists of lecture and discussion. Offered spring semester of even-numbered years.

Prerequisite: A minimum grade of C in PHYS 215, 225, and both MATH 200 and MATH 210

### PHYS 431 Quantum Mechanics (4 credits)

The foundation of Quantum Mechanics will be explored with mathematical rigor. Specific topics include the time-independent Schrödinger equation, the hydrogen atom, and angular momentum including spin. Discussion of identical particles will lead to an introduction of quantum statistical mechanics. This course consists of lecture and discussion. Offered spring semester of odd-numbered years.

Prerequisite: A minimum grade of C in PHYS 215, 225, MATH 200, 210, and 240

### PHYS 483, 484 Seminar (2 credits)

### PHYS 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### PHYS 487, 488 Topics (2 credits)

### PHYS 489, 490 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### PHYS 269, 389, 491 Research (2 or 4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### PHYS 243, 393, 495 Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## Political Science (POLS)

College of Arts and Sciences, Department of Political Science  
John Roach Center for the Liberal Arts (JRC) 432, (651) 962-5720  
Hoffman (chair), Buhr, Hatting, High-Pippert, Mazumdar

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 five political science sub-fields: American politics, comparative politics, 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 twenty four 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

POLS 104 American Government in Comparative Perspective (4 credits)  
POLS 205 Introduction to the American Public Policy Process (4 credits)  
POLS 225 Introduction to World Politics (4 credits)  
POLS 275 Introduction to Political Thought (4 credits)

*Plus:*

Sixteen credits in POLS 300-level courses  
(completed in at least two of the four sub-fields)

*Plus:*

One POLS 400-level seminar  
Four elective credits

*Note:* Students are encouraged to take an experiential learning and/or individual research course.

### 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 Education.

### Minor in Political Science

POLS 104 American Government in Comparative Perspective (4 credits)

*Plus eight credits from the following:*

POLS 205 Introduction to the American Public Policy Process (4 credits)  
POLS 225 Introduction to World Politics (4 credits)  
POLS 275 Introduction to Political Thought (4 credits)

*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



## Political Science

1. Students enrolling in POLS courses, especially those desiring a major or minor field concentration in political science, are strongly advised to begin with 104 before enrolling in any of the 200-level core courses.

### 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.
3. All students enrolling in a 400-level seminar must have senior status or obtain permission of the chair.

### POLS 104 American Government in Comparative Perspective (4 credits)

An introduction to the concepts basic to an understanding of politics and government with an emphasis on the political systems of the United States. A comparative examination of political processes, decision making institutions and policy issues relevant to the contemporary world. An introduction to basic research methods used in the discipline. The course fulfills the Social Analysis requirement in the core curriculum.

### POLS 205 Introduction to the American Public Policy Process (4 credits)

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.

### POLS 225 Introduction to World Politics (4 credits)

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.

### POLS 275 Introduction to Political Thought (4 credits)

By examining the ideas of some major political thinkers and contemporary political ideologies, this course introduces 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.

### POLS 295, 296 Topics (2 credits)

### POLS 297, 298 Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### POLS 301 American Political Behavior (4 credits)

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.

Prerequisite: POLS 205

### POLS 302 Women and Politics (4 credits)

An examination of the political involvement of women. Topics include: the representation of women, feminism as a social movement, the campaign strategies and styles of women candidates, the election of women to local, state, and national office, and the differences that women make in public office. Emphasis is on women in the United States, but comparisons will be made with women in other countries.

Prerequisite: POLS 205 or permission of instructor

### POLS 303 Urban and Metropolitan Politics and Government (4 credits)

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.

Prerequisite: POLS 205

**POLS 305 Congress and the Presidency (4 credits)**

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.

Prerequisite: POLS 205

**POLS 307 Public Policy Analysis and Administration (4 credits)**

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.

Prerequisite: POLS 205

**POLS 309 Environmental Policy (4 credits) (equivalent to ENVR 351)**

An examination of environmental policy outcomes generated by institutions and organizations, including legislation, court decisions and administrative decisions. Additional focus is on the nature of the decision-making process and those methods commonly used to assess public policy.

Prerequisite: POLS 205

**POLS 312 Judicial Process (4 credits)**

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.

Prerequisite: POLS 104 or 205, or permission of instructor

**POLS 313 Constitutional Law and Politics (4 credits)**

The Supreme Court as a legal and political institution; leading cases and related materials on the presidency, Congress, the judiciary, federalism and national emergency.

Prerequisite: POLS 104 or 205, or permission of instructor

**POLS 314 Constitutional Rights and Liberties (4 credits)**

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.

Prerequisite: POLS 104 or 205, or permission of instructor

**POLS 320 American Foreign Policy (4 credits)**

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.

Prerequisite: POLS 225

**POLS 321 Comparative Foreign Policy (4 credits)**

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.

Prerequisite: POLS 225

**POLS 326 International Law and Organizations (4 credits)**

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.

Prerequisite: POLS 225

**POLS 350 Comparative Politics of the New Europe (4 credits)**

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."

Prerequisite: POLS 225

**POLS 352 Third World Politics and Government (4 credits)**

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

## Political Science

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.

Prerequisite: POLS 225

### **POLS 372 Political Thought from Plato to Marx (4 credits)**

Investigates the normative foundation of political thought developed in the ancient and early modern eras of Western thought. Students will learn major contributions of this time to our current understanding of justice, statecraft, institutional design, epistemology, the natural world and the self. Students will learn these important contributions through serious engagement with some of history's greatest theorists, such as: Plato, Aristotle, al-Farabi, Augustine, Machiavelli, Thomas Hobbes, John Locke, Jean-Jacques Rousseau, Montesquieu, and John Stuart Mill.

Prerequisite: POLS 275

### **POLS 373 Political Thought from Marx to the Present (4 credits)**

Investigates the normative foundation of political thought developed since the industrial revolution. Students will learn major contributions to human understanding in distributive justice, psychological views of the individual, contemporary democratic theory, politics and gender and global citizenship. Students will learn these important contributions through serious engagement with some of the most innovative thinkers of the last 120 years, such as: Karl Marx, Sigmund Freud, Friedrich Nietzsche, Robert Dahl, Hannah Arendt, Friedrich Hayek, Albert Camus, John Rawls and Amartya Sen.

Prerequisite: POLS 275

### **POLS 375 American Political Thought (4 credits)**

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.

Prerequisite: POLS 275

### **POLS 404 Seminar in American Politics (4 credits)**

### **POLS 414 Seminar in Law and Judicial Politics (4 credits)**

### **POLS 424 Seminar in International Politics (4 credits)**

### **POLS 454 Seminar in Comparative Politics (4 credits)**

### **POLS 474 Seminar in Political Thought (4 credits)**

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.

### **POLS 475, 476 Experiential Learning (2 credits)**

### **POLS 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "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: POLS 205

#### *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: POLS 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: POLS 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: POLS 205 plus previous or concurrent enrollment in 312.

### **POLS 480 Research Seminar (4 credits)**

Empirical research in political science, building upon and furthering skills developed in POLS 104 and 205. Students will undertake an independent research project. Recommended for students planning to enter a graduate program in

political science.

Prerequisites: POLS 104, 205, and permission of instructor

**POLS 483, 484 Seminar (2 credits)**

**POLS 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**POLS 487, 488 Topics (2 credits)**

**POLS 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**POLS 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**POLS 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### **Pre-Professional Programs**

A carefully-crafted baccalaureate degree can prepare a student for entrance to a professional school. The following information will guide students toward the major field programs and supplementary courses that will prepare them for the various professional schools.

#### **Preparation for the Catholic Priesthood**

Cross-College Program

Preparation for entering a postgraduate seminary takes place best in a college-level seminary. St. John Vianney college seminary, located on the St. Thomas campus, provides an integrated program of spiritual and apostolic formation, along with the academic coursework available through the university.

Seminarians may major in a variety of fields. However, they must complete certain prerequisites in philosophy, theology and languages according to the direction of their diocese.

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 in compliance with the Program of Priestly Formation:

Thirty credits of philosophy

Sixteen credits of theology

Language requirements: Latin or Spanish if determined by the student’s diocese.

Interested students should contact the rector, Rev. William Baer, at St. John Vianney Seminary:

[wjbaer@stthomas.edu](mailto:wjbaer@stthomas.edu)

#### **Pre-Engineering (PNGR)**

Cross-College Program

Jaliko (PHYS) 3-2 advisor

The School of Engineering at the University of St. Thomas is home to two fully accredited engineering programs in electrical and mechanical engineering. The degrees offer students career paths into most fields of engineering and opportunities to specialize in graduate school. For those students wishing to specialize in other fields of engineering at the undergraduate level, the University of St. Thomas offers a Liberal Arts-Engineering (3-2) program.

The Liberal Arts-Engineering (3-2) program is offered formally in cooperation with the University of Notre Dame and the University of Minnesota. Student typically 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.

Courses prerequisite 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 seminar introducing them to the various fields of engineering and to the work of engineers.

The 3-2 program is directed by an advisory committee consisting of members of the Departments of Physics and Chemistry in the College of Arts and Sciences and members of the School of Engineering. Contact the 3-2 advisor in the Department of Physics for program specifics.

#### **3-2 Liberal Arts – Engineering Program (Pre-Engineering)**

CHEM 297 Chemistry for Engineers (4 credits)

or

## Pre-Professional Programs

CHEM 111 General Chemistry I (4 credits)  
 CISC 130 Intro to Programming and Problem Solving in the Sciences (4 credits)  
 ENGR 150 Introduction to Engineering (1 credit)  
 MATH 113 Calculus I (4 credits)  
 MATH 114 Calculus II (4 credits)  
 MATH 200 Multi-Variable Calculus (4 credits)  
 MATH 210 Introduction to Differential Equations and Systems (4 credits)  
 PHYS 111 Introduction to Classical Physics I (4 credits)  
 PHYS 112 Introduction to Classical Physics II (4 credits)  
 At least three additional courses are required, which will depend upon the field of engineering.  
 Students must discuss their program with the 3-2 advisor. Each student, field, and school has different needs and requirements.

## Pre-Health Professions

### Cross-College Program

Medically oriented professional schools recognize the desirability of a broad liberal education that includes a strong foundation in the natural sciences (biology, chemistry, physics, and mathematics), well developed communication skills, and a background in the social sciences and humanities. The common curriculum of St. Thomas' liberal arts and sciences program incorporates courses that provide all of these perspectives.

Students interested in health-related careers will need to declare a major as well as take specific courses required for admission to the professional graduate programs of their choice. Courses for selected areas of study are shown below. In addition, specific questions should be discussed with the student's faculty adviser. Advisers and students are supported by the University Pre-Health Professions Advising Committee. Contact information and additional resources are available at: [www.stthomas.edu/healthprofessions](http://www.stthomas.edu/healthprofessions)

### Pre-dentistry

Most schools of dentistry require a minimum of three years of college coursework prior to admission to their programs. The University of Minnesota School of Dentistry requires at least 87 semester credits. However, the majority of first-year dental students complete four or more years of college.

Specifically required or highly recommended courses vary from one dental school to another. The University of Minnesota School of Dentistry requires study in each of the following subjects:

- two 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
- college algebra, pre-calculus, computer science or statistics

### Pre-medicine

Most medical schools require a baccalaureate degree before entrance into their programs.

Two semesters of study in each of the following subjects are required for admission to most medical schools:

- biology
- general chemistry
- organic chemistry
- physics
- English

A number of medical schools also require one semester 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
- two semesters of anatomy and physiology
- one semester of microbiology
- two semesters of general chemistry
- two semesters of organic chemistry

- two semesters of physics
- one semester of calculus
- two semesters of behavioral science
- two semesters of English
- one semester of economics
- 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:

- two semesters of biology
- two semesters of general chemistry
- one semester of organic chemistry
- one semester of biochemistry
- one semester of mathematics
- two semesters of physics
- one semester of genetics
- one semester of microbiology
- two semesters of English

Four courses from history and social sciences, arts and humanities are also required. No more than two of these courses should be from one single department.

**Pre-Physical Therapy**

Required courses vary from one school to another, and students are encouraged to research various programs early in their undergraduate program. Typical requirements include:

- two semesters of biology
- two semesters of general chemistry
- two semesters of physics
- two semesters of psychology
- one semester of statistics
- two semesters of college mathematics or one semester of calculus

Other specific coursework and experiential learning are required by many programs

**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, podiatric medicine, and public health.

Students are encouraged to research the programs at each professional school and to seek the guidance of their adviser.

**Pre-Law**

Cross-College Program  
 Hatting (POLS) and Marsnik (BLAW) advisers

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 (4 credits)
- BLAW 303 International Business Law (4 credits)
- BLAW 304 Real Estate Law (4 credits)
- BLAW 351 Environmental Law (4 credits)
- BLAW 352 Gender Issues and the Law (4 credits)
- BLAW 401 Legal Research, Advocacy, and Dispute Resolution (4 credits)
- COJO 336 Media Law (4 credits)
- ECON 321 Law and Economics (4 credits)
- ECON 332 Industrial Organization (4 credits)
- HIST 326 English Law and Government before the American Revolution (4 credits)
- HIST 365 U.S. Constitutional History (4 credits)
- POLS 205 Introduction to the American Public Policy Process (4 credits)
- POLS 312 Judicial Process (4 credits)
- POLS 313 Constitutional Law and Politics (4 credits)
- POLS 314 Constitutional Rights and Liberties (4 credits)
- POLS 326 International Law and Organizations (4 credits)
- POLS 414 Seminar in Law and Judicial Politics (4 credits)

## Pre-Professional Program – Psychology

### B. Fostering critical thinking about society

ENGL 402 Writing Literary Nonfiction (4 credits)  
HIST 361 American Thought and Culture Since the Civil War (4 credits)  
PHIL 357 Political Philosophy (4 credits)  
PHIL 359 Philosophy of Law (4 credits)  
POLS 373 Political Thought from Marx to the Present (4 credits)  
POLS 375 American Political Thought (4 credits)

### C. Providing useful skills and improving analytical ability

ACCT 210 Introduction to Financial Accounting (4 credits)  
ACCT 215 Managerial Accounting (4 credits)  
COJO 100 Public Speaking (4 credits)  
COJO 276 Argumentation and Advocacy (4 credits)  
COJO 366 Persuasion (4 credits)  
ECON 251 Principles of Macroeconomics (4 credits)  
ECON 252 Principles of Microeconomics (4 credits)  
ECON 355 Game Theory (4 credits)  
ENGL 251 Writing in the Academy (4 credits)  
ENGL 252 Writing Nonfiction Prose (4 credits)  
ENGL 403 Analytical and Persuasive Writing (4 credits)  
MATH 101 Finite Mathematics (4 credits) *or* MATH 113 Calculus I (4 credits)  
PHIL 220 Logic (4 credits)

## Psychology (PSYC)

College of Arts and Sciences, Department of Psychology  
John Roach Center for the Liberal Arts (JRC) LL56, (651) 962-5030  
Johnson (chair), Amel, Bock, Buri, Chalkley, Giebenhain, Prichard, Robinson-Riegler, Scott, Tauer, Wolfe

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 produce a research paper written in accordance with American Psychological Association (APA) guidelines. 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. Students minoring in psychology must successfully complete a minimum of 12 credits in psychology at St. Thomas. All courses counting toward the major or the minor must be graded using the regular (letter) grading system.

The department also offers General Psychology (PSYC 111) for students to fulfill the Social Analysis component of the core curriculum.

### Psychology Honor Societies

*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.

*Nu Rho Psi*, the national Neuroscience Honor Society encourages professional interest and excellence in scholarship, particularly in neuroscience. The St. Thomas chapter was established in 2007. Students who have a 3.2 or higher overall grade point average and a 3.5 or higher grade point average in specific neuroscience courses are eligible to apply. For more information, go to <http://www.stthomas.edu/neuroscience/clubs/default.html>.

The Department of Psychology also recognizes selected students each year for outstanding research, service, and academic achievements.

### Major in Psychology

PSYC 111 General Psychology (4 credits)  
PSYC 212 Research Methods in Psychology (4 credits)  
PSYC 422 History and Systems (4 credits) (to be taken during the senior year)

*Plus two laboratory courses from:*

PSYC 321 Current Research Issues in Social Psychology (4 credits)  
PSYC 322 Sensation and Perception (4 credits)

PSYC 323 Learning and Memory (4 credits)  
 PSYC 401 Physiological Psychology (4 credits)  
 PSYC 415 Research Issues in Cognition (4 credits)

*Plus four credits from the following:*

PSYC 200 Psychology of Infancy and Childhood (4 credits)  
 PSYC 202 Lifespan Development (4 credits) (students may not receive credit for both 202 and 200)  
 PSYC 203 Psychology of Adolescence (4 credits)  
 PSYC 204 The Psychology of Adulthood and Aging (4 credits)

*Plus four credits from the following:*

PSYC 121 Social Psychology (4 credits)  
 PSYC 301 Psychopathology (4 credits)  
 PSYC 302 Personality Theories (4 credits)

*Plus four credits from the following:*

PSYC 206 The Brain and Human Behavior (4 credits)  
 PSYC 315 Cognition (4 credits)  
 PSYC 400 Seminar in Cognitive and Language Development (4 credits)

*Plus twelve elective credits in psychology*

300/400 level requirement: 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 (4 credits) *or* BIOL 105 Human Biology (4 credits) *or* BIOL 106 Women, Medicine and Biology (4 credits) *or* BIOL 201 Diversity and Adaptation (4 credits)

*Plus:*

MATH 101 Finite Mathematics (4 credits)  
 (or MATH 108-109, 111 or 113; students should take highest level for which eligible)  
 STAT 220 Statistics I (4 credits)

Students should take the following courses in the following order:

MATH 101 (or MATH 108-109 or 111 or 113)  
 STAT 220  
 PSYC 212

*Note:* 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.

#### **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 Education*

#### **Minor in Psychology**

PSYC 111 General Psychology (4 credits)

*Plus eight credits from the following:*

PSYC 121 Social Psychology (4 credits)  
 PSYC 151 Cross-Cultural Psychology (4 credits)  
 PSYC 200 Psychology of Infancy and Childhood (4 credits)  
 PSYC 202 Lifespan Development (4 credits) (students may not receive credit for both 202 and 200)  
 PSYC 203 Psychology of Adolescence (4 credits)  
 PSYC 204 The Psychology of Adulthood and Aging (4 credits)  
 PSYC 205 Psychology of Women (4 credits)  
 PSYC 206 The Brain and Human Behavior (4 credits)  
 PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)  
 PSYC 212 Research Methods in Psychology (4 credits)  
 PSYC 288 Psychology of Marriage and the Family (4 credits)

*Plus eight credits from the following:*

PSYC 301 Psychopathology (4 credits)  
 PSYC 302 Personality Theories (4 credits)  
 PSYC 308 Motivation and Emotion (4 credits)  
 PSYC 313 Psychological Testing (4 credits)  
 PSYC 315 Cognition (4 credits)  
 PSYC 321 Current Research Issues in Social Psychology (4 credits)



## Psychology

PSYC 322 Sensation and Perception (4 credits)  
PSYC 323 Learning and Memory (4 credits)  
PSYC 342 Psychology and Work (4 credits)  
PSYC 400 Seminar in Cognitive and Language Development (4 credits)  
PSYC 401 Physiological Psychology (4 credits)  
PSYC 415 Research Issues in Cognition (4 credits)  
PSYC 422 History and Systems (4 credits)  
PSYC 428 Theories of Counseling and Psychotherapy (4 credits)

Students should consult early with a department adviser to have their plan approved.

### PSYC 111 General Psychology (4 credits)

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.

### PSYC 121 Social Psychology (4 credits)

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: PSYC 111

### PSYC 151 Cross-Cultural Psychology (4 credits)

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: PSYC 111

### PSYC 200 Psychology of Infancy and Childhood (4 credits) (PSYC 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: PSYC 111

NOTE: Students who receive credit for PSYC 200 may not receive credit for PSYC 202.

### PSYC 202 Lifespan Development (4 credits) (PSYC 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: PSYC 111

NOTE: Students who receive credit for PSYC 202 may not receive credit for PSYC 200 or 204.

### PSYC 203 Psychology of Adolescence (4 credits)

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: PSYC 111

### PSYC 204 The Psychology of Adulthood and Aging (4 credits)

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: PSYC 111

NOTE: Students who receive credit for PSYC 204 may not receive credit for PSYC 202.

### PSYC 205 Psychology of Women (4 credits)

An examination of physiological, experiential, and social factors affecting the psychological development of women and their status as adults. Addresses diversity among women and how factors such as class and race intersect with historical and contemporary gender inequalities in women's lives. Topics include: biological and social influences on the development of gender, research on sex-related differences in psychological traits and cognitive abilities, media images and stereotypes of women, close relationships and sexuality, mothering, employment, aging, violence against

women, and psychological health. This course fulfills the Human Diversity requirement in the core curriculum  
Prerequisite: PSYC 111

**PSYC 206 The Brain and Human Behavior (4 credits)**

An examination of brain systems that subserve human behavior. Topics include: human development, consciousness, social behavior, cognition, emotion and abnormal behavior.  
Prerequisite: PSYC 111

**PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)**

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: PSYC 111

**PSYC 212 Research Methods in Psychology (4 credits)**

This laboratory course focuses on 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.  
Prerequisites: PSYC 111 and STAT 220

**PSYC 288 Psychology of Marriage and the Family (4 credits)**

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: PSYC 111 and junior standing or permission of the instructor

**PSYC 295, 296 Topics (2 credits)**

**PSYC 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,  
<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**PSYC 301 Psychopathology (4 credits)**

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: PSYC 111 and junior standing

**PSYC 302 Personality Theories (4 credits)**

A review of major theories of personality, including psychoanalytic, behavioristic, humanistic and trait-factor approaches.  
Prerequisite: PSYC 111

**PSYC 308 Motivation and Emotion (4 credits)**

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: PSYC 111 and junior standing

**PSYC 313 Psychological Testing (4 credits)**

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: PSYC 212

**PSYC 315 Cognition (4 credits)**

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 situations, 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: PSYC 111

**PSYC 321 Current Research Issues in Social Psychology (4 credits)**

This laboratory course includes discussion of several specific research issues in contemporary social psychology. The course includes presentation of computer applications. An original research project is required. Approximately four

## Psychology

lectures and three laboratory hours per week.

Prerequisites: PSYC 121 and 212

### PSYC 322 Sensation and Perception (4 credits)

This laboratory course includes discussion 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.

Prerequisite: PSYC 212

### PSYC 323 Learning and Memory (4 credits)

In this laboratory course 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: PSYC 212

### PSYC 342 Psychology and Work (4 credits)

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: PSYC 111 and junior standing

### PSYC 400 Seminar in Cognitive and Language Development (4 credits)

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: PSYC 200 and one additional PSYC course or permission of the instructor

### PSYC 401 Physiological Psychology (4 credits)

This laboratory course includes 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.

Prerequisites: PSYC 212; PSYC 206 or PSYC 322; and BIOL 101 or equivalent

### PSYC 407 Seminar in Behavioral Neuroscience (4 credits)

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: PSYC 401

### PSYC 415 Research Issues in Cognition (4 credits)

This laboratory course explores 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 solving; the use of heuristics in decision making; person memory.

Prerequisites: PSYC 212 and 315

### PSYC 422 History and Systems (4 credits)

This course explores how contemporary psychology developed from its remote and more recent roots. It emphasizes the contributions, contributors and perennial issues that led to psychology today and that could help to fashion its future.

Prerequisites: Senior standing and must be major in Psychology.

### PSYC 428 Theories of Counseling and Psychotherapy (4 credits)

Theories and procedures of counseling and psychotherapy are discussed, including psychoanalysis, client-centered therapy, cognitive therapy, behavior therapy, and others.

Prerequisites: PSYC 301 and three psychology courses or permission of the instructor

### PSYC 475, 476 Experiential Learning (2 credits)

### PSYC 477, 478 Experiential Learning (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### PSYC 483, 484 Seminar (2 credits)

### PSYC 485, 486 Seminar (4 credits)

See the description of these courses at the beginning of the "Curricula" section of this catalog.

### PSYC 487, 488 Topics (2 credits)

**PSYC 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**PSYC 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**PSYC 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

**Quantitative Methods & Computer Science**

See Computer and Information Sciences

**Renaissance Program**

College of Arts and Sciences, Interdisciplinary Program  
John Roach Center for the Liberal Arts (JRC) 323, (651) 962-5693  
MacKenzie (ENGL), director

The Renaissance Program is an interdisciplinary minor which provides students the opportunity to combine 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 is designed for students majoring in the liberal arts who want preparation for their career search.

Students who minor in the Renaissance Program elect a major field of study from any of the liberal arts disciplines – that is, from the humanities, social sciences, natural sciences and the like. Students who major in any of the Business fields or in Health and Human Performance are not eligible for the program.

The program’s requirements consist of coursework and an internship. Students choose a set of six courses (detailed below) from a broad range of pre-professional and professional areas. In their senior year, students take IDSC 333 Renaissance Program Studies, a capstone seminar that brings together the perspectives of economics, business, and the liberal arts. Students also complete an internship in a career-related field. A variety of options and opportunities are available through the Career Center; students are encouraged to be creative and to search for inventive ways of implementing a plan of practical work experience.

As part of its commitment to Renaissance Program students, the University of St. Thomas extends to graduates of the program the opportunity to take undergraduate business courses tuition-free, on a space-available basis. There is no limit on the number of such courses the student may take. Students may take these courses either for credit or as audits, but may not use the courses toward a major or minor in business.

Application for admission is made through the Renaissance Program director’s office, currently in the Department of English. Application should normally take place during the second semester of the sophomore year, but may occur later.

**Renaissance Program Professional Minor**

*Four credits from the following:*

ECON 251 Principles of Macroeconomics (4 credits)

ECON 252 Principles of Microeconomics (4 credits)

*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 four credits from the following:*

CISC 120 Computers in Elementary Education (4 credits)

CISC 130 Introduction to Programming and Problem-Solving Sciences (4 credits)

CISC 200 Introduction to Computer Business and Technical Applications (4 credits)

STAT 220 Statistics I (4 credits)

*Note:* Other courses from the Department of CISC may be acceptable if the necessary prerequisites have been met, and on the approval of the director of the Renaissance Program.

*Plus twelve credits from the following:*

ACCT 210 Introduction to Financial Accounting (4 credits)

ACCT 215 Managerial Accounting (4 credits)

BLAW 301 Legal Environment of Business (4 credits)

FINC 300 Finance for Non-Business Majors (4 credits)

MGMT 305 Management and Organizational Behavior (4 credits)

MKTG 300 Principles of Marketing (4 credits)

*Note:* Other courses from the College of Business may be acceptable if the necessary prerequisites have been met,

## Renaissance Program – Social Sciences

and on the approval of the director of the Renaissance Program.

*Plus:*

IDSC 330 Renaissance Program Internship (0 credit)

IDSC 333 Renaissance Program Studies (4 credits)

*Note:* Another course that integrates themes involving the relation between the liberal arts and the world of work may be acceptable provided the necessary prerequisites have been met, and on the approval of the director of the Renaissance Program.

## Russian (RUSS)

See Modern and Classical Languages

## Social Sciences

College of Arts and Sciences, Interdisciplinary Program

O'Shaughnessy Education Center (OEC) 428, (651) 962-5686

Papagaitos (ECON), Wright (HIST), Hoffman (POL), Waldner (SOCL), advisers

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 & criminal justice – 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 (4 credits) *and* HIST 112 The Modern World Since 1550 (4 credits)

*or*

HIST 113 Early America in Global Perspective (4 credits) *and* HIST 114 The Modern U.S. in Global Perspective (4 credits)

*Plus:*

ECON 251 Principles of Macroeconomics (4 credits)

ECON 252 Principles of Microeconomics (4 credits)

ECON - One additional course in economics numbered above 300

HIST - One history course numbered above 300

POLS 104 American Government in Comparative Perspective (4 credits)

POLS - Two additional political science courses

SOCI 100 Introduction to Sociology (4 credits)

SOCI 210 Research Methods in Sociology (4 credits)

SOCI - 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 & Criminal Justice. The choice of these courses is subject to the approval of the department involved.

*Plus four credits from the following:*

STAT 220 Statistics I (4 credits)

MATH 101 Finite Mathematics (4 credits)

MATH 111 Calculus for Business and Social Science (4 credits)

MATH 113 Calculus I (4 credits)

## Social Work (SOWK) - School of Social Work

School of Social Work

Summit Classroom Building 201, (651) 962-5800

Shank (dean), Baboila, Bauer, Brenden, Brommel, Carlson, Caron, Chovanec, Ferguson, Garrett, Graham, Hill,

Hollidge, Hurley-Johncox, Husebo, Kaiser, Kuechler, Marrs, McPartlin, Parnell, Richardson, Roseborough,

Thornton, Toft, Valandra, Winkler

A major in social work is available through a joint School of Social Work at both St. Catherine University and University of St. Thomas. Social work courses and electives are offered at both St. Catherine University and University of St. Thomas campuses and in Weekend College at St. Catherine University.

