

University of St. Thomas

2115 Summit Avenue
St. Paul, Minnesota 55105

Undergraduate Catalog **2017-2018**

Telephone

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Website

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.

Equal Opportunity Statement and Notice of Nondiscrimination

The University of St. Thomas is an equal opportunity educator and employer. St. Thomas does not unlawfully discriminate, in any of its programs or activities, on the basis of race, color, creed, religion, national origin, sex, sexual orientation, family status, disability, age, marital status, status with regard to public assistance, membership or activity in a local commission, genetic information, or any other characteristic protected by applicable law. The university's policy of nondiscrimination extends to all aspects of its operations, including but not limited to, employment, educational policies, admissions policies, scholarship and loan programs and all other educational programs and activities. For more information please see our site: www.stthomas.edu/eostatement
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.

The University of St. Thomas is registered 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.



Undergraduate Catalog
2017-2018

Website

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Academic Calendar

Fall Semester 2017 - Preliminary

September 6	Classes begin
September 12	Last day to register or add a class without instructor permission
September 19	Last day to drop a class without notation on record
October 13	Last day to designate grading option (S-D-R)
October 27	Mid-term break begins
October 30	Classes resume (mid-term break ends)
October 30	Mid-term & 1st half-semester grades due
Nov. 13 - Dec. 1	Early registration for January term and spring semester
November 20	Last day to withdraw from a class without a grade of "F"
November 23	Thanksgiving break begins
November 27	Classes resume (Thanksgiving break ends)
December 1	Incompletes due from spring semester and summer sessions
December 15	Last day of classes
December 18	Study Day
December 19	Final examinations begin
December 22	Final examinations end
January 2, 2016	Final grades due to registrar

January Term 2018 - Preliminary

January 2	Classes begin
January 3	Last day to register or add a class without instructor permission
January 8	Last day to drop a class without notation on record
January 10	Last day to designate grading option (S-D-R)
January 15	Martin Luther King Holiday
January 19	Last day to withdraw from a class without a grade of "F"
January 25	Classes end
February 2	January term grades due

Spring Semester 2018 - Preliminary

January 29	Classes begin
February 2	Last day to register or add a class without instructor permission
February 9	Last day to drop a class without notation on record
March 7	Last day to designate grading option (S-D-R)
March 23	Mid-term & 1st half-semester grades due
March 26	Mid-term & Easter break begins
April 3	Classes resume (break ends)
April 16 - 27	Early registration for summer sessions and fall semester
April 18	Last day to withdraw from a class without a grade of "F"
May 1	Incompletes due from fall semester and January term
May 11	Last day of classes
May 14	Study Day
May 15	Final examinations begin
May 18	Final examinations end
Weekend of May 21	Commencement Ceremony
June 1	Final grades due

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Accreditation and Memberships

The University of St. Thomas is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools (312-263-0456 or www.HLCommission.org) and the Association of Theological Schools (412-788-6505).

All University of St. Thomas teacher education licensure programs within the School of Education are approved by the Minnesota Board of Teaching (651-582-8739) and education administration licensure programs are approved by the Minnesota Board of School Administrators (651-582-8754).

The Opus College of Business is accredited by The Association to Advance Collegiate Schools of Business (813-769-6500); 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 the Graduate School of Professional Psychology is accredited by the American Psychological Association (202-336-5979); the Social Work program is accredited by the Council on Social Work Education (703-683-8080); the School of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE) (202-296-6620).

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

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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

University Information

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 vice president for Planning and Decision Support. The committee is chaired by the accreditation liaison officer.

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.

Equal Opportunity Statement and Notice of Nondiscrimination

The University of St. Thomas is committed to the principles of equal employment opportunity and equal educational opportunity. St. Thomas does not unlawfully discriminate on the basis of race, color, creed, religion, national origin, sex, sexual orientation, family status, disability, age, marital status, status with regard to public assistance, membership or activity in a local commission, genetic information, or any other characteristic protected by applicable law. The university's policy of nondiscrimination extends to all aspects of its operations, including but not limited to, employment, educational policies, admissions policies, scholarship and loan programs and all other educational programs and activities.

The following persons have been designated to handle inquiries regarding St. Thomas' nondiscrimination policy:

Interim Title IX Coordinator (for inquiries related to sex discrimination, including sexual harassment and sexual violence):

Nora Fitzpatrick, Associate Vice President, Financial Planning and Analysis, AQU 110, 2115 Summit Avenue, St. Paul, MN 55105, (651) 651-962-6884, nbfitzpatric@stthomas.edu

Interim ADA/Section 504 Coordinator (for inquiries related to disability discrimination):

Michelle Thom, Associate Vice President of Human Resources, AQU 217 - 2115 Summit Avenue, St. Paul, MN 55105, (651) 962-6510, thom0526@stthomas.edu

Discrimination Inquiries Generally:

Student contact: Dean of Students, ASC 241, 2115 Summit Avenue, St. Paul, MN 55105, (651) 962-6050, deanstudents@stthomas.edu

Faculty/staff contact: Director of Employee Relations, AQU 217, 2115 Summit Avenue, St. Paul, MN 55105, (651) 962-6510, humanresources@stthomas.edu

For further information on non-discrimination, visit <http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> for the address and phone number of the Department of Education

office that serves your area, or call 1-800-421-3481.

or www.stthomas.edu/eostatement

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 three campuses and more than 10,000 students.

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

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

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

After 92 years of all-male enrollment, St. Thomas became coeducational in 1977. Today, 46 percent of the undergraduates and 55 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 three decades. Enrollment increased from under 2,500 students in 1970 to 10,245 today. The undergraduate program currently enrolls approximately 6,240 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 also 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 opened a permanent campus in downtown Minneapolis, which is home to the Dougherty Family College and 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 Bernardi Residence in Rome, which opened in 2000, is a remodeled residential estate on the banks of the Tiber River. Serving as home to students on the university's core semester program and the Center for Catholic Studies' Rome programs, the Bernardi Residence is also available for conferences, study tours and housing for faculty, students, and visitors to Rome.

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:

1 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;

2 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;

3 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;

University Information

- 4 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;
- 5 Increase efforts to diversify the student body, the faculty, the staff, and the curriculum to reflect the diversity of the broader society;
- 6 Emphasize the integration of technology in teaching, and the development of computer literacy for all students;
- 7 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;
- 8 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.

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.

Dougherty Family College

School of Education

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

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/)

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 Education, Leadership & Counseling

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 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/)

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 and Doctor of Social Work degrees are offered as a joint degree program with St. Catherine University. Each 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 an associate's degree, 7 bachelor's degrees, 109 major fields of study, and 57 minor fields of study. The university offers 61 graduate master degree programs, 1 juris doctor, 4 doctoral, 2 specialist, 4 1st Professional degrees, and 41 graduate certificates. It also offers 10 graduate-level joint- or dual-degree programs.

The university awards the B.A. in 88 fields; B.M. in 3 fields; B.S. in 16 fields; B.S.C.P.E., B.S.E.E.; B.S.M.E.; D.S.W.; Ed.S. in 2 fields; Ed.D. in 2 fields; J.D.; L.L.M. in 2 fields; M.A. in 33 fields; M.B.A. in 3 fields; M.B.C.; M.M.S.E.; M.S. in 13 fields; M.S.S.; M.S.W. in 2 fields; Psy.D; and M.Div. in 3 fields.

Enrollment in the undergraduate program for fall semester 2015 was 6,240 Graduate-level enrollment figures at the university were: College of Arts and Sciences, 122; Opus College of Business, 993; St. Paul Seminary School of Divinity, 112; School of Education, 1044; School of Law, 385; School of Social Work, 383; Graduate School of Professional Psychology, 192; Graduate Programs in Software Engineering, 537; Programs in Engineering, 232.

The total undergraduate and graduate enrollment for fall semester 2015 was 10,242.

Calendar 4-1-4

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 fall and spring semester 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 in sixteen credits.

The January Term

Students may enroll in 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 in a maximum of eight credits in a given session, with a maximum of sixteen credits for the summer.

Aquinas Scholars

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 3.60 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 (aqscholarmdir@stthomas.edu) or Erica Berglund, Administrative Assistant for the Program (berg7582@stthomas.edu).

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 Associate Vice Provost for Undergraduate Studies.

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

Academic Honors

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 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, and attendance as guests of the university at special academic functions.

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*

Business - *Beta Gamma Sigma*

Communication and Journalism - *Beta Chi chapter of Lambda Pi Eta*

Economics - *Omicron Delta Epsilon*

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 Phi Alpha*

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 the Associate Vice Provost for Undergraduate Studies 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 examination committee is comprised of faculty members. The student should invite a full-time faculty member from the student's major department to chair the committee. A student with multiple majors may choose a faculty chair from any of his or her major departments.

In consultation with the selected faculty chair, the student should invite two additional faculty members to constitute a three-person committee that represents three different departments and at least two academic areas of the undergraduate program. For the purposes of the Summa exam, the academic areas are:

(1) The Division of Arts and Letters in the College of Arts and Sciences, (2) The Division of Catholic Studies, Justice and Peace Studies, Philosophy, and Theology in the College of Arts and Sciences, (3) The Division of Science and Mathematics in the College of Arts and Sciences, together with the School of Engineering, (4) The Division of Social Sciences in the College of Arts and Sciences, together with the School of Social Work, (5) The College of Business, and (6) The College of Education, Leadership and Counseling.

In consultation with the faculty chair, the student should choose one of the following three options for structuring the examination and then inform all of the faculty examiners which of these options has been selected:

(i) The student selects a central theme for the examination and prepares a five-page paper on that theme, integrating the student's major field with the areas represented by the examiners and, to the extent possible, with the liberal arts more broadly. This paper will be sent by the student to the examiners at least one week prior to the examination date. This paper will be the focus of the examination. (ii) The student selects a central theme for the examination and develops an outline of ideas on the theme, integrating the student's major field with the areas represented by the examiners and, to the extent possible, with the liberal arts more broadly. This outline will be made available to the examiners at the time of the oral examination and will be the basis of a twenty-minute oral presentation by the student, which will then become the focus of the remainder of the examination.

(iii) The student collects three exhibits to be included in a Summa Cum Laude portfolio, representing three

disciplines. These exhibits might be papers, projects, lab reports, or other documents illustrating the student's academic achievement at UST. The exhibits should represent three distinct disciplines. The student also writes a five-page reflective essay that introduces the contents of the portfolio. The essay should explain the contexts in which the exhibits were produced, and why the student believes these materials provide a good picture of his or her academic achievements at UST. In addition, the essay should draw connections among the three exhibits, showing how they work together to illustrate intellectual depth, breadth, or growth. The student uploads these materials onto Blackboard in an electronic portfolio. Committee members will have access to these materials at least two weeks before the Summa Cum Laude examination. The three exhibits together with the essay will be the focus of the examination.

Further details concerning the examination will be sent to eligible students and the chairs of their departments by the Office of the Associate Vice Provost for Undergraduate Studies.

If a student who is eligible to graduate summa cum laude chooses not to take the Honors Oral Examination, the student will receive the magna cum laude designation.

Academic Counseling and Support

The Office of Academic Counseling and Support 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 academic and life goals by encouraging them to reflect upon their educational experiences and achievements. The Academic Counseling staff offers special support to those students who are experiencing academic challenges, provides assistance with class registration, long term academic planning individual assistance in study skills improvement, time management, test taking preparation, college reading techniques, and college survival skills.

Faculty Advisers

Full-time faculty members serve as advisers to all students. Faculty advisers assist students with class schedules and enrollment decisions each semester during their first and sophomore years.

Major field advisers guide their advisees' progress toward a degree by reviewing grade reports and degree evaluations, assisting students with academic challenges, and consulting with them about career decisions.

Academic Development Program

The Academic Development Program (ADP) is a team-taught combination of courses designed to help incoming first year students 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.

Mathematics Resource Center

The Mathematics Resource Center (MaRC) provides a variety of resources including a tutoring staff, math placement exam proctoring and preparation, 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 derived from an ACT math score or from a UST Math Placement Exam, which is a proctored test offered weekly by the MaRC Director.

Students whose math placement is 099 cannot take any for-credit math course at St. Thomas, however St. Thomas offers MATH 005 (Basic Math Skills) which serves as a prerequisite for MATH 006, MATH 100 and MATH 101. Successful completion of MATH 005 receives placement into MATH 100 or MATH 101. MATH 005 has a nominal registration fee and is offered every fall, J-Term and spring.

Placement exam schedule is located at <http://www.stthomas.edu/mathematics/placement>

For more information, see the MaRC website:

www.stthomas.edu/mathematics/marc

Disability Resources

Students qualify for services through the Disability Resources through 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

Writers at all levels of experience 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. Students 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

Academic Support

capstone papers. Those writing essays for application to graduate school or study abroad are also 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 help writers strengthen their approaches to all facets of the writing process.

Conferences with consultants are free and confidential. Appointments should be made through our website www.stthomas.edu/writing. Online consultations are available through our website as well.

For more information on our services, please contact Dr. Susan Callaway, Director, in JRC 361 or by phone, (651) 962-5601

Major Field Advisers

After a student has completed 48 semester credits, the student completes a major field form and applies to be accepted as a major in his or her chosen academic discipline.

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 Technology Services (ITS)

Information Technology Services (ITS) is the University of St. Thomas's information technology division which focuses on three areas: academics, service and operations, and security. ITS is charged with developing initiatives that create and reflect best IT practices in higher education and support the University of St. Thomas' mission and strategic goals.

ITS provides a variety of software and services to students at no additional cost to support their academic and personal goals while at St. Thomas. All students receive a St. Thomas account upon acceptance to the university that includes email, file storage, on-campus printing, Microsoft Office suite for personal devices, and access to important university-wide systems that allow students to stay on top of their coursework, grades, and campus activities. The Tech Desk also offers free walk-up assistance for general troubleshooting on personal devices, including malware and virus removal.

Admission Policies

The University of St. Thomas is committed to the principles of equal employment opportunity and equal educational opportunity. St. Thomas does not unlawfully discriminate on the basis of race, color, creed, religion, national origin, sex, sexual orientation, family status, disability, age, marital status, status with regard to public assistance, membership or activity in a local commission, genetic information, or any other characteristic protected by applicable law. The university's policy of nondiscrimination extends to all aspects of its operations, including but not limited to, employment, educational policies, admissions policies, scholarship and loan programs and all other educational programs and activities.

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.

Admissions Standards

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 (GPA), 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 (GED) should submit the GED, including scores, in addition to their high school transcript.

Application Procedures

Candidates for admission should complete the following steps.

1. The official undergraduate application for admission is available at www.stthomas.edu and www.commonapp.edu
2. The admissions committee considers each student's academic record, writing sample and recommendations, if applicable. Depending on the Admission Type to which you applied - Early Action or Regular Decision - applications are reviewed by the Admissions Committee and decisions announced at the respective notification date.
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 housing deposit. The

housing 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 coverage. Students participating in NCAA athletics and international students 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/studenthealth/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 Health Service. These immunizations are to be entered via Murphy Online at <https://banner.stthomas.edu>.

Credits Earned Prior to Admission

Students entering St. Thomas as first-time college students may have college credits earned prior to graduation from high school, Advanced Placement (AP) credits or informal education that allows them to gain credit by examination. These various supplementary programs are explained in this section.

Advanced Placement

Students who meet the conditions described in this section for an Advanced Placement (AP) Examination 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 based on individual course basis)

Biology – A score of 4 or higher (non-Biology majors) equals BIOL 101. Students intending to major in Biology or related programs who earn a score of 4 equals BIOL 101. BIOL 101 fulfills a core lab science, but will not fulfill a major field requirement in Biology or related programs. Students intending to major in Biology or related programs who earn a score of 5 equals BIOL 243 and fulfills 4 credits towards the Biology major.

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 is 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);

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 121 (fulfills 4 credits towards the Literature and Writing requirement)

Environmental Science – A score of 4 or higher (non-Biology majors) equals BIOL 101. Students intending to major in Biology or related programs who earn a score of 4 equals BIOL 101. BIOL 101 fulfills a core lab science, but will not fulfill a major field requirement in Biology or related programs. Students intending to major in Biology or related programs who earn a score of 5 equals BIOL 243 and fulfills 4 credits towards the Biology major.

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 and Human Diversity requirements)

German – A score of 3 = GERM 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 (counts as an elective toward graduation) 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

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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 4 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 be the equivalent of MUSC 113 and a score of 4 or higher may be the equivalent of MUSC 114, however, all students who wish to transfer APcredits are required to take the music theory placement test for official placement. 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)
 Physics 1: A score of 3 = PHYS 101 (satisfies Natural Science Requirement); A score of 4 or 5 = PHYS 109(satisfies Natural Science Requirement)
 Physics 2: A score of 3 = PHYS 100 (satisfies Natural Science Requirement); A score of 4 or 5 = PHYS 110 (satisfies Natural Science Requirement)

Political Science – A score of 3 or higher in Government & Politics: US = POLS 199 (does not fulfill Social Analysis requirement). A score of 3 or higher in Comparative Government & Politics = POLS 104 (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 = STAT 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)

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 – No credit will be assigned for the CLEP exam in foreign languages.

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 who receive a score greater than 50% on the College Mathematics exam will receive credit for MATH 101 Finite Mathematics (fulfills the core requirement in mathematics).

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 (fulfills Soc Analysis)	ECON 251
Princ of Microecon (fulfills Soc Analysis)	ECON 252
Introductory Psyc (fulfills Soc Analysis)	PSYC 111
Introductory Soc (fulfills Soc Analysis and Human Div)	SOCI 100

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.

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 as-

sistance 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, contact the department with questions.