Graduating with a major in social work will prepare you to begin generalist professional practice with individuals, families, small groups, organizations and communities. You will be prepared to develop an identity which will

incorporate the values and ethics of the social work profession. You will be prepared for practice with diverse, oppressed and at-risk populations and to link social research and social service practice. You will be prepared for life-long learning and critical thinking through an educational process combining a liberal arts foundation with professional social work education. You also 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 Minnesota Board of Social Work examination for State of Minnesota licensure at the licensed social worker level.

#### Admission to the Major

When you declare a social work major, you will be assigned a social work adviser; however, there is a formal application to the major process in the second semester of junior year (see below).

#### Social Work Honor Society

*Beta Epsilon*, the campus chapter of *Phi Alpha* National Social Work Honor Society, was established at the University of St. Thomas and St. Catherine University in 2002. The purpose of this organization is to advance excellence in social work practice and to encourage, stimulate and maintain scholarship of the individual members.

As a social work major, you are eligible for membership after achieving a junior or senior standing, earning a minimum of six semester hours or equivalent in social work, achieving an overall grade point average of 3.25 or above, and a social work grade point average of 3.50 or above.

#### International Study

As a social work student you will have an opportunity to study in Mexico in the spring semester of their junior year. This semester-long program will enable you to take all required social work courses as well as study Spanish.

#### Major in Social Work

SOWK 281 Introduction to Social Work (4 credits)  
 SOWK 340 Human Behavior and the Social Environment (4 credits)  
 SOWK 355 Communication and Interviewing Skills (4 credits)  
 SOWK 375 and 376 or 378 Junior Fieldwork in Social Work (4 credits)  
 SOWK 380 Social Research: Designs and Statistical Applications (4 credits)  
 SOWK 385 Working with Groups: Theory and Practice (4 credits)  
 SOWK 391 Social Policy for Social Change (4 credits)  
 SOWK 401 Generalist Practice with Individuals, Families and Groups (4 credits)  
 SOWK 402 Generalist Practice for Social Change (4 credits)  
 SOWK 405 and 406 Senior Fieldwork in Social Work (4 credits each)

#### Allied requirements

*Four credits from the following:*

BIOL 105 Human Biology (4 credits)  
 BIOL 1120C Biology of Women (4 credits)

*Plus:*

PSYC 111 General Psychology (4 credits)  
 PSYC 202 Lifespan Development (4 credits)  
 SOCI 100 Introduction to Sociology (4 credits)

#### Required Fieldwork Experience

These experiences, arranged by the School of Social Work, provide practical learning in social work agencies, institutions and, or departments to complement your academic work through integration of theory and practice.

*Junior year:*

Two semesters of approximately eight hours per week off campus field work totaling 200 hours, plus weekly seminar groups on campus. As a social work student, contact your social work adviser during the second semester of sophomore year so that placement can be discussed.

*Senior year:*

Two semesters of approximately 15 hours per week off campus field work totaling 400 hours, plus weekly seminar groups on campus.

*Elective courses*

Electives are updated frequently. Visit [www.stthomas.edu/socialwork/BSW/descriptions.cfm](http://www.stthomas.edu/socialwork/BSW/descriptions.cfm) for a current list of electives.

CDC 3000C Introduction to Chemical Dependency (4 credits)  
 CDC 3050C Chemical Dependency and the Family (4 credits)  
 IDSC 291T/INDI 2910C The Anatomy of Violence (4 credits)  
 IDSC 293T/INDI 2940C Grief, Loss and Coping (4 credits)  
 INDI 499C Multi-Professional Community Work and Learning Semester Abroad – Cuernavaca, Mexico  
 SOWK 2100C Relationships, Intimacy and Sexuality (4 credits)

## Social Work

SOWK 390T Faith, Social Transformation and Social Work (4 credits)\*  
SOWK 441T Family Resilience and Diversity  
SOWK 490T/4990C Practice with Older Adults and their Families (4 credits)  
SOWK 490T Topics: Child Welfare

\*Crosslisted with THEO 397 which fulfills the 300 level theology course requirement at the University of St. Thomas. You must register for the course as THEO 397 in order to get THEO credit.

### Admission Process

The School of Social Work requires you to be formally admitted to the major. This process takes place at the middle of the junior year. As a prospective major, you must have a GPA of 2.25 and be interviewed by faculty of the school. Contact your adviser for more details.

### Minor in Social Welfare

A minor in social welfare is available through the joint School of Social Work at St. Catherine University 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 your own learning in the area of social welfare.

SOWK 281 Introduction to Social Work (4 credits)  
SOWK 340 Human Behavior and the Social Environment (4 credits)  
SOWK 391 Social Policy for Social Change (4 credits)

*Plus eight credits from the following:*

PSYC 202 Lifespan Development (4 credits)  
PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)  
SOCI 251 Race and Ethnicity (4 credits)  
SOWK 380 Social Research: Designs and Statistical Application (4 credits)

(The C designation following a course number indicates the course is offered at St. Catherine University; the T designation indicates that the course is offered at the University of St. Thomas.)

### SOWK 2100C Relationships, Intimacy and Sexuality (4 credits)

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.

### SOWK 2810C/281T Introduction to Social Work (4 credits)

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: SOCI 100 or PSYC 111 or permission of the instructor

### SOWK 295T, 296T Topics (2 credits)

### SOWK 297T, 298T Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### SOWK 3400C/340T Human Behavior and the Social Environment (4 credits)

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 psycho-social 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: SOWK 281; PSYC 202; and BIOL 105 or 112C; or consent of the instructor

### SOWK 3550C/355T Communication and Interviewing Skills (4 credits)

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: SOWK 281 or consent of the instructor

### SOWK 3750C/375T and 3760C/376T, or 3780C/378T Junior Fieldwork in Social Work (4 credits)

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.

Prerequisite: SOWK 281 or consent of the instructor

#### **SOWK 380T Social Research: Designs and Statistical Application (4 credits)**

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.

Prerequisites for majors: SOWK 281 and junior status or permission of the instructor

#### **SOWK 3850C/385T Working with Groups: Theory and Practice (4 credits)**

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: SOWK 355 or consent of the instructor

#### **SOWK 390T Faith, Social Transformation and Social Work (4 credits)**

There are strong ties between the profession of social work and Christian social morality. Social workers promote social change, healthy human relationships and the enhancement of personal well-being. Many social workers see their work as a vocation. They are often moved to join the profession and are motivated in profession by spiritual beliefs. Christian social ethics affirms these goals. This course will explore the ties and the tensions between social work, social transformation and Christian ethics.

#### **SOWK 3910C/391T Social Policy for Social Change (4 credits)**

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: SOWK 281 or consent of the instructor

#### **SOWK 4010C/401T Generalist Practice with Individuals, Families and Groups (4 credits)**

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: SOWK 385; senior major status and concurrent registrations in SOWK 405 are required

#### **SOWK 4020C/402T Generalist Practice for Social Change (4 credits)**

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: SOWK 401; concurrent registration in SOWK 406 is required

#### **SOWK 4050C/405T Senior Fieldwork in Social Work (4 credits)**

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 approximately 15 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 SOWK 401

#### **SOWK 4060C/406T Senior Fieldwork in Social Work (4 credits)**

Prerequisite: Concurrent registration in SOWK 402

#### **SOWK 416T Child Welfare Policy (4 credits) (GRSW 516)**

This course is designed to give students an overview of important topics in child welfare practice and policy. Students will be asked to examine their own values about orientations toward child welfare, children's rights and responsibilities, the nature of maltreatment, and other issues facing the field today, as they affect diverse families. Additionally,



## Social Work – Sociology and Criminal Justice

students will be given tools to advocate for children, and an opportunity to exercise new advocacy skills.

### SOWK 441T Family Resilience and Diversity (4 credits) (GRSW 523)

This course presents a family resilience framework for therapeutic and preventative efforts with families. The resilience lens shifts perspective from viewing distressed families as damaged to seeing them as challenged, affirming their potential for repair and growth. Students develop a knowledge base of experience of diversity through the study of cultural values, life style and family structure.

### SOWK 475T, 476T Experiential Learning (2 credits)

### SOWK 477T, 478T Experiential Learning (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### SOWK 483T, 484T Seminar (2 credits)

### SOWK 485T, 486T Seminar (4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### SOWK 487T, 488T Topics (2 credits)

### SOWK 489T, 490T Topics (4 credits)

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### SOWK 269, 389, 491T Research (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### SOWK 243, 393, 495T Individual Study (2 or 4 credits)

See the description of these courses at the beginning of the “Curricula” section of this catalog.

## Sociology and Criminal Justice (SOCl)

College of Arts and Sciences, Department of Sociology and Criminal Justice

O’Shaughnessy Education Center (OEC) 431, (651) 962-5630

Waldner (chair), Gladney (Law Enforcement Education Coordinator), Karraker, Kinney, Parilla, Smith, Smith-Cunnie; Bruton, Caldie, Davis, Plesha, Schuth

Sociology is the scientific study of society and social relations. A major in sociology provides knowledge and skills applicable to careers in business, education, government, law, public health, public policy, and social service. Additionally, an undergraduate degree prepares students for graduate study in sociology and other closely related fields.

Students who graduate with a major in sociology will understand the methodological and theoretical foundations of sociology and possess skills to apply this knowledge in a practical way. They will have the opportunity to specialize in crime and criminology, family and the life course, inequalities and stratification, and work and organizations, as well as individual course work in other areas such as anthropology, health, and urban sociology. We also offer courses with comparative perspectives on global issues such as crime, gender, immigration, and religion. The sociology curriculum reflects the breadth of the discipline, its place in the liberal arts tradition, and the application of sociological theories and methods to the critical issues and problems facing societies today.

Students who graduate with a major 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 have the tools to understand the long standing and current dilemmas faced by society in trying to develop and maintain an effective and just criminal justice system. They will be prepared for employment in the field of criminal justice, including corrections or law enforcement.

Sociology and criminal justice majors pursue graduate and professional degrees in sociology and criminology, as well as business, law, public health, public policy, social work, and other fields. The Sociology Department and faculty also provide intensive support for students who wish to engage in individual research and preparation for graduate and professional school, as well as internships and career development.

A sociology major or minor is a strong complement to studies in American culture and difference, business administration (especially human resources, management, marketing), Catholic studies, family studies, international studies, communication and journalism, justice and peace studies, legal studies, psychology, social sciences, social work, urban studies, and women’s studies.

Sociology majors and minors are encouraged to take advantage of HECUA, study abroad, and other special learning opportunities. Specific courses may substitute for St. Thomas requirements. Students should consult with their academic adviser, the department chair, or a study abroad advisor in the International Education Center for program options. Also, see Academic Information & Programs in the front section of this catalog for more information.

### 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 sociology, criminal justice, the sociology concentration of social science, or social studies and who have a minimum overall grade point average in the top 30<sup>th</sup> percentile.

**Major in Sociology**

- SOCI 100 Introduction to Sociology (4 credits)
- SOCI 210 Research Methods in Sociology (4 credits)
- SOCI 220 Sociological Analysis (4 credits)
- SOCI 350 Social Inequality: Privilege and Power (4 credits)
- SOCI 470 Sociological Theory (4 credits)
- SOCI 474 Seminar in Sociology (4 credits)

*Plus four credits from the following:*

- SOCI 365 Social Psychology (4 credits)
- SOCI 366 Self and Society (4 credits)

*Plus:*

Twelve additional credits in Sociology (eight of which must be 300-level or higher)

*Strongly recommended:*

It is recommended that students take the following courses in this order:

- MATH 101 Finite Mathematics (4 credits) (or adequate substitute) in the first year
- SOCI 210 Research Methods in Sociology (4 credits)
- SOCI 220 Sociological Analysis (4 credits)

Finally, we recommend that students begin the SOCI 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 SOCI 210, PSYC 212, and STAT 220 do not need to take SOCI 220.

**Major in Criminal Justice**

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 Technical College and Hibbing Community College, 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 SOCI 251, PHED 250, and PSYC 111. Please see the department’s Law Enforcement Education Coordinator.

- SOCI 100 Introduction to Sociology (4 credits)
- SOCI 200 Introduction to Criminal Justice (4 credits)
- SOCI 210 Research Methods in Sociology (4 credits)
- SOCI 220 Sociological Analysis (4 credits)
- SOCI 312 Crime and Delinquency (4 credits)
- SOCI 344 Police and Society (4 credits)
- SOCI 346 Corrections in America: Prisons, Probation and Parole (4 credits)
- SOCI 480 Seminar in Criminal Justice (4 credits)

*Plus:*

- CJUS 342 Criminal Law and Criminal Procedure (4 credits)

*Plus four credits from the following:*

- CJUS 345 Police Operations (4 credits)
- CJUS 347 Correctional Practice and Administration (4 credits)
- POLS 312 Judicial Process (4 credits)
- POLS 314 Constitutional Rights and Liberties (4 credits)

*Plus four credits from the following(if not taken above):*

- SOCI 130 Homicide (4 credits)
- SOCI 251 Race and Ethnicity (4 credits)
- SOCI 405 Internship in Criminal Justice (4 credits)
- SOCI 498 Individualized Study (4 credits) (for in-career students only)
- IDSC 291 Anatomy of Violence (4 credits)
- PSYC 207 Alcohol, Other Drugs and Behavior (4 credits)

## Sociology and Criminal Justice

PSYC 301 Psychopathology (4 credits)  
POLS 314 Constitutional Rights and Liberties (4 credits)

### *Strongly recommended:*

SOCI 251 Race and Ethnicity (4 credits)

In addition, it is recommended that students take the following courses in this order:

MATH 101 Finite Mathematics (4 credits) (or adequate substitute) in the first year

SOCI 210 Research Methods in Sociology (4 credits) in first semester sophomore year

SOCI 220 Sociological Analysis (4 credits) in second semester sophomore year

*Note:* Students with a double major in sociology and psychology who have completed SOCI 210, PSYC 212 and STAT 220 do not need to take SOCI 220.

**Note:** Students choosing to double major in sociology and criminal justice are limited to the number of courses that can be applied to both majors. Only the following courses may count toward requirements in both majors: SOCI 100, 210, 220 and two of the following 312, 344, 346.

### **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 Education*

### **Minor in Sociology**

SOCI 100 Introduction to Sociology (4 credits)

*Plus at least four credits from the following:*

SOCI 210 Research Methods in Sociology (4 credits)

SOCI 220 Sociological Analysis (4 credits)

SOCI 350 Social Inequality: Privilege and Power (4 credits)

SOCI 365 Social Psychology (4 credits)

SOCI 366 Self and Society (4 credits)

SOCI 470 Sociological Theory (4 credits)

SOCI 474 Seminar in Sociology (4 credits)

*Plus twelve additional credits from the list above or below:*

SOCI 110 Social Problems (4 credits)

SOCI 130 Homicide (4 credits)

SOCI 251 Race and Ethnicity (4 credits)

SOCI 304 Adolescence in Society (4 credits)

SOCI 312 Crime and Delinquency (4 credits)

SOCI 321 Marriages and Families (4 credits)

SOCI 330 Religion and Society (4 credits)

SOCI 332 Urban Sociology (4 credits)

SOCI 341 Work, Organizations, and Society (4 credits)

SOCI 344 Police and Society (4 credits)

SOCI 346 Corrections in America: Prisons, Probation and Parole (4 credits)

SOCI 353 Global Perspectives on Gender (4 credits)

SOCI 354 Sex in Society (4 credits)

SOCI 380 Cross-Cultural Perspectives on Religion in Society (4 credits)

SOCI 498 Individual Study (4 credits)

### **Minor in Criminal Justice**

SOCI 100 Introduction to Sociology (4 credits)

SOCI 200 Introduction to Criminal Justice (4 credits)

SOCI 312 Crime and Delinquency (4 credits)

*Plus eight credits from the following, at least four of which must be in sociology:*

CJUS 342 Criminal Law and Criminal Procedure (4 credits)

CJUS 345 Police Operations (4 credits)

CJUS 347 Correctional Practice and Administration (4 credits)

POLS 312 Judicial Process (4 credits)

POLS 314 Constitutional Rights and Liberties (4 credits)

SOCI 130 Homicide (4 credits)

SOCI 344 Police and Society (4 credits)

SOCI 346 Corrections in America: Prisons, Probation and Parole (4 credits)

**Note:** Students wishing to combine a major in either Sociology or Criminal Justice with a minor in the other field may do so. However, the major and minor may not have more than eight credits in common. Non-majors can also

earn a minor in Sociology and minor in Criminal Justice. However, the two minors may not have more than eight credits in common.

**SOCI 100 Introduction to Sociology (4 credits)**

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 and Human Diversity requirements in the core curriculum.

**SOCI 110 Social Problems (4 credits)**

Contemporary society is confronted with a number of serious problems that are often global in their impact. This course explores the causes, effects, and proposed solutions to some of these major social issues. Special attention is given to issues of inequality (such as racism, sexism, and poverty) and problems in core institutions (such as family violence, unequal educational opportunities, and unemployment). This course meets a requirement in the Justice and Peace Studies program and fulfills the Social Analysis and Human Diversity requirements in the core curriculum.

**SOCI 130 Homicide (4 credits)**

Homicide is considered one of the most serious violent crimes. This course takes a sociological approach to examine the nature and extent of homicide with a focus on the history of homicides, the trends in homicide, and the patterns and sources of homicide. In addition to addressing more typical situations resulting in murder such as domestic violence, the course will cover serial murder and mass murders.

**SOCI 200 Introduction to Criminal and Juvenile Justice (4 credits)**

A critical introduction to the American criminal and juvenile justice system. Studies the role of the police, courts and corrections in the administration of criminal justice. This course meets a requirement in the Justice and Peace Studies program.

**SOCI 210 Research Methods in Sociology (4 credits)**

Consideration of both quantitative and qualitative 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. Data entry and recoding with SPSS will also be introduced.

Prerequisite: SOCI 100

**SOCI 220 Sociological Analysis (4 credits)**

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 techniques and SPSS, the computer statistical package commonly employed by contemporary sociologists in the full range of research settings. Because SOCI 220 integrates the learning of statistics with SPSS software in a setting where research questions and statistical interpretation are framed within a sociological perspective, students may not substitute STAT 220 for SOCI 220. Students interested in graduate study in the social sciences are strongly encouraged to take STAT 220 after first completing SOCI 220.

Prerequisite: SOCI 210 and MATH 101, 105, 108, 109, 111 or 113

**SOCI 251 Race and Ethnicity (4 credits)**

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 meets a requirement in American Culture and Difference and Justice and Peace Studies and fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: sophomore standing

**SOCI 295, 296 Topics (2 credits)****SOCI 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**SOCI 301 Cultural Anthropology (4 credits)**

This course provides an overview of various components and dynamics of human societies throughout the world. It focuses on topics such as 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 a requirement in the Justice and Peace Studies program and the Human Diversity requirement in the core curriculum.

Prerequisite: SOCI 100

**SOCI 304 Adolescence in Society (4 credits)**

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;

## Sociology and Criminal Justice

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. This course meets a requirement in Family Studies and in Women's Studies.

Prerequisite: SOCI 100 or permission of the instructor

### SOCI 312 Crime and Delinquency (4 credits)

Why do people commit crime? Why do crime rates vary over time? Why do some communities and societies have more crime than others? This course focuses on sociological theories and research that are designed to answer these questions. It addresses various types of crime including homicide, corporate crime, drug use, domestic violence and hate crime.

Prerequisite: SOCI 100

### SOCI 321 Marriages and Families (4 credits)

This course uses sociological theories and research to understand some of the most pressing social issues facing families today – single parenting, divorce and blended families, violence, and poverty. We study the social processes involved in choosing partners (and remaining single); sexualities and intimacy; parenting (or not); communication (and conflict); power (and satisfaction). Finally, we focus not just on family stress, but also on family resilience. This course meets a requirement in Family Studies and Women's Studies.

Prerequisite: SOCI 100 or permission of the instructor

### SOCI 330 Religion and Society (4 credits)

Theoretical and empirical examination of the sociological dimensions of religion, with a special emphasis on the religious situation in America. Topics include diverse religious expressions and values of each religion, including Christian denominations and other world religions with members living in the U.S., for example, Buddhism, Hinduism, Islam, and Judaism, as well as cultural contexts, organizational structures, individual religiosity, and emerging new forms. This course meets a requirement in Catholic Studies and fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: SOCI 100

### SOCI 332 Urban Sociology (4 credits)

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. This course meets a requirement in Urban Studies.

Prerequisite: SOCI 100

### SOCI 341 Work, Organizations, and Society (4 credits)

This course provides students with knowledge about the importance and role of work and organizations in society and in our everyday lives. Key topics include conflict in organizations, occupational choice and prestige, social control in work environments, the labor movement, the "McDonaldization" of the work environment and American culture, the clash between personal and organizational life, and many others.

Prerequisite: SOCI 100

### SOCI 344 Police and Society (4 credits)

An overview of the history of policing and the emergence of modern policing in democratic societies. This course takes a sociological approach in examining the changing roles and organization of police, police socialization, and police subculture as well as the impact of different organizational structures on service delivery. Topics include police conduct, community policing, professionalization of the police, ethical decision making in law enforcement and evidence-based policing.

Prerequisites: SOCI 100 and SOCI 200

### SOCI 346 Corrections in America: Prisons, Probation, Parole (4 credits)

This course takes a sociological approach in examining the role of corrections in the criminal justice system focusing on the rationale for punishing offenders, the range of correctional placements, and the effectiveness of correctional policies in achieving social control. Topics include correctional treatment practices, mass incarceration, reentry, restorative justice, and ethical decision making in corrections.

Prerequisites: SOCI 100 and SOCI 200

### SOCI 350 Social Inequality: Privilege & Power (4 credits)

This course identifies and investigates the following topics: general principles of stratification, theoretical explanations by which inequality emerges and is maintained, the relationship between social class and other forms of inequality in the United States including gender, race, and changes in social hierarchy over time. The course will explore issues such as poverty, welfare, occupational prestige, meritocracy, and class prestige. Although primary focus is on the United States, the course also examines global inequality.

Prerequisite: SOCI 100 and Junior Standing

### SOCI 353 Global Perspectives on Gender (4 credits)

How is gender socially constructed across culture? How does gender shape opportunity and quality of life across societies? In this course, we examine global social problems such as genital mutilation, the HIV/AIDS pandemic, rape in war, sex trafficking, and sex tourism. We use the lenses of migration and demographic transition, development and the legacies of colonialism, and globalization. We study empirical research and listen to the authentic voices of

women and men through documentary and interview sources. We also consider international and transnational social policies and actions aimed at improving the quality of life, expanding opportunities, and building human rights for women and men, girls and boys. This course meets a requirement in Justice and Peace Studies; Women's Studies; and fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: SOCI 100 or permission of the instructor

**SOCI 354 Sex in Society (4 credits)**

Sexuality as a social construction is explored with a specific focus on cultural and institutional influences including the family, government, religion, and the media. Current research findings are discussed within the context of historical change in American sexual behavior, attitudes and research methodologies. This course meets a requirement in Family Studies.

Prerequisite: SOCI 100 or 110

**SOCI 365 Social Psychology (4 credits)**

This course provides a general survey of major social psychological theories and research. Topics include selfhood, socialization, conformity/deviance, attitudes, gender roles, and intergroup/intragroup dynamics. Through exposure to real life settings and simulations, students will explore key questions such as "What attracts us to each other?", "How do we respond to deviant behavior?" and, "Why do we conform?". This course meets a requirement in the Justice and Peace Studies program.

Prerequisite: SOCI 100

**SOCI 366 Self and Society (4 credits)**

In what ways does the world around us shape who we are as individuals? This course exposes learners to the ways in which various social forces such as family, social class, mass media, and school shape our lives. It 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: SOCI 100

**SOCI 380 Cross-Cultural Perspectives on Religion in Society (4 credits)**

This course considers the relationship between religion and society on a world-wide basis. It examines why people are religious and how the beliefs and practices of various religious traditions have influenced family life, education, morality, politics, and other social dimensions of life. The course includes discussion of all the major religious traditions, such as Christianity, Judaism, Hinduism, Buddhism, and Islam.

Prerequisite: SOCI 100

**SOCI 405 Internship in Criminal Justice (4 credits)**

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: SOCI 200, 210, and permission of the instructor

**SOCI 470 Sociological Theory (4 credits)**

Study of the place of sociological theory in understanding interaction and society. Examination of both classical and contemporary theories, including conflict, functionalism, and interactionism. Application of theories to contemporary social concerns. Normally offered only in the fall semester.

Prerequisite: SOCI 100 and 8 additional credit-hours in sociology

**SOCI 474 Seminar in Sociology (4 credits)**

The senior capstone experience offers graduating students an opportunity to actively reflect upon theory, methodology, and substantive sociological knowledge and to integrate these components to assess the role of sociology in understanding sociological problems. These issues will be explored in the context of a specific topic, chosen by the instructor. Careers, vocation, and preparation for graduate school will also be addressed.

Prerequisite: SOCI 210 and 470

**SOCI 475, 476 Experiential Learning (2 credits)**

**SOCI 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**SOCI 480 Seminar in Criminal Justice (4 credits)**

The senior seminar serves as a capstone experience for students to address several central issues in the study of crime and justice. The major focus is to build upon students' knowledge from previous courses with a focus upon an integration of knowledge from material learned throughout the major. Students will complete a final project that demonstrates an in-depth understanding of a criminal Justice topic that could lead to future work in the criminal justice field.

Prerequisite: SOCI 210, 312 or permission of instructor

**SOCI 483, 484 Seminar (2 credits)**

## **Sociology and Criminal Justice – Statistics**

### **SOCI 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### **SOCI 487, 488 Topics (2 credits)**

### **SOCI 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

### **SOCI 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### **SOCI 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the “Curricula” section of this catalog.

### **Criminal Justice (CJUS)**

#### **CJUS 342 Criminal Law and Criminal Procedure (4 credits)**

This course provides an overview of the key elements of criminal law and criminal procedure. Topics include the purpose of criminal law, criminal responsibility and intent. In addition, the legal elements of crime will be addressed. The course also examines the importance of due process and constitutional protections for persons accused and convicted of crime. A major focus of the course is Minnesota statutes and procedures.

#### **CJUS 345 Police Operations (4 credits)**

An overview on organization of police and practices with a special emphasis on policing in the state of Minnesota. Topics include patrol practices, criminal investigation, crime scene investigation, crisis intervention, use of force, patrol practices and ethical codes in law enforcement. This course is designed for students who are completing POST requirement to become a licensed officer in the state of Minnesota.

Prerequisite: SOCI 200

#### **CJUS Correctional Practices and Administration (4 credits)**

This course examines the role of court services and corrections practitioners in the criminal justice system from presentence evaluations to ultimate release in the community. The focus is on corrections practices and the management of offenders within both institutional and community correctional settings and the administration of these organizations. There is a special emphasis on corrections within the state of Minnesota. Topics include correctional management, risk and needs assessment, programming options, and ethical codes in corrections.

Prerequisite: SOCI 200

### **Spanish (SPAN)**

See Modern and Classical Languages

### **Statistics (STAT)**

College of Arts and Sciences, Interdisciplinary Program: Department of Computer and Information Sciences and Department of Mathematics

O’Shaughnessy Science Hall (OSS) 402, (651) 962-5470

Werness (CISC) committee chair; Advisory committee: Curran (CISC), Dayananda (MATH), Pliego (CISC), Shemyakin (MATH)

Statistics is an interdisciplinary major that draws upon faculty and courses in the departments of Computer and Information Sciences and Mathematics. The major is administered by a committee of representatives from both departments. This joint major allows students to pursue an interest in mathematical statistics, applied statistics, and related areas including biostatistics, operations research, and data mining.

#### **Major in Statistics (B.S.)**

MATH 113 Calculus I (4 credits)

MATH 114 Calculus II (4 credits)

*Plus four credits from the following:*

MATH 128 Introduction to Discrete Mathematics (4 credits)

*or*

MATH 240 Linear Algebra (4 credits)

*Plus:*

CISC 130 Programming and Problem Solving (4 credits)

IDTH 360 Advanced Statistical Software (4 credits)

IDTH 400 Data Mining and Machine Learning (4 credits)

STAT 460 Statistical Research/Practicum - a capstone experience (4 credits)

**Concentration in Mathematical Statistics**

MATH 200 Multi-variable Calculus (4 credits)  
 MATH 313 Probability (4 credits)  
 STAT 314 Mathematical Statistics (4 credits)  
 STAT 333 Applied Statistics Methods (4 credits)  
*Plus eight credits from the list of electives below.*

**Concentration in Applied Statistics**

STAT 220 Statistics I (4 credits)  
 STAT 320 Statistics II (4 credits)  
*Plus sixteen credits from the list of electives below.*

**Electives**

ACSC 264 Theory of Interest (4 credits)  
 ACSC 464 Math Finance (4 credits)  
 IDTH 410 Operations Research I (4 credits)  
 IDTH 411 Operations Research II (4 credits)  
 MATH 315 Applied Mathematics and Modeling I (4 credits)  
 MATH 385 Mathematical Methods of Numerical Analysis (4 credits)  
 STAT 310 Bio-Statistics (4 credits)  
 STAT 370 Bayesian Statistical Models and Credibility Theory (4 credits)

**Allied Requirements:**

COJO 100 Public Speaking(4 credits) or COJO 105 Communication in the Workplace (4 credits)

**STAT 220 Statistics I (4 credits) (IDTH 201) (formerly IDTH 220)**

Introductory applied statistics. Work environment; population, sampling frame, random sample, type of variables and studies. Descriptive statistics: collecting, displaying, summarizing, and interpreting data to extract information. Probability; relative frequency definition of probability, conditional probability, independence, discrete and continuous random variables, probability distribution and probability density, binomial, normal, standard normal, t, chi-square, and F distributions. Inferential statistics; sampling distribution of the sample mean and sample proportion, central limit theorem, confidence intervals and hypothesis tests for one and two means and one and two proportions. Basic applications: tests of independence, analysis of variance and linear regression. A statistical package must be used as tool. This course fulfills the third course in the Natural Science and Mathematical and Quantitative Reasoning. Prerequisites: Math placement at level of MATH 111 or above; or MATH 100, or 101, or 105, or 108, or 109, or 111, or 113

NOTE: Students who receive credit for STAT 220 (IDTH 220) may not receive credit for IDTH 201.

**STAT 310 Biostatistics (4 credits)**

This course provides students with the knowledge and skills needed to effectively apply basic statistical methods in health related fields, such as Biology, Medicine, and Public Health. Students learn inferential statistical techniques involving topics in estimation, hypothesis testing, nonparametric methods, clinical trials, contingency tables, review of analysis of variance and linear regression, and a brief introduction to experimental design.

Prerequisite: STAT 220 or STAT 314

**STAT 314 Mathematical Statistics (4 credits) (formerly MATH 314)**

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 fall semester.

Prerequisite: MATH 240 and 313

NOTE: Students who receive credit for STAT 314 may not receive credit for MATH 303.

**STAT 320 Statistics II (4 credits) (formerly IDTH 320)**

Applied linear regression models. Simple linear regression: introduction, inferences, diagnostics, remedial measures, simultaneous inferences. Matrix approach in linear regression. Multiple regression; inferences, remedial measures, extra sums of squares, partial determinations, standardized models, use of indicator and mixed variables, polynomial regression, model selection and validation, diagnostics, remedial measures, multicollinearity and effects, autocorrelation. Single and multi-factor analysis of variance: analysis of factor level means, interactions, inferences, diagnostics, and remedial measures. A statistical package must be used as tool. Optional topics may include logistic regression, design of experiments, and forecasting.

Prerequisite: IDTH 201 or STAT 220 or STAT 333

**STAT 333 Applied Statistical Methods: Regression, Time Series, Forecasting (4 credits)**

Regression and exponential smoothing methods; Stochastic Time Series: auto- and cross-correlation, autoregressive



## Statistics – Theology

moving average models; application to forecasting. Offered spring semester.  
Prerequisites: MATH 303 or STAT 314 or permission of instructor

### STAT 370 Bayesian Statistical Models and Credibility Theory ( 4 credits)

This course covers a range of statistical models used in applications including Actuarial Science, Finance, Health and Social Sciences. It is oriented towards practical model construction and problem solving. Review of parametric statistical models and principles of statistical inference. Application to loss and ruin models. Construction of empirical and parametric models and model selection. Credibility theory. Simulation. Offered every other year.  
Prerequisite: MATH 313 and STAT 314 or STAT 220 and STAT 320

### STAT 460 Statistical Research/Practicum (4 credits)

Students will work individually with the instructor to identify a statistical research topic of current interest or to identify a real practical problem, for which statistics can be used to produce a feasible solution. State and local governments, companies, businesses, TV channels or even faculty doing research should be the natural source of real practical problems to be solved. For either the research or the practical problem, the final outcome should be a report with publication potential.  
Prerequisite: Senior standing or permission of instructor

## Study Abroad

See Academic Information & Programs in the front section of this catalog

## Theology (THEO)

College of Arts and Sciences, Department of Theology  
John Roach Center for the Liberal Arts (JRC) 153, (651) 962-5300  
Brady (chair), Anthony, Boyle, Carvalho, Cory, Faggioli, Feldmeier, Gavriluk, Hollerich, Jordon, King, Landry, Levad, Martens, McMichael, Montero, Myers, Nichols, Niskanen, Ozdemir, Penchansky, Rajendra, Rolnick, Sain, Schlabach, Ulrich, Vrudny, Wojda

In every historical period and cultural context, there are fundamental questions that concern human beings: the nature of the universe, the existence and nature of God, the nature of human beings, the relationship of a human to God and to his world, the nature of evil and the possibility of redemption.

The Department of Theology has designed a sequence of courses which acquaints students with these questions and assists them in articulating thoughtful responses formulated in light of the Catholic tradition and Christian faith. These courses contribute to the students' liberal arts education at the University through the development of writing, reading and critical thinking skills.

The first course, "The Christian Theological Tradition," introduces students to the theological framework that Christians have historically used to address questions of faith and human existence. The core readings for the course are from the Bible and from classic writers within the Christian tradition. The course provides students with an opportunity to reflect critically on the Catholic and Christian traditions within the context of contemporary life. Finally, it provides students with a basic level of theological literacy to prepare them for the second and third-level courses.

The second-level (200-numbered and 300-numbered) courses invite students to practice theology by engaging at a deeper level in the discipline of "faith seeking understanding." Courses at this level focus on a particular area of the Christian tradition, namely; the Bible, historical theology, systematic theology or moral theology. Students critically examine core elements of the tradition, such as classic texts, concepts, persons, and events while remaining mindful of the contemporary context. Through these courses, students learn the skills and methods of the discipline. These second-level courses then serve as a foundation for the interdisciplinary Bridge Courses at the next level.

The "Bridge Course," as the third course in the Faith and the Catholic Tradition sequence (400-numbered), will provide an opportunity for students to draw upon their entire program of studies. Serving as the culminating point for the curriculum, the Bridge Course prepares students to build connections between their studies in the liberal arts and the broader world for which their St. Thomas education has prepared them. A principal concern of the course is to guide students toward experiencing a sense of vocation in their professional, familial, and social lives. Because no single course can be expected to address all such areas, students will be offered three different types of bridge courses exploring different aspects of the broader world they are preparing to serve.

1. The first type of bridge course will address vocation in careers and in the professions and will be thoroughly interdisciplinary in nature and in many cases will be team-taught. These courses will develop a theological reflection on a specific profession (for example, medicine, law, management, and education). Other courses of this type will address the intellectual vocation of various academic disciplines, bringing theology into dialogue with academic disciplines that prepare students for a wide variety of careers. We will give priority to developing as many course of this first type as we can, although we will always be limited by the availability of faculty who are prepared to address the particular concerns of the professions and the particular academic disciplines from a theological perspective.

2. A second type of bridge course will cultivate in students a sense of vocation to serve the common good

by bringing a theological viewpoint to bear upon significant contemporary social issues such as poverty, war and peace, marriage and family, and social issues related to gender. These courses may be team-taught. As involved citizens, all students will have some part to play in addressing such issues. Learning how to focus what they have learned at St. Thomas in a manner that will illuminate such social issues will strengthen their ability to act justly and wisely as they participate in public affairs.

3. A third type of bridge course will prepare students to understand and address the complex religious issues emerging in the context of contemporary multicultural and global social conditions and interactions. These courses will be taught from a theological perspective and will focus on ecumenical and/or inter-religious study and dialogue (for example, courses in world religions). These courses may be team-taught. Developing a nuanced understanding of such issues is becoming increasingly important in political, professional, and economic areas of life. Enabling students to bring the fruit of their undergraduate study to bear upon such issues will prepare them to meet pressing contemporary needs.

The three levels of courses, thus, form an integrated sequence in the Faith and Catholic Tradition core area requirement. The first course introduces the tradition of Christian theological reflection. The second-level courses invite students “to do” theology—that is, to engage in reasoning about faith. In the third-level courses, students bring theological concepts and methods into dialogue with other disciplines.

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

*Beta 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.

**Study Abroad:** Theology majors and minors are encouraged to study abroad. Specific courses taken abroad may substitute for St. Thomas requirements. The exchange with Australian Catholic University in Melbourne, Australia is particularly suitable. See the chair of the department or a study abroad advisor in the International Education Center, or Academic Information & Programs in the front section of this catalog for program options.

#### Major in Theology

THEO 101 The Christian Theological Tradition (4 credits)

or

THEO 102 The Christian Theological Tradition: The Bible and the Early Church (2 credits) and THEO 103 The Christian Theological Tradition: St. Augustine to the Present (2 credits)

*Plus:*

THEO 215 Christian Morality (4 credits)

THEO 301 Theological Methods and Resources (4 credits)

THEO 391 Seminar for Theology Majors and Minors (4 credits) or THEO 393 Research Thesis for Majors (4 credits)

*Plus:*

Four credits in Old Testament (OT)

Four credits in New Testament (NT)

(one course must be THEO 205 or 210)

Four credits in systematic theology

Four credits in historical theology

*Plus:*

An additional eight elective credits in THEO courses

#### Major in Theology with a Ministry Concentration

The Lay Ministry Concentration is a specialization within the undergraduate theology major. It combines academic study (KNOW), observation of working ministers (SEE), and internship opportunities (DO), in order to provide students with the theological foundation, pastoral skills and spiritual formation necessary to assume entry-level positions in lay ecclesial ministry. Opportunities include pastoral ministry, youth ministry, religious education and faith formation, as well as a variety of support services for church and faith-based organizations.

Students who complete the program will have satisfied all of the theological competencies approved by the U.S. Conference of Bishops for lay ministers in the Roman Catholic Church, including the theology of revelation, God, church, sacraments and worship, morality and Catholic social teaching, ecumenism and interfaith relations. Ecumenical in nature and designed in cooperation with ministers from local Protestant churches, the program also welcomes students of other Christian traditions.

THEO 101 Christian Theological Tradition (4 credits)

THEO 205 Introduction to the Old Testament (4 credits) (or a 300-level course in Old Testament)

## Theology

THEO 210 Introduction to the New Testament (4 credits) (or a 300-level course in New Testament)  
THEO 215 Christian Morality (4 credits)  
THEO 323 Church and Sacramentality (4 credits)  
THEO 405 Spiritual Formation (0 credits)  
THEO 406 Pastoral Ministry (4 credits)  
THEO 407 Catechesis and Faith Formation (4 credits)

*Plus four credits from the following:*

THEO 200 Christian Belief: Ancient and Contemporary (4 credits)  
THEO 220 Early Christian Theology (4 credits)  
THEO 373 Person and Mission of Jesus (4 credits)

*Plus eight credits from the following:*

THEO 240 Theology of the Protestant and Catholic Reformation (4 credits)  
THEO 302 Second Vatican Council (4 credits)  
THEO 325 Catholic Social Traditions (4 credits)  
THEO 310 Christian Worship (4 credits)

*Plus four credits from the following:*

THEO 417 Internship for Ministry (4 credits)  
THEO 445 Theology and Education (4 credits)

### **Minor in Theology**

THEO 101 The Christian Theological Tradition (4 credits)

*or*

THEO 102 The Christian Theological Tradition: The Bible and the Early Church (2 credits) *and* THEO 103 The Christian Theological Tradition: St. Augustine to the Present (2 credits)

*Plus:*

THEO 215 Christian Morality (4 credits)

*Plus:*

Four credits in Sacred Scripture  
Eight additional credits in theology  
Four credits in systematic theology *or* Four credits in historical theology

*Note:* At least eight of the credits used to fulfill the minor must be at the 300-level or above. The department recommends either THEO 301 or 480 be chosen as one of the two electives for the minor.

### **Courses in areas of theological study:**

#### *Sacred Scripture*

THEO 205 Old Testament (4 credits) (OT)  
THEO 210 New Testament (4 credits) (NT)  
THEO 330 Wisdom Writings in the Biblical Tradition (4 credits) (OT)  
THEO 335 Letters of St. Paul (4 credits) (NT)  
THEO 340 The Gospel of John (4 credits) (NT)  
THEO 343 Apocalyptic Literature (4 credits) (OT & NT)  
THEO 345 Gospels of Matthew, Mark and Luke (4 credits) (NT)  
THEO 350 Historical Literature of the Old Testament (4 credits) (OT)  
THEO 352 The Pentateuch (4 credits) (OT)  
THEO 365 Prophetic Literature of the Old Testament (4 credits) (OT)  
THEO 387 Topics in Scripture (4 credits) (OT or NT)  
THEO 392 Topics in Scripture Theology-Half Course (2 credits)  
THEO 428 Women and the Old Testament (4 credits) (OT)  
THEO 430 Music and the Bible (4 credits) (OT & NT)  
THEO 458 The Bible from a Multicultural Perspective (4 credits)  
THEO 463 The Bible and American Politics (4 credits)  
THEO 465 Justice and the Bible (4 credits)  
THEO 466 The Qur'an and the Bible (4 credits)

#### *Historical theology*

THEO 220 Early Christian Theology (4 credits)  
THEO 230 Theology from Augustine to Aquinas (4 credits)  
THEO 231 American Catholicism (4 credits)  
THEO 240 Theology of the Protestant and Catholic Reformation (4 credits)  
THEO 310 Christian Worship (4 credits)  
THEO 320 Readings from St. Thomas Aquinas (4 credits)  
THEO 357 Sacred Music of the Catholic Heritage (4 credits)

- THEO 369 Salvation and Damnation: Theology of Luther and Calvin (4 credits)  
 THEO 383 Topics in Historical Theology-Half course (2 credits)  
 THEO 388 Topics in Historical Theology (4 credits)  
 THEO 429 Women and the Christian Tradition (4 credits)  
 THEO 431 Women in the Early Church (4 credits)  
 THEO 432 Black Religious Experience (4 credits)  
 THEO 433 Theology and Politics (4 credits)  
 THEO 439 History of Religion in America (4 credits)  
 THEO 451 Christianity and Nazism (4 credits)

*Systematic theology*

- THEO 200 Christian Belief: Ancient and Contemporary (4 credits)  
 THEO 301 Theological Methods and Resources (4 credits)  
 THEO 302 The Second Vatican Council (4 credits)  
 THEO 314 Christian Spirituality (4 credits)  
 THEO 323 Church and Sacramentality (4 credits)  
 THEO 360 Contemporary Catholic Theologians (4 credits)  
 THEO 373 The Person and Mission of Jesus Christ (4 credits)  
 THEO 380 Grace, Hope and Eschatology (4 credits)  
 THEO 381 Topics in Systematic Theology-Half Course (2 credits)  
 THEO 386 Topics in Systematic Theology (4 credits)  
 THEO 394 Death and the Afterlife (4 credits)  
 THEO 421 Theologies of Justice and Peace (4 credits)  
 THEO 422 Christian Faith and the Management Professions (4 credits)  
 THEO 423 Christian Marriage (4 credits)  
 THEO 424 Christianity and World Religions (4 credits)  
 THEO 425 Judaism (4 credits)  
 THEO 426 Islam (4 credits)  
 THEO 427 Evil and Suffering (4 credits)  
 THEO 434 Science and Christian Theology (4 credits)  
 THEO 435 Atheists and Apologists (4 credits)  
 THEO 436 Christian Faith and the Legal Profession (4 credits)  
 THEO 440 Hinduism and Buddhism (4 credits)  
 THEO 445 Theology and Education (4 credits)  
 THEO 446 Theology and Psychology (4 credits)  
 THEO 448 Theology and Literature (4 credits)  
 THEO 449 Theology and the Engineering Profession (4 credits)  
 THEO 450 Theology and Mass Media (4 credits)  
 THEO 452 Theology and Beauty (4 credits)  
 THEO 453 Theology and Art (4 credits)  
 THEO 455 The Church in Latin America (4 credits)  
 THEO 456 Christianity and Consumer Culture (4 credits)  
 THEO 457 Theology and Public Discourse (4 credits)  
 THEO 464 Jesus Christ and Interreligious Dialogue (4 credits)  
 THEO 467 Muslim Christian Dialogue (4 credits)

*Moral theology*

- THEO 215 Christian Morality (4 credits)  
 THEO 325 The Catholic Social Traditions (4 credits)  
 THEO 384 Topics in Moral Theology-Half Course (2 credits)  
 THEO 389 Issues in Christian Morality (4 credits)  
 THEO 420 Theology and the Biomedical Revolution (4 credits)  
 THEO 437 Christian Faith and the Medical Profession (4 credits)  
 THEO 447 Faith, Social Transformation and Social Work (4 credits)  
 THEO 454 The Morality of War (4 credits)  
 THEO 459 Theology and the Environment (4 credits)  
 THEO 460 Christian Ethics and US Immigration (4 credits)

**Certificate In Lay Ministry**

The Certificate in Ministry will consist of eight (8) four-credit undergraduate courses chosen from among the approved courses in the Concentration in Lay Ministry. The specific choice of courses will be done in consultation with an adviser, who may, on occasion, substitute other courses if the person's previous experience warrants it. Otherwise, courses will be chosen from the following list:

- THEO 101 Christian Theological Tradition (4 credits)  
 THEO 205 Introduction to the Old Testament (4 credits) (or a 300-level course in Old Testament)

## Theology

THEO 210 Introduction to the New Testament (4 credits) (or a 300-level course in New Testament)  
THEO 215 Christian Morality (4 credits)  
THEO 323 Church and Sacramentality (4 credits)

*Plus four credits from the following:*

THEO 200 Christian Belief: Ancient and Contemporary (4 credits)  
THEO 220 Early Christian Theology (4 credits)  
THEO 373 Person and Mission of Jesus (4 credits)

*Plus eight credits from the following:*

THEO 240 Theology of the Protestant and Catholic Reformation (4 credits)  
THEO 302 Second Vatican Council (4 credits)  
THEO 310 Christian Worship (4 credits)  
THEO 325 Catholic Social Traditions (4 credits)

All of the courses in the Certificate program are part of the standard offerings of the Theology department, as described in the undergraduate catalogue of the University of St. Thomas. These courses are taught by St. Thomas faculty at the same level and with the same standards as the coursework for major in Theology. Thus, the coursework for the Certificate in Ministry would be applicable toward a Baccalaureate of Arts degree, should the student decide to complete his or her studies at that level. Because they will be applicable toward the Theology major, all program standards will be the same as for the major. This means that students must maintain a grade point average of 2.0 within the program. No course can be taken on a Pass/Fail basis. If the department passes any other regulations for the major, these would automatically apply to the certificate program as well.

Because the students for which this program is designed likely will come with very different educational backgrounds and ministerial experiences, an adviser (and/or the Concentration in Ministry director) will work with each individual student to select the coursework that best meets his or her needs. At the same time, insofar as their coursework will be chosen from the approved courses for the Concentration in Ministry, students will attain a common educational experience by the time they have concluded the program.

Applicants for the Ministry Certificate program should have at least 12 months of full-time or part-time professional ministry experience prior to admission. Prospective students will provide official high school transcript(s) or GED and official college transcript(s) (if any). They will also submit a writing sample, in which they reflect on their understanding of the vocation or theology of ministry, and a letter of recommendation from one of their supervisors in ministry. Students can transfer up to three courses approved by the program director.

### **THEO 101 The Christian Theological Tradition (4 credits) (THEO 102, 103)**

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.

NOTE: Students who receive credit for THEO 101 may not receive credit for THEO 102 or 103.

### **THEO 102 The Christian Theological Tradition: The Bible and the Early Church (2 credits) (THEO 101)**

The first half of THEO 101. This course is designed to acquaint students with the contents of the Bible and Christian history, especially in the context of the Catholic tradition, up through the Council of Chalcedon (but not including the work of St. Augustine). Through a 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. Offered in January term.

NOTE: Students who receive credit for THEO 102 may not receive credit for THEO 101.

### **THEO 103 The Christian Theological Tradition: St. Augustine to the Present (2 credits) (THEO 101)**

The second half of THEO 101. This course is designed to acquaint students with the contents of the Bible and with Christian history, starting with St. Augustine, up to the present, especially in the context of the Catholic tradition. Through a 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.

Prerequisite: THEO 102

NOTE: Students who receive credit for THEO 103 may not receive credit for THEO 101.

### **THEO 200 Christian Belief: Ancient and Contemporary (4 credits)**

This course introduces systematic theology, a discipline that tries to understand how Christian doctrines are interrelated 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 experi-

ence.

Prerequisite: THEO 101 (or 102 and 103)

**THEO 205 Old Testament (4 credits)**

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: THEO 101 (or 102 and 103)

**THEO 210 New Testament (4 credits)**

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: THEO 101 (or 102 and 103)

**THEO 215 Christian Morality (4 credits)**

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: THEO 101 (or 102 and 103)

**THEO 220 Early Christian Theology (4 credits)**

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: THEO 101 (or 102 and 103)

**THEO 230 Theology from Augustine to Aquinas (4 credits)**

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: THEO 101 (or 102 and 103)

**THEO 231 American Catholicism (4 credits)**

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: THEO 101 (or 102 and 103)

**THEO 240 Theology of the Protestant and Catholic Reformation (4 credits)**

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: THEO 101 (or 102 and 103)

**THEO 243 Individual Study (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

Prerequisite: THEO 101 (or 102 and 103)

**THEO 269 Research (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

Prerequisite: THEO 101 (or 102 and 103)

**THEO 301 Theological Methods and Resources (4 credits)**

This course explores the role of scripture, history, tradition and common human experience in the understanding of

## Theology

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: THEO 101 (or 102 and 103)

### **THEO 302 The Second Vatican Council (4 credits)**

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: THEO 101 (or 102 and 103)

### **THEO 310 Christian Worship (4 credits)**

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: THEO 101 (or 102 and 103)

### **THEO 314 Christian Spirituality (4 credits)**

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: THEO 101 (or 102 and 103)

### **THEO 320 Readings from St. Thomas Aquinas (4 credits)**

An introduction to the theology of St. Thomas Aquinas, his influence and his contemporary significance.

Prerequisite: THEO 101 (or 102 and 103)

### **THEO 323 Church and Sacramentality (4 credits)**

A study of past and present models of the Church, and of sacramentality as a central expression of Christian communities. Sacramentality recognizes God’s transformation of human beings through effective signs, such as Baptism and Eucharist. This course examines the implications of various models of Church and sacramentality for the status and functions of laity, forms of ministry and authority, and the relationship between the churches.

Prerequisite: THEO 101 (or 102 and 103)

### **THEO 325 The Catholic Social Traditions (4 credits)**

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: THEO 101 (or 102 and 103)

### **THEO 330 Wisdom Writings in the Biblical Tradition (4 credits)**

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: THEO 101 (or 102 and 103)

### **THEO 335 Letters of St. Paul (4 credits)**

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: THEO 101 (or 102 and 103)

### **THEO 340 The Gospel of John (4 credits)**

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: THEO 101 (or 102 and 103)

#### **THEO 343 Apocalyptic Literature (4 credits)**

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: THEO 101 (or 102 and 103)

#### **THEO 345 Gospels of Matthew, Mark and Luke (4 credits)**

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: THEO 101 (or 102 and 103)

#### **THEO 350 Historical Literature of the Old Testament (4 credits)**

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: THEO 101 (or 102 and 103)

#### **THEO 352 The Pentateuch (4 credits)**

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: THEO 101 (or 102 and 103)

#### **THEO 357 Sacred Music of the Catholic Heritage (4 credits) (equivalent to 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: THEO 101 (or 102 and 103)

#### **THEO 360 Contemporary Catholic Theologians (4 credits)**

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: THEO 101 (or 102 and 103)

#### **THEO 365 Prophetic Literature of the Old Testament (4 credits)**

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: THEO 101 (or 102 and 103)

#### **THEO 366 Psychology and Moral Theology (4 credits) (equivalent to CATH 366)**

Although the fields of psychology and moral theology are in some ways similar in that they each address questions of human nature and human growth, they are also quite distinct in their conceptions of the human person. This course will explore some of the relationships between psychology and moral theology, especially in matters of human wellness and personal well-being. Areas of disparity between the disciplines as well as points of commonality and fruitful exchange will be discussed.

Prerequisite: THEO 101 (or 102 and 103)

#### **THEO 369 Salvation and Damnation: Theology of Luther and Calvin (4 credits)**

How are humans saved? Do we have a free will? Does God choose some to be saved and others to be damned? This



## Theology

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: THEO 101 (or 102 and 103)

### **THEO 373 The Person and Mission of Jesus Christ (4 credits)**

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: THEO 101 (or 102 and 103)

### **THEO 380 Grace, Hope and Eschatology (4 credits)**

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: THEO 101 (or 102 and 103)

### **THEO 381 Topics in Systematic Theology-Half Course (2 credits)**

This course will consider particular topics in systematic theology. Topics covered will vary from section to section, but will not duplicate existing courses. Because topics vary, the course may be taken more than once. Intended primarily for January term, this course fulfills HALF (2 credits) of the second-level requirement for Faith and the Catholic Tradition.

Prerequisite: THEO 101 (or 102 and 103)

### **THEO 383 Topics in Historical Theology-Half Course (2 credits)**

This course will consider particular thinkers, texts, themes, or movements in the history of theology. Topics covered will vary from section to section, but will not duplicate existing courses. Because topics vary, the course may be taken more than once. Intended primarily for January term, this course fulfills HALF (2 credits) of the second-level requirement for Faith and the Catholic Tradition.

Prerequisite: THEO 101 (or 102 and 103)

### **THEO 384 Topics in Moral Theology-Half Course (2 credits)**

This course considers particular topics in moral theology. Topics covered will vary from section to section, but will not duplicate existing courses. Because topics vary, the course may be taken more than once. Intended primarily for January term, this course fulfills HALF (2 credits) of the second-level requirement for Faith and the Catholic Tradition.

Prerequisite: THEO 101 (or 102 and 103)

### **THEO 386 Topics in Systematic Theology (4 credits)**

The subject matter of this course, announced in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>, will vary from year to year, but will not duplicate existing courses in systematic theology. Examines of topics are: Theologies of Global Economics, the Church in Latin America, Theology of the Catholic Worker Movement, Women Mystics, Ireland: Understanding Celtic Spirituality, and Newman and the Catholic Revival.

Prerequisite: THEO 101 (or 102 and 103)

### **THEO 387 Topics in Scripture (4 credits)**

The subject matter of this course, announced in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>, 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 of 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: THEO 101 (or 102 and 103)

### **THEO 388 Topics in Historical Theology (4 credits)**

The subject matter of this course, announced in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>, 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: THEO 101 (or 102 and 103)

### **THEO 389 Issues in Christian Morality (4 credits)**

This course focuses on the historical development and contemporary discussion of a specific moral issue to be announced in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>—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: THEO 101 (or 102 and 103)

**THEO 391 Seminar for Theology Majors and Minors (4 credits)**

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.

Prerequisite: a minimum of sixteen credits in theology, including THEO 101 (or 102 and 103)

**THEO 392 Topics in Scripture Theology-Half Course (2 credits)**

This course will consider selected topics, themes, or texts in the Christian scriptures, and will introduce students to the major methods of biblical criticism. Topics covered in this course will vary from section to section, but will not duplicate existing courses. Because topics vary, the course may be taken more than once. Intended primarily for January term. This course fulfills HALF (2 credits) of the second-level requirement for Faith and the Catholic Tradition.

Prerequisite: THEO 101 (or 102 and 103)

**THEO 393 Research thesis for Majors (4 credits)**

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.

Prerequisite: permission of chair

**THEO 394 Death and the Afterlife (4 credits)**

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: THEO 101 (or 102 and 103)

**THEO 395, 396 Special Seminar (2 credits)**

**THEO 397, 398 Special Seminar (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

Prerequisite: THEO 101 (or 102 and 103)

**THEO 405 Spiritual Formation (0 credits)**

Person involved in lay ministry can provide appropriate spiritual leadership only if they themselves pursue a vibrant, adult faith life. This zero credit course introduces student to resources and religious practices from a variety of faith traditions that will contribute to their own spiritual development. Through group discussion and reflective assignments, they will also have opportunities to reflect upon their gifts, strengths and limitations for lay ministry. Required of all students completing the ministry concentration. Enrollment in the lay ministry program or permission of instructor required.