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 451 Advanced multimedia reporting
 COJO 456 Graphic Design Studio
 COJO 460 Advanced Video Production
 COJO 470 Strategic Communication Campaigns
 COJO 480 Communication Ethics

Computer and Information Sciences - Under special circumstances and with the approval of the department chair, credit by examination or a course waiver could be sought for:

CISC 130 Introduction to Programming and Problem Solving in the Sciences

CISC 131 Introduction to Programming and Problem Solving

CISC 200 Introduction to Computer Technology and Business Applications

Economics – all courses, if circumstances warrant it, with the exception of:
 ECON 315 Introduction to Econometrics
 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 121 Critical Thinking: Literature and Writing
 ENGL 190 Critical Reading & Writing: Major

Genres

ENGL 201 Text in Conversation: Perspectives on and Craft

Genre

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 421/422 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

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 – A score of 5 or higher (non-Biology majors) equals BIOL 101. Students intending to major in Biology or related programs who earn a score of 5 equals BIOL 101. BIOL 101 fulfills a core lab science, but will not fulfill a major field requirement in Biology or related programs. Students intending to major in Biology or related programs who earn a score of 6-7 equals BIOL 243 and fulfills 4 credits towards the Biology major.

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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 121 (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.

<u>UST Exam Result</u>	<u>IB Credit Earned</u>
300	212 (fulfills Lang & Culture)
212	211 (fulfills Lang & Culture)
211	112
112	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.

Theater – A score of 4 or higher equals THTR 111 (fulfills the Fine Arts requirement.)

Waiver of Credits

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 degree evaluation, but no credits are awarded.

Information and Visits

All correspondence and telephone calls concerning undergraduate admission should be directed to:
Office of Admissions
University of St. Thomas
Mail 5017
St. Paul, Minnesota 55105-1096

Phone: (651) 962-6150 or (800) 328-6819 Ext. 2-6150

e-mail: admissions@stthomas.edu
Website: www.stthomas.edu

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

The Office of Admissions is located in Murray-Herrick (MHC) 250. Open office hours are from 8 a.m. to 4:30 p.m., Monday through Friday, and 9 a.m. to noon on select Saturdays during the academic year. Admission counselors and scheduled tour times are available during those hours. Please contact the Office of Admissions for an appointment.

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 already possess 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
- Additional items may be found at <https://www.stthomas.edu/intl/requirements/checklist>

Priority deadline for applications is January 15.

The minimum acceptable TOEFL score is 80 (iBT) with sub-scores of 20 on speaking and writing. Information on testing can be found at 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, students may attend any ELS Language Center and successfully complete ELS Level 112 with a minimum cumulative GPA of 2.5. Students with a minimum ELS CGPA of 2.0-2.49 will be subject to secondary review by the international admissions committee. For more information about ELS, please see www.els.edu/stpaul.

The University of St. Thomas has international student scholarships available for students with outstanding merit. To qualify for consideration, students must submit a complete University of St. Thomas international student admissions application.

For more information, or to arrange to visit, please contact:

International Admissions
University of St. Thomas 44C

2115 Summit Avenue
St. Paul, MN 55105-1096.
Web: www.stthomas.edu/admissions/international

e-mail: international@stthomas.edu
phone: 1-651-962-6880

Non-Degree Students

Non-degree students are those who attend classes without intending to apply any credits earned to obtaining a degree at St. Thomas. There are two types of non-degree students: (1) those participating at St. Thomas in university-approved international exchanges or inter-institutional partnerships; (2) independent non-degree students.

(1) Non-degree students who are participating in university-approved international exchanges or inter-institutional partnerships are subject to the credit limits and registration times determined by the conditions of the exchange or partnership in which they are participating. Academic and disciplinary sanctions (probation, suspension, dismissal) apply.

(2) Independent non-degree students 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. Independent non-degree students begin registration five days before the start of each term; they are not classified as freshman, sophomore, junior, or senior. Neither are they classified as part-time or full-time. They 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. An independent 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. A maximum of 24 credits taken at St. Thomas on independent non-degree status may be applied to a degree program. Academic and disciplinary sanctions (probation, suspension, dismissal) apply.

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 & Support 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 and a completed Dean of Students form must be submitted to St. Thomas from that institution.

The student will then be reinstated by 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.

Transfer Students

In addition to following the general application procedures, students wishing to transfer from another college should submit official high school, all college transcripts, and a completed Dean of Students Form to the Office of Admissions as soon as possible. Previous college work, disciplinary history, 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.ncahk.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 (800) 328-6819 Ext. 2-6150 or admissions@stthomas.edu

Veterans

The University of St. Thomas has been approved for the education and training of veterans. It is the responsibility of students who are veterans to familiarize themselves with the procedures and regulations concerning satisfactory standards of progress in order to 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's Office who serves as Coordinator for veterans benefits and transfer evaluation.

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 experi-

Academic Information

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. 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 over-arching principle, the undergraduate program is then framed by three additional key principles: the pursuit of liberal learning, the cultivation of a vocation aimed at serving the common good, and the promotion of 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 over-arching 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 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

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

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.

This curricular area features a sequence of courses that acquaint students with these questions and assist them in articulating thoughtful responses formulated in light of Catholic tradition and Christian faith. These courses contribute to 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 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 THEO or CATH 401), 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 courses in the Faith and Catholic Tradition core area requirement, thus, form an integrated sequence. 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

Core Curriculum

One Theology course at the 200 or 300-level
One Theology course at the 400-level, or CATH

401

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 select one of the following core-area courses:

ARTH 110 Introduction to Art History
ARTH 260 Women in Ancient Art and Culture
ARTH 265 Art of Mesoamerica
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 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 323 Colonial Art of Latin America
ARTH 328 Chinese Sculpture & Architecture
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
FILM 200 Introduction to Film Studies
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 162 The Roots of Blues, Rock and Country Music
MUSC 170 Music for Film
MUSC 216 Jazz in America
MUSC 217 Music of the Americas
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

Alternatively, students may choose to participate for four semesters in one of the following music ensembles:

- MUSN 173 Guitar Ensemble
- MUSN 181 Orchestra

Or

Students may take a total of four semesters in any combination of choirs:

- MUSN 140 Donne Unite
- MUSN 142 Chamber Singers
- MUSN 143 Liturgical Choir
- MUSN 160 Concert Choir

Or

Students may take a total of four semesters in any combination of bands:

- MUSN 185 Symphonic Band
- MUSN 186 Symphonic Wind Ensemble

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 objective is to raise awareness of diversity within human history and the importance of intercultural learning. A fourth objective is to address issues related to the professional ethics of historians and the ethical use of historical materials:

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
HIST 118 The Middle East and North Africa in Global Perspective
HIST 119 East Asian Civilizations in Global Perspective

Human Diversity

(4 credits)

Courses fulfilling the human diversity requirement consider ways in which preconceptions, stereotypes, and assumptions held by a particular individual, as well as that individual's position within structures of privilege, affect understanding of issues related to diversity. In addition, the course addresses ways in which power and privilege operate at the institutional/systemic level. These courses address at least two of the following areas of inquiry: race and ethnicity, gender, religion, class, sexual orientation, disability status, or geopolitical status.

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, courses include materials (e.g., writings, films, narratives, oral histories, artwork) that are produced by the population or culture under study.

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.

Students select on of the following core-area courses:

ACST 200 Introduction to American Cultural Studies
 ARTH 110 Introduction to Art History
 ARTH 260 Women in Ancient Art
 ARTH 265 Art of Mesoamerica
 ARTH 270 Pacific Art
 ARTH 275 Buddhist Art
 ARTH 284 Arts of the African Diaspora
 ARTH 285 Arts of Africa
 ARTH 289 Asian Art
 ARTH 291 Topics in Non-Western Art
 ARTH 321 The Art and Culture of Modern Mexico (1824-1940)
 ARTH 323 Colonial Art of Latin America
 ARTH 328 Chinese Sculpture & Architecture
 ARTH 329 Chinese Painting
 BLAW 352 Gender Issues and the Law
 CATH 308 Woman and Man
 COJO 326 Communication in Popular Culture
 COJO 328 Communication of Race, Class, and Gender
 COJO 370 Intercultural Communication
 EDUC 329 Diverse Learners and Families
 ENGL 217 Multicultural Literature
 ENGL 218 Literature by Women: Critical History
 ENGL 337 The Literature of Human Diversity
 ENGL 341 Literature by Women: Critical Questions
 ENGL 390 Major Literary Figures (James Baldwin offering)
 ENGL 395 Issues in Literature, Language, and Culture (dependent on topic)

FILM 300 World Cinema
 GEOG 111 Human Geography
 GEOG 113 World Geography
 HIST 116 African American History in Global Perspective
 HIST 119 East Asian Civilizations
 HIST 210 Modern Latin America, 1800 to the Present
 HIST 240 Foundations of Chinese Civilization
 HIST 241 The History of Modern China
 HIST 366 History of the American Catholic Church
 HIST 268 History of Women in the United States
 HIST 372 Vietnam and the United States
 JPST 250 Introduction to Justice and Peace Studies
 MUSC 130 Introduction to World Music
 MUSC 162 The Roots of Blues, Rock and Country Music
 MUSC 216 Jazz in America
 MUSC 217 Music of the Americas
 MUSC 233 Music of the World: Aural and Written Traditions
 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 for Study Abroad for approved courses
 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 426 Islam
 THEO 428 Women and the Old Testament
 THEO 429 Women and the Christian Tradition
 THEO 431 Women in the Early Church
 THEO 455 The Church in Latin America
 THEO 458 The Bible from a Multicultural Perspective
 THEO 461 Comparative Theology of Sex, Gender and the Body
 THEO 466 The Qur'an and the Bible
 THTR 223 American Theater (History of Theater III)
 UMAIE See the Office of Study Abroad for approved courses
 WMST 205 Foundations in Women's Studies

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 essen-

Core Curriculum

tial vehicle for coming to a deeper understanding of other cultures. The courses guide students toward a realization that the study of a foreign language provides a comparative basis from which to analyze their own language and culture. Study of the language will allow students to relate course content with that of courses taught in other disciplines.

Students must complete the 111, 112, and 211 sequence in a particular language. All students with previous language experience must take a 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. An exemption does not add credits to a student's transcript.

Literature and Writing

(8 credits)

This sequence of courses develops students' critical awareness of language by helping them 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:

First course:

ENGL 121 Critical Thinking: Literature and Writing

Second course (one of the following):

ENGL 201 Texts 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

Students with qualifying ACT scores may enroll in:

First course:

one of ENGL 201 through 204

Second course (one of the following literature courses in

English:

ENGL 211, 212, 214, 215, 217, 218, 220, 221, 222, 255, 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. Courses also enhance students' 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 102 Conservation Biology

BIOL 207 Genetics, Evolution, and Ecology

BIOL 208 Biological Communication & Energetics

CHEM 100 Chemistry in Our World

CHEM 101 Environmental Chemistry

CHEM 109 General Chemistry for Engineers
 CHEM 111 General Chemistry I
 CHEM 112 General Chemistry II
 CHEM 115 Accelerated General Chemistry
 ENGR 123 Energy and the Environment
 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 Meth-
 ods
 GEOL 461 Medical Geology
 GEOL 462 The Earth's Record of Climate
 IDSC 150 Development of the Natural World
 PHYS 101 Physics for Liberal Arts
 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; to promote the recognition and classification of numerical, geometrical, and relational patterns; to 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 I
 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
 STAT 220 Statistics I
 MATH 114 Calculus II
 MATH 122 Structures of Elementary Mathematics II
 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).

Social Analysis

(4 credits)

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

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

Students select one of the following core-area courses:

ECON 211 Current Economic Issues
 ECON 251 Principles of Macroeconomics
 ECON 252 Principles of Microeconomics
 ENVR 151 Environmental Challenges
 GEOG 111 Human Geography
 GEOG 113 World Geography
 POLS 104 American Government in Comparative Per-
 spective
 PSYC 111 General Psychology
 SOCI 100 Introduction to Sociology
 SOCI 110 Social Problems

Writing Across the Curriculum (WAC)

The mission of the Writing Across the Curriculum program is to create a culture of writing at the University of St. Thomas, enabling students to think critically, to engage deeply in their learning, and to write with confidence, precision, and grace.

Writing Across the Curriculum (WAC) classes fall into three categories:

- **Writing Intensive (WI)**
 Students learn to practice writing as a process: generating and developing ideas, offering helpful feedback to others, using feedback from instructors and peers to revise drafts, and editing near-final drafts. This writing process is used to promote critical thinking as well as to produce quality academic writing. WI classes are typically offered in the core curriculum.
- **Writing to Learn (WTL)**
 Students complete a series of informal, low-stakes writing assignments that promote critical thinking and facilitate learning course content. WTL classes are offered

Degree Requirements

throughout the curriculum.

- Writing in the Disciplines (WID)
Students learn the genres and conventions of writing in their major fields of study and the rationales behind them. The writing process is supported at critical stages of development and includes instructor feedback on drafts. WID classes are offered in the major.

Students must complete a minimum of two (2) Writing Intensive classes, one (1) Writing to Learn class, and one (1) Writing in the Disciplines class to fulfill the Writing Across the Curriculum requirement.

WAC class offerings vary by term and are identifiable by the section number:

- Writing Intensive sections will begin with a 'W'
- Writing to Learn sections will begin with an 'L'
- Writing in the Disciplines sections will begin with a 'D'

For more information, you may also refer to the Writing Across the Curriculum website:

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

Degree Requirements

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.), Bachelor of Science in Computer Engineering (B.S.C.P.E.), Bachelor of Science in Electrical Engineering (B.S.E.E.), Bachelor of Science in Mechanical Engineering (B.S.M.E.) to individuals who successfully complete its undergraduate degree programs. These undergraduate degrees have two primary 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, and human diversity. These courses provide the student with a broad education and with the skills needed for further work in these and other areas. See the section on Core Curriculum for additional details.

A candidate for a degree completes a major concentration in one of the specific academic disciplines represented in the undergraduate program. Alternatively, 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.

Additional general requirements for graduation are listed in the section on requirements for a degree.

GPA 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.

Minimum Credit Requirement

To receive a bachelor's degree, a student must successfully complete a minimum of 132 credits and fulfill all degree requirements. Students who complete a minimum of 131 credits may petition the Committee on Studies for the waiver of 1 credit.

Minimum Credit Requirement

Outside Major

In addition, students in all majors except business major areas, electrical engineering and mechanical engineering must earn a minimum of 84 credits outside the major field. Students following the business major requirements or the electrical or mechanical engineering requirements must earn a minimum of 76 credits outside the Opus College of Business or their major, as appropriate.

Maximum Credits in Experiential Learning and Courses Graded S-D-R

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 ('pass/fail') system.

Overlapping or Equivalent Courses and Courses Satisfying More Than One Requirement

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.)

Within the core curriculum, the only instance in which one course may satisfy more than one requirement is when a course fulfills a core or core-area requirement and simultaneously satisfies the requirement in human diversity.

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

Senior Residency Requirement

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.

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 Capecci 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.

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. 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

Facilities

to the chapel in 2000.

Albertus Magnus Chapel - Sitzmann Hall

The Albertus Magnus Chapel, located in Sitzmann Hall-Catholic Studies Building, is dedicated to Saint Albertus Magnus, the Dominican philosopher, theologian, scientist and later bishop who was the teacher of Saint Thomas Aquinas. The Chapel incorporates stained glass windows from a closed parish outside of Boston. The windows depict four saints: Augustine, John the Baptist, Joan of Arc, and Louis, King of France. The chapel contains statues of Our Lady of Guadalupe and Albertus Magnus as well as relics of Saints Augustine, Monica and Thomas More; Philip Neri, Blessed John Henry Newman and Dominic Barberi; Albertus Magnus and Thomas Aquinas; Elizabeth Ann Seton and John Neuman.

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' print collections (including the Law Library) contain more than 700,000 volumes. Our growing electronic library now provides anytime/anywhere access to 114,000 electronic book titles, 58,000 electronic and print journals, 383 electronic databases and over 77,000 streaming audio and video items. These collections support student scholarship and faculty research through integration of technology, electronic and print content with 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 St. Paul 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 the country, and a notable collection of the work of Hilaire Belloc and G.K. Chesterton. Its coffee shop, expanded comfortable seating and spaces for group work have made the OSF Library a favorite campus location for research and studying, used by an average of 60,000 people a month during the academic year.

Charles J. Keffer Library

The Charles J. Keffer Library, located in Opus Hall on the Minneapolis campus, serves the College of Education, Leadership and Counseling, and the Opus College of Business, and is the library that is largely responsible

for meeting the scholarly 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 support coursework and research. Reference librarians provide individual help as well as classroom instruction in the use of library materials. Group and collaborative study spaces are available throughout the libraries.

Website: www.stthomas.edu/libraries.

Computing Resources

The University offers a wide variety of computing resources for students including use of public computers, printers, scanners, Microsoft Office on personal devices, software, and access to the St. Thomas network. Public computer labs are provided to students for coursework or personal use in our libraries located on the St. Paul and Minneapolis campuses. These general-purpose computer labs are furnished with both PC and Macintosh computers and offer printing services. Specialized departmental labs are available to students who are enrolled in classes within that discipline or working on course specific assignments. The majority of residence halls on campus also offer computer labs that are open to St. Thomas students who live in the residence halls. In addition, support for research, writing, information literacy, and computer application is available at the Information Commons in O'Shaughnessy-Frey Library on the

St. Paul Campus to assist students in developing papers, presentations, and projects.

More information on technology-related services for students are available on the Information Technology Services (ITS) website.

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 undergraduate students for participation in programs that will enhance their leadership skills, especially in programs which are directed toward public service.

Science Facilities

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

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 opportunities for student participation in a variety of varsity, intramural and recreational sports and activities.

The Lee and Penny Anderson Athletic and Recreation Complex (AARC) includes venues for basketball, volleyball, running, swimming, tennis, weight and aerobic training and many other recreational activities. Locker rooms and other support areas are also located in this facility.

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

Schoenecker Arena seats 2000 and accommodates varsity and recreational volleyball and basketball sports and activities.

The AARC also includes 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.

The McCarthy Gym, located on the South Campus, offers 2 collegiate gyms, weight and cardio equipment, racquetball/handball courts, and locker space for additional varsity, intramural, club and recreational activities of the campus community.