Prerequisite: Enrollment in lay ministry program or permission of instructor

**THEO 406 Pastoral Ministry (4 credits)**

This course explores some of the issues and challenges that pastoral leaders face in diverse ministries in local faith communities. Participants will examine the theological foundations of pastoral ministry that emerge from church teaching and magisterial documents; explore their own realities as emerging pastoral leaders; identify the functions of pastoral leadership; assess their preparation and gifts for pastoral leadership; practice a process of theological reflection that enhances the way they minister; and be able to identify the pertinent knowledge, competencies and spirituality needed to be effective pastoral ministers. Participants will also have an opportunity to examine, in more depth, ministry to a particular population in a faith community (e.g., needs addressed by your ministry, family ministry, ministry to the bereaved, ministry to young adults, ministry to the poor and marginalized, etc.) and determine how the faith community assess and responds to specific pastoral needs. Through the study of church documents and pastoral resources interviews with pastoral leaders, observations of pastoral ministry in local churches, library research, self-assessment inventories, reflective assignments, and case studies, participants in this course will articulate a theological foundation for their own vocation and identify a plan for their own continued personal, spiritual, and professional growth as pastoral leaders. This course is intended for students pursuing the concentration in lay ministry. Field observation is required.

Prerequisites: four college-level courses in theology

**THEO 407 Catechesis & Faith Formation (4 credits)**

Ecumenical in nature, this course is designed to help students connect the knowledge and skills they have gained in previous theology courses to the practice of catechetical ministry and adult faith formation in a parish or church set-

## Theology

ring. Students will investigate various strategies for evangelization, particularly for outreach to people of diverse backgrounds. They will learn how one's faith development is related to the various stages of events in one's life and investigate ways to relate church teachings and Christian scriptures to the faith development and formation of both youth and adults. To this end, they will study relevant catechetical documents and learn how to assess catechetical and faith formation programs for their appropriateness to a particular community of faith. Emphasis will be placed on the Rites of Christian Initiation of Adults as paradigmatic for Christian formation across the life span. This course is intended for students pursuing the concentration in lay ministry. Field observation is required

Prerequisites: Four college-level courses in theology

### THEO 417 Internship in Ministry (4 credits)

This internship complements the student's academic work by providing supervised ministerial experience. Working with an on-site ministry staff person, the student will apply his or her academic training to a chosen area of ministry. A minimum of 10 hours per week at the selected agency or church is required, as well as a weekly seminar session led by a UST Theology faculty member.

Prerequisite: Completion of 24 credits in theology, including THEO 101 (or 102 and 103) and 215

### THEO 420 Theology and the Biomedical Revolution (4 credits)

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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 421 Theologies of Justice and Peace (4 credits)

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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 422 Christian Faith and the Management Professions (4 credits) (equivalent to 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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 423 Christian Marriage (4 credits)

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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 424 Christianity and World Religions (4 credits)

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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 425 Judaism (4 credits)

An examination of Judaism, its history, literature, religious concepts, practices and personalities. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 426 Islam (4 credits)

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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

**THEO 427 Evil and Suffering (4 credits)**

This course analyzes some of the most profound evils of the modern era, and attempts to relate them to traditional and contemporary discussions of divine and human 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; slave trade; genocidal colonization in Africa, Asia, and the Americas; 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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

**THEO 428 Women and the Old Testament (4 credits)**

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 (or 102 and 103) and one 200-level or 300-level THEO course

**THEO 429 Women and the Christian Tradition (4 credits)**

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 (or 102 and 103) and one 200-level or 300-level THEO course

**THEO 430 Music and the Bible (4 credits) (equivalent to 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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

**THEO 431 Women in the Early Church (4 credits)**

The literature of early Christianity is filled with ambiguity concerning women's role in the churches and in the story of salvation. Women's subordination was justified on the basis of Eve's role in bringing evil and sin into the world. At the same time, women were presented as heroines and models of the ideal Christian life. They held roles of leadership within early church communities, even while early church writers argued against their right to do so. This course will examine a wide range of primary texts by and about women in the early Christian churches in order to explore the relationship between faith and culture as the context for understanding women's role and status in the early church. It will also look at ways in which these texts might be relevant for the modern context. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

**THEO 432 Black Religious Experience (4 credits)**

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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

**THEO 433 Theology and Politics (4 credits)**

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 disestablishment, on a religion

## Theology

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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 434 Science and Christian Theology (4 credits) (equivalent to 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: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course, PHIL 115, some college-level background in science, preferably biology, physics, or chemistry

### **THEO 435 Atheists and Apologists (4 credits)**

This course explores the problem of religious belief in a secular society by focusing on the effects of the empirical and human sciences on the classical understanding of God. Considering original thinkers, such as Descartes, Kant, Hegel, Marx, Darwin, Nietzsche, and Freud, the course will explore the emergence of several types of atheism and the intellectual defense of religious belief. Students will do a detailed reading of selected texts, which may include theological, philosophical, scientific, and literary works.

Prerequisites: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course and PHIL 115

### **THEO 436 Christian Faith and the Legal Profession (4 credits) (equivalent to CATH 378)**

If to work is to share in the creative activity of God, then what specific challenge does this pose for an attorney given the grinding realities of the legal profession? If to be a professional is to live out a tripartite relationship between self, client, and a higher standard, then how does an attorney determine, much less respond to such a standard? Through a close reading of a variety of theological texts, treatises, case studies and rules of professional conduct, this course will address these questions and, in so doing, attempt to fashion a paradigm for the Christian practice of law. Within this paradigm, emphasis will be placed on the meaning of justice, law, rights and responsibilities. An ethic of care that fosters the development of a compassionate world and a common life will be emphasized.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 437 Christian Faith and the Medical Profession (4 credits) (equivalent to CATH 379)**

What is a good doctor? This course pursues this question and possible answers to it, from a historical, moral, and theological point of view. Reading and discussion will be guided by a detailed investigation of the scientific/technological, economic, and cultural forces that are presently complicating our traditional understanding of medical practice. Emphasis throughout will be on the Christian tradition of moral inquiry as a resource for responding to this question.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 439 History of Religion in America (4 credits)**

This course traces the evolution of religion in the territories that constitute the United States of America today. This collection of believers (Native, Catholic, Protestant, Jewish, Muslim, *etc.*) initially emerged from the complex encounters between the indigenous Native American residents and a triduum of European explorers (Spanish, French, and English). Ultimately it not only incorporated several additional imported communities and belief systems, but also created a unique blend of the sacred and the secular. Attention will be given to the social dynamics of these communities, their understanding of God, and the theologies that developed. The polemic and harmonious relationships of these communities will serve as a backdrop to the development of key concepts (religion, culture, belief, common good, values, *etc.*) as they appear in the religious vocabulary of citizens of the USA.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 440 Hinduism and Buddhism (4 credits)**

This course investigates Hinduism and Buddhism, the two great Asian religions that have had worldwide impact. We will examine the historical and theological foundations of each religion as well as the plurality of expressions within each. Considerable attention will be paid to classical Hindu and Buddhist texts. This course will also attend to issues of comparative religion and interreligious dialogue, particularly with regard to Christianity.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 445 Theology and Education (4 credits)**

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.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 446 Theology and Psychology (4 credits)**

This course will investigate the relationship between psychology and theological approaches to human existence. This course will address interfacing issues such as how the human person is variously conceived, the relationship between pathology and sin, the purpose and meaning of human life, and the relationship between human flourishing and spiritual development. There is an inherent, creative tension between the assumption and methods of both discipline, one

## Theology

typically seeking adjustment and individuation and the other seeking holiness and realizing the reign of God. Through lecture, critical reading, class discussion, and student research this course shall examine how both academic disciplines inform and challenge each other.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 447 Faith, Social Transformation and Social Work (4 credits)

There are strong ties between the profession of social work and Christian social morality. Social workers promote social change, healthy human relationships and the enhancement of personal well-being. Many social workers see their work as a vocation. They are often moved to join the profession and are motivated in profession by spiritual beliefs. Christian social ethics affirm these goals. This course will explore the ties and the tensions between social work, social transformation and Christian ethics.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course and one Social Work course.

### THEO 448 Theology and Literature (4 credits)

How do various writers explore and convey their understanding of theological categories such as God, humanity, creation, redemption, faith, doubt, good, and evil? How does looking at the interplay of form and content, the elements and purpose of storytelling, and the connection of culture and ideology to artistic expression shed light on key theological questions? This team-taught course will explore these literary and theological questions through critical engagement with texts from a variety of time periods, literary genres, and religious perspectives.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course and one English course

### THEO 449 Christian Faith and the Engineering Profession (4 credits)

This course explores the relation of theology and engineering, focusing on how the two disciplines come together in the contemporary profession of engineering. Study of theological topics, such as the nature of the created world, the dignity and vocation of the human person, and a theological understanding of work, provides a foundational Christian vision. Extensive case study analysis assists the integrated comprehension of the vision and its application to the social, moral, and professional obligations of engineers. Emphasis is given to issues encountered by mechanical and electrical engineers, such as product impact on the environment, the social implications of engineering, and engineering for the military.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course and one Engineering course

### THEO 450 Theology and Mass Media (4 credits)

This course will analyze and evaluate the coverage of religion and religious issues in the mass media (primarily in newspapers and magazines) and analyze religiously-inspired or religiously-themed media products (primarily in films, radio, television programs, and books). This course attempts to develop skills in detecting the religious thread in the tapestry of modern culture, interpreting the theological content in popular culture, critically analyzing the coverage of religion in the news, and appreciating the ways in which the finest examples of religiously-themed popular culture have advanced the theological conversation of which all modern believers are a part.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 451 Christianity and Nazism (4 credits)

This course studies both Catholic and Protestant Christianity in Germany from the First World War to the end of the Second World War. The basic theme is Christianity's relationship with its host culture, and the ways in which the churches, both theologians and lay people, understood that relationship especially in its political dimension, amidst the crises that convulsed Germany in the twenties, thirties, and forties. Attention is given both to cases that demonstrate the conflict between Christianity and culture, and to cases in which the conflict was not acknowledged, whether through defects of character, theological blind spots, or political miscalculations.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 452 Theology and Beauty (4 credits)

Is beauty "in the eye of the beholder"? Are "beauty" and "prettiness" synonymous? Are "beauty" and "ugliness" opposites? Might beauty still be considered a transcendental aspect of being, along with the true and the good? Is it possible that Beauty is a name for God, or a means by which God reveals God's self in the created order? This course examines a variety of theological approaches to these questions, both ancient and modern. It also explores the implications of varying answers to these questions for the arts, and for lives of faith.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### THEO 453 Theology and Art (4 credits)

Through the ages, the relationship between theology and the arts has been mutually enriching, resulting in some of the world's masterpieces of visual art, architecture, music, and literature. The relationship, too, has been strained by iconoclastic movements that express fear that the arts tempt people with idolatry. In this course, students will consider the theological dimensions of the complex relationship between theology and the arts. Emphasis on historical periods, themes, doctrines, intersections, and types of art will vary according to the expertise of the instructor.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course and one Art History course

### THEO 454 The Morality of War (4 credits)

Against the background of historical debates within the Christian tradition, this course examines circumstances in which military forces may be justified and the moral constraints that apply to its conduct. Major attention to con-

## Theology

crete case studies will familiarize students with standard just war criteria and develop their capacity to apply them in difficult situations. Students explore emerging debates over questions such as: Who decides whether a war is just? What place does war have in the evolving international system? What prospects has Gandhian nonviolence opened up for transarmament? Is there an obligation for humanitarian intervention even in the absence of national self-interest?

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 455 The Church in Latin America (4 credits)**

In this course we will study Christian theology and practice in context of great suffering and struggle. We will analyze the various forms that Christianity has taken in Latin America from the period of the Spanish Conquest to the present. We will study the history of the Church in Latin America, but more importantly we will examine the theological issues raised in each era to see how Christians have lived their faith under different circumstances. As we examine the complex interplay of Church, poverty, and power in Latin American history, we will examine theologies and spiritualities of evangelization, liberation, martyrdom, poverty, and the Church. We will also study and critique specifically Latin American methods and approaches to the theological task itself. Finally, we will examine the coming of the Latin American Church to the United States through immigration.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 456 Christianity and Consumer Culture (4 credits)**

Consumerism can be defined as the tendency to reduce both the material and the spiritual to commodities. This course is an extended investigation of the dynamics of consumerism in American culture from the perspective of the Christian intellectual tradition. Sources drawn upon will include materials from theology, political theory, philosophy, and economic theory. Attention will be given to the history of consumerism, the theology implicit in consumerism, and different Christian reactions to the phenomenon of consumerism.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 457 Theology and Public Discourse (4 credits)**

This course addresses students as citizen believers, mapping out what role they can play in public life. It first examines the Christian tradition and its teachings on responsible citizenship. It then examines the questions using legal and political theory form before our founding as a nation through the debates about the nature of our democracy today. The rest of the course is focused on preparing students as citizen believers to enter the public square with their own theological argument on contemporary political topic of interest to them, which they will make public through varied written formats and class debate.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 458 The Bible from a Multicultural Perspective (4 credits)**

This course examines the interaction between biblical interpretation and diverse contemporary cultures. The course defines multiculturalism broadly to include race/ethnicity, gender, sexual orientation, class and/or religion. The course has three goals: a reconstruction of the cultural context of the ancient world; an examination of challenges posed by cultural theories; and the impact diverse readings have for contemporary theologies based on the Bible.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 459 Theology and the Environment (4 credits)**

This course examines Christian theological and moral reflection on the relation between human activity and the natural environment. It will address environmental issues that are of mutual concern to theologians and the natural or social sciences; thus it will study scientific analysis along with theological perspectives. The course will also review contemporary practices and/or policies that address environmental problems.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 460 Christian Ethics and U.S. Immigration (4 credits)**

This course will bring the tools and the methods of Christian ethics to bear on the issue of economic immigration in the contemporary, U.S. context. The first part of the course examines the economic, political, historical, social and cultural dimension of transnational migration in the U.S. context. The second part of the course will bring the resources of Christian ethics to the ethical issues of immigration raised in the first part of the course. This second part of the course will examine the centrality of lateritic (otherness) in the Bible and the Christian tradition. The course will conclude with the discussion of how Christian ethics can inform the national discourse on the issues and conversely, how the issues of migration must shape Christian ethics.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 463 The Bible and American Politics (4 credits)**

This course examines the use and misuse of the Bible and its political teachings in American political history. Readings and discussions will address the political message of the Bible, the questions of whether the Bible played any substantial role in the creation of the American polity, and the way in which particular biblical passages, themes, and schools of interpretation have functioned in American political discourse and have influenced the development of American history.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

### **THEO 464 Jesus Christ and Interreligious Dialogue (4 credits)**

This course will explore the identity and role of Jesus in Christianity in relation to Judaism, Islam, Hinduism, and Buddhism. It will show the similarities and differences in the various approaches to Jesus in the context of each of these respective religions and of interfaith dialogue.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

#### **THEO 465 Justice and the Bible(4 credits)**

This course will investigate ways that the Bible has been and can be used to address issues of social justice and peace in today's world, both within Christian faith communities and in public debate. Topics of investigation may include war, poverty, oppression, human rights, world hunger, immigration, ecology, globalization, capital punishment, genocide, euthanasia, and racial, gender, and economic inequities. Attention will be given to contemporary approaches to the study of the Bible that lend themselves to exploring these issues. The instructor may opt to focus on the Old Testament or the New Testament of the Christian scriptures.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

#### **THEO 466 The Qur'an and the Bible (4 credits)**

This course will examine the Bible and the Qur'an and compare them. Points of comparison might include : competing claims of divine inspiration; creation, Adam and Eve; Joseph; the law; Mary and Jesus; Mohammed and Jesus. This course has three goals. First, to gain an understanding of each broad tradition (Islamic from the Qur'an, and Jewish and Christian from the Bible); second, to develop a method by which to approach sacred texts, a way to see their relevance and power and third, to appreciate both the differences and the similarities in these two sacred texts, both in their literary features, and in their effect upon society.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

#### **THEO 467 Muslim Christian Dialogue (4 credits)**

This course will explore what Christianity and Islam have in common, where they differ, and what are the most fruitful points of dialogue between the two religions. We will examine both Muslim and Christian perspectives on a range of topics, including God, revelation/prophesy, Jesus, Muhammad, scripture, human nature, women and marriage, morality, peace and war, religion and politics, salvation, and eschatology. We will also consider some ongoing examples of Muslim-Christian dialogue, as well as papal statements concerning Islam and Muslim responses to those statements.

Prerequisite: THEO 101 (or 102 and 103) and one 200-level or 300-level THEO course

#### **THEO 475, 476 Experiential Learning (2 credits)**

#### **THEO 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

#### **THEO 483, 484 Seminar (2 credits)**

#### **THEO 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

#### **THEO 487, 488 Topics (2 credits)**

#### **THEO 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online,

<https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

#### **THEO 491, 492 Research (2 credits)**

#### **THEO 493, 494 Research (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

#### **THEO 495, 496 Individual Study (2 credits)**

#### **THEO 497, 498 Individual Study (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

## **Urban Studies**

College of Arts and Sciences  
Interdisciplinary Program  
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 within 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.



## Urban Studies – Women's Studies

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 (4 credits)  
ECON 333 Regional and Urban Economics (4 credits)  
HIST 377 The History of the Twin Cities (4 credits)  
POLS 303 Urban and Metropolitan Politics and Government (4 credits)  
SOVI 332 Urban Sociology (4 credits)

### Women's Studies (WMST)

College of Arts and Sciences, Interdisciplinary Program  
John Roach Center for the Liberal Arts (JRC) 405, (651) 962-5725  
High-Pippert (POLS), director

The Associated Colleges of the Twin Cities (ACTC) offer a cooperative major in women's studies. Women's studies is an interdisciplinary program which takes gender as its critical term of inquiry, exploring it as a social construct and analyzing its impact on traditional disciplines. As an interdisciplinary major and minor, women's studies spans the curriculum, incorporating many disciplines in a diverse and stimulating package of courses. Courses consider historical and contemporary contexts from multicultural and multiracial perspectives, and focus on the intersections of race, class, gender, ethnicity, sexuality, religion, and culture.

Students in the program learn how to analyze social forces and assumptions that have shaped women's lives on individual, national, and global levels. This flexible program of study combines theoretical, practical and research components and provides preparation for both advanced study and professional work, for example, in organizations focusing on women, in human relations departments of corporations, and in health or legal professions.

Women's studies majors and minors are encouraged to study abroad. Specific courses taken abroad may substitute for St. Thomas requirements. See the director of women's studies, a study abroad advisor in the International Education Center, or Academic Information & Programs in the front section of this catalog for program options.

### Major in Women's Studies

WMST 205 Foundations in Women's Studies (4 credits)  
WMST 327 Feminist Theory (4 credits)  
WMST 480 Women's Studies Seminar (4 credits)

#### *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  
Four 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

WMST 205 Foundations in Women's Studies (4 credits)

#### *Plus:*

Eight credits in Humanities  
Eight credits in Social Sciences and Natural Sciences

#### *Recommended:*

WMST 480 Women's Studies Seminar (4 credits)

*Note:* The seminar can count as one of the humanities, social science, or natural science courses.

#### **Transfer students:**

Students who transfer to St. Thomas and wish to complete a major or minor in Women's Studies are urged to consult with the director of Women's Studies immediately upon transfer.

The Women's Studies Program has an articulation agreement with Century College that governs Century College students with a Women's Studies certificate who transfer to St. Thomas. Transfers from other colleges and universities must consult with the director of Women's Studies for approval of course for the major or minor.

### WMST 205 Foundations in Women's Studies (4 credits)

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.

**WMST 295, 296 Topics (2 credits)**

**WMST 297, 298 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**WMST 327 Feminist Theory (4 credits)**

This interdisciplinary feminist theory course is designed as a mid-level course to serve as a bridge between the Foundations in Women's Studies course and the Senior Seminar. The content of the course will focus on theorizing around multiple differences of gender, race, ethnicity, class, and sexuality. As an interdisciplinary course, it provides an overview of historical and ideological trends in feminist thought around these differences. The focus may vary, and may include feminist theories from the fine arts, history, literary studies, philosophy, psychology, the sciences, and sociology.

**WMST 475, 476 Experiential Learning (2 credits)**

**WMST 477, 478 Experiential Learning (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**WMST 480 Women's Studies Seminar (4 credits)**

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: WMST 205

**WMST 483, 484 Seminar (2 credits)**

**WMST 485, 486 Seminar (4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**WMST 487, 488 Topics (2 credits)**

**WMST 489, 490 Topics (4 credits)**

The subject matter of these courses will vary from year to year, but will not duplicate existing courses. Descriptions of these courses are available in the Searchable Class Schedule on Murphy Online, <https://banner.stthomas.edu/pls/banner/prod/bwckschd>.

**WMST 269, 389, 491 Research (2 or 4 credits)**

See the description of these courses at the beginning of the "Curricula" section of this catalog.

**WMST 243, 393, 495 Individual Study (2 or 4 credits)**

See the description of these courses at the beginning of the "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 College of St. Catherine
- H Hamline University
- T University of St. Thomas

*Note:* 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 of 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
- THTR 299C Women and Film
- THEO 338C\* Women and the Bible
- THEO 385C\* Sexuality and Spirituality

## Women's Studies

THEO 390C\* Women Mystics  
ENG 3570H\* Women and Literature  
PHI 1200H\* Introduction to Feminist Theory  
REL 3250H\* Women and Religion  
ARTH 260T\* Women in Ancient Art and Culture  
ARTH 297T Women in the Ancient World  
CLAS 245T\* Classical Mythology  
CLAS 397T\* Topics: Gender  
COJO 328T\* Communication of Race, Class, and Gender  
ENGL 218T\* Literature by Women: Critical History  
ENGL 295T Twentieth-century Arabic Writers  
ENGL 337T Arab Film  
ENGL 341T\* Literature by Women: Critical Questions  
THEO 428T Women and the Old Testament  
THEO 429T\* Women and the Christian Tradition  
THEO 431T Women in the Early Church

### Social Science and Natural Science

INS 233A Women: A Cross Cultural Perspective  
INS 265A\* Women in American Culture  
PSYC 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 1530H Human Evolution  
BIO 1510H\* Human Biology, A Feminine Perspective  
EDUC 3750H Herstory of Education  
POL 3430H Gender Politics  
SOC 3330H Sex Roles  
SOC 3370H\* Marriage and the Family  
BIOL 106T\* Women, Medicine, and Biology  
BLAW 352T Gender Issues and the Law  
HIST 368T\* Women in the United States  
POLS 302T\* Women and Politics  
PSYC 205T\* Psychology of Women  
SOC 304T Adolescence in Society  
SOC 321T\* Marriage and Family  
SOC 353T\* Global Perspectives on

### 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 3330H\* North American Indians  
SOC 3350H\* Sociology of Race and Ethnicity  
ARTH 285T Arts of Africa and the African Diaspora  
ARTH 289T Asian Art  
COJO 370T\* Intercultural Communication  
HIST 116T African American History in Global Perspective  
MUSC 216T Jazz in America  
MUSC 218T Black American Music History  
SOC 251T\* Race and Ethnicity  
SOC 301T\* Cultural Anthropology

**Organization and Personnel**

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 executive 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/chief academic officer who is responsible for all academic units and academic support services; the executive vice president/chief administrative officer who is responsible for the day-to-day administrative operations of the university including fundraising; the vice president for mission; the vice president/rector, responsible for the administration of the Saint Paul Seminary School of Divinity; the vice president for finance and administration; the vice president for student affairs; the vice president for information resources and technologies; and the vice president for university and government relations.

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Rachel A. Wobschall, Ed.D.  
*Executive Director of Alumni and Constituent Relations*

Kristine M. Aasheim  
*Executive Director, Institutional Advancement*

### **Student Affairs**

Jane W. Canney  
*Vice President for Student Affairs*

JoAnn Andregg  
*Associate Director, Athletics and Recreation*

Margaret D. Cahill  
*Director, Campus Life*

Diane Crist  
*Director, Career Development*

Denise M. Dieffenbach  
*Director, Multicultural Student Services*

Steven J. Fritz  
*Director, Athletics and Recreation, Head Men's Basketball Coach*

Sr. Sharon M. Howell  
*Assistant Dean, Ombudsperson, Parent Liaison*

Deborah M. Knaust  
*Director, Office of International Student Services*

Karen M. Lange  
*Dean of Students*

Aaron M. Macke  
*Director, Residence Life*

Madonna K. McDermott  
*Director, Student Health Services*

Geraldine M. Rockett, Ph.D., L.P.  
*Director, Personal Counseling and Testing*

Mary Ann Ryan, Ed.D.  
*Executive Director, Campus and Residence Life*

James E. Sachs  
*Assistant Dean, Judicial Affairs*

Amanda Suniti Niskode-Dossett  
*Director, Student Engagement*

Victoria A. Svoboda  
*Associate Dean Orientation/Commuter/Transfer Student Services*

Rebecca Swiler  
*Director, Child Development Center*

### **Business Affairs**

Mark Vangsgard  
*Vice President for Business Affairs/Chief Financial Officer*

Gerald M. Anderley  
*Associate Vice President for Physical Facilities*

Bruce Van den Berghe  
*Associate Vice President of Auxiliary Services*

Gary L. Thyen  
*Associate Vice President and Controller*



## University Faculty

Michael F. Sullivan, Ph.D.  
*Chief Investment Officer*

Karen M. Harthorn  
*Director, Purchasing Services*

Pamela L. Peterson  
*Director, Business Office*

Marlene M. Levine  
*Director, Gainey Conference Center*

Thanos J. Zyngas  
*Director, Bernardi Campus, Rome*

### **Information Resources and Technologies**

Samuel J. Levy, Ed.D.  
*Vice President for Information Resources and Technologies*

Jennifer C. Haas  
*Director, Client Services*

Dan R. Gjeltén  
*Director, University Libraries*

Christopher S. Gregg  
*Director, Information Technology*

Elizabeth J. Houle  
*Director, Web & Media Services*

Paul D. Kozak  
*Director, Budgets, Acquisition & Inventory*

Dave L. Naugle  
*Director, Telecommunication and Network*

### **University Relations**

Doug E. Hennes  
*Vice President for University and Government Relations*

Jim Winterer  
*Director, News Service*

Greg Hendricks  
*Director, Alumni Association*

William V. Kirchgessner  
*Executive Director, Marketing Communications*

John Hershey  
*Director, Neighborhood Relations*

## University Faculty

### **A**

**Lisa J. Abendroth**  
*Assistant Professor of Marketing*  
2007; B.A., B.S., University of Pennsylvania; Ph.D.,  
Duke University

**John P. Abraham**  
*Associate Professor of Engineering*  
2000; B.S.M.E., M.S.M.E., Ph.D., University of  
Minnesota

**Jamal Al-Khatib**  
*Professor of Marketing*  
2003; B.A., King Abdul Aziz University (Jeddah,  
Saudi Arabia); M.B.A., Ball State University; Ph.D.,  
University of Mississippi (Oxford)

**David L. Alexander**  
*Instructor in Marketing*  
2007; B.S., Tennessee Technical University; M.B.A.,  
Ph.D., Duke University

**Susan L. Alexander**  
*Associate Professor of Economics*  
1981; B.A., Arkansas Polytechnic College; M.A.,  
Ph.D., Southern Methodist University

**Denis Allaire**  
*Member of Adjunct Faculty in Music*  
Studio Instructor in Jazz Voice  
1989; A.A., Le Collège d'Enseignement Général et  
Professionnel de Trois-Rivières (Canada); B.M., M.M.,  
University of Minnesota

**Elise L. Amel**  
*Associate Professor of Psychology*  
1997; B.A., St. Norbert College; M.A., Ph.D., Purdue  
University

**Young-ok An**  
*Associate Professor of English*  
1997; B.A., M.A., Seoul National University (Korea);  
Ph.D., University of Southern California

**Regina Anctil**  
*Assistant Professor of Accounting*  
2005; B.A., M.B.A., University of Oregon; Ph.D.,  
University of Minnesota

**Betsy D. Anderson**  
*Assistant Professor of Communication and Journalism*  
2006; B.A., Bethel University; M.A., Ph.D.,  
University of Minnesota

**Philip H. Anderson**  
*Professor of Management*  
1977; B.S.B., M.B.A., Ph.D., University of Minnesota

**Susan E. Andersson**  
*Clinical Faculty of Professional Psychology*  
2009; B.A., Augsburg College; M.A., St. Mary's  
University of Minnesota; Psy.D., University of St.  
Thomas

**Michael M. Andregg**  
*Member of Adjunct Faculty in Justice and Peace Studies*



1991; B.S., Ph.D., University of California (Davis)

**Cara L. Anthony**

*Associate Professor of Theology*

2001; B.A., University of Notre Dame; M.A., Jesuit School of Theology at Berkeley

**Bernard J. Armada**

*Associate Professor of Communication and Journalism*

1997; B.A., Queens College; M.A., Kent State University; Ph.D., Pennsylvania State University

**Ozer Asdemir**

*Assistant Professor of Accounting*

2006; B.A., Bilkent University (Turkey); Ph.D., University of Texas

**Gary M. Atkinson**

*Professor of Philosophy*

1980; A.B., College of the Holy Cross; Ph.D., Duke University

**Tatyana Avdeyeva**

*Assistant Professor of Professional Psychology*

2005; Diploma of Higher Education, Far Eastern State University; M.A., Ph.D., Washington State University

**Michael C. Axtell**

*Assistant Professor of Mathematics*

2008; B.S., University of Wisconsin-La Crosse; Ph.D., The University of Iowa

**B**

**George V. Baboila**

*Director of Social Work Services, Interprofessional Center for Counseling and Legal Services*

1996; B.S., St. John's University; M.S.W., University of Wisconsin

**Carlos A. Badessich**

*Associate Professor of Spanish*

1980; B.A., M.A., Eastern Kentucky University; Ph.D., University of Illinois (Champaign-Urbana)

**Patrick Balder**

*Member of Adjunct faculty in Music*

*Studio Instructor in Electronic Music*

2007; B.A., St. John's University

**Krystal Banfield**

*Studio Instructor in Voice*

2000; B.M.E., Howard University; M.M., Indiana University

**Sergey S. Barabanov**

*Assistant Professor of Finance*

2002; Diploma, Far Eastern National University (Vladivostok, Russia); B.A., M.B.A., Ph.D., Washington State University

**William L. Barnes**

*Assistant Professor of Art History*

2009; B.A., Arizona State University; M.A., Ph.D., Tulane University

**Angeline Barretta-Herman**

*Associate Vice President for Academic Affairs*

1991; B.A., Edinboro State University of Pennsylvania; M.S.W., University of Maryland; M.B.A., Ph.D.,

Massey University (New Zealand)

**Ann L. Bateson**

*Director of Law Library, School of Law*

*Professor of Law*

2007; B.A., College of St. Catherine; M.A., J.D., University of Minnesota

**Matthew C. Batt**

*Assistant Professor of English*

2007; B.A., Marquette University; M.A., Boston College; M.F.A., The Ohio State University; Ph.D., University of Utah

**Diane E. Bauer**

*Clinical Faculty in Social Work*

1998; B.A., Hamline University; M.S.W., University of Minnesota

**Mufaddal Baxamusa**

*Assistant Professor of Finance*

2008; B. Tech., Indian Institute of Technology; M.B.A., The George Washington University; Ph.D., University of Minnesota

**Very Rev. Christopher Beaudet**

*Vice Rector of Administration, Viscar Judicial, Assistant Professor in Canon Law, School of Divinity*

2006; B.A., University of Notre Dame; M.Div., M.A.T., The Saint Paul Seminary; J.C.L., J.C.D., The Catholic University of America

**Heino A. P. Beckmann**

*Associate Professor of Finance*

1986; Cand. jur., Freie Universität Berlin; M.B.A., University of Minnesota; M.A., Ph.D., University of Pennsylvania

**Christine M. Bennett**

*Instructor in Marketing*

2008; B.A., University of Rochester; M.S., Baruch College (New York); Ph.D., University of Minnesota

**Ronald J. Bennett**

*Associate Professor of Engineering*

1986; B.S., University of Wisconsin (Eau Claire); M.S.Met.E., University of Minnesota; M.B.A., University of St. Thomas; Ph.D., University of Minnesota

**Thomas C. Berg**

*Professor of Law*

2002; B.S., Northwestern University; M.A., Oxford University; M.A., University of Chicago; J.D., University of Chicago Law School

**Charlotte Berres**

*Director of Lay Formation, School of Divinity*

1999; B.A., College of St. Catherine; M.Pas., University of St. Paul; M.A., M.Div., D.Min., University of St. Thomas

**Fr. Juan Miguel Betancourt, SEMV**

*Assistant Professor of Sacred Scripture, School of Divinity*

2008; B.S., University of Puerto Rico; M.Div., Pontifical Catholic University of Puerto Rico; S.S.L., Pontifical Biblical Institute

**Jean M. Birbilis**

## University Faculty

*Professor of Professional Psychology*

1990; B.S., Oklahoma State University; M.A., University of Tulsa; Ph.D., Oklahoma State University

**Janell Blazovich**

*Assistant Professor of Accounting*

2008; B.S., Marquette University (Milwaukee); M.B.A., University of Minnesota; Ph.D., Texas A&M University; C.P.A.

**Shelley A. Blilie**

*Member of Adjunct Faculty in Physics*

1998; B.S., M.S., University of Minnesota

**Tonia S. Bock**

*Assistant Professor of Psychology*

2002; B.A., M.A., University of Minnesota; Ph.D., University of Notre Dame

**Jean-Pierre Bongila**

*Assistant Professor of Education*

2008; B.A., Catholic University of Kinshasa, D.R. Congo; B.A., Western African Catholic Institute of Abidjian in Congo; M.A., University of San Francisco; Ed.D., University of San Francisco

**Sanjeev K. Bordoloi**

*Associate Professor of Operations and Supply Chain Management*

2007; B.Tech., Institute of Technology, BHU (India); M.B.A., Xavier Labour Relations Institute (India); Ph.D., University of Texas

**Anthony John Borgerding**

*Associate Professor of Chemistry*

2002; B.S., University of Minnesota (Duluth); Ph.D., Indiana University

**Heather M. Bouwman**

*Associate Professor of English*

2001; B.A., Calvin College; A.M., Ph.D., University of Illinois at Urbana Champaign

**Rene Bowser**

*Associate Professor of Law*

1985; B.A., University of Maryland; M.A., Northwestern University; J.D., Stanford Law School; LL.M., Georgetown University

**Kathleen M. Boyle**

*Assistant Professor of Education*

2004; B.A., St. Norbert College (DePere, Wisconsin); M.S., Minnesota State University at Mankato; Ph.D., Indiana University

**John F. Boyle**

*Professor of Theology and Catholic Studies,*

*Director, Graduate Program in Catholic Studies*

1990; A.B., Oberlin College; M.S.L., Pontifical Institute of Medieval Studies; M.A., Ph.D., University of Toronto

**Bernard V. Brady**

*Professor of Theology*

1988; B.A., Loyola University (Chicago); M.A., Ph.D., University of Chicago

**Mary Ann Brenden**

*Associate Professor of Social Work*

1980; B.S., Cornell University; M.S.W., University of

Minnesota (Duluth)

**David P. Brennan**

*Professor of Marketing*

1987; B.S., M.S., Mankato State University; Ph.D., Kent State University

**Don J. Briel**

*Koch Chair in Catholic Studies*

*Director, Center for Catholic Studies*

1981; A.B., University of Notre Dame; Licence, Diplôme d'études approfondies, Doctorat en théologie catholique, Université de Strasbourg

**Chad T. Brinsfield**

*Assistant Professor of Management*

2010; B.B.A., Bluffton College; M.B.A., Ph.D., Ohio State University

**Angela E. Broeker**

*Associate Professor of Music*

1999; B.M.E., M.M., Indiana University; D.M.A., University of Oklahoma

**Joseph M. Brom**

*Professor of Chemistry*

1987; B.S., University of St. Thomas; Ph.D., Iowa State University

**Sheila M. Brommel**

*Assistant Professor of Social Work*

2006; B.S.W., Moorhead State University; B.S., North Dakota State University; M.S.W., Augsburg College; Ph.D., University of Minnesota

**Stephen D. Brookfield**

*Distinguished Professor of Education*

1991; B.A., Coventry University (U.K.); M.A., University of Reading (U.K.); Ph.D., University of Leicester (U.K.)

**Rachel Brudnoy**

*Studio Instructor in Oboe*

1986; B.S.Educ., University of Minnesota; Free-lance professional

**Carol J. Bruess**

*Associate Professor of Communication and Journalism*

1998; B.A., St. Norbert College; M.A., Ph.D., Ohio University

**James H. Bruton**

*Member of Adjunct Faculty in Sociology and Criminal Justice*

1986; B.S., University of Minnesota; M.A., University of St. Thomas

**Alan D. Bryan**

*Associate Professor of Music*

*Studio Instructor in Voice*

1983; B.M., M.M., Colorado State University; D.M.A. Eastman School of Music

**Craig E. Bryan**

*Clinical Professor of Communication and Journalism*

2008; B.A., University of Iowa-Iowa City

**Jeanne G. Buckeye**

*Associate Professor of Ethics and Business Law*

1984; B.A., St. Cloud State University; M.B.A., Ph.D.,

University of Minnesota

**Renee Buhr**

*Assistant Professor of Political Science*  
2008; B.A., University of Wisconsin-Madison; M.A.,  
University of Chicago; Ph.D., University of  
Wisconsin-Madison

**Kris E. Bunton**

*Professor of Communication and Journalism*  
1993; B.A., M.A., University of Missouri; Ph.D.,  
Indiana University

**John R. Buri**

*Professor of Psychology*  
1976; B.A., Loras College; M.A., Ph.D., Loyola  
University (Chicago)

**Rev. James Burns**

*Associate Professor of Professional Psychology*  
2003; B.A., M.Div., M.A., University of St. Thomas;  
Ph.D., Northeastern University

**Todd W. Busch**

*Associate Professor of Education*  
2008; B.A., M.Ed., Ph.D., University of Minnesota

**Rev. J. Michael Byron**

*Assistant Professor of Systematic Theology, School of Divinity*  
1995; B.A., St. John's University; M.Div., St. Paul  
Seminary; S.T.L., S.T.D., Weston Jesuit School of  
Theology

**C**

**Melva E. Cain**

*Laboratory Coordinator in Chemistry*  
1991; B.S., M.S., South Dakota School of Mines and  
Technology

**Patrick J. Caldie**

*Member of Adjunct Faculty in Sociology and Criminal  
Justice*  
1989; B.A., University of Wisconsin; M.S., Iowa State  
University

**Susan J. Callaway**

*Associate Professor of English*  
1996; B.A., University of Wisconsin-Madison; M.A.,  
Brown University; Ph.D., University of Wisconsin-  
Milwaukee

**Daniel G. Carey**

*Assistant Professor of Health and Human Performance*  
1990; B.S., M.A., Ph.D., University of Minnesota

**Rev. Scott Carl**

*Assistant Professor of Sacred Scripture, School of Divinity*  
2004; B.A., University of St. Thomas; M.Div., The  
Saint Paul Seminary; S.L.L., Pontifical Biblical Institute

**Randel S. Carlock**

*Opus Chaire in Family Enterprise*  
1990; B.S., M.A., M.B.A., Ph.D., University of  
Minnesota

**Cara Carlson**

*Clinical Faculty in Social Work*  
2008; B.S.W., St. Catherine University; M.S.W., St.  
Catherine University/University of St. Thomas; Ph.D.,  
Institute of Transpersonal Psychology

**Kathleen Erb Caron**

*Professional faculty in Social Work*  
1996; B.A., College of St. Catherine; M.S.W.,  
University of Minnesota

**Corrine L. Carvalho**

*Professor of Theology*  
1996; B.A., University of San Francisco; M.A.,  
Graduate Theological Union (Berkeley); Ph.D., Yale  
University

**Consuelo Cavalieri**

*Assistant Professor of Professional Psychology*  
2007; B.S., M.Ed., University of Idaho; Ph.D.,  
University of Wisconsin

**William T. Cavanaugh**

*Professor of Theology*  
1995; B.A., University of Notre Dame; M.A.,  
Cambridge University; Ph.D., Duke University

**Carmina Cavazos**

*Assistant Professor of Marketing*  
2006; B.B.A., Tecnologico de Monterrey; M.B.A.,  
University of Houston; Ph.D., Tecnologico de  
Monterrey

**Mary Anne Chalkley**

*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

**Seehwa Cho**

*Associate Professor of Education*  
1995; B.A., M.Ed., Seoul National University (Korea);  
Ph.D., University of Wisconsin (Madison)

**Lawrence Chu**

*Assistant Professor of Accounting*  
2010; B.A., B.S., M.Acc., Truman State University;  
Ph.D., University of North Texas; C.P.A.

**Chien-Tzu Candace Chou**

*Associate Professor of Education*  
2002; B.A., Fujen Catholic University; M.A., Ph.D.,  
University of Hawaii

**Michael G. Chovanec**

*Professor of Social Work*  
1996; B.S.W., M.S.W., University of Wisconsin  
(Milwaukee); Ph.D., University of Minnesota

**Kanishka Chowdhury**

*Associate Professor of English*  
1993; B.A., St. Xavier's College, (Calcutta, India);  
M.A., Ph.D., Purdue University

**C. Winston Chrislock**

*Professor of History*  
1972; B.A., University of Minnesota; M.A., Ph.D.,  
Indiana University

**David Clemenson**

*Associate Professor of Philosophy*  
1999; B.S., Portland State University; M.S., M.A.,  
University of Wisconsin; Ph.D., Harvard University;

## University Faculty

Ph.D., Rice University

### Frank J. Coglitore

*Associate Professor of Accounting*

1982; B.A., Fordham University; M.B.A. University of Scranton; C.P.A.

### Teresa S. Collett

*Professor of Law*

2003; J.D., University of Oklahoma College of Law

### Kathryn L. Combs

*Professor of Finance*

1997; B.A., Washington State University; M.S., Ph.D., University of Minnesota

### John P. Conbere

*Associate Professor of Education*

2002; B.A., Brown University; M.Div., Episcopal Divinity School; M.Ed., Ed.D., University of Minnesota

### Thomas B. Connery

*Professor of Communication and Journalism*

1982; B.A., M.A., Ohio State University; Ph.D., Brown University

### Vanessa Cornett-Murtada

*Assistant Professor of Music*

2007; B.M., M.M., West Virginia University; D.M.A., University of North Carolina at Greensboro

### Catherine A. Cory

*Associate Professor of Theology*

1991; B.A., College of St. Teresa; M.A., St. John's University (Minnesota); Ph.D., University of Notre Dame

### 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)

### Rev. Andrew Cozzens

*Assistant Professor of Systematic Theology, School of Divinity*

2002; B.A., Benedictine College; M.Div., M.A.T., The Saint Paul Seminary; S.T.L., S.T.D., Pontifical University of St. Thomas Aquinas

### Catherine A. Craft-Fairchild

*Professor of English*

1989; B.A., Canisius College; M.A., Ph.D., University of Rochester

### John F. Cragan

*Distinguished Service Professor of Communication and Journalism*

2004; B.A., Northern Illinois University; M.A., University of Missouri (Kansas City); Ph.D., University of Minnesota

### Robert L. Craig

*Professor of Communication and Journalism*

1994; B.A., M.A., Ph.D., University of Iowa

### Jennifer L. Cruise

*Professor of Biology*

1988; B.S., St. Lawrence University; Ph.D., Duke University

### Erin M. Curran

*Assistant Professor of Computer and Information Sciences*

2008; B.S., Ph.D., University of North Dakota

## D

### Mary S. Daugherty

*Associate Professor of Finance*

1987; B.A., University of St. Thomas; M.B.A., Ph.D., University of Minnesota; C.F.A.

### Marv A. Davidov

*Member of Adjunct Faculty in Justice and Peace Studies*

1992; Macalester College; University of Minnesota

### Karen L. Davis

*Member of Adjunct Faculty in Sociology and Criminal Justice*

2002; B.A., State University of New York, Brockport; M.A., Ph.D., State University of New York, Binghamton

### Larry R. Davis

*Associate Professor of Accounting*

2010; B.S., Miami University (Ohio); M.B.A., Ph.D., Indiana University; C.P.A.

### Palahela W. Dayananda

*Professor of Actuarial Science/Statistics*

*Professor of Mathematics*

2002; B.S., University of Sri Lanka; Diploma in Statistics; Ph.D., University of Manchester

### Rev. Dennis J. Dease

*President of the University*

1991; B.A., M.Div., St. Paul Seminary; M.A., University of St. Thomas; Ph.D., The Catholic University of America

### Catherine A. Jack Deavel

*Associate Professor of Philosophy*

2000; B.A., M.A., Ph.D., Fordham University

### David L. Deeds

*Schulze Endowed Chair in Entrepreneurship and Director,*

*John M. Morrison Center for Entrepreneurship;*

*Professor of Entrepreneurship*

2008; B.A., Claremont McKenna College; M.B.A., Ph.D., University of Washington

### Michael J. Degnan

*Professor of Philosophy*

1980; B.A., University of St. Thomas; M.A., Ph.D., University of Minnesota

### Robert J. Delahunty

*Associate Professor of Law*

2004; B.A., Columbia University; B.A., M.A., B.Phil., Oxford University; J.D., Harvard Law School

### Michael L. DeVaughn

*Assistant Professor*

2008; B.A., Brown University; M.B.A., Indiana University; Ph.D., University of Wisconsin

### Jayna L. Ditty

*Assistant Professor of Biology*

2003; B.A., St. Mary's University of Minnesota; Ph.D., University of Iowa

**Douglas P. Dokken**  
*Professor of Mathematics*  
 1985; B.S., Moorhead State University; M.S., North Dakota State University; Ph.D., University of Minnesota

**Cristian Domnisoru**  
*Associate Professor of Software Engineering*  
 2003; B.S., M.S., Ph.D., Technical University of Iasi, Romania

**Justin J. Donato**  
*Assistant Professor of Chemistry*  
 2010; B.S., University of Delaware; Ph.D., Cornell University

**Laura C. Dunham**  
*Assistant Professor of Entrepreneurship*  
 2003; B.A., Miami University (Ohio); M.B.A., Ph.D., Darden Graduate School of Business Administration, University of Virginia

**Bridget A. Duoos**  
*Associate Professor of Health and Human Performance*  
 1995; B.A., St. Olaf College; M.A., Ph.D., University of Minnesota

**Donald J. Dziekowicz**  
*Associate Professor of French*  
 1983; A.B., Colgate University; M.A., University of Rochester; Ph.D., Indiana University

**E**

**Alexis Easley**  
*Associate Professor of English*  
 2005; B.S., M.F.A., University of Alaska Fairbanks; Ph.D., University of Oregon

**Jay J. Ebben**  
*Associate Professor of Entrepreneurship*  
 2002; B.S., Marquette University; M.B.A., Ph.D., University of Wisconsin (Madison)

**Paola B. Ehrmantraut**  
*Associate Professor of Spanish*  
 2009; B.A., University of Missouri; M.A., Ph.D., Washington University in St. Louis

**Craig D. Eliason**  
*Assistant Professor of Art History*  
 2002; B.A., Amherst College; M.A., Ph.D., Rutgers University

**Dawn R. Elm**  
*Professor of Ethics and Business Law*  
 1989; B.S. Chem. Engr., University of Massachusetts (Amherst); Ph.D., University of Minnesota

**Simon K. Emms**  
*Associate Professor of Biology*  
 1996; B.A., Oxford University; M.S., Simon Fraser University; Ph.D., Princeton University

**Chinwe Esimai**  
*Associate Professor of Law*  
 2000; B.A., CUNY; J.D., Harvard University

**Michael J. Evers**  
*Professor of Management*

1974; B.B.A., M.B.A., Ph.D., University of Minnesota

**F**

**Massimo Faggioli**  
*Assistant Professor of Theology*  
 2009; Laurea, University of Bologna (Italy); Ph.D., University of Turin (Italy)

**Daniel R. Fairchild**  
*Professor of Economics*  
 1976; B.S., Christian Brothers College (Memphis); M.B.A., Ph.D., Saint Louis University

**Katherine M. Faricy**  
*Member of Adjunct Faculty in Music*  
*Studio Instructor in Piano*  
 1977; B.M.E., Oberlin College Conservatory of Music; M.F.A., University of Minnesota

**Marie Feldmeier**  
*Assistant Professor of Philosophy*  
 2004; B.A., University of Minnesota; Ph.D., University of Notre Dame

**Rev. Peter Feldmeier**  
*Professor of Theology*  
 1990; B.A., Purdue University; M.Div., St. Paul Seminary; M.A., University of St. Thomas; S.T.L., Weston Jesuit School of Theology; Ph.D., Graduate Theological Union (Berkeley)

**Mark A. Felton**  
*Distinguished Service Professor of Accounting*  
 2006; B.A., Ohio State University; M.B.A., University of Minnesota; C.P.A.

**Nakeisha Ferguson**  
*Assistant Professor of Marketing*  
 2009; B.A., M.A., University of Missouri-Columbia; Ph.D., University of Texas-Austin

**Sarah Ferguson**  
*Director, Undergraduate Programs;*  
*Assistant Professor of Social Work*  
 2006; B.A., Drake University; M.S.W., M.A., Ph.D., University of Minnesota

**Thomas J. Fisch**  
*Associate Professor of Sacramental Theology and Liturgy,*  
*School of Divinity*  
 1981; B.A., St. Paul Seminary; M.A., University of St. Thomas; M.A., University of Minnesota; M.A. St. John's University (Minnesota); M.A., Ph.D., University of Notre Dame

**Thomas L. Fish**  
*Associate Professor of Education*  
 1972; B.S., Lock Haven State College; M.E., University of Delaware; Ed.D., Western Michigan University

**Joseph C. Fitzharris**  
*Professor of History*  
 1971; B.A., University of St. Thomas; M.A., University of Minnesota; Ph.D., University of Wisconsin

**David N. Foote**  
*Associate Professor of History*

## University Faculty

2004; B.A., M.A., University of Florida; Ph.D., University of California, Davis

### Kerry D. Frank

*Associate Professor of Professional Psychology*  
1989; B.S., McNeese State University; M.Ed., University of Southwestern Louisiana

### Gloria Frost

*Associate Professor of Philosophy*  
2009; B.A., The Catholic University of America; M.A., University of Notre Dame

## G

### Kendra J. Garrett

*Professor of Social Work*  
1991; B.A., M.S.W., University of Iowa; D.S.W., The Catholic University of America

### Michael J. Garrison

*Professor of Ethics and Business Law*  
2005; B.S., North Dakota State University; J.D., University of North Dakota School of Law

### Carmela J. Garritano

*Associate Professor of English*  
2002; B.A., University of Notre Dame; M.A., Ph.D., Michigan State University

### Jane Garvin

*Member of Adjunct Faculty in Music*  
*Studio Instructor in Flute*  
1999; B.M., M.M., New England Conservatory of Music

### Dina Gavrilos

*Assistant Professor of Communication and Journalism*  
2006; B.A., University of Illinois at Chicago; M.A., University of Kentucky; Ph.D., University of Iowa

### Pavel (Paul) L. Gavrilyuk

*Associate Professor of Theology*  
2001; B.S. Moscow Institute of Physics and Technology; M.T.S., Ph.D., Southern Methodist University

### Kurt Gehlert

*Associate Professor of Professional Psychology*  
2007; B.S., M.A., Ph.D., University of Missouri

### Alexander M.G. Gelardi

*Associate Professor of Accounting*  
2004; Cert. Ed., University of Keele; M.S., University of Miami (Florida); Ph.D., Arizona State University

### Camille M. George

*Associate Professor of Engineering*  
2002; B.A., University of Chicago; B.S., M.S., University of Illinois (Chicago); Ph.D., University of Minnesota

### Matthew J. George

*Professor of Music*  
1991; B.M., Ithaca College; M.M., Southern Methodist University; D.M.A., University of North Texas

### Dobrina Georgieva

*Assistant Professor of Finance*  
2008; M.Eng., University of Chemical Engineering

(Sofia, Bulgaria); M.B.A., University of Montana; Ph.D., University of Arkansas

### Jennifer Gerth

*Member of Adjunct Faculty in Music*  
*Studio Instructor in Clarinet*  
2000; B.A., St. Olaf College; M.M., Northwestern University

### Marci Geriulis-Darcy

*Member of Adjunct Faculty in Sociology and Criminal Justice*  
2008; B.A., University of Minnesota; M.A. and Ph.D., Northwestern University

### Heidi M. Giebel

*Assistant Professor of Philosophy*  
2002; B.A., St. Norbert College; M.A., Ph.D., University of Notre Dame

### Jean E. Giebenhain

*Professor of Psychology*  
1983; B.A., College of St. Catherine; M.A., Ph.D., University of Mississippi

### Katharina Glac

*Associate Professor of Ethics and Business Law*  
2008; B.A., M.B.A., Friedrich-Alexander University (Germany); Ph.D., University of Pennsylvania

### Tanya Gladney

*Assistant Professor of Sociology and Criminal Justice*  
*Law Enforcement Education Coordinator*  
2007; B.A., M.A., Jackson State University, Mississippi; Ph.D., University of Nebraska-Lincoln

### Bruce P. Gleason

*Assistant Professor of Music*  
1999; B.A., Crown College; B.S., M.A., University of Minnesota; Ph.D., University of Iowa

### Carroll L. Gonzo

*Distinguished Research Professor of Music Education*  
2001; M.Mus., Lawrence University; M.Mus., Ph.D., University of Wisconsin (Madison)

### Kenneth E. Goodpaster

*Koch Chair in Business Ethics*  
*Professor of Ethics and Business Law*  
1989; A.B., University of Notre Dame; A.M., Ph.D., University of Michigan

### Mitchell Gordon

*Director-Lawyering Skills, School of Law*  
*Associate Professor of Law*  
2003; B.A., Tufts University; M.A., University of Minnesota; J.D., University of Minnesota Law School

### Mari Ann Graham

*Associate Professor of Social Work*  
1993; B.S.W., M.S.W., University of Nebraska; Ph.D., Case Western Reserve University

### W. Matthews Grant

*Associate Professor of Philosophy*  
2002; B.A., Wake Forest University; M.A., Ph.D., Fordham University

### Charles Melvin Gray

*Professor of Finance*  
1976; B.A., Hendrix College; A.M., Ph.D.,

Washington University (St. Louis)

**Adam S. Green**

*Assistant Professor of Physics*

2003; B.A., Gustavus Adolphus College; M.S., Ph.D., University of Nebraska – Lincoln

**Christopher S. Greene**

*Assistant Professor of Engineering*

2001; B.Sc., University of Colorado; M.S.E.E., Ph.D., Massachusetts Institute of Technology

**Joan E. Griffith**

*Member of Adjunct Faculty in Music*

*Studio Instructor in Double Bass, Guitar, Lute*

1990; B.M., University of Missouri (Kansas City)

**Stephanie Grimm**

*Assistant Professor of Accounting*

2009; B.S., Boston University; M.Acc, Ph.D., University of Minnesota; C.F.A.