Outdoor facilities include the O'Shaughnessy Stadium (football, track and field, intramural and recreational activities), the North Field (baseball and track) and the South Field (fastpitch softball and soccer).

Anderson Student Center

The 225,000 square foot Anderson Student Center officially opened in January 2012. Highlights of the student center include:

- A three-story atrium with a spiral staircase connecting all four levels. Adjoining the atrium is a large open area which serves as a "living room" for the UST community. There are 9 flat panel screens located in this area that broadcast digital signage.
- Dining facilities include T's where ethnic dishes and meals are prepared to order; the View, named for fantastic views of Palmer Field, O'Shaughnessy Stadium and the Lower Quad. Students may select from fresh, local and sustainable product to be prepared right in front of them by one of UST's talented chefs.
- Scooters - 6,900 square feet of recreational space

FERPA

- including pool tables, electronic dart stations, gaming tables, and a 1,554 square foot dance floor
- Lower level gaming area - this recreational facility includes flat screens with gaming consoles (Wii, Xbox, Playstation), and table tennis.
- '85 - home to the university's creative space. This space is open to students of all majors.
- Thirteen meeting rooms.
- Art Gallery
- Tommie Central - the university's main information desk and switchboard operations.
- Woulfe Alumni Hall - 9,600 square foot multi-purpose room for banquets, concerts, etc. Lounge of 2,900 square feet of space with soft seating furniture and a baby grand piano.
- Hearth room - fireplace.
- Leadership Center - 6,000 square feet of student collaborative work space and computer work stations for student clubs and organizations. Offices for Undergraduate Student Government, Star, Hana, Yearbook.
- Bowling - 4 bowling lanes, darts and skeeball.
- Dance - 3,000 square feet with front stage area. Dance floor of 960 square feet. Accommodates up to 800 persons for a dance.
- Summit Market Place - convenience store and food emporium.
- Tommie Shop - retail store.

University Bookstores

The St. Paul campus Bookstore is located in the Murray-Herrick Campus Center. The store sells and rents new and used textbooks. The bookstore also offers a complete line of 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 and rents textbooks for classes taught on that campus and most off-campus graduate classes. It also carries all of the same items mentioned above.

Check out the new Tommie Shop in the Anderson Student Center. The Tommie Shop carries all the latest styles and best sellers in clothing and gifts.

Call each store for hours of service: 651-962-6850 (St. Paul), 651-962-4340 (Minneapolis), 651-962-7850 (Tommie Shop).

The bookstores maintains a web site at stthomas.edu/bookstore where you can order textbooks and merchandise online. Hours and phone numbers are listed for each store.

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 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 student 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>

Financial Aid

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 information about university programs and policies that are designed to help students finance a college education at St. Thomas. 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.

The University of St. Thomas participates in all Federal and State financial aid programs. These programs include scholarships and grants, loans and student employment. 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. Additionally, the university offers need-based grants.

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/financialaid/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 online at www.fafsa.gov. A paper form may also be obtained on this website listed under "FAFSA Filing Options".

Awards and Renewals

Need-based financial aid is awarded annually unless specified otherwise.

Students must reapply by filing the FAFSA each year. All financial aid is disbursed to the student's account to pay tuition, fees or other charges for each semester. Awards will be adjusted if the student withdraws from the university before the end of the semester or 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 financial assistance. Renewal of merit-based scholarships is subject to the terms of the individual award.

Satisfactory Academic Progress

In general, 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 fourth term 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, federal regulations require the Financial Aid Office to perform a calculation of "earned" vs. "unearned" federal aid. This federal policy assumes the student earns his or her aid based on how much time has elapsed in the term at the point of withdrawal. 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. 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 Direct Unsubsidized Stafford Loan
2. Federal Direct Subsidized Stafford Loan
3. Federal Perkins Loan
4. Federal Direct PLUS/Grad PLUS Loan
5. Federal Pell Grant
6. Teacher Education Assistance for College and Higher Education (TEACH) Grant
7. Federal Supplemental Educational Opportunity Grant (FSEOG)
8. 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

Financial Aid

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 hardship, 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 15th through 21st calendar days
80%

On the 22nd through 28th calendar days
60%

On the 29th through 35th calendar days
40%

On the 36th through 42nd calendar days
20%

After the 42nd 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).

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. An example of these courses is ENGR 150. The grading system for this course 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.

Incomplete and Not Recorded Grades

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 in the 'regular grades' section. 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, and the GPA would be lower.

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.

Graduation

Graduation

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.

Commencement Ceremony

A single commencement ceremony is held in May for all students earning an undergraduate degree each year. Students who complete degree requirements at the end of Summer, Fall, January, and Spring terms participate in the May ceremony following the term in which requirements are completed, except that students are permitted to participate in the May ceremony if they are within 8 credits of completing all degree requirements. Students who are within 8 or fewer credits of completing degree requirements who wish to participate in the May commencement may petition the Registrar's office for approval to do so.

Diploma

One diploma is awarded for each degree earned. Diplomas are distributed to graduates after the university has verified that all requirements for graduation 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/media/registrar/pdf/transcript.pdf>. 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.

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.

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.

Students can petition the committee by filling out a Committee on Studies Petition Form available from the Office of Academic Counseling & Support. 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.

Majors, Education Co-Majors, & Minors

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 Associate Vice President for Undergraduate Studies and Academic Advisement.

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
 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
 Computer Science (B.S.)
 Criminal Justice
 Economics
 Economics (B.S.)
 Engineering - Computer (B.S.C.P.E.)
 Engineering - Civil (B.S.C.E.)
 Engineering - Electrical (B.S.E.E.)
 Engineering - Pre; Liberal Arts
 Engineering - Mechanical (B.S.M.E.)
 English

English - Education (5-12 teacher licensure)
 English - Creative Writing Emphasis
 Environmental Science: Biology (B.S.)
 Environmental Science: Chemistry (B.S.)
 Environmental Science: Geoscience (B.S.)
 Environmental Studies Business
 Environmental Studies Humanities
 Environmental Studies Natural Science
 Environmental Studies Social Science
 Exercise Science (B.S.)
 Family Studies
 French
 Geographic Information Systems (GIS)
 Geography
 Geology
 Geology (B.S.)
 German
 Health Education (non-licensure)
 Health Promotion Sciences (B.S.)
 History
 Information Security
 Information Systems (IS)
 International Business - French Intensive
 International Business - German Intensive
 International Business - Spanish Intensive
 International Studies
 Justice & Peace Studies (generalist track)
 Justice & Peace Studies: Concentration in Conflict Transformation
 Justice & Peace Studies: Concentration in Leadership for Social Justice
 Justice & Peace Studies: Concentration in Public Analysis and Advocacy
 Latin
 Literary Studies
 Mathematics
 Music
 Music Business
 Music - Liturgical Music
 Music - Performance (B.M.)
 Neuroscience (B.S.)
 Philosophy
 Physics
 Physics (B.S.)
 Political Science
 Psychology
 Public Health Studies
 Social Sciences (Economics, History, Political Science, & Sociology and Criminal Justice)
 Social Work
 Sociology
 Spanish
 Statistics (B.S.)
 Theology
 Theology - Lay Ministry
 Women's Studies [ACTC]

Education Co-Majors

The following sets of majors (with specialty) require a sec-

Majors and Minors

ond major. They cannot be “stand-alone” majors.

Elementary Education- Science, Technology, Engineering and Mathematics (STEM)

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.)

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 Physical Education 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 Associate Vice President for Undergraduate Studies and Academic Advisement

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 Civilization

Classical Languages

Communication and Journalism

Computer and Information Sciences

Criminal Justice

Economics

Education

Electrical Engineering

Engineering Education

English

Entrepreneurship

Environmental Studies

ESL Education

Exercise Science

Family Studies

Film Studies

French

General Engineering

Geography

Geography - Geographic Information Systems (GIS)

Geology

German

Greek

History

Information and Decision Theory

Japanese

Justice & Peace Studies

Latin

Legal Studies

Materials Science and Engineering

Mathematics

Mechanical Engineering

Music

Music Composition

Philosophy

Physics

Political Science

Popular Music

Psychology

Public Health Studies

Recording Arts

Renaissance Program

Science, Medicine, and Society

Social Welfare

Sociology

Spanish

Statistics

Theology

Women’s Studies [ACTC]

Major Requirements

Regular Majors

After a student has completed 48 semester credits, that student must apply to be admitted to a major in his or her chosen field. Admission to a major field is necessary if a student wants to continue receiving registration times that coincide 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 30 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 56 credits

in the Opus College of Business (for business majors) 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 business major areas, electrical engineering and mechanical engineering must earn a minimum of 84 credits outside the major field. Students following the business major requirements or the electrical or mechanical engineering requirements must earn a minimum of 76 credits outside the Opus College of Business or their major, as appropriate.

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 Associated Colleges of the Twin Cities (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 in-

cluding 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 Associated Colleges of the Twin Cities (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.

Addition of major, minor, or degree after graduation

A student who has graduated from the University of St. Thomas may add an additional major by fulfilling all 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 graduated from the University of St. Thomas may add a minor by fulfilling all 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 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 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.

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.

Progress to 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

Math Placement

Beginning in Fall 2017, entering students with 27 or fewer credits who do not place into a credit-bearing math class (Math 100 or above) must make satisfactory progress toward that placement within three semesters, including J-term. This means that a student beginning in Fall 2017 would need to obtain math placement status by the end of Spring 2018 to avoid discretionary probation or other penalties as specified. Entering students with 28 or more credits must make satisfactory progress toward math placement by the end of their second semester (including J-term). A student entering in Fall 2017 would need math placement status by the end of J-term 2018 to avoid discretionary probation or other penalties as specified.

Academic Standing

The student's unofficial transcript indicates the student's academic standing as determined by the student's grades.

Good Standing

A student with a cumulative grade point average of at least 2.00 is making satisfactory progress toward meeting the minimum grade point average requirement for graduation and is therefore in good academic standing.

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 Associate Vice Provost for Undergraduate Studies informing the 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 are

required to meet with an academic counselor to discuss strategies for improving their academic performance.

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 Associate Vice Provost for Undergraduate Studies identifying the nature of the suspension and the events leading up to it. Students who are suspended may petition the Committee on Studies to have the suspension lifted after consulting with the Director of Academic Counseling and Support. 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 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 Associate Vice Provost for Undergraduate Studies identifying the nature of the dismissal and the events leading up to it.

Students who are dismissed may petition the Committee on Studies to have the dismissal lifted after consulting with the Director of Academic Counseling and Support. A dismissed student may not register for summer school, or any other term. A dismissed student who hopes to return to St. Thomas must petition the Committee on Studies for readmission.

Conditions of 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 and Support. 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.

Withdrawal and Refund Policies

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 beginning at 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.

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 class.

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

Changes in Registration

Adding Courses

Students can add courses to their schedules using the Murphy Online Web registration system until the published deadline to “add a class without instructor permission” (usually the fifth class day). 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/add-dropform>

Withdrawal and Refund Policies

Dropping Courses (Withdrawal from a Course)

Students must use the Murphy Online registration system or the Change in Registration form to withdraw from a course. The official date of withdrawal from a course is determined by the date the action is taken using the Murphy Online system or the date the change in registration form is received by the Registrar’s Office during regular office hours. Registration holds placed on student Murphy Online accounts during the fall and spring early registration periods will prevent students from using Murphy Online to withdraw from courses during these periods and students must use the paper Change in Registration form during the fall and spring early registration periods unless their advisor hold has been lifted.

Conditions Determining Tuition Refunds

Students are responsible for all tuition and fees incurred by registration in a course. Failing to attend or ceasing to attend a course does not constitute a withdrawal from a course. Only the official date of withdrawal determined by using the Murphy Online registration system or the Registrar’s reception of a Change in Registration form will determine whether a full refund, a partial refund, or no refund will be available based on the date of withdrawal.

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. For fall and spring semesters, this is the 10th weekday of the semester for withdrawals made using the Change in Registration form, counting the first day of the semester as day one, or the 14th calendar day of the semester, counting all calendar days including weekend days from the first day of the semester as day one, for withdrawals made using the Murphy Online registration system. Please consult the university’s academic calendar for the last day to drop a course without notation on record for January and Summer terms.

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 for a W, and the notation does not affect the GPA.

Tuition refunds (if any) for dropped courses are determined by the standard refund calendar available from the University Business Office:

Date of Official Drop/Withdrawal	Tuition Refund	Fees Refund
Through the 14th calendar day of the term	100%	100%
The 15th-21st calendar day of the term	80%	0%
The 22nd-28th calendar day of the term	60%	0%
The 29th-35th calendar day of the term	40%	0%
The 36th -42nd calendar day of the term	20%	0%
The 43rd calendar day of the term and beyond	0%	0%

Students should consult their financial aid advisor to determine the consequences of dropping a course on their financial aid award. In some cases, the actual refund, if any, will depend upon such consequences as determined by the financial aid office.

Students should consult the Business Office for the refund schedule for January and Summer terms.

Withdrawal from the University

Students may withdraw from the university (that is, withdraw from all classes) at any time by contacting the Academic Counseling Office. Students who withdraw from all classes must return any items that belong to the University. Resident students must check out with the floor resident adviser. Tuition refunds, if any, are established by the tuition refund schedule posted in the section on withdrawing from courses, with the date on which the student begins the process of withdrawing from all classes with the Academic Counseling office used as the determining date.

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. While instructors have the authority to drop a student from a class if the student does not attend on the first day, students

cannot assume that this will happen and are responsible for following the appropriate steps to withdraw from a course they do not attend. Non-attendance or minimal attendance of a class does not justify a tuition refund for the course if the instructor does not drop the student from a course and the student does not withdraw using Murphy online or the add/drop form.

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 who are absent for a prolonged period of time due to illness should contact the Academic Counseling Office.

Requests for Withdrawing from All Classes under Special Circumstances

To withdraw from the University for a special circumstance such as physical or mental health emergency, the student must contact Pam Peterson, Director of the Business Office, and indicate their intention to withdraw from all courses due to special/extenuating circumstances.

Pam Peterson
 Director, Business Office
 Murray Herrick Center (MHC) Room 105
 651-962-6600
 plpeterson@stthomas.edu

The University of St. Thomas offers undergraduate students an optional Tuition Refund Plan (TRP) that helps protect undergraduate students from financial loss in the event of an unexpected accident or serious illness resulting in withdrawal from classes after the beginning of the academic term. The TRP significantly extends and enhances the University's published tuition refund policy and applies only if the student withdraws from all classes in the term. The University's tuition refund schedule will apply if students are required to withdraw from at least one course, but remain enrolled in one or more courses.

Participation in the Tuition Refund Plan offered by A.W.G. Dewar is entirely optional, however, students who choose not to purchase tuition insurance will not be granted refunds beyond those provided for by the University's published tuition refund schedule.

The University of St. Thomas does not endorse this or any other private tuition insurance program, but we invite you to be informed of this option. For questions regarding the Tuition Refund Plan, please contact the Business Office at 651-962-6600.

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, Generic

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. Students may take no more than 21 credits without permission from the Associate Vice Provost for Undergraduate Studies.

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.

Exchange Courses

Courses taken by undergraduate day, degree-seeking St. Thomas students at Augsburg College, Hamline University, Macalester College and St. Catherine University through ACTC cross-registration 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; and
4. The selected course is not being offered at St. Thomas during the same term.

Additional restrictions may apply. See the ACTC Website for additional restrictions: <http://actc-mn.org/>

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

the St. Thomas transcript.

Exchange courses will 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.

For courses taken during the summer sessions, after matriculation, please see Special Curricula - Associated Colleges of the Twin Cities.

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.

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.

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.p_disp_dyn_sched

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

Courses, Exchange - Special Academic Programs

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.

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 Associate Vice Provost for Undergraduate Studies 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.

Retaking a Course

A student may retake a course if her or his grade or mark is F, R, 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 retake a University of St. Thomas course only at St. Thomas.

Special Academic Programs

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

Community Engagement

Pre-Engineering

Pre-Law

Study Away 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.

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 apply towards the senior residency requirement.

Note: For courses taken 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. These courses are considered transfer work.

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. Not all programs offered by other ACTC universities are available through the ACTC: for instance, Nursing at Saint Catherine University is not available to St. Thomas students or other ACTC students per Saint Catherine University's policy. The proposed program must be approved by the Committee on Studies at St. Thomas. For additional information consult the Associate Vice President for Undergraduate Studies and Academic Advisement in AQU 106.

For more information on the ACTC visit: <http://actc-mn.org>

Certificate in Lay Ministry

See Theology

Community Engagement

The University of St. Thomas offers courses that engage in the community through non-profit organizations, schools, and governmental agencies. These courses require community service, most in collaboration with specific community partners who have identified projects for students to complete in the timeframe of one semester. These opportunities provide students with real world experiences even as they learn their discipline-specific course content. Community partners become co-educators with our faculty—all with the goal of advancing the common good. The courses that include a service component change each semester, but students can find the "service learning component" attribute on classfinder when searching for courses; designated courses can also be viewed on the community engagement website: <http://www.stthomas.edu/gale/communityengagement/>

Study Away Programs

Higher Education Consortium for Urban Affairs (HECUA)

Muse (ENGL), 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 site: www.hecu.org.

International and Off-Campus Programs

Study Abroad Programs (SABD)
Spencer (Office of Study Abroad)

The University of St. Thomas encourages its students to integrate intercultural experiences into their degree plans. Study Abroad staff guide students of all majors through the process of choosing and applying for a program that will advance their degree and fit their personal desires and goals. Students may choose from more than 130 programs in over 40 countries around the world. Visit the Study Abroad web site for current program options, application deadlines, scholarships and health and safety information: www.stthomas.edu/studyabroad.

Semester, Year-Long and Short-term

Special Academic Programs

Programs

Students may choose from more than 130 programs in over 40 countries around the world through St Thomas sponsored programs, co-sponsored programs or direct enrollment in a university abroad. St Thomas sponsored programs are led by St Thomas faculty and attended by St Thomas students. Co-Sponsored programs are organized by a St Thomas approved program provider.