**Xiaowen Guan**

*Assistant Professor of Communication and Journalism*

2008; B.A., Beijing Foreign Studies University; M.A., Portland State University; Ph.D., Michigan State University

**Marites A. Guino-o**

*Assistant Professor of Chemistry*

2010; B.S., University of Philippines; Ph.D., Syracuse University

**H**

**John C. Hallman**

*Assistant Professor of English*

2007; B.A., University of Pittsburgh; M.F.A., University of Iowa; M.A., Johns Hopkins University

**Neil W. Hamilton**

*Professor of Law*

2001; B.A., Colorado College; M.A., University of Michigan; J.D., University of Minnesota Law School

**Thomas W. Hamilton**

*Associate Professor of Finance*

2000; B.S., University of Wisconsin (Madison); M.S., University of Wyoming; M.S., Ph.D., University of Wisconsin (Madison)

**Jan B. Hansen**

*Associate Professor of Education*

2002; B.S., St. Cloud State University; M.S., University of Wisconsin (Green Bay); Ph.D., Purdue University

**Steven C. Hansen**

*Assistant Professor of Computer and Information Sciences*

1991; B.S., St. John's University (Minnesota); M.S., Ph.D., Kansas State University

**Rama K. Hart**

*Assistant Professor of Education*

2006; B.S., Louisiana State University (Baton Rouge); M.B.A., Rutgers University (New Brunswick); Ph.D., Case Western Reserve University (Cleveland)

**Monica E. Hartmann**

*Associate Professor of Economics*

2000; B.S., John Carroll University; M.A., Ph.D., University of Virginia

**Nancy Z. Hartung**

*Associate Professor of Biology*

1977; B.A., Macalester College; Ph.D., University of Minnesota

**Steven H. Hatting**

*Associate Professor of Political Science*

1982; B.A., Nebraska Wesleyan University; M.A., Ph.D., Duke University

**Ruben G. Haugen**

*Member of Adjunct Faculty in Music*

*Studio Instructor in Saxophone*

1984; B.M.Ed., M.Mu., MacPhail College of Music; National Superior, Conservatoire de Musique (Paris)

**Michael Hauser**

*Studio Instructor in Flamenco Guitar*

1998; B.A., University of Minnesota; Free-lance professional

**Stephen J. Heaney**

*Associate Professor of Philosophy*

1987; B.A., College of the Holy Cross; Ph.D., Marquette University

**Susan E. Heckler**

*Distinguished Endowed Chair of Marketing*

*Professor of Marketing*

2002; B.A., M.B.A., Ph.D., University of Minnesota

**Patricia R. Hedberg**

*Associate Professor of Management*

1988; B.A., Ohio Northern University; Ph.D., University of Minnesota

**Teresa Lyons Hegdahl**

*Member of Adjunct Faculty in Theater*

M.F.A., University of Wisconsin (Milwaukee)

**Mari M. Heltne**

*Professor of Computer and Information Sciences*

2002; B.A., Luther College; M.A., University of Iowa; Ph.D., University of Arizona

**Kevin E. Henderson**

*Instructor of Management*

2009; B.S.B.A., A.B.D., University of Arkansas

**Jill S. Hendrickson**

*Associate Professor of Economics*

2006; B.A., University of Puget Sound; M.A., Ph.D., Notre Dame

**Michael P. Hennessey**

*Associate Professor of Engineering*

2000; B.S., University of Minnesota; M.S., Massachusetts Institute of Technology; Ph.D., University of Minnesota

**Mariana D. Hernandez Crespo**

*Assistant Professor of Law*

2006; J.D., Universidad Catolica Andres Bello; L.L.M., J.D., Harvard Law School

**Olga L. Herrera**

*Assistant Professor of English*



## University Faculty

2008; B.A., DePaul University; M.A., Ph.D., University of Texas (Austin)

### James E. Heyman

*Assistant Professor of Marketing*

2005; B.A., Macalester College; M.S., Naval Postgraduate School; Ph.D., University of California Berkeley

### Thomas A. Hickson

*Assistant Professor of Geology*

2000; B.S., California State University; M.A., University of Texas (Austin); Ph.D., Stanford University

### Angela High-Pippert

*Assistant Professor of Political Science*

1999; B.J., M.A., Ph.D., University of Nebraska (Lincoln)

### Katharine M. Hill

*Assistant Professor of Social Work*

2009; B.A., Macalester College; M.P.P., Humphrey Institute, University of Minnesota; M.S.W., University of Minnesota

### Stephen Hipp

*Assistant Professor of Systematic Theology, School of Divinity*

2008; B.A., University of St. Thomas; M.A., Notre Dame; S.T.L., S.T.D., University of Fribourg

### Mary Margaret Hoden

*Senior Member of Adjunct Faculty in Theology*

1999; B.A., University of Minnesota; M.A., St. Paul School of Divinity

### Thomas A. Hodgson

*Member of Adjunct Faculty in Health and Human Performance*

1979; B.S., University of Minnesota; M.A., Ed.D., University of St. Thomas

### Steven M. Hoffman

*Professor of Political Science*

1987; B.S., University of Missouri (St. Louis); M.P.A., Arizona State University; Ph.D., University of Delaware

### Michael J. Hollerich

*Associate Professor of Theology*

1993; B.A., University of Notre Dame; M.T.S., Harvard Divinity School; Ph.D., University of Chicago

### Colin F. Hollidge

*Associate Professor of Social Work*

1997; B.A., University of Waterloo (Ontario); M.S.W., Wilfrid Laurier University (Ontario); Ph.D., Smith College

### Jo Ann Holonbek

*Associate Professor of Theater*

1974; B.A., Mount Marty College (South Dakota); M.A., University of South Dakota

### John D. Holst

*Associate Professor of Education*

2000; B.S., University of Wisconsin (Madison); M.S., Ph.D., Northern Illinois University

### Patricia C. Howe

*Associate Professor of History*

1990; B.A., College of William and Mary; M.A., University of Hawaii; Ph.D., University of North Carolina

### Rev. Jeff Huard

*Director of Spiritual Formation, School of Divinity*

2009; B.A., The University of St. Thomas; M.Div., The Saint Paul Seminary

### Sally M. Hunter

*Associate Professor of Education*

1990; B.A., College of St. Scholastica; M.A., University of Wisconsin; Ph.D., University of Minnesota

### Jane Hurley-Johncox

*Clinical Faculty in Social Work*

2002; B.A., College of St. Catherine; M.S.W., University of St. Thomas/College of St. Catherine

### Stacy Husebo

*Professional Faculty of Social Work*

2007; B.A., University of Minnesota; M.S.W., College of St. Catherine/University of St. Thomas

## I

### Kurt Illig

*Assistant Professor of Biology*

2009; B.S., Drake University; Ph.D., University of Wisconsin-Madison

### J. Thomas Ippoliti

*Professor of Chemistry*

1989; B.A., State University of New York (Potsdam); M.S., University of Wyoming; Ph.D., University of Wisconsin

### Ora Itkin

*Studio Instructor in Piano*

2005; B.M., University of Tel-Aviv; M.M., Hebrew University of Jerusalem

## J

### Ameeta Jaiswal-Dale

*Associate Professor of Finance*

1990; B.A., St. Francis College (India); M.S., Osmania University (Hyderabad, India); M.A., Ph.D., University of Rennes (France)

### Jeffrey A. Jalkio

*Associate Professor of Physics*

1997; B.A., University of St. Thomas; B.S.E.E., M.S.E.E., Ph.D., University of Minnesota

### Patrick L. Jarvis

*Associate Professor of Computer and Information Sciences*

1992; B.A., University of St. Thomas; J.D., Ph.D., University of Minnesota

### David P. Jenkins

*Director of Liturgical Music, School of Divinity*

1988; B.M., Oberlin College Conservatory of Music; M.F.A., University of Iowa; D.M.A., Eastman School of Music

### Lenny L. Jennings

*Associate Professor of Professional Psychology*

1998; B.S., Missouri Western University; M.A., University of Missouri (Kansas City); Ph.D., University of Minnesota

**Thadavillil Jithendranathan**

*Associate Professor of Finance*

1993; B.S., Calicut University (India); M.B.A., Baruch College; M. Phil., Ph.D., City University of New York; A.C.A. (India)

**Alec C. Johnson**

*Associate Professor of Entrepreneurship*

2001; B.S., M.S., Ph.D., University of Wisconsin (Madison)

**Ann Johnson**

*Professor of Psychology*

1988; B.A., Linfield College; M.A., Ph.D., Duquesne University

**Kevin Johnson**

*Assistant Professor of Management*

2010; B.A., Dartmouth College; M.B.A., Ph.D., Indiana University

**Lyman P.Q. Johnson**

*Professor of Law*

2008; B.A., Carleton College, J.D., University of Minnesota

**Shersten Johnson**

*Assistant Professor of Music*

2002; B.A., Augsburg College; M.M., California State University-Northridge; Ph.D., University of Wisconsin (Madison)

**Martin E. Johnston**

*Associate Professor of Physics*

1995; B.S., Walla Walla College; M.S., Ph.D., University of California-Riverside

**Rev. Jan Michael Joncas**

*Associate Professor of Catholic Studies*

1991; B.A., University of St. Thomas; M.A., University of Notre Dame; S.L.L., S.L.D., Pontificio Instituto Liturgico, Ateneo S. Anselmo (Rome)

**Michael C. Jordan**

*Director of Undergraduate Academic Affairs*

*Professor of English*

1982; B.A., St. John's College (Annapolis); M.A., Ph.D., University of North Carolina (Chapel Hill)

**Shirley (Sherry) E. Jordon**

*Associate Professor of Theology*

1993; B.A., Swarthmore College; M.Div., Yale Divinity School; Ph.D., Yale University

**Deanna Jorstad**

*Member of Adjunct Faculty in Music*

*Studio Instructor in Voice*

1985; B.A., St. Olaf College; M.F.A., University of Minnesota

**William Junker**

*Assistant Professor of Catholic Studies*

2010; B.A., University of Dallas; M.A., University of Notre Dame; Ph.D., University of Chicago (ABD)

**Christopher S. Kachian**

*Professor of Music*

*Studio Instructor in Guitar*

1984; B.F.A., M.M., D.M.A., University of Minnesota

**Robert A. Kahn**

*Assistant Professor of Law*

2007; B.A. Columbia University; J.D., New York University Law School; Ph.D., John Hopkins

**Meg Wilkes Karraker**

*Professor of Sociology and Criminal Justice*

1990; B.A., Clemson University; M.S., North Carolina State University; Ph.D., University of Minnesota

**Adam D. Kay**

*Assistant Professor of Biology*

2004; B.A., University of North Carolina; Ph.D., University of Utah

**David W. Kelley**

*Associate Professor of Geography*

2000; B.A., St. Anselm College; M.S., California Polytechnic State University; Ph.D., University of Minnesota

**Rev. Michael J. Keating**

*Assistant Professor of Catholic Studies*

2005; B.A., University of Michigan; M.A., University of Michigan; M.A., M.Div., Dominican Pontifical University of St. Thomas Aquinas; Ph.D., University of Notre Dame

**Kenneth W. Kemp**

*Associate Professor of Philosophy*

1989; B.S. Lang., Georgetown University; M.A., St. John's College (Annapolis); M.A., Ph.D., University of Notre Dame

**John T. Kemper**

*Professor of Mathematics*

1976; B.A., Ph.D., Rice University

**William E. Kemperman**

*Member of Adjunct Faculty in Music*

*Studio Instructor in Percussion*

2001; B.A., Macalester College; M.M., University of Wisconsin (Madison)

**Robert G. Kennedy**

*Professor of Catholic Studies and Ethics and Business Law,*

*Co-Director, Terrance J. Murphy Institute*

1988; B.A., University of St. Thomas; M.A., St. Paul Seminary; M.B.A., University of St. Thomas; M.M.S., Ph.D., University of Notre Dame

**Elizabeth K. Keno**

*Studio Instructor in Piano*

1999; B.A., Whitworth College; M.M., University of Illinois

**Matthew H. Kim**

*Assistant Professor of Economics*

2007; B.A., Williams College; M.A., Ph.D., University of Wisconsin (Madison)

**Elizabeth A. Kindall**

*Assistant Professor of Art History*

2008; B.A., Missouri State University; M.A., Ph.D., University of Kansas

## University Faculty

### Anne H. King

*Associate Professor of Theology*

1985; A.B., Duke University; M.A., Duquesne University; Ph.D., Fordham University

### William J. Kinney

*Associate Professor of Sociology and Criminal Justice*

1993; B.A., M.A., University of Northern Iowa; Ph.D., Iowa State University

### Michael C. Klein

*Clinical Professor in Justice and Peace Studies*

1999; B.A., M.A., Ed.D., University of St. Thomas

### Anne M. Klejment

*Professor of History*

1983; B.A., Nazareth College (Rochester); M.A., Ph.D., State University of New York at Binghamton

### Rev. John Klockeman

*Associate Director of Spiritual Formation, School of Divinity*

2009; B.S., Arizona State University; M.A., Franciscan University of Steubenville; M.Div., The Saint Paul Seminary

### Daryl Koehn

*Professor of Ethics and Business Law*

2010; B.A., M.A., Ph.D., University of Chicago; M.A., Oxford University (London); M.B.A., Northwestern University

### Nickolai A. Kolarov

*Studio Instructor in Violoncello*

2001; Dip., Bulgarian State Academy; M.M., Conservatory, University of Missouri

### Joseph A. Komar

*Distinguished Service Professor of Computer and Information Sciences*

1966; B.A., University of St. Thomas; M.S., University of Minnesota

### John F. Koser

*Member of Adjunct Faculty in Physics*

1997; B.A., University of Northern Iowa; M.S., St. Cloud State University

### Debra Kotulski

*Studio Instructor in Voice*

2004; B.A., Edgewood College (Madison); M.M., D.M.A., University of North Carolina-Greensboro

### Bruce H. Kramer

*Dean, College of Applied Professional Studies*

*Associate Professor of Education*

1996; B.S., M.M., Ball State University; Ph.D., Purdue University

### John P. Krebsbach

*Associate Dean for Academic Advising and Special Programs*

1979; B.A., M.A., University of St. Thomas; D.M.A., University of Minnesota

### Joseph L. Kreitzer

*Associate Vice President for Academic Affairs*

*Professor of Economics*

1981; B.S., University of South Dakota; M.A., Ph.D., University of Iowa

### Amelia Howe Kritzer

*Professor of English and Theater*

1997; B.S., Temple University; Ph.D., University of Wisconsin-Madison

### Juli A. Kroll

*Assistant Professor of Spanish*

2006; B.A., M.A., Ph.D., University of Minnesota

### John D. Kronen

*Professor of Philosophy*

1990; B.A., Marquette University; Ph.D., State University of New York (Buffalo)

### Brenda K. Kroschel

*Associate Professor of Mathematics*

1999; B.A., St. Olaf College; M.S., Clemson University; Ph.D., College of William and Mary

### Duane A. Krueger

*Laboratory Assistant in Chemistry*

2001; B.A., Dakota Wesleyan University; M.S., South Dakota School of Mines and Technology

### Carol F. Kuechler

*Director, Graduate Programs; Professor of Social Work*

1996; B.A., Marquette University; M.S.W., University of Wisconsin (Milwaukee); Ph.D., University of Minnesota

### Sameer Kumar

*Quest Chair*

*Professor of Operations and Supply Chain Management*

1997; B.S., M.S., University of Delhi (India); M.S., University of Nebraska; M.S., Ph.D., University of Minnesota

### Richard G. Kunkel

*Associate Professor of Ethics and Business Law*

1990; B.A., University of St. Thomas; J.D., University of Minnesota

## L

### Chih Lai

*Associate Professor of Software Engineering*

2000; B.A., Fu-Jen Catholic University; M.S., Ph.D., Oregon State University

### Paul Lai

*Assistant Professor of English*

2006; B.A., Yale University; M.A., Ph.D., University of North Carolina (Chapel Hill)

### Donald R. LaMagdeleine

*Professor of Education*

1983; B.A., Loyola University (Chicago); M.A., Graduate Theological Union; Ph.D., Loyola University (Chicago)

### Melissa A. Lamb

*Assistant Professor of Geology*

2000; A.B., Dartmouth; Ph.D., Stanford University

### David T. Landry

*Associate Professor of Theology*

1991; A.B., College of the Holy Cross; M.A., Ph.D., Vanderbilt University

### Terence G. Langan

*Associate Professor of Economics*

1990; B.A., Saint John's University (Minnesota); Ph.D., University of Minnesota

**Clinton D. Lanier, Jr.**

*Instructor in Marketing*  
2008; B.A., Loyola University (New Orleans), M.A.,  
M.B.A., Texas A&M University; Ph.D., University of  
Nebraska

**Kelli A. Larson**

*Professor of English*  
1990; B.A., Aquinas College; M.A., Ph.D., Michigan  
State University

**Stephen J. Laumakis**

*Associate Professor of Philosophy*  
1990; B.A., St. Charles Seminary; M.A., Villanova  
University; Ph.D., University of Notre Dame

**Cindy L. Lavorato**

*Associate Professor of Education*  
2000; B.A., J.D., University of Iowa

**David T. Lawrence**

*Associate Professor of English*  
2003; B.A., Rockhurst University; M.A., The  
Creighton University; Ph.D., University of Missouri

**Leigh Lawton**

*Professor of Operations and Supply Chain Management*  
1979; B.S., Valparaiso University; Ph.D., University of  
Wisconsin

**N. Curtis LeMay**

*Director of Ireland Library/Theological Librarian*  
2004; B.A., University of Wisconsin, Oshkosh; M.A.,  
University of Illinois

**R. Mary Hayden Lemmons**

*Associate Professor of Philosophy*  
1991; B.S., State University of New York  
(Binghamton); M.A., Niagara University; Ph.D.,  
Center for Thomistic Studies, University of St. Thomas  
(Houston)

**Amy M. Levad**

*Assistant Professor of Theology*  
2009; B.A., University of Puget Sound; M.T.S.,  
Candler School of Theology, Emory University; Ph.D.,  
Emory University

**Nekima Levy-Pounds**

*Assistant Professor of Law*  
2003; B.A., University of Southern California; J.D.,  
University of Illinois College of Law

**Sarah Lewis**

*Studio Instructor in Cello*  
2005; B.M., Southern Methodist University; M.M.,  
The Julliard School

**Timothy L. Lewis**

*Professor of Biology*  
2009; B.A., Augustana College; M.S., Ph.D.,  
University of Wisconsin-Madison

**Anthony W. Lewno**

*Laboratory Coordinator and Instructor*  
1991; B.S., St. John's University (Minnesota); M.S.,  
University of Minnesota

**Juan Li**

*Assistant Professor of English*

2006; B.A., Central University of Nationalities in  
China; M.A., The Graduate School of Chinese  
Academy of Sciences; Ph.D., Kansas State University

**Marie Lopez del Puerto**

*Assistant Professor of Physics*  
2008; B.S., Universidad de las Americas - Puebla,  
Mexico (UDLA-P); M.S., Ph.D., University of  
Minnesota

**Melissa S. Loe**

*Associate Professor of Mathematics*  
1989; B.A., St. Olaf College; M.S., Ph.D., University  
of Minnesota

**Stephanie K. Lohse**

*Assistant Professor of French*  
2007; B.A., B.S., Montana State University; M.A.,  
University of Oregon; Ph.D., University of Minnesota

**Paul A. Lorah**

*Associate Professor of Geography*  
1996; B.A., M.A., University of Colorado (Boulder);  
Ph.D., Indiana University

**Mathew Lu**

*Assistant Professor of Philosophy*  
2008; B.A., The University of Chicago; M.A., Cornell  
University; Ph.D., Cornell University

**Radhika Lunawat**

*Assistant Professor of Accounting*  
2010; Bachelor of Commerce, Calcutta University;  
Ph.D., University of Minnesota

**Lorman L. Lundsten**

*Professor of Marketing*  
1981; B.S., Northland College; M.B.A., Fordham  
University; Ph.D., University of Michigan

**Heather S. Lutz**

*Assistant Professor of Operations and Supply Chain  
Management*  
2009; B.S., Pennsylvania State University; M.B.A.,  
George Washington University; Ph.D., Syracuse  
University

**M**

**Gary A. Mabbott**

*Associate Professor of Chemistry*  
1989; B.A., College of Wooster; Ph.D., University of  
Wisconsin

**Raymond N. MacKenzie**

*Professor of English*  
1989; B.A., Concordia College (Moorhead); M.A.,  
Ph.D., Kansas State University

**Patricia Maddox**

*Member of Adjunct Faculty in Sociology and  
Criminal Justice*  
2008; B.A., Stetson University; M.A.,  
Loyola University

**Debasish N. Mallick**

*Associate Professor of Operations and Supply Chain  
Management*  
2006; B.Tech., Indian Institute of Technology; M.B.A.,

## University Faculty

University of Arkansas; Ph.D., University of Texas

### Mary M. Maloney

*Instructor in Management*

2005; B.A., Carleton College; M.I.A., Columbia University, A.B.D., University of Minnesota

### Avinash Malshe

*Assistant Professor of Marketing*

2005; B.Pharm. M.M.S., University of Bombay; Ph.D., University of Nebraska

### Jill M. Manske

*Professor of Biology*

1991; B.A., College of St. Catherine; M.A., Southern Illinois University; Ph.D., University of Minnesota

### Craig S. Marcott

*Associate Professor of Economics*

1982; B.S., University of Minnesota; M.S., Ph.D., Purdue University

### Mithra Marcus

*Clinical Faculty in Chemistry*

2008; B.S., North Carolina State University-Raleigh; Ph.D., University of Wisconsin-Madison

### Rev. Tom Margevicius

*Instructor in Liturgy, Sacraments and Homiletics, School of Divinity*

2003; B.S., West Virginia University; M.A.T., M.Div., The Saint Paul Seminary; S.T.L., Catholic University of America

### Catherine Marrs

*Assistant Professor of Social Work*

2009; B.A., Arizona State University, Tempe; M.S.W., University of Michigan, Ann Arbor; Ph.D., Arizona State University, Phoenix

### Thomas C. Marsh

*Assistant Professor of Chemistry*

2000; B.S., Ph.D., Iowa State University

### Susan J. Marsnik

*Associate Professor of Ethics and Business Law*

1996; B.A., J.D., University of Minnesota

### John W. Martens

*Associate Professor of Theology*

2001; B.A., St. Michael's College at the University of Toronto; M.A., Ph.D., McMaster University

### Dalma Martinovic

*Associate Professor of Biology*

2005; B.S., University of Zagreb; M.S., University of Mississippi; Ph.D., University of Minnesota

### Diane M. Matson

*Associate Professor of Accounting*

2001; B.A., Gustavus Adolphus College; M.B.A., Ph.D., University of Minnesota

### Arijit Mazumdar

*Assistant Professor of Political Science*

2008; B.A., Luther College; M.A., Ball State University; Ph.D., Miami University, Ohio

### Susan E. McGuigan

*Visiting Professor*

2006; J.D., University of Minnesota Law School

### Jennifer McGuire

*Associate Professor of Geology*

2008; B.S., Ph.D., Michigan State University

### Jeffery T. McLean

*Associate Professor of Mathematics*

1983; B.A., Hendrix College; M.S., Ph.D., Ohio State University

### Rev. Steven J. McMichael, OFM., Conv.

*Associate Professor of Theology*

2000; B.A., St. Louis University; M.A., St. Bonaventure University; S.T.B., Seraphicum; S.T.L., S.T.D., Gregorian University

### Daniel E. McNamara

*Associate Professor of Operations and Supply Chain Management*

1976; B.S.I.E., University of Dayton; M.S., Ph.D., University of Wisconsin

### Theresa McPartlin

*Director, BSW Field Education*

*Assistant Professor of Social Work*

1984; B.A., College of St. Catherine; A.M., University of Chicago

### John F. McVea

*Assistant Professor of Entrepreneurship*

2003; B.Com., B.S., University of Birmingham (England); M.B.A., Ph.D., Darden Graduate School of Business Administration, University of Virginia

### Thomas B. Mega

*Assistant Professor of History*

1985; B.A., M.A., Ph.D., University of Minnesota

### Thomas M. Mengler

*Dean, School of Law*

2002; B.A., Carleton College; J.D., University of Texas School of Law

### P. Sowah Mensah

*Member of Adjunct Faculty in Music*

*Studio Instructor in African Drumming*

1991; B.M., University of Ghana; M.A., University of Minnesota

### Sandra L. Menssen

*Professor of Philosophy*

1988; B.A., Ph.D., University of Minnesota

### Laurie Hatcher Merz

*Studio Instructor in Bassoon*

1999; B.M., Eastman School of Music; M.M., University of Minnesota

### Christopher M. Michaelson

*Assistant Professor of Ethics and Business Law*

2008; B.A., Northwestern University; M.A., Ph.D., University of Minnesota

### Michael Allen Mikolajczak

*Professor of English*

1989; B.S., M.A., Ph.D., University of Wisconsin-Milwaukee

### Jack F. Militello

*Professor of Management*

1987; B.A., Boston College; M.A., University of Colorado; Ph.D., University of Pennsylvania

**Donald Miller**

*Associate Professor of Spanish*  
2006; B.A., M.A., Brigham Young University; Ph.D., University of Virginia

**Laura F. Miller**

*Member of Adjunct Faculty in Art History*  
2001; B.A., Coe College; M.A., University of St. Thomas

**Leslie A. Miller**

*Professor of English*  
1991; B.A., Stephens College; M.A., University of Missouri; M.F.A., University of Iowa; Ph.D., University of Houston

**Bhabani Misra**

*Associate Professor of Software Engineering*  
1988; B.S.E.E., National Institute of Technology, Rourkela, India; M.S., Ph.D., North Dakota State University

**Sunil Kumar Mohanty**

*Associate Professor of Finance*  
2001; B.Tech., Indian Institute of Technology; M.B.A., Minnesota State University; D.B.A., Cleveland State University

**Rev. Hugo L. Montero**

*Adjunct Professor of Theology*  
*Director Hispanic Ministry, Campus Ministry*  
2003; B.A., *Licenciatura*, Ph.D., Pontifical Catholic University (Quito, Ecuador); M.A., M.Div., University of St. Thomas

**Stephen W. Morgan**

*Studio Instructor in Electric Guitar*  
1999; B.M., University of Miami (Coral Gables)

**Greg M. Morrissey**

*Senior Member of Adjunct Faculty in Theater*  
1989; B.A., University of St. Thomas; M.A., North Dakota State University

**Greg S. Mowry**

*Assistant Professor of Engineering*  
2003; B.S., M.S., Iowa State University; M.S., Stanford University; Ph.D., University of Minnesota

**Amy M. Muse**

*Associate Professor of English*  
2001; B.A., University of Akron; A.M., Washington University (St. Louis); Ph.D., Auburn University

**Thomas A. Musil**

*Assistant Professor of Finance*  
2009; B.A., Macalester College; M.B.A., University of St. Thomas; D.P.A., Hamline University

**Murugi G. Mutiga**

*Member of Adjunct Faculty in Health and Human Performance*  
2006; B.A., Kenyatta University; M.A., University of Minnesota

**Susan E. Myers**

*Assistant Professor of Theology*  
2001; B.A., College of St. Benedict; M.A., St. John's

University (Minnesota); M.A., University of Notre Dame

**N**

**Frederick W. Nairn**

*Senior Member of Adjunct Faculty in Theology*  
2000; M.A., University of Dublin Trinity College; D.Min., Lutheran Northwestern Seminary

**Michael J. Naughton**

*Director, John Ryan Institute*  
*Professor of Catholic Studies, Ethics and Business Law*  
1991; B.S., Southern Illinois University; M.B.A., University of St. Thomas; M.A., Ph.D., Marquette University

**Shelley L. Neilsen Gatti**

*Assistant Professor of Education*  
2006; B.A., M.Ed., University of Montana, Missoula; Ph.D., University of Minnesota

**Jack A. Nelson-Pallmeyer**

*Associate Professor of Justice and Peace Studies*  
1994; B.A., St. Olaf College; M.Div., Union Theological Seminary (New York)

**Mark R. Neuzil**

*Professor of Communication and Journalism*  
1993; B.A., Iowa State University; M.A., Ph.D., University of Minnesota

**Joel A. Nichols**

*Associate Professor of Law*  
2007; B.A., Abilene Christian University; M.Div., J.D., Emory University

**Terence L. Nichols**

*Professor of Theology*  
1988; B.A., University of Minnesota; Ph.D., Marquette University

**Shirley G. Nieto-Flores**

*Clinical Faculty-Spanish/Lab Director*  
1988-2009; B.A., M.A., Minnesota State University, Mankato

**Paul Niskanen**

*Associate Professor of Theology*  
2002; B.A., Seattle University; S.T.B., Pontifical University Teresianum (Rome); Ph.D., Graduate Theological Union (Berkeley)

**Robert J. Nistler**

*Associate Professor of Education*  
1998; B.S., University of Wisconsin (Stevens Point); M.A., University of Minnesota; Ph.D., University of Texas (Austin)

**Burton Nolan**

*Associate Dean, Graduate School of Professional Psychology*  
*Professor of Professional Psychology*  
1971; B.A., Massachusetts State College at Westfield; M.S., Ph.D., Purdue University

**Sarah J. Noonan**

*Associate Professor of Education*  
2000; B.A., University of Minnesota; M.S., University of St. Thomas; Ed.D., University of Wyoming

## University Faculty

**Michelle (Shelly) A. Nordtorp-Madson**  
*Clinical Faculty Member in Art History and Chief Curator*  
1994; B.A., M.A., Ph.D., University of Minnesota

### O

**Michael J. O'Donnell**  
*Assistant Professor of Communication and Journalism*  
1999; B.A., Central College; M.S., Iowa State University

**Beatrice O. Ohanessian**  
*Studio Instructor in Piano*  
2001; L.RAM.; Royal Academy of Music (London)

**Paul R. Ohmann**  
*Assistant Professor of Physics*  
2000; B.A. University of St. Thomas; M.S., Ph.D., University of Wisconsin (Madison)

**William H. Ojala**  
*Assistant Professor of Chemistry*  
2007; B.S., College of Great Falls; Ph.D., University of Minnesota

**Jennifer Oliphant**  
*Member of Adjunct Faculty in Health and Human Performance*  
2001; B.A., Hamline University; M.A., University of Minnesota

**John R. Olson**  
*Associate Professor of Operations and Supply Chain Management*  
2004; B.S., University of Minnesota; M.B.A., St. Cloud State University; Ph.D., University of Nebraska-Lincoln

**Jerome M. Organ**  
*Associate Dean for Academic Affairs, School of Law Professor of Law*  
2001; A.B., Miami University; J.D., Vanderbilt University School of Law

**Douglas C. Orzolek**  
*Assistant Professor of Music*  
2000; B.M., Mansfield University of Pennsylvania; M.Ed., The Pennsylvania State University; Ph.D., University of Minnesota

**Julie A. Oseid**  
*Assistant Professor of Law*  
2004; B.A., University of Minnesota-Duluth; J.D., University of Minnesota Law School

**Lon J. Otto**  
*Professor of English*  
1974; B.A., Pomona College; Ph.D., Indiana University

**Ernest L. Owens, Jr.**  
*Assistant Professor of Management*  
1993; B.S.I.E., Northeastern University; M.B.A., Ed.D., University of St. Thomas

**Jeff Oxman**  
*Assistant Professor of Finance*  
2009; B.Com., University of Saskatchewan; M.B.A., Simon Fraser University; Ph.D., Syracuse University

**Adil Ozdemir**

*Clinical Professor of Theology*  
2004; B.A., Ph.D., Institute of Social Sciences of Nine September University, Turkey

### P

**Agapitos Papagapitos**  
*Professor of Economics*  
1990; B.A., College of Wooster; M.A., Ph.D., Ohio State University

**Peter F. Parilla**  
*Professor of Sociology and Criminal Justice Law Enforcement Education Coordinator*  
1977; B.A., University of St. Thomas; M.A., Ph.D., University of Minnesota