Rome CORE Semester

All majors may study in Rome during this fall program and take core curriculum courses including Fine Arts, Social Analysis, Literature and Writing, Historical Studies, Moral and Philosophical Reasoning and Faith and Catholic Tradition. Students live at the St Thomas Bernardi Residence. Priority deadline is January 15th.

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 Business 200 Community Service requirement. Priority deadline is the first Friday of December; final deadline, if spaces remain, is February 15.

Catholic Studies in Rome

Catholic Studies majors and minors may study Catholic social thought, theology, and social justice, as well as introductory Italian language. Program takes place each spring; students live at the St Thomas Bernardi Residence. Priority deadline is January 15th.

Co-Sponsored Programs and Exchanges

Semester and Year-Long opportunities are also available through co-sponsored program providers and a number of universities with which St. Thomas partners. Check with the Office of Study Abroad for exchange opportunities.

January and Summer Programs

The University of St. Thomas offers a number of two- to six-week, faculty-directed programs during January and summer terms. January Term programs are offered by the University of St. Thomas, co-sponsored programs and UMAIE, a seven-member consortium of schools in the Midwest.

St Thomas sponsored January Term courses are announced in February; summer courses are announced in September. Topics and locations vary each year.

Participation Requirements for Study Abroad Academics and Conduct

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. Semester and academic year programs require at least a 2.5 GPA, while short-term programs require a 2.0 GPA.

Language Requirement

The overseas study program must include study of the native language in non-English-speaking countries.

Deadlines

Students must submit study abroad applications by October 1 for January Term and spring semester participation, and by March 15 for summer, fall semester or year-long programs. See deadlines above for St Thomas semester programs.

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 Office of Study Abroad staff required.

SABD 301 Study Abroad (16 credits)

A continuation of SABD 300. Permission from Office of Study Abroad staff required.

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.

Washington Semester

Cross-College Program

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 in various subject areas that have included: 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. Program areas are subject to change.

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)

Campus 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 nearly 140 clubs and organizations on campus.

Undergraduate Student Government

The Undergraduate Student Government, representing 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.

USG operations are financed by an activity fee assessed on each full- and part-time undergraduate student each semester.

The Undergraduate Student Government is comprised of 40 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 seven 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 STAR representative, one St. John Vianney representative, one student organization's representative, one Student Alumni Council representative, one student diversity relations representative, one student spirituality representative, one student sustainability representative, and advisers, including the Associate Vice President for Student Affairs 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, 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 140 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 Department 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. All leagues are open to students, faculty and staff.

During the fall semester activities include: touch 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, faculty and staff are encouraged to use the recreational facilities for leisure enjoyment.

Student Publications

Each student publication has a faculty adviser or advisers, 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.

TommiMedia

TommiMedia is the student produced on-line news source at St. Thomas. Its primary purpose is to serve as a voice of the St. Thomas community.

Students produce stories using a variety of digital formats, including video, slideshows, audio and text, social media are emphasized to build an audience of community members throughout the university. TommiMedia is a member of the Associated Press and its stories are available to all AP members. Applications are available on-line at tommiemedia.com.

The Aquinas

The *Aquinas* is the university digital yearbook, and its student staff captures the school year's events through words, pictures, videos, and graphic theme. The current yearbook, as well as the opportunity to view and search past yearbooks, is available online throughout the year. Applications for Aquinas student staff positions are made available through the Aquinas yearbook managing editor's office in the Anderson Student Center suite 325.

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

Musical Organizations

Student music ensembles appear regularly in concerts on campus, perform in a variety of venues 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), staged musical theater productions, ensembles for pianos, guitars, woodwinds, brass, strings, percussion, and new and popular music. Membership in most ensembles is by audition. For details consult www.stthomas.edu/music.

Dean of Students Office

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

The Dean of Students Office provides 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/conduct services, ombuds and parent liaison services, emergency loans, off-campus student services and the publication of the online Student Policy Book.

Contact the Dean of Students Office at (651) 962-6050, Room 241 Anderson Student Center, or www.stthomas.edu/deanofstudents.

The Online 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 expectations, guidelines and policies that govern student life. All students are responsible for familiarizing themselves with the expectations outlined in the online Student Policy Book and will be held accountable for upholding the university's policies. It can be found at www.stthomas.edu/policies.

Anderson Student Center

The Anderson Student Center is the campus gathering space that provides an exceptional environment and opportunities for students, faculty, staff, alumni and neighbors to participate in and contribute to the activities of the University community. Tommie Central, located on the first floor of the ASC, is your one stop shop for campus information, resources, tickets to campus and community events and equipment rental. Home to the Creative Space complete with 3D printers and sewing machines, Bowling, gaming areas, and Dance, there is always something to do in the Anderson Student Center.

Center for Ministry

The Center for Ministry believes that the depth of our faith powerfully affects the way we live and who we become. It is because of this that the Center for 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 offered here.

In addition to eight full-time professionals, the Center for Ministry employs peer ministers and over twenty-eight 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, morning prayer, and ecumenical services. Students can partici-

pate in worship through the Liturgical Ministers Program, Schola Cantorum, and the Liturgical Choir.

The Center for 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, the Center for Ministry has a number of programs including prayer groups, retreats, pastoral counseling and referral, marriage preparation, crisis intervention, and special groups for support.

The Center for 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 Ministry is located in Suite 207 of the Anderson Student Center.

Counseling and Psychological Services

Counseling and Psychological Services 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 Counseling and Psychological Services website has an extensive self-help section including anonymous screening for depression, anxiety, alcohol and eating disorders: www.stthomas.edu/counseling. Counseling and Psychological Services is accredited by the International Association of Counseling Services.

Testing Services

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

Career Development Center

The Career Development Center serves undergraduate students and alumni with their vocational discernment, career learning and planning. The services have been designed to assist students in all stages of career development. We work with undecided students on choosing their majors, and later assist students from all major fields to develop required skills as they seek internships, employment or graduate education.

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

- Self-assessment and vocational testing
- Researching and learning about employers
- Major field and career choice
- Researching specific careers
- Seeking internships, full-time, part-time and

summer employment

- On-campus interviewing, employer information sessions and employment fairs
- Networking and using social media during job and internship search
- Job and internship listings on-line

Comprehensive Web Site

Career services can be accessed 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.

www.stthomas.edu/careerdevelopment

Off-Campus Student Services (OCSS)

OCSS provides hospitality, information, programs, resources, and services to all students with an emphasis on students living off-campus including commuters, non-traditional students, and students that live in the immediate neighborhood. Programs and services include: Commuter Mentors and Neighborhood Student Advisors, off-campus housing listings, renter education materials, e-mail updates, bus route information, a resource room with a refrigerator, microwave, computers and a printer for student use. The OCSS resource room is located on the second floor of the Anderson Student Center, room 253. Phone: 651-962-6138; Website: www.stthomas.edu/offcampus

Student Diversity and Inclusion Services

The Student Diversity & Inclusion Services office exists to enhance the campus climate for diversity on campus through programs and initiatives aimed at undergraduate students. Our work is based on four pillars: education, leadership, advocacy, and community. Our primary objective is to ensure the retention, graduation, and satisfaction rates of students of color are equitable to their peers. We also aim to increase the capacity of all students to work and serve in the diverse world in which we live.

EDUCATION

- Reaching Excellence in Academics & Leadership (REAL) Programs
- Heritage month programs
- January-term book club
- Co-sponsored programs with academic and administrative departments

LEADERSHIP

- Linkages Mentor Program

Student Services

- Fall and spring student leadership retreats
- Paid and unpaid student leadership opportunities
- Networking and diversity career resources
- Scholarships

ADVOCACY

- Bias-motivated incident reporting
- Staff members available to consult with any student regarding any concern
- FLAG team (identifies students of concern; intervenes as necessary)
- Assessment (we conduct a student of color experience survey every two years, and serve on the campus climate study committee)

COMMUNITY

- “The Gathering” held the first Friday of every semester
- Maintenance of a campus-wide calendar of diversity and inclusion events
- Support for student clubs/organizations who are organized around diversity and inclusion
- Ally Awards to honor those whose actions support an inclusive, civil, and welcoming campus community
- Annual service activities

Student Diversity and Inclusion Services, consistent with St. Thomas/ Catholic tradition, is concerned with providing a comprehensive system of advocacy and support for U.S. students of color and immigrants. The goal is to improve retention and the quality of the University of St. Thomas 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.

Student Diversity and Inclusion Services initiatives are designed to:

- Provide advocacy and mediation services for all students.
- Increase retention of U.S. students of color and immigrant students.
- Provide selected scholarships for undergraduate U.S. students of color and immigrant students (permanent resident, asylee and refugee).
- Identify and honor students, faculty and staff whose actions support the creation and maintenance of an inclusive, civil and welcoming campus community.
- Create partnerships with academic and administrative departments to serve students.
- Promote multicultural awareness through personal interaction, training opportunities, educational programs and dissemination of information. Monitor student perceptions of St. Thomas’ climate for diversity.
- Provide support to the multicultural student organizations and related ethnic peer associations.

Office of International Students & Scholars

The Office of International Students & Scholars 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, programming to connect with domestic students, and intercultural training for students, faculty and staff.

The Office of International Students & Scholars provides the following services and programs:

- Week-long orientation programs for new international students, including International Orientation Leaders, about academic, cultural, legal, and practical life at the University of St. Thomas.
- Immigration advising for all F-1 and J-1 nonimmigrant students and international faculty and staff.
- Counseling and advising on academic, cultural, financial, health, practical and personal matters.
- Weekly event emails and monthly newsletters.
- A website with information on programs and services, immigration rules, activities and programs, www.stthomas.edu/oiss.
- Coordinate Global Engagement Week activities at St. Thomas each Spring 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 Tea, Global Tommies, Thanksgiving and Friendship Family programs.
- Career and job-search workshops in cooperation with the UST Career Development Center
- VITA site for non-resident tax returns through student volunteers.

Tommie Central

Tommie Central is the information desk and hub of the Anderson Student Center (ASC). At Tommie Central, members of the university community can reserve bowling lanes, ASC lockers, recreational equipment for use in the ASC, and 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.

Tommie Central also offers rental of 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 with a welcoming, inclusive and fun environment. Through the student and professional staff members living in the residence halls, students are engaged in a variety of

programming and are encouraged to get involved on campus.

The Department of Residence Life offers traditional residence halls and apartment style living on the St. Paul campus.

Living on campus provides the convenience of living close to classes and faculty along with extra amenities like wireless internet access, study areas, computer labs, and recreation space. Nestled in a residential neighborhood in the city, students find St. Thomas to be a safe campus. The Department of Residence Life works to enhance the safety of students on campus through ground level security screens, ID card access, fire-safety 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 have an opportunity to make a \$200 housing deposit with the Office of Admissions. This deposit acts as a request or application for housing.

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 Newsroom and on the residence life website during the spring semester.

On-campus dining offers the most convenient options. Resident students of Dowling, Grace, John Paul II, Murray, Brady, Ireland, and Cretin Halls 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 for additional and updated information about living on campus.

Dining Facilities

All food locations accept Flex or Express dollars and cash. Credit cards are being installed to all locations to assist guests with convenient purchases.

St. Paul campus

The Anderson Student Center offers several new and upscale dining facilities that will meet the needs of our guests.

T's Restaurant, on the 1st floor, is a dining experience that includes morning Alakafcoffee, our home-baked pastries and breakfast make to order. Build your own sandwich with our natural meats and cheeses, now with a toasted option. We also offer broiled fresh hamburgers,

grilled chicken, and a variety of melt sandwiches, fries plus a rotating menu of specialty hot sandwiches from the grill. Try the newest addition to our menu offerings, the Action Station, preparing and serving ethnic dishes to order by our chef. Grab and Go items, soup, beverages and snacks round out the offerings in this venue.

Summit Marketplace, also on the 1st floor, a convenience store concept with a focus on healthy food choices such as fresh fruit, salads made daily, and gourmet sandwiches. Fresh brewed Alakaf coffee, espresso, gourmet coffee specials and fountain drinks are available as well as a large assortment of bottled Pepsi products. Need a pencil, batteries, chapstick, cough syrup? This is the place to find them, as well as an assortment of chips, cookies and candy.

The View, on the 2nd floor, is available to anyone who enjoys an "AYCTE" All You Care to Eat Environment. The View is an exciting and on-trend dining destination so named for its beautiful overlook of O'Shaughnessy Stadium. Featuring many new and diverse serving lines, including the "Taste of Italy" Open Hearth Pizza Oven, and "Your Call!" where students may select from fresh, local, and sustainable produce to be prepared right in front of them by one of our many talented chefs. Greens is the salad bar, there are delicatessen fresh-prepared sandwiches, cereal, and assorted other choices along with the waffle bar and dessert section. Peace coffee is also available to guests dining in the View.

The Loft, on the 3rd floor, is the place to get Peace coffee, specialty drinks, and smoothies and Izzie's ice cream while enjoying a great view overlooking the atrium. Gourmet sandwiches, salads, and snacks are also offered. Great place to start the day, mid-morning snack or the afternoon pick-me-up.

Pit Stop, is located on the lower level Koch Commons between Brady and Dowling Residences. It provides smoothies, frozen yogurt, 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. Students rave about the burger and deli specials along with the 20-topping ice cream bar.

Beakers is located on the second floor in the Owens Science building. It features Alakaf Fair Trade specialty coffee and espresso, Deli Express and Gourmet Sandwiches, and various snacks 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, Pizza, Salad Bar, Soups and a variety of other food, snacks, and beverage selections. We also feature Alakaf coffee in the Food Court.

Student Services

Health Services St. Paul Campus

The University of St. Thomas provides students with access to a comprehensive medical clinic staffed with physicians (Internal Medicine, Family Practice, and Psychiatry), nurse practitioners, physical therapists, dietician, massage therapist, and registered nurses. The clinic is located in the lower level of Brady Residence Hall. Regular clinic hours are Monday and Friday 8:00 a.m. to 4:30 p.m., Tuesday, Wednesday, Thursday 8:00 a.m. to 6:00 p.m. Same-day appointments may be available for acute illness, however it is preferred that you call 651-962-6750 to schedule an appointment, or schedule online through *myhealthportal* at <http://www.stthomas.edu/studenthealth>. 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. Co-pays or fees not covered by insurance will be billed to the student account.

Health Insurance Verification Requirement

Domestic students: St. Thomas no longer offers a student health insurance plan for domestic students. Health insurance resources are available for those in need of coverage: <http://www.stthomas.edu/healthservices/insurance/domestic/>.

International students: F-1 and J-1 international students on a St. Thomas I-20 or DS-2019 are billed each semester for the UST-sponsored international student health insurance plan: <http://www.stthomas.edu/healthservices/insurance/international/>.

F-1 students with comparable health insurance coverage may submit a request to waive the St. Thomas-sponsored plan. See the Health Services website for waiver requirements, instructions, and deadline information: <http://www.stthomas.edu/healthservices/insurance/international/f1waive/>.

J-1 students are not eligible to waive the UST-sponsored plan.

Additional Health Records

The state of Minnesota requires that students be immunized against diphtheria and tetanus (TD), and measles, mumps and rubella (MMR) and provide their vaccination dates. Immunization instructions and additional information are available on the Health Services website: <http://www.stthomas.edu/healthservices/immunizations/>. Registration holds will be placed on students that do not enter this information by the 45th day of classes.

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>. Registration holds will be placed on students that do not enter this information by the 45th day of classes.

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 Murray Herrick, 3rd floor, room #355. More information can be found online.

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 lockouts, 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.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. On the Minneapolis Campus, public safety and parking information can be obtained at the second floor skyway of the Law School (MSL 252).

The Public Safety Department maintains "The Campus Security and Fire Report." The report is required by the

Higher Education Act and includes a listing of crimes and fires within the campus boundaries. For details, please go to: <http://www.stthomas.edu/publicsafety/securityact/>

Parking and Transportation

The Parking and Transportation Services Office, a division of the Public Safety department, is located in the lower level of Murray-Herrick (MHC) on the St. Paul campus. This office handles all parking questions, issues parking permits, sells Metro Transit bus passes, and processes UST parking tickets and appeals. These same services are available at MSL 252 on the Minneapolis campus.

Parking permits are required to park in all parking lots on the St. Paul Campus. On the Minneapolis Campus, only ramp and very limited surface parking is available. These parking contracts are only available for full-time employees and students.

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.

Visitors to the University of St. Thomas, St. Paul Campus may park in the Anderson Parking Facility, entrance off of Grand and Cretin or at parking meters.

For the Minneapolis Campus, visitors, evening and part-time students, and others who do not have a Minneapolis Campus permit may park at the City of Minneapolis Ramp, 11th Street and Harmon Place. There is a reduced rate for parking in the evening. This ramp also connects to UST and downtown skyway system.

In order to purchase a parking permit, a current UST identification card is required and the purchasers are required to provide an accurate license plate number of the car.

Please consult:

<http://www.stthomas.edu/parking> for more details on parking and transportation services.

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. with limited services on Saturday when classes are in session during Fall and Spring semesters. Check the Public Safety web page for current schedule information at: <http://www.stthomas.edu/psps/>.

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 official 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 paper transcripts should be mailed directly from the institution of study to the following address:

University of St. Thomas
Admissions, Mail 5017
2115 Summit Ave
St. Paul, MN 55105-1078

All links and passwords to electronic PDF transcript downloads should be emailed directly from the institution of study to the following email address: admissions@stthomas.edu.

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 relevant St. Thomas academic department if these courses are to be used to meet a core requirement or a major or minor field requirement. The information about course equivalents provided by the Office of Admission through the "Transfer Credit Tool" applies only to transfer courses taken prior to matriculation as a University of St. Thomas student. Once a student becomes degree-seeking at St. Thomas, the determination of whether a postmatriculation transfer course fulfills the criteria for a core requirement or for a major or minor field requirement must be determined by the appropriate academic department. Departments may require students to submit the syllabus for any potential transfer course they hope to apply to a major, minor, or core requirement.

Post-Matriculation Transfer Credit Limit

Students who first become degree-seeking at St. Thomas beginning with the Fall 2013 semester and for all subsequent semesters may count a maximum of 8 additional transfer credits taken after the date of matriculation at St. Thomas toward core requirements, with no more than 4 of those credits counting toward any one core requirement area (for instance, Language and Culture or Literature

Transfer Courses

and Writing). This limit applies only to post-matriculation transfer credits and therefore does not apply to courses taken through a UST study abroad program or through the ACTC.

Minimum Transfer Grade Requirement

St. Thomas will accept only transfer courses in which the student has received a minimum grade of C- (1.7 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 student's 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).

<u>Quarter Credits</u>	<u>Semester Credits</u>
6	4
5	3.3
4	2.7
3	2
2	1.3
1	0.7

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.

Undergraduate Policies

Academic Integrity

Honesty and trust among students and between students and faculty are essential for a strong, functioning academic community. Consequently, students are expected to do their own work on all academic assignments, tests, projects and research/term papers. Academic dishonesty, whether cheating, plagiarism or some other form of dishonest conduct related to academic coursework and listed in the Student Policy Book under "Discipline: Rules of Conduct" will automatically result in failure for the work involved. But academic dishonesty could also result in failure for the course and, in the event of a second incident of academic dishonesty, sus-

pension from the university. Here are the common ways to violate the academic integrity code:

- **Cheating** - Intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit.
- **Fabrication** - Intentional and unauthorized falsification or invention of any information or citation in an academic exercise.
- **Facilitating Academic Dishonesty** - Intentionally or knowingly helping or attempting to help another to violate a provision of the institutional code of academic integrity.
- **Plagiarism** - The deliberate adoption or reproduction of ideas or words or statements of another person as one's own without acknowledgement. You commit plagiarism whenever you use a source in any way without indicating that you have used it. If you quote anything at all, even a phrase, you must put quotation marks around it, or set it off from your text; if you summarize or paraphrase an author's words, you must clearly indicate where the summary or paraphrase begins and ends; if you use an author's idea, you must say that you are doing so. In every instance, you also must formally acknowledge the written source from which you took the material. (This includes material taken from the World Wide Web and other internet sources.)

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Students are encouraged to report incidents of academic dishonesty to course instructors. When academic dishonesty occurs, the following procedures will be followed:

- The instructor will impose a minimum sanction of failure for the work involved. The instructor also will notify the student and the appropriate academic dean (or designee) in writing of the nature of the offense and that the minimum sanction has been imposed. The instructor may recommend to the dean that further penalties should be imposed. If further penalties are imposed, the dean will notify the student immediately and the student will have five working days to respond to the intention to impose additional penalties. The student has the right to respond to the charge of academic dishonesty and may request in writing that the dean review the charge of academic dishonesty as fully as possible. If the dean determines that no further sanctions will be applied, the instructor's sanction will stand and the instructor's letter to the dean and student will be placed in the student's file. If no further charges of academic dishonesty involving the student occur during the student's tenure at St. Thomas, the materials will be removed from the file upon graduation.
- If the student has been involved in a previous incident of academic dishonesty, the dean (or designee) will convene a hearing, following guidelines listed under

"Hearings and Procedures" in the *Student Policy Book*. During the hearing, all violations of academic integrity will be reviewed. The student and the faculty member charging the most recent incident will be present at the hearing.

- In either situation, A or B, if the dean determines that further sanctions are warranted, the student will be informed in writing. Among the sanctions considered by the dean will be the following: failure for the course in which the incident occurred; suspension from the university for the following semester; expulsion from the university; community service; a written assignment in which the student explores the principles of honesty and trust; other appropriate action or sanctions listed under "Sanctions" in the *Student Policy Book*. The materials relating to the incident, including the instructor's original letter to the student and dean and the dean's decision following the hearing, will become part of the student's file.
- A student may appeal the dean's decision to the Committee on Discipline. To appeal, the student must send written notice to the chair of the Committee on Discipline within seven days of the date of the dean's letter notifying the student of the penalty. If the chair of the Committee on Discipline receives no written request within the time specified, the penalty shall be imposed and the action shall be considered final. If a written request of appeal is received within the time specified, the hearing procedures of the Committee on Discipline will be followed.

The Committee on Discipline shall have the authority to investigate the facts of the particular case that has been appealed and the committee may:

1. Affirm the original decision and sanction.
2. Affirm the original decision and reduce or increase the original sanction.
3. Reverse the original decision.
4. Disallow the original decision and order a new hearing by the dean (or designee).

Credit Hour Definition

A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that reasonably approximates: (1) one hour (50 minutes) of classroom or faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester of credit, or the equivalent amount of work over a different amount of time; or (2) at least an equivalent amount of work as required in paragraph (1) of this definition for other activities as established by the institution, including laboratory work, internships, practica, and other academic works leading toward the award of credit hours.

Excused Absence

Students have the responsibility to attend their classes and complete their coursework. If a student wishes to be

excused from the equivalent of one full week of class or less per semester due to illness, a family or parent-related emergency, or a UST-sponsored event, it is the responsibility of that student to inform his or her instructor(s) of the absence as soon as possible.

In the case of numerous and excessive absences (total absences amounting to the equivalent of more than one full week of class per semester), students must inform their instructor(s) of the situation responsible for the absences as soon as possible and comply with verification requests/requirements that the instructor(s) may have. Students should also notify the Office of the **Director of Academic Counseling and Support at (651) 962-6300**. The contact with the Academic Counseling and Support department is not intended to legitimize the student's illness, but rather provides the student and instructor with a consultant about if/how the student may or may not proceed in courses. Instructors should use their own discretion to determine whether the absences warrant a grade penalty, an incomplete status, a recommendation of withdrawal from the course, or the completion of coursework missed (or an appropriate equivalent) without grade penalty for late submission.

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

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 Re-

view 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.

ACCOUNTING

See Business Administration

ACTUARIAL SCIENCE (ACSC)

College of Arts and Sciences, Interdisciplinary Program
O'Shaughnessy Science Hall (OSS) 201, (651) 962-5495
Axtell (MATH) director, Kroschel (MATH), Li (MATH), Shemyakin (MATH), Zhang (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.

Actuarial Science (ACSC)

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) (or MATH 108 and MATH 109)
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)

Allied requirement

One of: ENGL 211 or above; COJO 100 (Public Speaking); COJO 105 (Communication in the Workplace)

Suggested Electives:

BETH 301 Business Ethics (4 credits)
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 Corporate Finance (4 credits)
FINC 400-level Investment Courses(4 credits)
MBIS 701 Insurance Seminar (3 credits)
MKTG 300 Principles of Marketing (4 credits)
STAT 370 Bayesian Statistical Models and Credibility Theory (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) (or MATH 108 or MATH 109)
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: a grade of C- or above in 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: a grade of C- or above in 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: a grade of C- or above in 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: a grade of C- or above in MATH 313 or MATH 303 and ACSC 264 or a course in FINC approved by the instructor

AEROSPACE STUDIES (AERO)

College of Arts and Sciences, Department of Aerospace Studies
 Murray-Herrick LL-4 (MHC), (651) 962-6320
 Madaus (chair), Gustafson, Franzen, Polta

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 students an opportunity to concurrently complete AFROTC coursework with degree coursework so that participants qualify for an officer's commission in the United States Air Force upon completion of 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.

Aerospace Studies (AERO)

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 University, Century College, Concordia – St. Paul, North Central University, University of Northwestern-St. Paul, Mitchell-Hamline College of Law, University of Wisconsin-Stout, as well as Anoka-Ramsey, Inver Hills, Normandale and North Hennepin Community Colleges 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, until or unless they activate an Air Force ROTC scholarship. Students must voluntarily apply for the POC during their sophomore year and then pass Leadership Evaluation and Development (LEAD) Training, basic military training for cadets 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.

Leadership Laboratory and Physical Training are mandatory aspects of the aerospace studies program which round out cadets' preparation for gaining a commission in the Air Force. Instruction is conducted within the framework of an organized cadet wing with a progression of experiences designed to develop leadership potential. Leadership Laboratory involves study of Air Force customs and courtesies, drill and ceremonies, career opportunities, and the life and work of an Air Force junior officer. Leadership potential is developed in a practical, supervised laboratory. The other mandatory aspect, Physical Fitness Lab, is conducted within the framework of the cadet wing 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 three- and four-year college scholarships. See "Scholarships not awarded by the university" in the Financial Services section of this catalog.

Most students complete AFROTC via the four-year program, completing both the GMC and the POC. However, even if a student does not enroll until sophomore year, it is still possible to complete the 100- and 200-level GMC courses concurrently during sophomore year, followed by LEAD Training at Maxwell Air Force Base.

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 651-962-6329.

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 may enroll in Option 1 below with the permission of the Aerospace Studies department chair. Students (AFROTC cadets) who wish to receive a commission in the Air Force must complete Option 2, which includes the Leadership and AFROTC Physical Fitness Laboratory courses, as well as LEAD Training (normally taken the summer between sophomore and junior year). 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 diversity objectives.

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

Option 1: (20 credits - open to all undergraduate students)

- 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: (22 credits - AFROTC cadets only)

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 Laboratory (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 450 Field Training (2 credits)

AERO 111 Foundations of the United States Air Force I (1 credit)

The Foundations of the United States Air Force is a survey course designed to introduce students to the United States Air Force and provide an overview of the basic characteristics, missions, and organization of the Air Force.

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 (e.g., students pursuing an officer's commission in the USAF) every fall and spring semester unless excused by the department chair for an authorized period of non-attendance. Leadership Laboratory complements each of the courses listed below by providing cadets with leadership and follow-ership experiences. This course is only for AFROTC cadets pursuing Option 2 above.

AERO 201 AFROTC Physical Fitness Laboratory (0 credit)

AFROTC Physical Fitness Laboratory is mandatory for AFROTC cadets (e.g., students pursuing an officer's commission in the USAF) every fall and spring semester unless excused by the department chair for an authorized period of non-attendance. AFROTC Physical Fitness Laboratory complements each of the courses listed below by providing cadets with leadership, followership, and team building experiences while teaching them to maintain physical fitness required for military service. AFROTC cadets must attend two sessions per week to pass the course. In order to remain in the program and gain a commission, cadets must pass a physical fitness assessment each term. This course is only for AFROTC cadets pursuing Option 2 above.

AERO 211 Evolution of USAF Air and Space Power I (1 credit)

The Evolution of USAF Air and Space Power features topics on Air Force heritage and leaders, introduction to air and space power through examination of distinctive capabilities and functions, and continued application of communication skills. Its purpose is to instill an appreciation of the development and employment of air and space power and to motivate sophomore students to transition from AFROTC cadet to Air Force ROTC officer candidate.

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 321 USAF Leadership Studies I (4 credits)

The United States Air Force Leadership Studies course teaches students advanced skills and knowledge in management and leadership. Special emphasis is placed on enhancing leadership skills. AFROTC cadets have an opportunity to try out these leadership and management techniques in a supervised environment as juniors and seniors.

Prerequisite: AERO 212

AERO 322 USAF Leadership Studies II (4 credits)

Continuation of AERO 321.

Prerequisite: AERO 321 or permission of instructor

American Culture and Difference (ACST)

AERO 421 National Security Affairs I (4 credits)

National Security Affairs/Preparation for Active Duty is designed for college seniors and gives them the foundation to understand their role as military officers in American society. It is an overview of the complex social and political issues facing the military profession and requires a measure of sophistication commensurate with the senior college level.

Prerequisite: AERO 322 or permission of instructor

AERO 422 National Security Affairs II (4 credits)

Continuation of AERO 421.

Prerequisite: AERO 421

AERO 450 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. This course is only for AFROTC cadets pursuing Option 2 above.

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 at a Field Training encampment. Discharges staff responsibilities to meet the objectives described in AERO 450. This course is only for AFROTC cadets pursuing Option 2 above.

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 relations and leadership challenge encountered by junior Air Force officers. Further, the program is designed to motivate cadets in their pursuit of an Air Force career. This course is only for AFROTC cadets pursuing Option 2 above.

AMERICAN CULTURE AND DIFFERENCE (ACST)

College of Arts and Sciences, Interdisciplinary Program
John Roach Center for the Liberal Arts (JRC) 339, (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)

ACST 450 American Culture and Difference Capstone (0 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 465 Capstone Seminar in History of the Americas (4 credits)
- POLS 301 Political Identity and Participation (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 321 The Art and Culture of Modern Mexico (1824-1940) (4 credits)
- ENGL 215 American Authors II (4 credits)
- ENGL 373 Contemporary American Literature (4 credits)
- ENGL 395 Issues in Literature, Language, and Culture (4 credits)
- MUSC 216 Jazz in America (4 credits)
- MUSC 217 Music of the Americas (4 credits)
- THTR 223 American Theater (History of Theater III) (4 credits)

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

- COJO 326 Communication in Popular Culture (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 342 Media, Culture and Society (4 credits)
- COJO 352 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

Young (chair), Barnes, Eliason, Kindall, Kjellgren, Shirey, Stansbury-O'Donnell, Yahr

The Art History Department at St. Thomas explores the many dimensions of art in a broad range of periods and world-wide cultures. The courses, programs, 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 and social 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 theol-

Art History (ARTH)

ogy, 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, historic preservation, 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, Human Diversity, and Writing across the Curriculum components 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 265 Art of Mesoamerica (4 credits)

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 291 Topics in Non-Western Art (4 credits)

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

ARTH 323 Colonial Art of Latin America (4 credits)

ARTH 328 Chinese Sculpture & Architecture (4 credits)

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) (4 credits)

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) 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 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

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 or instructor

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 265 Art of Mesoamerica (4 credits)

A survey of Pre-Columbian art and architecture of Ancient Mesoamerica (parts of present day Mexico, Guatemala, Belize, Honduras, and El Salvador). Specific artistic practices, iconography, and the cultural contexts of selected works of art and architecture will be covered. Course participants will be expected to address the significance of various culture groups within Mesoamerica and be able to discuss, in an informed manner, the salient characteristics and cultural context of select major works of art and architecture. This course fulfills the Fine Arts and Human Diversity requirements 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 of

Art History (ARTH)

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 (Surname, 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 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 323 Colonial Art of Latin America (4 credits)

This course is designed to provide an understanding of the foundations of the arts of Spanish-speaking Latin America. Its focus will be the development of the arts from the time of the Spanish entrada in the late 15th century through the time of the independence movements of the 19th century and beyond. In general, it will focus on Early Colonial and Viceregal New Spain and Peru. At the close of this course participants will be expected to approach any period of Latin American art with a deeper awareness of its historical context and an increased sense of analytical confidence. This course fulfills the Fine Arts and Human Diversity requirements in the core curriculum.

ARTH 328 Chinese Sculpture and Architecture (4 credits)

This course will examine the historical development of Chinese sculpture and architecture from the Neolithic period of the 21st century. The issues to be address will include possible functions and the development of early tombs, sculpted burial goods and imperial spirit roads; patronage, iconographic, and reception studies of Buddhist cave shrines and sculpture; the stylistic development of figural and animal sculpture; the development of both secular and religious Chinese architecture and garden design; the major figures and the "monuments" of sculpture and architectural studies; the development of Daoist sculpture; and the role of modern and contemporary sculpture and architecture in the public and private sphere. 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.

Art History (ARTH)

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 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 355 20th Century: Cubism to Installation (4 credits)

Twentieth Century art will examine the stylistic, thematic and iconographic aspects of the modern movements in Europe, beginning with Fauvism and other manifestations of European Expressionism, Cubism, Orphism, Futurism, De Stijl, Dada, Surrealism, Art Informal and Tachisme, Optical and Pop Art, Photo-Realism, Conceptual Art, and Neo-Expressionism. This course fulfills the Fine Arts requirement in the core curriculum.

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 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: Ismat (BIOL), Donato (CHEM), Marsh (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

Biochemistry

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.

Major in Biochemistry (B.S.)

BIOL 207 Genetics, Ecology, and Evolution (4 credits)

BIOL 208 Biological Communication and Energetics (4 credits)

BIOL 209 Biology of Sustainability (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 301-302 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 301-302 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 two semesters. The first (301) course is two credits and is graded on the usual letter grade scale. The second course (302) is no credit and is graded on a pass-fail basis (S/R). The first course (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 announced in the annual Class Schedule. 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 course (302) is a requirement whereby students must attend Biology and Chemistry departmental seminars. Required of all Biochemistry majors. Prerequisites: CHEM 202, completion or current enrollment in BIOL 209

BCHM 491 (2 or 4 credits)

See the description of this course at the beginning of the "Curricula" section of this catalog.

BIOLOGY (BIOL)

College of Arts and Sciences, Department of Biology
 Owens Science Hall (OWS) 352, (651) 962-5206

Illig (chair), Carlson, Cruise, Ditty, Domine, Emms, Grant, Heimovics, Husak,, Ismat, Kay, Lewis, Lewno, Manske, Martin, Martinovic-Weigelt, McGuire, Schroeder, Small, Verhoeven, Wilson, Zimmer

Department Web Site: <http://www.stthomas.edu/biology/default.html> (<http://www.stthomas.edu/biology/default.html>)

Mission statement: The Biology Department is a professionally engaged community that equips undergraduate students to find their passions, embark on meaningful careers, and become responsible, scientifically literate citizens through authentic experiences in science.

Modern biology encompasses an extraordinary range of disciplines, from molecular genetics to global health and sustainability. The biology curriculum at St. Thomas reflects this diversity, providing the foundation 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, agriculture, 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 all students as they progress through our programs.

The curriculum for a major in biology is divided into three levels, offering increasing challenges, greater emphasis on independent work, and more extensive use of the primary literature. All biology majors take an introductory series of twelve credits (BIOL 207, 208, and 209) 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) all require successful completion of the introductory series and build on this foundation and offer a broad range of topics at an intermediate level, including research (BIOL 391-392).