**Sandy Parnell**  
*Assistant Professor of Social Work*  
1989; B.A., St. Mary's College; M.S.W., University of Minnesota

**Jason M. Pattit**  
*Instructor of Management*  
2010; B.S., M.S., University of Rochester; M.B.A., A.B.D., Syracuse University

**Michael S. Paulsen**  
*Professor of Law*  
2007; B.A., Northwestern University; M.A. Yale Divinity School; J.D., Yale Law School

**Timothy J. Pawl**  
*Assistant Professor of Philosophy*  
2008; B.A., Valparaiso University; M.A., Saint Louis University; Ph.D., Saint Louis University

**Lucy L. Payne**  
*Associate Dean, College of Applied Professional Studies; Associate Professor of Education*  
1997; B.S., University of Iowa; M.A., California Polytechnic University; Ph.D., University of Iowa

**David Penchansky**  
*Professor of Theology*  
1989; B.A., Queens College City University of New York; M.A., Assemblies of God Theological Seminary (Missouri); Ph.D., Vanderbilt University

**Cathy O. Peters**  
*Member of Adjunct Faculty in Art History*  
2005; B.A., Augsburg College; M.A., University of St. Thomas

**Debra L. Petersen**  
*Associate Professor of Communication and Journalism*  
1990; B.A., University of Minnesota (Morris); M.A., Colorado State University; Ph.D., University of Minnesota

**David W. Peterson**  
*Clinical Faculty of Education*  
2000; B.A., Augustana College; M.S., Ed.S., Minnesota State University at Mankato; Ph.D., Iowa State University

**Donald S. Peterson**  
*Member of Adjunct Faculty in Sociology and Criminal Justice*  
1987; B.A., Metropolitan State University; M.A., University of St. Thomas

**Derrin R. Pinto**

*Assistant Professor of Spanish*  
2004; B.A., San Diego State University; M.A.,  
University of California, Riverside; Ph.D., University  
of California, Davis

**Joan L. Piorkowski**

*Professor of English*  
1977; B.A., University of Delaware; M.A., Ph.D.,  
Temple University

**Rev. Robert Pish**

*Vice Rector of Student Affairs, School of Divinity*  
2007; B.S., University of Pennsylvania; M.Div., The  
Saint Paul Seminary

**Terence Pitre**

*Assistant Professor of Accounting*  
2007; B.S., University of Louisiana; M.B.A., Tulane  
University; Ph.D., Michigan State University

**Robert A. Plesha**

*Member of Adjunct Faculty in Sociology and Criminal  
Justice*  
2000; B.A., University of Minnesota; J.D., William  
Mitchell College of Law

**Germán J. Pliego**

*Associate Professor of Computer and Information Sciences*  
1998; B.S., M.B.A., M.S., University of State of  
Mexico; M.S., M.S., Interamerican Center for Social  
Security Studies; M.S., Ph.D., Purdue University

**Shirley A. Polejewski**

*Professor of Accounting*  
1976; B.S., College of Great Falls; M.A.C., Utah State  
University; Ph.D., University of Minnesota

**AnnMarie Polsenberg Thomas**

*Assistant Professor of Engineering*  
2006; S.B., Massachusetts Institute of Technology;  
M.S., Ph.D., California Institute of Technology

**Brenda J. Powell**

*Professor of English*  
1984; B.A., University of California (Berkeley); M.A.,  
Ph.D., University of North Carolina (Chapel Hill)

**Sally J. Power**

*Professor of Management*  
1981; B.A., University of South Florida; M.A., Ph.D.,  
University of Minnesota

**Mary C. Preus**

*Member of Adjunct Faculty in Classics*  
2000; B.A., Luther College; M.A., Harvard University;  
Ph.D., University of Minnesota

**Lisa E. Prevette**

*Assistant Professor of Chemistry*  
2010; B.A., Transylvania University; Ph.D., University  
of Cincinnati

**J. Roxanne Prichard**

*Assistant Professor of Psychology*  
2006; B.A., Transylvania University; Ph.D., University  
of Wisconsin (Madison)

**Heidi A. Priestley, Captain, USAF**

*Assistant Professor of Aerospace Studies*

*Commandant of Cadets*

2007; B.A., University of South Carolina

**John K. Purdy**

*Clinical Professor of Communication and Journalism*  
2008; M.B.A., University of Colorado

**Christopher P. Puto**

*Opus Distinguished Chair and Dean*  
2002; B.A., Spring Hill College; M.B.A., University of  
Miami; Ph.D., Duke University

**Q**

**Lorina N. Quartarone**

*Associate Professor of Classical Languages*  
2004; B.A., Columbia University; M.A. University of  
California, Los Angeles; Ph.D., University of  
Washington

**R**

**Scott Rader**

*Assistant Professor of Marketing*  
2009; B.A., State University of New York; M.B.A.,  
Ph.D., University of Tennessee

**Janice M. Raffield**

*Associate Professor of Accounting*  
1991; B.A., Newberry College; M.S., California  
Lutheran College; M.P. Acc., Clemson University;  
C.P.A.

**William D. Raffield**

*Associate Professor of Operations and Supply Chain  
Management*  
1991; B.S., Clemson University; M.A., Golden Gate  
University; Ph.D., Clemson University

**Saeed Rahimi**

*Associate Professor of Software Engineering*  
1988; B.S., Arya Mehr University; M.S., Ph.D.,  
University of Minnesota

**Tisha M. Rajendra**

*Assistant Professor of Theology*  
2007; P.A., Bryn Mawr College; M.A., Harvard  
University

**Richard A. Raschio**

*Associate Professor of Spanish*  
1981; B.A., Portland State University; M.A., Ph.D.,  
University of Minnesota

**Eric J. Rawdon**

*Associate Professor of Mathematics*  
2006; B.A., St. Olaf College; Ph.D., University of  
Iowa

**Thomas Dillon Redshaw**

*Professor of English*  
1971; A.B., Tufts University; A.M., University College  
(Dublin); Ph.D., New York University; Fellow,  
Institute of Irish Studies, The Queen's University  
(Belfast)

**W. Joseph Reed**

*Member of Adjunct Faculty in Music*  
*Studio Instructor in Voice*  
2004; B.A., University of St. Thomas; M.M., D.M.A.,



## University Faculty

University of Minnesota

### Mary R. Reichardt

*Professor of Catholic Studies*

*Director, Beyond Career to Calling*

1988; B.A., Aquinas College; M.A., University of Illinois (Champaign-Urbana); Ph.D., University of Wisconsin (Madison)

### Charles J. Reid, Jr.

*Associate Professor of Law*

2002; B.A., University of Wisconsin (Milwaukee); J.D., J.C.L., The Catholic University of America; M.A., Ph.D., Cornell University

### Margaret T. Reif

*Associate Professor of Education*

1990; B.A., College of St. Teresa; M.A., Ed.D., University of St. Thomas

### Thomas H. Ressler

*Associate Professor of Operations and Supply Chain Management*

1989; B.M.E., M.S.I.E., Ph.D., University of Minnesota

### Richard J. Rexeisen

*Professor of Marketing*

1990; B.A., University of Minnesota; M.B.A., University of Michigan; Ph.D., University of Minnesota

### Sonia Rey-Montejo de Cesteros

*Assistant Professor of Spanish*

2007; B.A., Knox College; M.A., University of Iowa; Ph.D., University of Colorado at Boulder

### Lisa M. Rezac

*Associate Professor of Mathematics*

2000; B.A., Concordia College (Moorhead); M.S., Ph.D., University of Nebraska (Lincoln)

### Lisa M. Richardson

*Director, MSW Field Education*

*Assistant Professor of Social Work*

2007; B.A., Marlboro College; M.S.W., Bryn Mawr College

### David P. Rigoni

*Associate Dean, College of Applied Professional Studies*

*Associate Professor of Education*

2000; B.S., University of Wisconsin (Superior); M.Ed., University of Minnesota (Duluth); Ed.D., University of St. Thomas

### Robert J. Riley

*Professor of Economics*

1991; B.A., University of St. Thomas; Ph.D., University of Wisconsin (Madison)

### Jeffrey D. Rinear

*Member of Adjunct Faculty in Music*

2001; B.M., University of Minnesota; B.M. Berklee College of Music

### Julie A. Risser

*Clinical Faculty Member in Art History*

*Director of the American Museum of Asmat Art at the University of St. Thomas*

2005; B.A., Carleton College; M.A., Indiana University; Ph.D., University of Iowa

### Greg L. Robinson-Riegler

*Professor of Psychology*

1990; B.A., University of Cincinnati; M.S., Ph.D., Purdue University

### Lorin Robinson

*Distinguished Service Professor*

2008; B.S., M.S., Northwestern University; Ph.D., University of Minnesota

### John M. Roehl, Captain, USAF

*Assistant Professor of Aerospace Studies,*

*Unit Admissions Officer*

2010; B.A., University of St. Thomas; M.S., Air Force Institute of Technology

### Karen B. Rogers

*Professor of Education*

1984; B.A., University of California (Berkeley); M.S., Ph.D., University of Minnesota

### John Rohwer

*Professor of Health and Human Performance*

2008; B.A., Concordia College; M.A., University of Minnesota; Ed.D., University of No. Colorado

### Philip A. Rolnick

*Professor of Theology*

2003; B.A., Sonoma State University; M.A., Pacific School of Religion (Berkeley); Ph.D., Duke University

### Jennifer E. Rosato

*Assistant Professor of Philosophy*

2010; B.A., Bost College; M.A., Ph.D., Notre Dame

### David J. Roseborough

*Associate Professor of Social Work*

2004; B.A., Valparaiso University; M.Div., Harvard University; M.S.W., College of St.

Catherine/University of St. Thomas; Ph.D., University of Minnesota

### Michael W. Rota

*Assistant Professor of Philosophy*

2005; B.A., Stanford; M.A., Franciscan University of Steubenville; Ph.D., St. Louis University

### Teresa J. Rothausen-Vange

*Associate Professor of Management*

1998; B.A., St. Olaf College; C.P.A., State of Minnesota; Ph.D., University of Minnesota

### Vanessa Rousseau

*Member of Adjunct Faculty in Art History*

2001; B. A., University of Minnesota; M.A., University of St. Thomas

### Brad Rubin

*Associate Professor of Software Engineering*

2003; B.S., M.S., University of Illinois (Urbana); Ph.D., University of Wisconsin (Madison)

### Gerald T. Ruch, Jr.

*Assistant Professor of Physics*

2008; B.S., Ph.D., University of Minnesota

### Ann Grasso Ryan

*Professor of Education*  
1976; B.A., Keen College; M.Ed., Ed.D., University of Virginia

**S**

**Luz Amparo Saavedra**  
*Assistant Professor of Economics*  
2001; B.A., Universidad del Valle (Cali, Colombia); M.S., Ph.D., University of Illinois (Urbana-Champaign)

**Aaron Sackett**  
*Assistant Professor of Marketing*  
2009; B.A., St. Olaf College; M.S., M.Phil; Ph.D., Yale University

**Sister Paul Therese Saiko, SSND**  
*Instructor in Sacred Scripture, School of Divinity*  
1985; B.A., Mount Mary College; M.A., University of San Francisco

**John J. Sailors**  
*Assistant Professor of Marketing*  
2005; B.B.A., University of Michigan; Ph.D., Northwestern University

**Barbara K. Sain**  
*Assistant Professor of Theology*  
2002; B.A., University of Notre Dame; M.A., The Catholic University of America

**P. Jane Saly**  
*Associate Professor of Accounting*  
1999; B.Sc., Queen's University (Canada); M.B.A., University of Alberta; Ph.D., University of British Columbia

**Lalith P. Samarakoon**  
*Associate Professor of Finance*  
2001; B.Sc., University of Sri Jayawardenepura (Sri Lanka); M.B.S., University of New Hampshire; Ph.D., University of Houston

**Janine L. Sanders**  
*Assistant Professor of Operations and Supply Chain Management*  
2007; B.S., Ohio University; M.S., Purdue University; Ph.D., University of Minnesota

**Richard S. Sathe**  
*Associate Professor of Accounting*  
1990; B.A., Concordia College; M.B.A., University of Minnesota; Ed.D., University of St. Thomas; C.P.A.

**Kevin O. Sauter**  
*Professor of Communication and Journalism*  
1982; B.A., Moorhead State University; M.A., Miami University (Ohio); Ph.D., Pennsylvania State University

**Deborah Savage**  
*Clinical Faculty, School of Divinity*  
2008; B.A., San Jose State University; M.A.T., The Saint Paul Seminary; Ph.D., Marquette University

**Michael S. Scham**  
*Associate Professor of Spanish*  
2001; B.A., Boston University; M.A., Middlebury College; Ph.D., Princeton University

**Andrew J. Scheiber**  
*Professor of English*  
1990; B.A., M.A., Ph.D., Michigan State University

**Erika C. Scheurer**  
*Associate Professor of English*  
1993; B.A., College of Notre Dame (Maryland); M.A., University of Delaware; Ph.D., University of Massachusetts (Amherst)

**Elizabeth R. Schiltz**  
*Associate Professor of Law*  
2001; B.A., Yale University; J.D., Columbia University School of Law

**Gerald W. Schlabach**  
*Professor of Theology*  
2000; B.A., Goshen College; M.A., Associated Mennonite Biblical Seminary; Ph.D., University of Notre Dame

**Sarah C. Schmalenberger**  
*Assistant Professor of Music*  
2002; B.A., Capital University Conservatory; M.M., University of Michigan; Ph.D., University of Minnesota

**Kurt Scholz**  
*Professor of Mathematics*  
1972; B.A., M.A., Ph.D., University of California (Los Angeles)

**Paul A. Schons**  
*Professor of German*  
1967; B.A., University of St. Thomas; M.A., University of Colorado; Ph.D., University of Minnesota

**Suzanne Schons**  
*Member of Adjunct Faculty in Music*  
*Studio Instructor in Piano*  
2006; Ph.D., University of Oklahoma

**Doreen J. Schroeder**  
*Laboratory Coordinator and Instructor*  
1989; B.S., M.A., University of South Dakota

**Mark Schroepfer**  
*Member of Adjunct Faculty in Music*  
2008; B.A., M.B.A., University of St. Thomas

**Ivancica D. Schrunk**  
*Senior Member of Adjunct Faculty in History*  
1990; B.A./M.A., University of Zagreb (Croatia); M.A., Ph.D., University of Minnesota

**Sister Katarina M. Schuth, OSF**  
*Professor/Endowed Chair for the Social Scientific Study of Religion, School of Divinity*  
1991; B.A., College of St. Teresa; M.T.S., S.T.L., Weston Jesuit School of Theology; M.A., Ph.D., Syracuse University

**Britain A. Scott**  
*Associate Professor of Psychology*  
1996; B.S., University of Iowa; Ph.D., University of Minnesota

**Timothy L. Scully**  
*Associate Professor of Communication and Journalism*  
1990; B.A., M.A., University of Iowa

## University Faculty

### Mark Seamon

*Assistant Professor of Theater*

2005; B.A., University of Notre Dame; M.A., Miami University (Ohio); Ph.D., Ohio State University

### Chehrzad (Cheri) Shakiban

*Professor of Mathematics*

1983; B.S., National University of Iran; M.S., Harvard University; Ph.D., Brown University

### Ashley N. Shams

*Assistant Professor French*

2002; B.A., M.A., University of North Texas; Ph.D., Florida State

### Barbara W. Shank

*Dean, School of Social Work*

*Professor of Social Work*

1978; B.A., Macalester College; M.S.W., Ph.D., University of Minnesota

### Brian P. Shapiro

*Associate Professor of Accounting*

2004; B.A., Ph.D., University of Minnesota

### Arkady Shemyakin

*Professor of Mathematics*

1993; Diploma (M.S.), Novosibirsk State University; C.S.D. (Ph.D.), Academy of Science (Siberia)

### Michael A. Sheppeck

*Assistant Dean, Division of Executive and Professional Development, College of Business*

*Associate Professor of Management*

1990; B.A., Slippery Rock University; M.A., Western Washington University; Ph.D., University of South Florida

### Glenn K. Sherer

*Associate Professor of Biology*

1984; B.S., Muhlenberg College; Ph.D., Temple University

### Heather M. Shirey

*Assistant Professor of Art History*

2006; B.A., University of Iowa; M.A., Tulane University; Ph.D., Indiana University

### James A. Shovein

*Clinical Instructor in Finance*

1999; B.S., University of Northern Iowa; M.B.A., University of Minnesota

### Mikhail M. Shvartsman

*Associate Professor of Mathematics*

1998; B.S., M.S., Moscow Institute of Steel and Alloys (Russia); Ph.D., University of Maryland (College Park)

### Ruth A. Sinn

*Member of Adjunct Faculty in Health and Human Performance*

2005; B.A., University of St. Thomas; M.A., St. Mary's University

### Gregory Sisk

*Professor of Law*

2003; Montana State University; J.D., University of Washington School of Law

### Trygve Skaar

*Studio Instructor in Tuba*

2000; Free-lance professional

### Amy F. Smith

*Assistant Professor of Education*

2001; B.A., M.A., University of St. Thomas; Ph.D., University of New Hampshire

### Buffy Smith

*Assistant Professor in Sociology and Criminal Justice*

2004; B.A., Marquette University; M.S., Ph.D., University of Wisconsin (Madison)

### Susan L. Smith-Cunnien

*Professor of Sociology and Criminal Justice*

1990; B.A., University of Delaware; Ph.D., University of Minnesota

### James Snapko

*Member of Adjunct Faculty in Theater*

M.A., University of Minnesota

### Kenneth D. Snyder

*Assistant Professor of Church History, School of Divinity*

1994; B.A., Mary College; M.T.S., Weston Jesuit School of Theology; Ph.D., The Catholic University of America

### Ritch L. Sorenson

*Opus Endowed Chair in Family Business*

*Professor of Entrepreneurship*

2007; B.A., M.A., Brigham Young University; Ph.D., Purdue University

### Peter B. Southard

*Assistant Professor of Operations and Supply Chain Management*

2008; B.S., Iowa State University; M.B.A., Drake University; Ph.D., University of Nebraska

### Marguerite L. Spencer

*Senior Member of the Adjunct Faculty in Theology*

1990; B.A., University of St. Thomas; M.A., University of Chicago; J.D., University of Minnesota

### Mark T. Spriggs

*Associate Professor of Entrepreneurship*

1997; B.S., Ph.D., University of Wisconsin (Madison); M.B.A., University of Wisconsin (Eau Claire)

### John A. Spry

*Assistant Professor of Finance*

2003; B.S., The Ohio State University; M.A., Ph.D., University of Rochester

### Susan J. Stabile

*Professor of Law*

2007; B.A., Georgetown University; J.D., New York University School of Law

### Patricia Stankovitch

*Clinical Faculty of Professional Psychology*

2007; B.S., Minnesota State University-Mankato; M.A., Psy.D., University of St. Thomas

### Laroye L. Stansberry-Brunahan

*Assistant Professor of Education*

2006; B.S., Purdue University (West Lafayette); M.S., Ph.D., University of Wisconsin-Milwaukee

### Mark D. Stansbury-O'Donnell

*Professor of Art History*

1990; B.A., College of William and Mary; M.A., Williams College; Ph.D., Yale University

**Tyrone D. Stenzel**

*Member of Adjunct Faculty in Health and Human Performance*

1991; B.S., University of Minnesota; M.A., University of St. Thomas

**Magdalena A. Stolarska**

*Assistant Professor of Mathematics*

2006; B.S., M.S., Ph.D., Northwestern University

**Jonathan E. Stoltz**

*Assistant Professor of Philosophy*

2006; B.A., Bucknell University; M.A., Ph.D., University of Virginia

**Ralph E. Stouffer**

*Associate Professor of Education*

1972; B.A., Dakota Wesleyan University; M.Ed., South Dakota State University; Ed.D., University of South Dakota

**Tamas Strasser**

*Member of Adjunct Faculty in Music*

*Studio Instructor in Violin, Viola*

1988; B.A., University of Missouri (Kansas City); Co-principal viola, St. Paul Chamber Orchestra

**Robert P. Strusinski**

*Director, Chapel Music*

*Studio Instructor in Voice*

1977; B.A., B.S., M.A., M.M., University of Minnesota

**Bridget Stuckey**

*Studio Instructor in Harp*

1990; B.S., Ball State University; St. Paul Chamber Orchestra; Free-lance professional

**Thomas P. Sturm**

*Professor of Computer and Information Sciences*

1971; B.A., University of St. Thomas; M.S., Ph.D., University of Minnesota

**Michael F. Sullivan**

*Associate Professor of Finance*

2000; B.A., St. John's University (Minnesota); Ph.D., University of Minnesota

**Thomas D. Sullivan**

*Aquinas Chair in Philosophy and Theology*

*Professor of Philosophy*

1966; B.A., M.A., DePaul University; Ph.D., St. John's University (New York)

**Dawn Ranae Swink**

*Associate Professor of Ethics and Business Law*

2002; B.A., Mankato State University; J.D., Drake University Law School

**T**

**Jane D. Tar**

*Associate Professor of Spanish*

2001; B.A., University of Minnesota; M.A., Ph.D., University of Wisconsin (Madison)

**John M. Tauer**

*Associate Professor of Psychology*

2000; B.A., University of St. Thomas; M.S., Ph.D.,

University of Wisconsin (Madison)

**Scott A. Taylor**

*Professor of Law*

2002; B.S., M.A., University of New Mexico; J.D., University of New Mexico School of Law; LL.M., New York University School of Law

**Trudi A. Taylor**

*Professor of Education*

1988; B.A., Anderson College; M.S., City University of New York; Ed.D., Ball State University

**Kevin Theissen**

*Assistant Professor of Geology*

2003; B.A., Carleton College; Ph.D., Stanford University

**Christopher J. Thompson**

*Dean, School of Divinity*

1992; B.A., Creighton University; M.A., Saint Louis University; Ph.D., Marquette University

**Dale B. Thompson**

*Associate Professor of Ethics and Business Law*

2006; B.A., Williams College (Massachusetts); Ph.D., Stanford University; J.D., Stanford Law School

**Serene Thornton**

*Assistant Professor of Social Work*

1984; B.A., Concordia College; M.S.W., University of Denver

**Jeffrey K. Thygeson**

*Member of Adjunct Faculty in Music*

*Studio Instructor in Guitar*

2002; B.A., University of St. Thomas; M.M., University of Southern California

**Brenda F. Tiefenbruck**

*Director, Mathematics Resource Center*

2004; B.A., Northwestern University; B.S., M.L.S., Ph.D., University of Minnesota

**Daniel G. Tight**

*Assistant Professor Spanish*

2007; B.A., Gustavus Adolphus College; M.A., Indiana University; Ph.D., University of Minnesota

**Anthony J. Titus**

*Member of Adjunct Faculty in Music*

*Studio Instructor in Guitar*

1990; B.M., North Carolina School of Performing Arts; M.A., San Diego State University

**Jessica E. Toft**

*Assistant Professor of Social Work*

2005; B.A., Grinnell College; M.S.W., University of Iowa; Ph.D., University of Minnesota

**Christopher H. Toner**

*Assistant Professor of Philosophy*

2008; B.A., M.A., Ph.D., University of Notre Dame

**Robert H. Treague**

*Member of Adjunct Faculty in Health and Human Performance*

2005; B.A., M.A., Bethel College

**Jill L. Trink**

*Associate Professor of Music*

## University Faculty

### *Director, Music Education*

2001; B.S., University of Illinois (Urbana); M.M., Liszt Academy of Music; Ph.D., University of Texas (Austin)

### **John B. Tschida**

*Member of Adjunct Faculty in Health and Human Performance*

2000; B.A., M.A., St. Mary's University

### **Mary K. Twite**

*Senior Member of the Adjunct Faculty in Theology*

2000; B.A., University of St. Thomas; M.A., Boston College

## **U**

### **Edward T. Ulrich**

*Associate Professor of Theology*

2000; B.S., University of Minnesota; M.A., St. John's University (Minnesota); Ph.D., The Catholic University of America

## **V**

### **Valandra**

*Assistant Professor of Social Work*

2006; B.A., University of Nebraska; M.B.A., University of Nebraska; M.S.W., University of Minnesota

### **Greg Vandergrift**

*Clinical Professor of Communication and Journalism*

1984; B.S., University of Kansas-Lawrence Kansas

### **Patrick J. Van Fleet**

*Professor of Mathematics*

1998; B.S., Western Illinois University; Ph.D., Southern Illinois University (Carbondale)

### **John F. Van Ingen**

*Associate Professor of Philosophy*

1989; B.A., University of St. Thomas; M.A., Ph.D., University of Chicago

### **Terri L. Vandercook**

*Associate Professor of Education*

1996; B.A., M.A., University of Northern Iowa; Ph.S., University of Minnesota

### **David O. Vang**

*Professor of Finance*

1983; B.A., St. Cloud State University; Ph.D., Iowa State University

### **Amy S. Verhoeven**

*Associate Professor of Biology*

1999; B.S., University of Iowa; Ph.D., University of Colorado

### **Chelly M. Vician**

*Distinguished Service Professor, Operations and Supply Chain Management*

2010; B.A., Mundelein College; M.B.A., University of Notre Dame; Ph.D., University of Minnesota; C.D.P.; C.C.P.