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 269,

Biology (BIOL)

389, 491) are available to students wishing to pursue in-depth studies in laboratory and/or field situations. Individual Study courses (BIOL 495) 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 Topics (BIOL 298, 398, 490) courses are available from time to time. Courses numbered between BIOL 483-498 (except 476 and 478) 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 academic 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 209, 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 USA, and no more than 12 credits can be from study abroad courses registered through St. Thomas.

CURRICULA

Students who receive at least a score of 4 on the Biology or Environmental Science Advanced Placement Exam or at least a score of 5 on the International Baccalaureate exam will receive 4 college credits in biology. Students not intending to major in biology will receive credit for BIOL 101 (fulfills a natural science with laboratory course requirement). Students intending to major in biology or related programs who score 4 on the AP exam will receive credit for BIOL 101, which will fulfill a core lab science requirement but will not fulfill a major field requirement. Students intending to major in biology or related programs who score 5 on the AP exam or 5-7 on the IB exam will receive 4 credits for BIOL 243, which counts toward the biology major.

Extracurricular Expectations

All students are expected to participate in departmental assessment activities 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, and biology tutors. 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 department 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 the introductory twelve credits in the department and at least four credits at the 300-level and have a grade point average of 3.0 or better in biology department courses.

es. Associate membership in the chapter is available to all interested students.

Biology Honors Program

Candidates for graduation with honors in biology must complete four credits in 400-level biology Research (491), 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 207 Genetics, Ecology, and Evolution (4 credits)

BIOL 208 Biological Communication and Energetics (4 credits)

BIOL 209 Biology of Sustainability (4 credits)

Note: The normal expectation is that students will complete BIOL 207, 208, and 209 by the end of their sophomore year.

Plus twenty-four credits, at least four credits of which must be in courses numbered 400-498 (excluding 476, 478) 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 287 Biology of HIV and AIDS (2 credits)

BIOL 292 Topics without laboratory (4 credits)

BIOL 296 Topics (2 credits)

BIOL 298 Topics (4 credits)

BIOL 302 Animal Diversity (4 credits)

BIOL 315 Plants, Food and Medicine (4 credits)

BIOL 320 Plant Physiology (4 credits)

BIOL 328 Environmental Toxicology and Health (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)

Biology (BIOL)

BIOL 360 Genetics (4 credits)
BIOL 361 Medical Geology (4 credits)
BIOL 363 Immunology (4 credits)
BIOL 365 Developmental Biology (4 credits)
BIOL 371 Cell Biology (4 credits)
BIOL 375 Endocrinology (4 credits)
BIOL 389 Research (2 or 4 credits)*
BIOL 393 Individual Study (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 472 Evolution, Medicine & Psychology (4 credits)
BIOL 476 Experiential Learning (2 credits)
BIOL 478 Experiential Learning (4 credits)
BIOL 480 Urban Ecosystem Ecology (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)**
ESCI 310 Environmental Problem Solving (4 credits)**

*A maximum of eight credits in Research and/or Individual Study can be credited toward the requirements of the major.

**CHEM 440 and ESCI 310 may be counted toward the major as 300-level elective courses.

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)

Plus four credits from the following:

STAT 220 Statistics I (4 credits)
MATH 303 Statistics for the Applied Sciences (4 credits)
STAT 310 Biostatistics (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 207 Genetics, Ecology, and Evolution (4 credits)

BIOL 208 Biological Communication and Energetics (4 credits)

BIOL 209 Biology of Sustainability (4 credits)

Note: The normal expectation is that students will complete BIOL 207, 208, and 209 by the end of their sophomore year.

Plus twenty-eight credits, at least four credits of which must be in courses numbered 400-498 (excluding 476, 478) 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 287 Biology of HIV and AIDS (2 credits)

BIOL 292 Topics without laboratory (4 credits)

BIOL 296 Topics (2 credits)

BIOL 298 Topics (4 credits)

BIOL 302 Animal Diversity (4 credits)

BIOL 315 Plants, Food and Medicine (4 credits)

BIOL 320 Plant Physiology (4 credits)

BIOL 328 Environmental Toxicology and Health (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 361 Medical Geology (4 credits)

BIOL 363 Immunology (4 credits)

BIOL 365 Developmental Biology (4 credits)

BIOL 371 Cell Biology (4 credits)

BIOL 375 Endocrinology (4 credits)

BIOL 389 Research (2 or 4 credits)*

BIOL 393 Individual Study (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 472 Evolution, Medicine & Psychology (4 credits)

BIOL 476 Experiential Learning (2 credits)

BIOL 478 Experiential Learning (4 credits)

BIOL 480 Urban Ecosystem Ecology (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)**

ESCI 310 Environmental Problem Solving (4 credits)**

*A maximum of eight credits in Research and/or Individual Study can be credited toward the requirements of the major.

**CHEM 440 and ESCI 310 may be counted toward the major as 300-level elective courses.

Biology (BIOL)

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 STAT 310 Biostatistics (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:

CHEM 202 Organic Chemistry II (4 credits)

CHEM 300 Quantitative Analysis (4 credits)

CHEM 444 Advanced Metabolism (2 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)

ESCI 310 Environmental Problem Solving (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 310 Biostatistics (4 credits) (if not used to meet the allied requirements)

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 Drugs and Behavior (4 credits)

PSYC 401 Physiological Psychology (4 credits)

Major in Biology of Global Health (B.S.)

Note: A student cannot simultaneously major in the Biology of Global Health and either major or minor in Biology (B.A. or B.S.), Biochemistry, or Neuroscience.

BIOL 207 Genetics, Ecology, and Evolution (4 credits)

BIOL 208 Biological Communication and Energetics (4 credits)

BIOL 209 Biology of Sustainability (4 credits)

BIOL 328 Environmental Toxicology and Health (4 credits)

BIOL 474 Senior Seminar in Global Health (4 credits)

Plus 16 credits with at least four credits from each cluster:

Cellular/Molecular cluster:

BIOL 356 Microbiology (4 credits)

BIOL 360 Genetics (4 credits)

BIOL 365 Developmental Biology (4 credits)

BIOL 371 Cell Biology (4 credits)

BIOL 462 Molecular Biology (4 credits)

BIOL 464 Bioinformatics (4 credits)

Host and Disease Cluster:

BIOL 302 Animal Diversity (4 credits)
 BIOL 353 Microscopic Anatomy (4 credits)
 BIOL 363 Immunology (4 credits)
 BIOL 287 Biology of HIV/AIDS (2 credits)
 BIOL 467 Biology of Emerging Infectious Diseases (4 credits)
 BIOL 471 Evolution (4 credits)

Ecosystem Health Cluster:

BIOL 211 Introduction to Field Research (4 credits)
 BIOL 315 Plants, Food and Medicine (4 credits)
 BIOL 333 Ecology (4 credits)
 BIOL 335 Conservation Biology (4 credits)
 BIOL 361 Medical Geology (4 credits)
 BIOL 435 Aquatic Ecology (4 credits)
 BIOL 480 Urban Ecosystem Ecology (4 credits)

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)
 HLTH 353 Consumer, Community and Environmental Health (4 credits)
 HLTH 400 Epidemiology (4 credits)
 STAT 220 Statistics (4 credits)
 STAT 310 Statistics (4 credits)

Plus 12 credits selected in consultation with their academic advisor and approved by the Biology Department Chair.

1. The courses must be cohesive and clearly related to each other as a block; however, they may be interdisciplinary and must be outside of Biology.
2. The block of courses must be clearly related to the Biology of Global Health major.
3. Students must submit a written proposal for these 12 credits that clearly describes how they are related to each other, and how they are related to the BOGH major, and how they fit into post-graduation plans. The department chair must approve the proposal. The student may register for no more than one third of the credits prior to receiving approval of the proposal.

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 207 Genetics, Ecology, and Evolution (4 credits)
 BIOL 208 Biological Communication and Energetics (4 credits)
 BIOL 209 Biology of Sustainability (4 credits)

Plus:

Eight 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.

MAJOR IN BIOCHEMISTRY (B.S.)

See Biochemistry

MAJOR IN ENVIRONMENTAL SCIENCE (B.S.)

Biology (BIOL)

See Environmental Science

MAJOR IN NEUROSCIENCE (B.S.)

See Neuroscience

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 207 Genetics, Ecology, and Evolution (4 credits)

A consideration of the mechanisms of heredity, evolution, population genetics, and population ecology emphasizing hypothesis testing, case studies, and quantitative and experimental approaches to population biology. Topics include: Mendelian genetics, genetic mapping, population genetics, selection theory and the process of adaptation, speciation,

macroevolution and phylogenetics, and the growth and regulation of populations. Laboratory work emphasizes techniques for data analysis, including computer simulation and modeling. 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: CHEM 111 or CHEM 115 (concurrent registration is acceptable)

BIOL 208 Biological Communication and Energetics (4 credits)

The purpose of this course is to introduce the structure and function of cells, and how structure and function drives organismal physiology and diversity. By the end of this course, through lecture and laboratory exercises, students should have an understanding of the basic components of cells, how cells and organisms transfer genetic information to future generations, how communication is integral to cellular and organismal function, and how cells and organisms generate and process energy to drive physiological functions. In addition, students will continue to improve skills for scientific inquiry through activities designed to increase familiarity with the scientific literature and science terminology, through skills to design and critically analyze experiments, foster ability to work within a scientific team, and provide opportunities to improve scientific writing. Any one topic covered in this course has enough material for a course of its own. However, this course will give a basic overview of a series of selected topics that are meant to introduce students to the vast field of cellular and organismal biology and the use of biological science in life. Three laboratory hours per week.

Prerequisite: A minimum grade of C- in BIOL 207; and concurrent registration in CHEM 112 or CHEM 115

BIOL 209 Biology of Sustainability (4 credits)

Influences of humans on the global environment have reached unprecedented levels, increasing the need for society to strive to live in a sustainable manner. Many issues facing the environment have a biological basis. Thus, an understanding of basic biology is necessary to understand and address many environmental issues. This course will cover the fundamental biology involved with five environmental issues at the global scale: climate change, excessive nutrient loading into ecosystems, agricultural production, chemical contaminants, and loss of biodiversity. Specific biological principles to be covered include energy and nutrient mass balance by organisms and ecosystems, homeostasis and organismal physiology, and population dynamics and conservation biology.

Prerequisites: CHEM 112 or CHEM 115 and one of the following: BIOL 208 (minimum grade of C-) or any 100-level GEOL

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 207. First-year or sophomore status or permission of instructor

BIOL 211 Introduction to Field Research (4 credits)

This course is 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. 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.

Biology (BIOL)

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 287 Biology of HIV and AIDS (2 credits)

The HIV/AIDS pandemic is now 30 years old. Remarkable progress has been made in learning about and combatting this virus, but HIV/AIDS has proved more difficult to treat successfully than many other diseases. This class will focus on why HIV/AIDS has been such a monumental scientific and social challenge. This course will include aspects such as the molecular biology of the HIV virus and its effects on human cells, a basic view of how the immune system works and how HIV disrupts that function, how epidemiological methods helped identify HIV as the causative agent of AIDS, and what social, political and economic challenges have been and are currently important in fighting the pandemic. We will approach these topics through discussion and investigation. All students will be expected to participate actively in class discussions.

Prerequisite: Permission of the instructor

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 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 315 Plants, Food and Medicine (4 credits)

This course explores the biology of plants from the perspective of our use of plants as a source of food and medicine. Major topics include the overall structure and function of plants, the diversity of plants, and the role of plants as a food source, as well as a source of medicine. Four laboratory hours per week.

Prerequisite: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 320 Plant Physiology (4 credits)

The goals of this course are to introduce essential topics within the field of plant physiology, and to engage the theme of sustainability in agriculture as an important global issue with numerous plant physiological applications. The course content includes photosynthesis and other biochemical processes of plants, water transport and nutrient uptake, plant interactions with the environment and hormonal regulation of plants. Four laboratory hours per week.

Prerequisite: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 328 Environmental Toxicology and Health (4 credits)

There is increasing public interest and concern over the connections between environmental quality and human health. This course will explore these connections by providing an introduction to the multidisciplinary field of environmental toxicology- the study of the adverse effects of chemical, biological, and physical agents in the environment on living organisms, including humans. Topics will cover global and local problems including issues of environmental justice and future approaches to sustainably mitigate the major environmental health problems in industrialized and developing countries. Four laboratory hours per week.

Prerequisite: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209 or permission of the instructor.

BIOL 330 Animal Behavior (4 credits)

The study of animal behavior at multiple levels connecting neural, hormonal, and genetic mechanisms of behavior to 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.

Prerequisites: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

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: BIOL 207 and a minimum grade of C- in BIOL 209. 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: BIOL 207 and a minimum grade of C- in 209

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

This course includes an examination of the functional morphology of the vertebrate skeletal, muscular, nervous, and sensory 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: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

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

This course includes an examination of the functional morphology of the vertebrate endocrine, cardiovascular, respiratory, renal, digestive and reproductive systems, including control and integration of organ systems, as well as adaptation to the environment, and evolutionary history. Laboratory work will emphasize functional comparisons of vertebrate organ systems and an experimental approach to physiological problems. This course may be taken as part of a two-semester sequence with BIOL 349, but may also be taken alone. Four laboratory hours per week.

Prerequisite: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

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: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 354 Neurobiology (4 credits)

This course is an introduction to the study of neuroscience from the cellular, systems, and behavioral perspectives. Topics will include how neural tissues carry information, the ionic basis for neuronal potentials, neurotransmitters and synaptic transmission, sensory and motor systems, and the neural mechanisms of learning, memory and behavior. Four laboratory hours per week.

Prerequisite: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

Biology (BIOL)

BIOL 356 Microbiology (4 credits)

The in-depth study of microorganismal biology is 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.

Prerequisites: CHEM 201 or STAT 310, plus BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 360 Genetics (4 credits)

This course focuses on a detailed consideration of specific topics in transmission, molecular, and population genetics. Eukaryotic and prokaryotic systems are discussed and genetic reasoning and analysis will be emphasized. Four laboratory hours per week.

Prerequisites: CHEM 201 or STAT 310, plus BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 361 Medical Geology (4 credits)

This 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, exposure to radionuclides and 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 health concerns and thus provides a preparation to contribute to important societal questions.

Prerequisites: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 363 Immunology (4 credits)

This course studies 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.

Prerequisites: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 365 Developmental Biology (4 credits)

An examination of current molecular mechanisms underlying morphogenic processes during embryogenesis using 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.

Prerequisites: CHEM 201 or STAT 310, plus BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

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: CHEM 201 or STAT 310, plus BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

BIOL 375 Endocrinology (4 credits)

This course is intended to give an overall introduction to the major endocrine systems of vertebrates and their involvement in the control of physiological functions. Major principles involved in signaling by hormones, the integration of hormonal mechanisms to maintain homeostasis, and the evolution of endocrine systems will be covered. Emphasis will be placed on similarities and differences among vertebrate groups, but focus will be primarily mammalian endocrinology. The primary objective is to highlight the complexity of control and integration of physiological functions by chemical signals such as hormones.

Prerequisite: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209

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.

Prerequisites: BIOL 207, BIOL 208 and a minimum grade of C- in BIOL 209, permission of the department chair

BIOL 393 Individual Study (2 or 4 credits)

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)

This course examines 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.

Prerequisites: A minimum grade of C- in BIOL 209; 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.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: A minimum grade of C- in BIOL 356, 360, or 371. Alternative prerequisites may be accepted with permission of the instructor.

BIOL 464 Bioinformatics (4 credits)

Bioinformatics is an emerging field in the sciences that arises from interactions between 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.

Prerequisites: 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)

This course is an advanced exploration of the major concepts in modern evolutionary biology, including adaptation and natural selection, evolutionary genetics and microevolution, macroevolution, and molecular evolution. Applica-

Biology (BIOL)

tions 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 209; any 300-level BIOL course

BIOL 472 Evolution, Medicine, and Psychology (4 credits)

This course explores how the principles of evolutionary biology can be used to enhance our understanding of human disease and social psychology. In the first half of the course we will explore such topics as the evolution of virulence in pathogens, the persistence of genetic diseases in human populations, the evolutionary basis of aging, and the disease consequences of mismatches between our current environment and the environment in which humans evolved. In the second half of the course we will study the relationships between human social psychology and social interactions and will consider such topics as mate choice, parent-offspring relations, selfishness and altruism, and the possible evolutionary basis of various mental illnesses. Four laboratory/recitation hours per week.

Prerequisites: a minimum grade of C- in BIOL 209; any 300-level BIOL course.

BIOL 474 Biology of Global Health Seminar (4 credits)

This seminar, required for all senior Biology of Global Health majors, challenges students to examine the multiple aspects of global health in a unifying manner. In this seminar, students will integrate experiential learning with current research and broad applications of global health, and will complete a capstone project focusing on a global health issue. This senior capstone course allows students majoring in Biology of Global Health to analyze specific issues and problems using the knowledge and understanding gained by completing the other required courses in the program. This course does not fulfill the Biology B.A. or Biology B.S. requirement for a 400-level course.

Prerequisite: Senior status as a declared Biology of Global Health major.

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.

BIOL 480 Urban Ecosystem Ecology (4 credits)

In 1800, there were around 1-billion people on the planet, and only three percent lived in urban areas. Today we are approaching 8-billion humans, and more-than half live in cities. This course explores how cities function as ecosystems and shape local, regional, and global ecological and biogeochemical processes. We will examine how carbon, nutrients, and energy enter the city in the form of food and other resources, and exit as waste, and will use this conceptual framework to assess opportunities to move towards sustainability. We will make extensive use of primary literature and apply ecological network analysis tools to contrast human-dominated ecosystems with natural ecosystems. Students will design and implement independent research projects, and will work collaboratively to apply knowledge and skills to real-world urban sustainability problems.

Prerequisite: A grade of C- or better in at least two 300-level BIOL courses.

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 appro-

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 - 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 provide a carefully designed curriculum that balances practice and theory. Students begin by building a foundation of knowledge and basic skills with courses in economics, statistics, mathematics, and communication. They then take a series of core courses that span the functional areas of business. These include accounting, finance, legal studies in business management, and marketing. An ongoing, in-depth study of business ethics and decision-making is woven into the curriculum, helping students not only align their values with their future business practices, but helping them understand the conflicts and challenges modern business leaders face. Students may build greater knowledge in several different concentrations (listed below). Students may also combine a general business concentration with a minor in another field, such as economics, music, foreign language, etc. A plan of study is available for students interested in both a B.A. in business administration and a B.S. in mechanical or electrical engineering. See the Department of Engineering section of this catalogue or contact the Opus College of Business for further information.

Students may choose to provide a practical element to their academic experience through consulting projects developed by the Small Business Development Center or through internships and other opportunities to work with businesses in the Twin Cities.

Opus College of Business faculty provide students with hands-on, interactive learning experiences such as presentations, group projects, case studies, simulations, guest speakers - as well as stimulating discussion and debate.

CURRICULA

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 28 credits in Opus College of Business courses at the University of St. Thomas; at least 16 of these 28 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.

Student Honor Pledge

It is the expectation that Opus College of Business students will become highly principled global business leaders, and students are expected to maintain the highest standards of integrity while enrolled in the business program. Honesty and integrity in the conduct of academic life is fundamental to the principle of independent learning and growth. The Honor Pledge (below) is signed by undergraduate business students at the time they declare their business major or minor, as an affirmation of their commitment to accept personal responsibility for their own behavior, and conduct themselves in an ethical manner with academic honesty and integrity.

As a student in the Undergraduate Program of the Opus College of Business, I will adhere to the University academic integrity policy, and I will act with honesty, integrity, respect, and accountability in all my actions.

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)

BLAW 301 Legal Environment of Business (4 credits)

or

BLAW 302 Business Law for Accounting (4 credits)

or

BLAW 303 International Business Law (4 credits)

or

BLAW 304 Real Estate Law (4 credits)

MGMT 305 Management & Organizational Behavior (4 credits)

Plus four credits from the following:

ECON 251 Macroeconomics (4 credits)

ECON 252 Microeconomics (4 credits)

Plus four credits from the following:

ENTR 260 Entrepreneurial Thinking (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 business credits (ACCT, BETH, BLAW, ENTR, FINC, MGMT, MKTG, OPMT) at St. Thomas. for this minor. 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)

Business Administration - Opus College of Business

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)

BUSN 202 MS Excel Business Applications (0 credits)
OR CISC 200 Intro to Computer Technology & Business Applications (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 and CISC 200 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 211 or above (4 credits)

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 sector 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)

BUSN 202 MS Excel Business Applications (0 credits)
OR CISC 200 Intro to Computer Technology & Business Applications (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 and CISC 200 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)
GEOG 113 World Geography (4 credits)
POLS 104 American Government in Comparative Perspective (4 credits)
POLS 225 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
Davis (chair), Asdemir, Blazovich, Chui, Gallagher, Gao, Grimm, Matson, Mortenson, Radermacher, J. Raffield, Sathe, Shapiro, Stallings, Vician, White, 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, passed an ethics 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)

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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
Dunham (chair), Deeds, Ebben, Johnson, McVea, Sorenson, Spriggs

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)

Concentration Courses

ENTR 200 Foundations in Entrepreneurship (4 credits)
ENTR 350 Entrepreneurial Research: Developing New Market Space (4 credits)
ENTR 370 Entrepreneurial Financial Resource Management (4 credits)
ENTR 450 Entrepreneurship: Management and Strategy (4 credits)

BUSN 202 MS Excel Business Applications (0 credits)
or CISC 200 Intro to Computer Technology & Business Applications (4 credits)

Plus eight credits from the following:

ENTR 340 Social Entrepreneurship (4 credits)
ENTR 348 Franchising Management (4 credits)
ENTR 349 Family Business Management (4 credits)
ENTR 360 Creativity and Change (4 credits)
ENTR 371 Silicon Valley and Entrepreneurship (4 credits)
ENTR 380 Entrepreneurship in Practice (4 credits)
ENTR 490 Topics (4 credits)

The following may be substituted for ONE of the courses listed above:

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 211 or above (4 credits)

Minor in Entrepreneurship

Required courses:

ENTR 260 Entrepreneurial Thinking
ENTR 350 Entrepreneurial Research

Plus three electives (12 credits) chosen from the following:

ENTR 340 Social Entrepreneurship
ENTR 348 Franchise Management
ENTR 349 Family Business Ownership
ENTR 360 Creativity and Change
ENTR 370 Entrepreneurial Financial Resource Management
ENTR 371 Silicon Valley & Entrepreneurial Thinking
ENTR 380 Entrepreneurship in Practice

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ENTR 490 Topics

OR

Two from the electives list above, plus one (4 credit) course from the approved courses below (students are responsible for completion of all prerequisite courses)

MUSC 363 Emerging Models in Music Industry

MUSC 480 Music Business Seminar

Any 300-level College of Business course, with approval from Entrepreneurship department chair.

Concentration in Family Business

Family business is the most common type of business organization in the world. The concentration in family business prepares

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 Ownership (4 credits)
ENTR 449 Family Business Innovation and Entrepreneurship (4 credits)

BUSN 202 MS Excel Business Applications (0 credits)
or CISC 200 Intro to Computer Technology & Business Applications (4 credits)

Plus eight credits selected from the following courses. They should be selected in consultation with your adviser 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 362 Attracting, Acquiring and Rewarding Talent (4 credits)
MGMT 382 Leadership Development (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 374 Family and Couple Communication (4 credits)
PSYC 288 Psychology of Marriage and the Family (4 credits)
SOCJ 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 374 Family and Couple Communication (4 credits)
PSYC 288 Psychology of Marriage and the Family (4 credits)
SOCJ 321 Marriage and the Family (4 credits)

Ethics and Business Law (BLAW)

Opus College of Business

Department of Ethics and Business Law

Pattit (chair), Buckeye, Elm, Garrison,, R. Kennedy, Ketcher, Kunkel, Marsnik, Michaelson, Monge, Naughton, Swink, Thompson

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 on the legal environment for business.

Concentration in Legal Studies in Business

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)

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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)

BUSN 202 MS Excel Business Applications (0 credits)

or CISC 200 Intro to Computer Technology & Business Applications (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 354 Marketing 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 211 or above (4 credits)

Finance (FINC)

Opus College of Business

Department of Finance

Combs (chair), Barabanov, Baxamusa, Daugherty, Georgieva, Jaiswal-Dale, Jithendranathan, Musil, Oxman, Reagan, Shovein, Samarakoon, Spry, Vang

Finance plays a pivotal role in business decisions across all functional areas of business. A strong foundation in finance is highly valued by employers and provides excellent career options and flexibility upon graduation. The UST finance courses and the degree program prepare students for careers in all areas of finance. Broadly, students gain in-depth knowledge and develop important analytical skills in the areas of corporate finance, investments and portfolio management, financial institutions and banking, and global finance. The finance degree program requires students to acquire training in the interrelated areas of accounting, economics and information technology as well.

Finance graduates find career opportunities in the interrelated areas of corporate finance, accounting, investments, security analysis, asset management, financial planning, commercial and investment banking, private equity and venture capital, real estate, insurance, and risk management. Typical job titles of finance graduates include financial analyst, security analyst, equity analyst, research analyst, budget analyst, financial advisor, financial planner, financial

consultant, loan officer, account specialist, treasury assistant, portfolio assistant, and financial manager, among others.

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 Security Analysis and Portfolio Management (4 credits)
- FINC 442 Fixed Income Securities (4 credits)
- FINC 450 International Financial Management (4 credits)
- FINC 480 Strategic Finance (4 credits)
- REAL 380 Real Estate Finance and Investment (formerly REAL 460) (4 credits)

Allied requirements

- 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)
- STAT 220 Statistics I (4 credits)

Note: STAT 220 and CISC 200 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 Introduction to Econometrics (4 credits)

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 Administration - Opus College of Business

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)

Concentration Courses

REAL 200 Real Estate Principles (4 credits)
REAL 370 Real Estate Market Analysis (4 credits)
REAL 380 Real Estate Finance and Investments (Formerly REAL 460) (4 credits)

Plus four (4) credits from the following REAL electives:

REAL 360 Real Estate Property Management (4 credits)
REAL 461 Real Estate Appraisal (4 credits)
REAL 470 Real Estate Development (4 credits)

Plus eight (8) additional business credits, 300 level or above (can be REAL credits)

Allied requirements

CISC 200 Introduction to Computer Technology and Business Applications (4 credits)
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:

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 370 Intercultural Communications (4 credits)
ECON 311 Forecasting (4 credits)
ECON 315 Introduction to Econometrics (4 credits)
ECON 333 Regional and Urban Economics (4 credits)
GEOG 113 World Geography (4 credits)
GEOG 330 Geography for Business and Planning (4 credits)

Management (MGMT)

Opus College of Business

Department of Management

Hedberg (chair), Brinsfeld, DeVaughn, Diehn, Henderson, Lenway, Maloney, Militello, Owens, Pattit, Rothausen-Vange, Sheppeck, Slack, Tuzcu, Welsh, 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 111 Intro to COJO I (4 credits) (if not previously taken) or COJO 112 Intro to COJO II (4 credits)
MGMT 360 Organizational and Employee Development (4 credits) or MGMT 382 Leadership (4 credits)
MGMT 480 Strategic Management (4 credits)

BUSN 202 MS Excel Business Applications (0 credits)
or CISC 200 Intro to Computer Technology & Business Applications (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, 320, 328, 336, 342 (formerly 430), 352 (formerly 432), 366, 370, 372, or 376 (formerly 276)

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 not previously taken from the following:

COJO 100 Public Speaking (4 credits)
COJO 105 Communication in the Workplace (4 credits)
COJO 111 Intro to COJO I (4 credits)
COJO 370 Intercultural Communication (4 credits)
ENGL 211 or above (4 credits)

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 (4 credits)
MGMT 460 Human Resource Strategy (4 credits)
MGMT 480 Strategic Management (4 credits)

BUSN 202 MS Excel Business Applications (0 credits)
or CISC 200 Intro to Computer Technology & Business Applications (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 211 or above (4 credits)

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 Development (4 credits)
 MGMT 480 Strategic Management (4 credits)
 MGMT 482 Leading Organizational Systems (4 credits)

BUSN 202 MS Excel Business Applications (0 credits)
 or CISC 200 Intro to Computer Technology & Business Applications (4 credits)

Plus eight credits from the following:

MGMT 360 Organizational and Employee Development (4 credits)
 MGMT 384 Project Management (4 credits)
 MGMT 388 Leading Diverse Teams (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)

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COJO 370 Intercultural Communication (4 credits)

ENGL 211 or above (4 credits)

Marketing (MKTG)

Opus College of Business

Department of Marketing

Lewis (chair), Abendroth, Alexander, Al-Khatib, Giovanelli, Lanier, Harman, Heyman, Malshe, Porter, Rexeisen, Sackett, Stadler Blank, 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)

BUSN 202 MS Excel Business Applications (0 credits)

or CISC 200 Intro to Computer Technology & Business Applications (4 credits)

Plus twelve 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 375 Product Innovation and Marketing (4 credits)

MKTG 380 Interactive Marketing (4 credits)

MKTG 390 Marketing Strategy (4 credits)

MKTG 490 Topics (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 211 or above (4 credits)

Operations and Supply Chain Management (OPMT)

Opus College of Business

Department of Operations and Supply Chain Management

Mallick (chair), Bordoloi, Goldschmidt, Kumar, Luo, Olson, W. Raffield, Ressler, Sanders-Jones, Southard, White, Yang

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)

BUSN 202 MS Excel Business Applications (0 credits)
or CISC 200 Intro to Computer Technology and Business Applications (4 credits)

Plus four credits from the following:

MGMT 384 Project Management (4 credits)
OPMT 360 Service Operations 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)

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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 211 or above (4 credits)

Accounting Courses (ACCT)

ACCT 210 Introduction to Financial Accounting (4 credits)

Financial accounting is an integral part of the planning, reporting and control functions of every business. Financial accounting data provide insights about the firm's financial condition, operating results, cash flows and capital structure to facilitate decision making. This course introduces the primary financial statements, fundamental financial accounting terminology and calculations, as well as the interpretation and analysis of financial statements. Ethical aspects of accounting are included.

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, and sophomore standing*

*Pending final approval fall 2016

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, and sophomore standing*

*Pending final approval fall 2016

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 (may be taken concurrently); CISC 200 (applies to students under the 2012-14 catalog or later).

ACCT 314 Tax Accounting (4 credits)

This course is a study of the principles of business taxation. The course primarily covers the federal tax laws as they apply to sole proprietorships, corporations, and partnerships. Other topics include the principles of individual taxes, such as dependents, filing status, tax administration, tax depreciation, property transactions and capital gains and losses. Tax research is required in the course. Prerequisite: A minimum grade of C- in ACCT 210 and 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 pro-

cedures, 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 , Senior standing or permission of department chair

Business Courses (BUSN)

BUSN 200 Business Learning Through Service (0 credits)

This experiential, student-designed course is required of all undergraduate students in the Opus College of Business - both majors and minors. The course embodies the Statement of Purpose of the university to “develop morally responsible individuals who combine career competency...while fostering in the student a tradition of service to the public welfare.”

The learning objectives include: 1) providing students the opportunity to experience the necessary partnerships between and among healthy, vital communities and healthy, vital businesses; 2) stretching beyond their current comfort zones, especially in terms of being involved with people different from themselves; 3) providing direct service to a non-profit while meeting individually established personal learning objectives; and 4) exploring the business dynamics of non-profit organizations.

Students are encouraged to complete BUSN 200 either during the second semester of their sophomore year or the first semester of their junior year.

Students register for BUSN 200 as they would any other academic course at the university.

Students should note that their formal BUSN 200 class meets only four times during the semester and that 100% attendance of those four classes is mandatory to complete BUSN 200 successfully. In addition to the 40 hours of service and four class meetings, students will maintain an online journal of their reflections and learnings, and present a final-reflection creative learning project to their classmates.

All BUSN 200 requirements - including the 40 hours of service - are completed within the traditional one-semester structure. Service hours or other assignments from one semester cannot be “rolled over” to the next semester. Thus, students should consider carefully the timing of their decision to participate in BUSN 200 for any given semester.

This course is graded Pass/Fail.

Students can complete BUSN 200 while studying abroad or while away from campus during J-term or summer. *Note:* London Business students complete their BUSN 200 course while studying in London; students considering participation in this program should wait to complete BUSN 200 until that semester.

BUSN 202 Microsoft Excel Applications for Business (0 credits)

The course will introduce students to the use of Microsoft Excel for business applications. Students will develop skills in using Microsoft Excel to solve business problems. This course will be online, with students using the MyEducator Excel Educator software platform. Students will submit Excel exercises to demonstrate their learning. Students enrolled in this course will pay a technology fee, and will then be granted lifetime access to the Excel Educator site.

Students who feel they have mastered the content of this course may apply for a waiver of this course through an examination. Students can attempt a waiver through examination for this course only once, and there is a fee for the examination.

This course is graded pass/fail. Students must achieve at least a passing percentage on each exercise, and an overall

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passing percentage to complete this course.

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.

Prerequisites: Junior standing; and BLAW 301 or 302 or 303 or 304 (may be taken concurrently), plus four additional credits from ACCT, OPMT, FINC, MGMT, or 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, sales of goods, intellectual property, employment law, as well as general notions of legal reasoning and legal process and alternative dispute resolution.

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), securities regulations, as well as general notions of legal reasoning and legal process.

Prerequisites: Junior standing and ACCT 210

BLAW 303 International Business Law (4 credits)

An exploration of the international legal environments and some of the legal issues and problems confronting busi-

nesses as they cross international boundaries. Topics include international trade, foreign investment, transfer of technology, international dispute resolution, international contracting, employment law, 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 contractual relationships, purchase and sales transactions; title and transfer of ownership, mortgages, zoning and land use, development, commercial and residential leasing, and professional liability. Offered in spring semester.

Prerequisite: 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 explores 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 provides 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 354 Marketing Law (4 credits) (formerly BLAW 403)

This course explores the legal principles and government regulation relating to marketing, advertising, and intellectual property. Topics include intellectual property protection such as patents, trademarks, and copyrights; the law of advertising and promotion; and possibly other timely topics relevant to marketing law.

Prerequisite: BLAW 301, 302, or 303

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, and BUSN 202 or CISC 200.

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, and BUSN 202 or CISC 200.

Entrepreneurship Courses (ENTR)

ENTR 200 Foundations of Entrepreneurship (4 credits)

ENTR200 is a national award-winning course and is the first course in the Entrepreneurship Concentration sequence. Known across campus as the "Lemonade Stand" class, this course requires students to start a new business and reach revenue, and in this process begin the journey to becoming world-class problem solvers. This course is a combination of applied and theoretical dimensions of Entrepreneurship. In addition to starting a new business, students are exposed to theoretical concepts, including Opportunity Identification, Business Modeling, Industry Analysis, and New

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Venture Growth. This is a very dynamic course, mixing lecture, discussion, case study, guest speakers and introduction to the Hotwash Process. The course culminates in a competition with UST alumni judging the students' quality of work and accomplishments.

Prerequisite: sophomore standing, not open to seniors.

ENTR 260 Entrepreneurial Thinking (4 credits)

This course is designed as an introduction to the entrepreneurial mindset, and to the creative problem solving tools and critical thinking skills necessary to successfully pursue innovation and entrepreneurial success. The course is designed for non-business majors and, as such, will cover a broad range of topics. Students will explore the issues that surround opportunity recognition, opportunity evaluation, creative problem solving, cash flow, and growth management of an entrepreneurial venture. The course will be primarily case-based. This means that nearly all learning will take place through active participation in case analysis and class discussions. This style of learning has a number of advantages; it involves the study of dozens of real entrepreneurial ventures and problems, it emphasizes practical learning as well as theoretical concepts, it allows the student to develop their personal approach to the subject, and it builds skills as well as knowledge.