### **James W. Vincent**

*Professor of Economics*

1988; B.A., University of Montana; M.S., Ph.D., University of Wisconsin (Madison)

### **Robert K. Vischer**

### *Associate Professor of Law*

2005; B.A., University of New Orleans; J.D., Harvard Law School

### **Christopher A. Volpe**

*Member of Adjunct Faculty in Music*

*Studio Instructor in Trumpet*

1996; B.M., Northwestern University; Free-lance professional

### **Kimberly J. Vrudny**

*Associate Professor of Theology*

2001; B.A., Gustavus Adolphus College; M.A., United Theological Seminary; Ph.D., Luther Seminary

### **Stephen D. Vuolo**

*Visiting Instructor in Marketing*

2007; B.S., Bucknell University; M.B.A., University of Pennsylvania

### **Christopher S. Vye**

*Associate Professor of Professional Psychology*

1999; B.A., Ph.D., University of Minnesota

## **W**

### **Lisa K. Waldner**

*Professor of Sociology and Criminal Justice*

2001; B.A., M.A., Minnesota State University (Mankato); Ph.D., Iowa State University

### **William J. Walsh**

*Associate Professor of Economics*

1970; B.A., St. Mary's University (Minnesota); M.A., Ph.D., University of Notre Dame

### **Kristine H. Wammer**

*Assistant Professor of Chemistry*

2005; B.A., St. Olaf College; Ph.D., Princeton University

### **Martin L. Warren**

*Associate Professor of English*

1998; B.A., Oscott College (Birmingham, England); M.A., St. John's University (Minnesota); Ph.D., University of Minnesota

### **Douglas F. Warring**

*Professor of Education*

1974; B.A., Bethel College; M.A., University of St. Thomas; Ph.D., University of Minnesota

### **Christian Washburn**

*Assistant Professor of Theology, School of Divinity*

2008; M.A., The Saint Paul Seminary; Ph.D., Catholic University of America

### **Arnold M. Weimerkirsch**

*Thwait's 3M Chair*

2000; B.S., M.S., University of Minnesota

### **Donald H. Weinkauff**

*Dean, School of Engineering*

2008; Ph.D., University of Texas, Austin

### **Elizabeth T. Welsh**

*Assistant Professor of Management*

2010; B.S., Stanford University; M.B.A., M.S., University of California, Los Angeles; Ph.D., University of Minnesota

### **John T. Wendt**

*Associate Professor of Ethics and Business Law*  
2002; B.A., M.A., University of Minnesota; J.D.,  
William Mitchell College of Law

**Robert J. Werner**  
*Professor of Geography*  
1991; B.A., Montana State University; M.A.,  
University of Wyoming; Ph.D., University of  
Minnesota

**Mark E. Werness**  
*Associate Professor of Computer and Information Sciences*  
1980; B.A., Carleton College; M.S., Ph.D., University  
of Minnesota

**Karen L. Westberg**  
*Associate Professor of Education*  
2000; B.A., Augsburg College; M.S., Ph.D.,  
University of Connecticut

**Florian Wettstein**  
*Assistant Professor of Ethics and Business Law*  
2007; M.A., Ph.D., University of St. Gallen  
(Switzerland)

**Shanan Custer Wexler**  
*Member of Adjunct Faculty in Theater*  
1998; B.A., College of St. Catherine; M.A., University  
of Maryland (College Park)

**Sheneeta W. White**  
*Assistant Professor of Operations and Supply Chain  
Management*  
2009; B.S., Xavier University of Louisiana; M.B.A.,  
North Carolina State University; Ph.D., Virginia Tech

**D. Reginald Whitt**  
*Professor of Law*  
2001; B.A., Loyola College; S.T.B., Pontifical Faculty  
of the Immaculate Conception; J.D., Duke University;  
J.C.L., J.C.D., The Catholic University of America

**Virgil Wiebe**  
*Director of Clinical Education, School of Law*  
*Assistant Professor of Law*  
2002; B.A., Kansas State University; M.Phil., Oxford  
University; J.D., New York University School of Law

**Troy C. Wilhelmson**  
*Member of Adjunct Faculty in Theater*  
1999; B.S., Carroll College; M.A., University of North  
Dakota (Grand Forks)

**Elizabeth L. Wilkinson**  
*Assistant Professor of English*  
2008; B.A., M.Ed., The Pennsylvania State University  
at University Park; M.A., Virginia Polytechnic and  
State University; Ph.D., University of North Carolina  
at Greensboro

**Miriam Q. Williams**  
*Associate Professor of Education*  
1978; B.S., West Chester University; M.A., Ph.D.,  
The Catholic University of America

**Bradley Kemp Wilson**  
*Assistant Professor of Economics*  
2002; B.A., University of Montana; Ph.D., University  
of Kansas

**Chester E. Wilson**  
*Laboratory Coordinator and Instructor*  
1993; B.A., Duke University; M.S., University of  
Oregon; Ph.D., State University of New York (Stony  
Brook)

**Carey Winkler**  
*Clinical Faculty in Social Work*  
2008; B.S.W., St. Catherine University; M.S.W., St.  
Catherine University/University of St. Thomas

**Michael J. Winter**  
*Associate Professor of Philosophy*  
1992; B.A., University of St. Thomas; M.A., Ph.D.,  
University of Minnesota

**Carol Ann Winther**  
*Member of Adjunct Faculty in Theater*  
1999; B.A., M.A., University of Minnesota

**Paul J. Wojda**  
*Associate Professor of Theology and Catholic Studies*  
1992; B.A., University of Notre Dame; M.A., Yale  
University Divinity School; Ph.D., University of Notre  
Dame

**Barbara L. Wolfe**  
*Associate Professor of Education*  
1996; B.S., Carroll College; M.Ed., University of  
Wisconsin (Whitewater); Ph.D., University of  
Wisconsin (Madison)

**Uta Wolfe**  
*Assistant Professor of Psychology*  
2009; B.A., Ph.D., University of Minnesota

**George M. Woytanowitz**  
*Senior Member of Adjunct Faculty in History*  
1987; B.A., University of St. Thomas; M.A.,  
University of Chicago; Ph.D., The Johns Hopkins  
University

**Jennifer L. Wright**  
*Assistant Professor of Law*  
2003; B.A., Swarthmore College; J.D., Stanford Law  
School

**Scott K. Wright**  
*Professor of History*  
1968; B.A., M.A., Ph.D., University of Minnesota

**Hong Wu**  
*Assistant Professor of Economics*  
2006; B.A., Nankai University; M.A., Ph.D., West  
Virginia University

**Wendy N. Wyatt**  
*Associate Professor of Communication and Journalism*  
2003; B.A., Colorado State University; M.A.,  
University of Montana; Ph.D., University of Oregon

## Y

**Yongzhi (Peter) Yang**  
*Professor of Mathematics*  
1993; B.S., M.S., Northeast University of Technology  
(People's Republic of China); M.S., Ph.D., University  
of Illinois (Chicago)

**Heekyung K. Youn**

## Retired Faculty

*Professor of Mathematics/Actuarial Science*  
1984; B.S., Sogang Jesuit University (Seoul); Ph.D.,  
University of Minnesota

**Peter C. Young**  
*Blanch Chair in Risk Management*  
*Professor of Risk Management and Insurance*  
1994; B.A., Augustana College; M.P.A., University of  
Nebraska; Ph.D., University of Minnesota

**Victoria M. Young**  
*Associate Professor of Art History*  
2000; B.A., New York University; M.ArchH.,  
University of Virginia

**Wen Yu**  
*Assistant Professor of Accounting*  
2007; B.Econ., Central University of Finance and  
Economics (Beijing); M.A., Ph.D, Case Western  
Reserve University (Cleveland)

## Z

**Kyle D. Zimmer**  
*Assistant Professor of Biology*  
2003; B.A., Luther College; M.A., St. Cloud State  
University; Ph.D., North Dakota State University

**Larry J. Zimmerman**  
*Member of Adjunct Faculty in Music*  
*Studio Instructor in Trombone*  
2000; B.A., St. Olaf College; M.M., Boston University

**Kara L. ZumBahlen**  
*Member of Adjunct Faculty in Art History*  
2006; B.A., University of Minnesota, Duluth; M.A.,  
University of St. Thomas

**Thomas Zupancich, Lieutenant Colonel, USAF**  
*Professor of Aerospace Studies Commander*  
2010; B.S., United States Air Force Academy; M.S.,  
Embry Riddle Aeronautical University

## Retired Faculty

**James G. Ahler**  
*Assistant Professor of Sociology and Criminal Justice*  
1967-2000

**Martin Allen**  
*Professor Emeritus of Chemistry*  
1956-1984

**Paul Alper**  
*Associate Professor Emeritus of Computer and Information  
Sciences*  
1976-1998

**Sister M. Christine Athans, BVM**  
*Professor Emerita of Church History, School of Divinity*  
1984-2002

**Eugene J. Audette**  
*Professor Emeritus of Education*  
1973-2007

**Michael O. Bellamy**  
*Professor Emeritus of English*  
1979-2007

**Richard H. Berquist**  
*Associate Professor Emeritus of Philosophy*  
1965-2001

**Marsha A. Blumenthal**  
*Professor Emerita of Economics*  
1984-2007

**Thomas L. Bohlen**  
*Professor of Business Administration*  
1958-1983

**Rev. Ronald J. Bowers**  
*Professor Emeritus of Canon Law, School of Divinity*  
1982-2006

**Robert J. Brown**  
*Professor Emeritus of Education*  
1964-2005

**Joan M. Cady Brownstein**  
*Associate Professor of Education*  
1990-2007

**James P. Callahan**  
*Professor Emeritus of Music*  
1968-2007

**Harlow P. Callander**  
*Assistant Professor of Accounting*  
1969-2005

**Peter Coffey**  
*Professor Emeritus of International Management*  
1989-2002

**Richard J. Connell**  
*Professor of Philosophy*  
1963-1990

**Joseph B. Connors**  
*Professor of English*  
1946-1955; 1964-1982

## Retired Faculty

- Rev. Thomas J. Conroy**  
*Assistant Professor of Theology*  
1968-1997
- DuWayne R. Deitz**  
*Assistant Professor of Health and Human Performance*  
1970-1997
- William M. Delehanty**  
*Associate Professor Emeritus of History*  
1964-2003
- Rev. Jerome M. Dittberner**  
*Professor Emeritus of Systematic Theology, School of Divinity*  
1970-2009
- Harriet Ebeling**  
*Associate Professor Emerita of Education*  
1967-1989
- Katherine E. Egan**  
*Associate Professor Emerita of Education*  
1978-2005
- Thomas J. Feely**  
*Assistant Professor of Health and Human Performance*  
1954-1990
- James Filkins**  
*Professor of Finance*  
1977-1994
- Joseph N. Flood**  
*Assistant Professor of Health and Human Performance*  
1963-1997
- Bernice M. Folz**  
*Professor Emerita of Software Engineering*  
1977-2004
- Robert C. Foy**  
*Associate Professor Emeritus of English*  
1973-2001
- Jane Frazee**  
*Assistant Professor of Music*  
1991-2001
- Tadeusz Gierymski**  
*Assistant Professor of Psychology*  
1954-1989
- Bradley W. Glorvigen**  
*Associate Professor Emeritus of Chemistry*  
1977-2007
- Richard P. Goblirsch**  
*Professor Emeritus of Mathematics*  
1964-1995
- George M. Golden**  
*Associate Professor of Management*  
1990-2003
- Roy J. Gosselin**  
*Assistant Professor of Business Administration*  
1956-1982
- Janet R. Grochowski**  
*Professor Emerita of Health and Human Performance*  
1977-2006
- Demos Hadjiyanis**  
*Professor Emeritus of Economics*  
1965-1991
- Paul J. Hague**  
*Assistant Professor of English*  
1955-1990
- Gerald J. Hahm**  
*Assistant Professor of Mathematics*  
1961-1996
- Joseph M. Hallman**  
*Professor Emeritus of Theology*  
1981-2005
- Mary A. Hayes**  
*Professor Emerita of Professional Psychology*  
1988-2006
- W. Randolph Herman**  
*Assistant Professor Emeritus of Social Work*  
1994-2008
- Thomas E. Holloran**  
*Professor Emeritus of Management*  
1985-2002
- J Macoubrey Hubbard**  
*Associate Professor Emeritus of Philosophy*  
1973-2003
- James E. Hundley**  
*Assistant Professor of Spanish*  
1977-2003
- Eric Jaede**  
*Associate Professor of Computer and Information Sciences*  
1979-2000
- Norman L. James**  
*Professor Emeritus of Professional Psychology*  
1991-2004
- Stanley C. Johnson**  
*Associate Professor of Management*  
1977-1995
- Tamara L. Kaiser**  
*Associate Professor of Social Work*  
1992-2010
- Rev. Arthur L. Kennedy**  
*Professor Emeritus of Theology and Catholic Studies*  
1974-2007
- Ellen J. Kennedy**  
*Professor of Marketing*  
1987-2007
- Dale Kramm**  
*Assistant Professor of Latin and Greek*  
1960-1990
- Patrick H. Lally**  
*Assistant Professor of English*  
1960-1997
- Paul D. Lane**  
*Assistant Professor Emeritus of Physics*  
1962-2005



## Retired Faculty

**Norman W. Larson**  
*Assistant Professor Emeritus of Communication and Journalism*  
1968-2000

**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

**Yusen Liu**  
*Associate Professor Emeritus of Marketing*  
1990-2007

**Paul D. Mabry**  
*Associate Professor of Psychology*  
1986 - 2005

**Francis G. Mach**  
*Associate Professor of Health and Human Performance*  
1968-1998

**William L. Madsen**  
*Professor Emeritus of Professional Psychology*  
1975-1993

**A. Thomas Mason**  
*Associate Professor of Management*  
1981-2005

**Joseph A. Mason**  
*Assistant Professor of Accounting*  
1977-2000

**Francis N. Mayer**  
*Professor of Music*  
1947-1982

**Warren McIntire**  
*Professor of Management*  
1978-1992

**Richard R. Meierotto**  
*Professor Emeritus of Biology*  
1961-1995

**Eileen Michels**  
*Professor Emerita of Art History*  
1974-1992

**Robert K. Miller**  
*Professor Emeritus of English*  
1991-2006

**Len F. Minars**  
*Assistant Professor of Accounting*  
1979-2002

**Shelly Ann Moorman**  
*Assistant Professor Emerita of Spanish*  
1968-2004

**Richard J. Morath**  
*Professor Emeritus of Chemistry*

1957-1992

**Rev. James Motl, OP**  
*Associate Professor Emeritus of Homiletics, School of Divinity*  
1985-2002

**Merritt C. Nequette**  
*Associate Professor Emeritus of Music*  
1977-2002

**David H. Nimmer**  
*Assistant Professor Emeritus of Communication and Journalism*  
1989-2000

**Burton Nolan**  
*Professor Emeritus of Professional Psychology*  
1971-2009

**R. Stanford Nyquist**  
*Associate Professor of Management*  
1987-2005

**William L. O'Neill C.P.P.S.**  
*Associate Professor of Psychology*  
1974-1999

**Mary Rose O'Reilly**  
*Professor Emerita of English*  
1978-2006

**James D. Parsley**  
*Associate Professor of Health and Human Performance*  
1971 - 2005

**Gary A. Porter**  
*Professor of Accounting*  
2002-2006

**Rev. Thaddeus J. Posey, OFM, Cap.**  
*Associate Professor of Theology*  
1993-2006

**Robert L. Raymond**  
*Associate Professor Emeritus of Computer and Information Sciences*  
1982-2007

**Rev. James E. Reidy**  
*Associate Professor of English*  
1958-1996

**Rev. John Riley**  
*Associate Professor of Theology*  
1957-1994

**Rochelle E. Rottenberg**  
*Field Liaison and Supervisor in Social Work*  
1995-2007

**James A. Ryan**  
*Professor of Chemistry*  
1959-1989

**William E. Salesses**  
*Professor Emeritus of Education*  
1975-1998

**Monsignor John P. Sankovitz**  
*Assistant Professor of Theology*  
1980-1997

## Retired Faculty

**Richard F. Sauter**  
*Associate Professor Emeritus of Marketing*  
1990-2002

**Mabel Schleif**  
*Associate Professor Emerita of Education*  
1972-1991

**Jacob A. Schmitt**  
*Assistant Professor of Education*  
1975-1990

**Joseph J. Schramer**  
*Instructor in Accounting*  
1961-1976; 1977-1998

**Joseph P. Schwebel**  
*Assistant Professor Emeritus of Computer and Information  
Sciences*  
1969-2006

**Mohamed Ali Selim**  
*Director, Center for Senior Citizens Education*  
*Director, Center for Economic Education*  
*Associate Professor Emeritus of Economics*  
1959-2004

**Daniel R. Sevenich**  
*Senior Member of Adjunct Faculty in Accounting*  
1956-1998

**William B. Silverman**  
*Professor Emeritus of Biology*  
1959-1990

**Rev. David W. Smith**  
*Professor Emeritus of Theology*  
1970-2007

**E. Arnold Spencer**  
*Assistant Professor of Speech and Theater*  
1960-1974

**Thomas J. Stoffel**  
*Assistant Professor of Accounting*  
1988-2006

**Rev. James S. Stromberg**  
*Professor Emeritus of Philosophy*  
1956-1999

**Mary R. Supel**  
*Assistant Professor Emerita of Economics*  
1976-2002

**Albert O. Trostel**  
*Professor Emeritus of Management*  
1977-1999

**Peter B. Vaill**  
*Professor of Management*  
1997-2004

**Robert E. Veverka**  
*Assistant Professor of Business Administration*  
1976-1989

**Hubert R. Walczak**  
*Professor Emeritus 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

**Melvin D. Williams**  
*Associate Professor Emeritus of Finance*  
1976-2004

**Mary Lou Wolsey**  
*Associate Professor Emerita of French*  
1976-2001

**Robert H. Woodhouse**  
*Associate Professor of Management*  
1983-2001

**Jean Zilisch**  
*Associate Professor of Education*  
1976-1987

**Frederick M. Zimmerman**  
*Professor Emeritus of Engineering*  
1981-2006

**Nancy H. Zingale**  
*Professor Emerita of Political Science*  
1976-2007

## Index

### Index

- Academic affairs .....293  
Academic calendars 2004-2006 .....2  
Academic counseling .....35  
Academic Development Program .....35  
Academic dismissal .....32  
Academic probation .....32  
Academic progress – financial aid .....14  
Academic Support Center .....35  
Academic support services organization .....295  
Academic suspension .....32  
Accounting, Department of .....72  
Accreditation of the university .....8  
ACTC majors and minors .....26  
ACTC .....18  
Actuarial Science .....48  
Addition of major, minor, or degree .....27  
Administrative Services organization .....295  
Admission application procedures .....9  
Admission policies .....9  
Admission visits .....9  
ADP .....35  
Advanced placement credits .....9  
Advisers, faculty .....35  
Advisers, major field .....35  
Aerospace Studies, Department of .....50  
American Cultural and Difference, minor in .....53  
*Aquin* .....37  
Aquinas Scholars honors program .....17, 33  
*Aquinas* .....37  
Arabic .....209  
Art History, Department of .....54  
Assessment of programs .....8  
Associated Colleges of the Twin Cities (ACTC) .....18  
Athletic facilities .....44  
Athletics, intercollegiate .....37  
Attendance .....29  
Audit .....29  
Auditoriums .....44  
Baccalaureate degrees .....15  
Bands .....37  
Beakers .....40  
Binz Refectory .....40  
Biochemistry .....59  
Biology (teaching licensure) .....129  
Biology, Department of .....60  
Board of Trustees .....291  
Bookstores .....44  
Box office & expeditions .....39  
Business administration, major in .....70  
Business administration, minor in .....70  
Business Communication, concentration in .....78  
Business semester in London .....19  
BUSN 200 .....83  
Cadet internship program .....50  
Calendars, academic 2008-2010 .....2  
Campus ministry .....39  
Campuses .....7  
Career counseling .....39  
Career development services .....39  
Catalog of record .....31  
Catholic Studies in Rome .....19  
Catholic Studies, Department of .....91  
Center for Women .....43  
Center for Writing .....35  
Change of grade .....31  
Changes in registration .....30  
Chapels .....42  
Chemistry (teaching licensure) .....126  
Chemistry, Department of .....95  
Choirs .....37  
Classical Civilization .....101  
Classical languages .....208  
CLEP .....11  
CLIC .....43  
Clubs, student .....36  
College expenses .....14  
College level examination program (CLEP) .....11  
College of Applied Professional Studies org. ....294  
College of Arts and Sciences organization .....293  
College of Business organization .....294  
Colleges and schools of the university .....7  
Co-majors .....16  
Committee on Studies .....32  
Committee participation .....36  
Communication Arts and Literature  
(teaching licensure) .....127  
Communication services (IRT) .....35  
Communication and Journalism, Department of .....103  
Community Health Education, major in .....178  
Commuter Center .....39  
Computer labs .....43  
Computer & Information Sciences, Department of .....110  
Computer science, Department of CISC .....110  
Consortium of Twin Cities colleges .....18  
Cooperating Libraries in Consortium (CLIC) .....43  
Core Curriculum .....21  
Corporation officials .....291  
Counseling, academic .....35  
Counseling, career .....39  
Counseling, personal .....39  
Course load .....28  
Course unit .....28  
Courses, definition of .....28  
Courses, generic .....46  
Courses, re-taking .....30  
Courses, withdrawal from .....30  
Credit by examination .....11  
Credit waivers .....12  
Credits toward admission .....9  
Criminal Justice, major in .....264  
C-Store .....40  
*Cum laude* requirements .....34  
Date of graduation .....31  
Dean of Students Office .....37  
Deans' honor lists .....33  
Degree progress .....31  
Degree requirements .....21  
Degree, addition after graduation .....27  
*Delta Epsilon Sigma* .....33  
Department honor societies .....33  
*DES* .....33  
Dining facilities .....40  
Disability, learning and physical .....35  
Dismissal, academic .....32  
Dismissal, readmission after .....32  
Diversity requirement .....25  
Dual degree – mechanical engineering/general  
business management .....144

Dual degree – electrical engineering/general business management . . . . .	144	Grill . . . . .	40
Dual degree – electrical engineering/physics . . . . .	144	Health and Human Performance, Department of . . . . .	178
Dual degree – electrical engineering/CISC . . . . .	144	Health Education – non-licensure, major in . . . . .	180
Dummer Center for Women . . . . .	43	Health Education (teaching licensure) . . . . .	128
Earth and Space Science (teaching licensure) . . . . .	128	Health Promotion – science emphasis, major in . . . . .	179
Economics, Department of . . . . .	117	Health Promotion, major in . . . . .	179
Education . . . . .	122	Health service . . . . .	40
Electrical engineering . . . . .	143	HECUA . . . . .	19
Elementary Education (teaching licensures) . . . . .	124	High school credits toward admission . . . . .	9
Engineering, School of . . . . .	142	High school credits, post-secondary option . . . . .	11
English (teaching licensure) . . . . .	153	Higher Education Consortium for Urban Affairs . . . . .	19
English requirement . . . . .	22	Historical Studies requirement . . . . .	24
English with writing emphasis . . . . .	152	History of the university . . . . .	7
English, Department of . . . . .	150	History requirement . . . . .	24
Enhancement Program . . . . .	35	History, Department of . . . . .	186
Ensembles, music . . . . .	232	Honor lists . . . . .	33
Ensembles, musical . . . . .	37	Honor societies . . . . .	33
Entrepreneurship, Department of . . . . .	73	Honors program . . . . .	17
Environmental Sciences . . . . .	162	Housing . . . . .	39
Environmental Studies . . . . .	165	Human Diversity requirement . . . . .	25
Ethics and Business Law, Department of . . . . .	75	Human Resource management, concentration in . . . . .	79
Examinations, final . . . . .	28	Incompletes . . . . .	31
Exchange courses . . . . .	28	Individual study courses . . . . .	47
Expeditions & box office . . . . .	39	Individualized majors and minors . . . . .	27
Experiential learning courses . . . . .	46	Information Resources and Technologies organization . . . . .	296
Faculty advisers . . . . .	35	Information Resources and Technologies . . . . .	35
Faculty committees, student participation . . . . .	36	Instrumental and Classroom Music (teaching licensure) . . . . .	130
Faculty . . . . .	296	Intercollegiate athletics . . . . .	37
Faculty, retired . . . . .	318	Interdisciplinary courses . . . . .	192
Faith and the Catholic Tradition requirement . . . . .	23	International baccalaureate . . . . .	10
Family Studies . . . . .	167	International business, concentration in . . . . .	71
FERPA policy . . . . .	32	International business, language intensive . . . . .	215
Final examinations . . . . .	28	International Education . . . . .	18
Finance and administration organization . . . . .	295	International programs . . . . .	18
Finance, Department of . . . . .	76	International student services . . . . .	39
Financial aid . . . . .	14	International students . . . . .	13
Financial aid – satisfactory academic progress . . . . .	14	International Studies . . . . .	196
Financial aid application . . . . .	14	Internship courses . . . . .	47
Financial aid awards and renewals . . . . .	14	Intramural activities . . . . .	37
Financial aid policy regarding withdrawal . . . . .	14	Ireland library . . . . .	43
Fine Arts requirement . . . . .	24	Irish Gaelic . . . . .	215
Florance Chapel . . . . .	42	January term . . . . .	17
Food Court . . . . .	40	Japanese . . . . .	216
Food for Thought . . . . .	40	Journalism (COJO) . . . . .	103
Foreign language requirement . . . . .	25	J-term . . . . .	17
French (teaching licensure) . . . . .	134	Junior status . . . . .	31
French . . . . .	210	Justice and Peace Studies . . . . .	198
Freshman status . . . . .	31	Keffer library . . . . .	43
General business management . . . . .	71	Language and Culture requirement . . . . .	25
Generic courses . . . . .	46	Languages (teaching licensure) . . . . .	134
Geographic Information Systems . . . . .	169	Latin honors . . . . .	34
Geography, Department of . . . . .	169	Latin . . . . .	216
Geology (teaching licensure) . . . . .	128	Law School chapel . . . . .	42
Geology, Department of . . . . .	172	Lay Ministry, certificate in . . . . .	275
German (teaching licensure) . . . . .	134	Leadership and management, concentration in . . . . .	80
German . . . . .	212	Learning disability program . . . . .	35
GPA . . . . .	31	Legal Studies, minor in . . . . .	202
Grade change . . . . .	31	Libraries . . . . .	43
Grade point total and average . . . . .	31	Library consortium (CLIC) . . . . .	43
Grade reports . . . . .	31	Life Science (teaching licensure) . . . . .	129
Grades . . . . .	29	Life/Work Center . . . . .	37
Graduate Programs in Software organization . . . . .	295	Literary Studies . . . . .	202
Graduation, date of . . . . .	31	Literature and Writing requirement . . . . .	22
Greek . . . . .	214		

## Index

Liturgical music, concentration in	225	Pre-dentistry	252
Locations of campuses	7	Pre-engineering	250
London Business Semester	19	Pre-health professions	252
Luann Dummer Center for Women	43	Pre-law	253
<i>Magna cum laude</i> requirements	34	Pre-medicine	252
Major field advisers	35	Pre-pharmacy	252
Major, addition after graduation	27	Pre-physical therapy	253
Majors	15	Pre-professional programs	250
Majors at ACTC institutions	26	Pre-veterinary	253
Majors, individualized	27	President's office	293
Majors, requirements for	26	Priesthood preparation	250
Management, Department of	78	Probation, academic	32
MaRC	35	Progress toward a degree	31
Marketing, Department of	81	Psychology, Department of	254
Mathematics (teaching licensure)	129	Public Safety	41
Mathematics requirement	23	Readmission after suspension, dismissal	32
Mathematics Resource Center	35	Readmission policies	13
Mathematics, Department of	203	Real Estate Studies	77
Mechanical engineering	143	Refund policies, institutional and state	15
Memberships of the university	8	Registration changes	30
MiniTex	43	Registration	28
Minor, addition after graduation	27	Renaissance Program	259
Minors	16	Renewal of financial aid	14
Minors and majors	15	Requirements for a degree	21
Minors at ACTC institutions	27	Requirements for a major	26
Minors, individualized	27	Research courses	46
Minors, requirements for	27	Residency requirement	27
Mission of the university	6	Re-taking courses	30
Modern and Classical Languages, Department of	208	Retired faculty	318
Moral and Philosophical Reasoning requirement	23	Rome, Catholic Studies in	19
Multicultural student services	39	Rome, Fall semester in	19
Music business, concentration in	225	ROTC cadet internship program	50
Music Education	130	Russian	218
Music ensembles	232	Satisfactory academic progress – financial aid	14
Music performance studies	223	Scheduling as a new student	28
Music, Department of	222	School of Education organization	294
Musical organizations	37	School of Engineering organization	294
Natural Science requirement	23	School of Engineering	142
Neuroscience	237	School of Law organization	294
New student scheduling	28	School of Social Work organization	295
Non-degree students	13	Science (teaching licensures)	129
O'Shaughnessy-Frey library	43	Science and Mathematics for Elementary Education	125
Off-campus programs	18	Science facilities	44
Off-campus services	39	Scooter's	40
Operations management, concentration in	82	S-D-R grading	30
Opus College of Business organization	294	Secondary Education (teaching licensures)	125
Organization and personnel	291	Semesters	17
Organization of the university	7	Seminar courses	47
Organizations, student	36	Seminary training	250
Parents-on-campus program	18	Senior residency requirement	27
Parking services	41	Senior status	31
Pass/fail grading	30	SMEE	125
Personal counseling	38	Social Analysis requirement	24
Philosophy requirement	23	Social Sciences	260
Philosophy, Department of	238	Social Studies (teaching licensure)	133
Physical disability program	35	Social studies requirement	24
Physical Education – non-licensure, major in	181	Social Welfare, minor in	262
Physical Education (teaching licensure)	131	Social Work, School of	260
Physical therapy, Pre-professional programs	253	Sociology and Criminal Justice, Department of	264
Physics (teaching licensure)	132	Sophomore status	31
Physics, Department of	243	Spanish (teaching licensure)	134
Pit Stop	40	Spanish	219
Political Science, Department of	247	Special curricula	18
Popular music, minor in	227	Special Education, Department of	141
Post-secondary enrollment option credits	11	S-R grading	30

St. John Vianney Chapel . . . . .	42
St. John Vianney Seminary . . . . .	250
St. Mary's Chapel . . . . .	42
St. Paul Seminary School of Divinity organization . . . . .	294
St. Thomas Aquinas Chapel . . . . .	42
St. Thomas More Chapel . . . . .	42
Statistics of the university . . . . .	8
Student Affairs Life/Work Center . . . . .	37
Student Affairs organization . . . . .	295
Student classification . . . . .	31
Student Financial Services . . . . .	14
Student health service . . . . .	40
Student life policies . . . . .	37
Student life . . . . .	36
Student life, dean's office . . . . .	37
Student literary magazine . . . . .	37
Student newspaper . . . . .	37
Student organizations and clubs . . . . .	36
Student Policy Book . . . . .	37
Student publications . . . . .	37
Student yearbook . . . . .	37
Studies committee . . . . .	32
Study abroad . . . . .	18
<i>Summa cum laude</i> requirements . . . . .	34
Summer sessions . . . . .	17
Summit Avenue Review . . . . .	37
Suspension, academic . . . . .	32
Suspension, readmission after . . . . .	32
Table of contents . . . . .	4
Teacher Education, Department of . . . . .	122
Telephone services (IRT) . . . . .	35
Testing services . . . . .	38
Theater Arts (teaching licensure) . . . . .	133
Theater Courses . . . . .	160
Theology requirement . . . . .	23
Theology, Department of . . . . .	272
Topics courses . . . . .	46
Transcripts . . . . .	32
Transfer courses . . . . .	29
Transfer student credit . . . . .	12
Travel clinic . . . . .	41
Undergraduate vision statement . . . . .	6
University faculty . . . . .	296
University Relations organization . . . . .	296
Urban Studies, minor in . . . . .	287
Veterans . . . . .	13
Vision statement, undergraduate . . . . .	6
Vital statistics . . . . .	8
Vocal and Classroom Music (teaching licensure) . . . . .	131
Waiver of credits . . . . .	12
Washington Semester . . . . .	21
Wellness center . . . . .	41
Withdrawal from a course . . . . .	30
Withdrawal from the university . . . . .	30
Withdrawal, financial aid policy . . . . .	14
Women's Center . . . . .	43
Women's Studies . . . . .	288
World Languages (teaching licensure) . . . . .	134
Writing center . . . . .	35
Yearbook . . . . .	37