ENTR 340 Social Entrepreneurship (4 credits)

This course introduces students to the field of social entrepreneurship, the practice of identifying, designing, starting and growing successful mission-driven ventures. These include both "non-profit" and for-profit enterprises designed to respond to a specific social need, as well as more traditional ventures working to incorporate 'socially-responsible' practices into their business models. The course provides an overview of the processes, challenges, and demands associated with creating ventures that seek to integrate financial and social/environmental benchmarks of success. The course is designed to appeal to business majors who want to learn more about the social sector, and non-business majors with interests in social causes, who want to learn more about business.

Prerequisite: Junior standing

ENTR 348 Franchising Management (4 credits)

This course examines franchising from the perspective of both the franchisor and the franchisee. Buying a franchise is a path to business ownership, and the franchisee-focused topics include evaluation of franchising opportunities, legal issues for the franchisee, and an appreciation of what it takes to be a successful franchisee. Franchising is also a business growth model, and the course covers creation of a franchise contract, franchisee support strategies, and the ongoing management of a franchise system.

Prerequisite: Junior standing

ENTR 349 Family Business Ownership (4 credits)

Students will learn how to identify, develop and organize family resources for business ownership and for other family initiatives such as philanthropy and community service. Family resources include family aptitudes, knowledge, experience, skills, identity and culture. Methods for organizing family initiatives include defining family mission, values, and goals; establishing guidelines/policies, and developing governance and decision-making structures, including boards of directors or advisors.

Prerequisite: Junior standing

ENTR 350 Entrepreneurial Research (4 credits)

ENTR 350 builds on the learning begun in ENTR 200 or ENTR 260, by providing additional tools and skills necessary for entrepreneurs and innovators to bring new business concepts successfully to market. Drawing upon a range of applied methodologies, including Design Thinking and Lean Startup, the course provides students with the tools to uncover new market needs, develop novel solutions, craft innovative and effective business models, and determine viable go-to-market strategies. The course is highly experimental, emphasizing case study analysis and discussion, in-class exercises and an exploratory field study.

Prerequisite: ENTR 200 or ENTR 260

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 or ENTR 260, and Junior standing

ENTR 370 Entrepreneurial Financial Resource Management (4 credits)

As a required course in the Entrepreneurship Concentration, ENTR 370 is focused on financial analysis and strategy in new and growing firms. Course topics are introduced and reinforced through case study analysis, discussion, in-class

activities, speakers, hot washes, and the development of a financial plan that students present to investors at the end of the semester. Students can expect to take away critical and highly-marketable skill sets around building and interpreting financial projections, valuing privately-held firms, structuring debt and equity deals, creating value through deal terms, and managing by the numbers.

Prerequisites: ENTR 200 or ENTR 260, ACCT 210 and junior standing.

ENTR 371 Silicon Valley and Entrepreneurial Thinking (4 credits)

Students will travel to Silicon Valley, California to meet with entrepreneurs, venture capitalists and intrapreneurs in fast growing companies in order to better understand the technological developments, managerial approaches and market forces shaping technology entrepreneurship. Students will learn how to shape opportunities in the tech start up market space, build their skills in assessing the voice of the customer, gain greater understanding of the economics of tech start up business models, and directly experience how tech start ups raise funds. The course is designed to expand student thinking beyond local entrepreneurship and to address global perspectives by bringing students directly to the world wide hub of technology entrepreneurship.

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 or ENTR 260, and Junior standing

ENTR 449 Family Business Innovation and Entrepreneurship (4 credits)

Develop governance processes that establish innovation and entrepreneurship in the family business. Owners will participate in defining desired family outcomes that align with family mission and goals; identifying and assessing entrepreneurial opportunities to achieve those outcomes; reviewing entrepreneurial opportunities in light of business and family resources and capabilities, and desired social and economic impact; and developing decision processes to assess entrepreneurial opportunities. Family members involved in the business are expected to either audit this course or to actively participate in course projects.

Prerequisites: ACCT 210, FINC 300 or 321; BETH 301, and BUSN 202 or CISC 200, and senior standing.

ENTR 450 Entrepreneurship: Management and Strategy (4 credits)

This is the Entrepreneurship Concentration capstone course. As a capstone course, ENTR450 builds upon previous coursework, drawing together critical concepts including opportunity identification, business modeling, financial modeling, and market/industry research skills. Through lecture, case discussion, and extensive use of the Hotwash Process, students polish their critical thinking and creative problem solving skills. The primary deliverable is a Fundable Business Plan. The course culminates in a competition with UST alumni judging the students' quality of work.

Prerequisites: BETH 301, one ENTR elective, FINC 321, OPMT 310, and MKTG 300, and BUSN 202 or CISC 200.

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, STAT 220 (or MATH 313 or STAT 314 for actuarial majors), ECON 251, 252, and Sophomore 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

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finance. It will utilize computer-based financial modeling and forecasting.

Prerequisites: FINC 321, ACCT 215 (or ACSC 320 for actuarial majors) and MATH 109 or 111 or 113 (may be taken concurrently), and CISC 200 (may be taken concurrently and applies to students after the 2012-2014 catalog) (or CISC 130 for actuarial majors*)

*Pending final approval fall 2016

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 investment alternatives. The principle concern of the course is to develop skills necessary to make prudent investment decisions.

Prerequisites: FINC 321 and ACCT 215 (or ACSC 320 for actuarial majors), and MATH 109 or 111 or 113 (may be taken concurrently), and CISC 200 (may be taken concurrently and only applies to students to students after the 2012-2014 catalog) (or CISC 130 for actuarial majors*)

*Pending final approval fall 2016

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 and BETH 301, and BUSN 202 or CISC 200.

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 and BETH 301, and BUSN 202 or CISC 200.

FINC 440 Security Analysis and Portfolio Management (4 credits)

This course will cover knowledge and develop skills necessary to carry out prudent and in-depth analysis of investments and create investment portfolio. The major topics covered include portfolio theory, macroeconomic analysis, industry analysis, financial statement analysis, company analysis, valuation models, creating investment policy statement, asset allocation, professional money management and portfolio strategies, and portfolio performance evaluation. The course also includes discussions of most recent developments in the investments industry. Students will apply course concepts to the analysis of actual companies and present their analysis and recommendations to investment professionals.

Prerequisites: FINC 325, and BETH 301, and BUSN 202 or CISC 200.

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, and BETH 301, and BUSN 202 or CISC 200.

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, and BETH 301, and BUSN 202 or CISC 200.

FINC 480 Strategic Finance (4 credits)

Building on the finance theory learned in prior courses, this course focuses on financial strategies for a broad range of finance issues faced by corporations including capital budgeting, capital raising, optimal capital structure, dividend policy, and corporate restructuring and mergers and acquisitions. This is an applied, case-based course the students will be engaged in extensive case analysis, discussion, and presentations to develop and refine analytical skills.

Prerequisites: FINC 324, and BETH 301, and BUSN 202 or CISC 200.

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 organizations, 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)

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.

Prerequisites: MGMT 305 and Junior standing. Offered Fall semester.

MGMT 362 Attracting, Acquiring, and Rewarding Talent (4 credits)

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 (4 credits)

The course is designed to prepare students to be successful human resource generalists, general managers or entrepreneurs. These careers require both HR knowledge and interpersonal skills. Thus, this course focuses on the concepts, research and practice of employee and labor relations and related organization processes that impact employee behavior. Topics include leadership, worker representation, conflict resolution and negotiation, employee counseling and discipline, global and workplace diversity, and health and safety.

Prerequisites: MGMT 305 and Junior standing. Offered Spring semester.

MGMT 382 Leadership Development (4 credits)

This course explores the concepts and skills involved in exercising effective leadership from both individual and organizational perspectives, with an emphasis on personal leadership development. The course covers important leadership theories and explores the concepts of leadership in diverse cultures, how organizational conditions affect competent leadership, and the actual work of leadership in organizations. Topics include self-awareness, managing stress, building relationships, gaining power and influence, and motivating others. This course examines the complexity of business leadership through understanding key theories and their application.

Prerequisites: MGMT 305 and Junior standing

MGMT 384 Project Management (4 credits)

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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.

Prerequisites: MGMT 305 and OPMT 310; and Junior standing. Offered fall semester.

MGMT 388 Leading Diverse Teams (4 credits)

The purpose of this course is to understand theories and integrate experiences in leading diverse teams, including managing conflict and negotiating within and for the team. The course builds on the leadership and organizational behavior theories learned in prerequisite courses, leveraging and applying these concepts to teams. The design, management, and leadership of teams in organizational settings will be emphasized, along with conflict management and negotiation strategies. To develop student skills, applied experiences are integrated. The focus is on the interpersonal processes and structural characteristics that influence the effectiveness of teams, individual behavior in face-to-face interactions and the dynamics of interpersonal relationships. By the end of this course, students will have gained valuable skills, experience, and knowledge in effectively leading teams through challenges, collaborative negotiations, and conflict, while leveraging the diversity within. Prerequisites: MGMT 305 and MGMT 382.

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 , FINC 321, MKTG 300 or concurrent registration and prerequisite waived by instructor, MGMT 305, BETH 301, and BUSN 202 or CISC 200.

MGMT 460 Human Resource Strategy (4 credits)

This course focuses on the theories, concepts, research, and practice of human capital management that impacts organizational 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, MGMT 362 or 420, BETH 301, and BUSN 202 or CISC 200, and Senior standing, .

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 , FINC 321, MGMT 305, MKTG 300, BETH 301, and BUSN 202 or CISC 200 , and Senior standing. Absolutely no exceptions will be made to these prerequisites.

MGMT 482 Leading Organizational Systems (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 particular emphasis on managerial applications. This course provides opportunities to think more systematically about leadership and organizations, its application, and the personal competencies needed for leadership success. There are two core purposes for the course: 1) learn about organizational leadership and management, and 2) understand one's own capacity for leading. More specifically, this course examines a variety of perspectives on leadership and management, identifies critical leadership and management challenges, and asks you to think deeply about leadership issues and opportunities. Topics explored include the role of the leader in leading organizational change and influencing social systems. Offered spring semester.

Prerequisites: MGMT 382, BETH 301, and one of MGMT 360, MGMT 384, or MGMT 388, and BUSN 202 or CISC 200, plus 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.

Prerequisite: 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.

Prerequisite: MKTG 300

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 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)

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 375 Product Innovation and Marketing (4 credits)

This course takes a strategic perspective on managing the product element of the firm's marketing mix - the most integral element. Students will delve into segmenting markets based on needs and assessing innovation strategy, viability, new product design, product differentiation, product portfolio and lifecycle management, line and brand extension strategy amongst other product and service tactics.

Prerequisites: MKTG 300

MKTG 380 Interactive Marketing (4 credits)

Interactive marketing (i.e. website marketing, social media, email marketing, display advertising, search marketing and

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mobile marketing) applies the concepts and strategies introduced in Principles of Marketing to today's business environment. The goal of Interactive Marketing is to acquire and strengthen customer relationships by leveraging the on-line space. This allows businesses to uniquely engage with customers around the world in relevant "real time" dialog based on customer insights, while allowing customers to engage with businesses whenever, wherever and however they choose.

Prerequisites: MKTG 300 or COJO 234

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.

Prerequisites: 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; one additional Marketing elective; BETH 301, and BUSN 202 or CISC 200; and Senior standing.

Operations and Supply Chain Management

OPMT 310 Operations Management (4 credits)

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)

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 trade-offs, 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).

Prerequisites: OPMT 310, STAT 220, MATH 101 or higher, CISC 200 (may be taken concurrently) and Junior standing

OPMT 330 Quality Management (4 credits)

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.

Prerequisite: OPMT 310

OPMT 340 Process Analysis & Improvement (4 credits)

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.

Prerequisite: OPMT 310

OPMT 350 Supply Chain Management (4 credits)

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.

Prerequisite: OPMT 310

OPMT 360 Service Operations Management (4 credits)

The service sector is the fastest growing sector of the economy. This course is designed to explore the dimensions of service operations management and the process of ongoing improvement. Outstanding service organizations are managed differently than their manufacturing counterparts. The results show not only in terms of conventional operational measures of performance, but also in the enthusiasm of the employees and degree of customer satisfaction, where efficient and effective service is taken as a positive experience. This course aims at applying tools learned in Operations Management as well as integrating student learning from other areas such as strategy, marketing, technology and organizational issues in the service industry. Service sectors in this course include airlines, health care, hotels, restaurants, entertainment and recreation, and service consulting. Offered Spring semester.

Prerequisite: OPMT 310

OPMT 480 Operations Strategy with Integrative Project (4 credits)

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; OPMT 320, and 350; and concurrent or prior enrollment in OPMT 330, and BUSN 202 or CISC 200

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. Offered Spring semester.

Prerequisite: Sophomore standing

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. Offered Spring semester.

Prerequisite: Junior standing. REAL 200 or concurrent registration with REAL 200.

REAL 380 Real Estate Finance and Investment (formerly REAL 460) (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

Catholic Studies (CATH)

spring semester.

Prerequisites: REAL 200 and FINC 321, must be at least Junior standing

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, BETH 301, and BUSN 202 or CISC 200

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 380 (formerly REAL 460), BETH 301, and BUSN 202 or CISC 200, and Senior standing

CATHOLIC STUDIES (CATH)

College of Arts and Sciences, Department of Catholic Studies

Sitzmann Hall,(55S) (651) 962-5703

Boyle (chair), Deavel, Foote (Director of Catholic Studies Rome Program), Junker, Kennedy, Kidd (Director of Graduate Program), Naughton, Schlag

The Department of Catholic Studies allows students to encounter the broad and diverse expressions of Catholic culture. 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, 16 credits in required distribution area electives, and additional 4 credits for single-majors. At least 7 courses (28 credits), must have a CATH designation. The minor consists of 20 credits: 8 credits in required core courses, 12 credits in required distribution area electives. At least 16 credits (4 courses), must have a CATH designation.

Students who participate in the Rome single-semester program may use up to three courses towards their major or minor course of studies. Students who participate in the full-year Rome program may use up to four courses towards their major.

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:

Eight credits chosen from the following category:

Philosophical/Aesthetic based course

Plus:

Eight credits chosen from the following category:

Historical/Theological/Social based course

Plus:

Four additional credits chosen from any of the above areas

Minor in Catholic Studies

Eights credits chosen from the core requirements above

Plus:

Four credits in approved electives chosen from the following category:
Philosophical/Aesthetic based course

Plus:

Four credits in approved electives chosen from the following category:
Historical/Theological/Social based courses

Plus:

Four additional credits from any of the categories above
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/Literary/Aesthetics Based courses:

- CATH 222 The Catholic Literary Tradition (4 credits)
- CATH 234 Love, Sex and Friendship (4 credits)
- CATH 240 Faith and Doubt (4 credits)
- CATH 250 Christian Mysteries from a Philosophical Viewpoint (4 credits)
- CATH 308 Woman and Man (4 credits)
- CATH 334 Literature from a Christian Perspective (4 credits)
- CATH 357 Sacred Music of the Catholic Heritage (4 credits)
- CATH 392 Dante's *Divine Comedy* (4 credits)
- CATH 297/397 Topics in Catholic Studies (4 credits each)
- CATH 298/398 Topics in Catholic Studies (4 credits each)
- PHIL 460 Philosophy of God (4 credits)
- ARTH 280 Sacred Architecture and Space (4 credits)
- ARTH 323 Colonial Latin America (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/Theologically/Social Based courses

- CATH 306 Christian Faith and Management Professions (4 credits)
- CATH 321 Modernity and the Catholic Church: French Revolution to the Present (4 credits)
- CATH 322 English Writers in the Catholic Tradition
- CATH 346 Christian Faith and the Education Profession (4 credits)
- CATH 364 Science and Christian Theology (4 credits)
- CATH 379 Christian Faith and the Medical Profession (4 credits)
- CATH 387 John Henry Newman (4 credits)
- CATH 297/397 Topics in Catholic Studies (4 credits each)
- CATH 298/398 Topics in Catholic Studies (4 credits each)
- HIST 222 Early Modern Europe: 1450-1750 (4 credits)
- HIST 306 The World of Late Antiquity: A.D. 284-641 (4 credits)
- HIST 307 The Church in the Roman Empire to A. D. 395 (4 credits)
- 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 366 The History of the Catholic Church in the United States (4 credits)

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 tradi-

Catholic Studies (CATH)

tion. 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 121 and/or ENGL 201, 202, 203, or 204

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 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 ques-

tions 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 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. The purpose of the course is to examine the ways in which thinkers from a wide spectrum have construed male/female relationships. A major component this course consists in the study of power and the way it operates both in history and in contemporary culture. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: PHIL 115

CATH 321 Modernity and the Catholic Church: French Revolution to the Present (4 credits)

It is hard to overestimate the impact of the striking changes that have occurred in the world during the last two hundred years, changes that have had their focal point in European civilization. These have also been years of great moment for the Catholic Church. This course aims both at dealing with key people, events and developments in the Church in its relation to Europe since the French Revolution, beginning with an overview of the Ancien Regime and examining the social, political and ecclesiastical changes that came about through Enlightenment thought, political revolution, and scientific discovery. At the same time we will investigate what it means to do history and to do history from a Catholic perspective. We will pay particular critical attention to the historical vision of Christopher Dawson, and will read mostly from primary sources. Students will write weekly short assignments and one longer paper.

Prerequisite: CATH 101 or permission of the instructor

CATH 322 English Writers in the Catholic Tradition (4 credits)

English authors writing in the Catholic tradition have been a small minority in modern England, but have produced an extraordinary number of first-rank writers. Coincidence? Or is there something about the Catholic position in England that has attracted a certain kind of artist and thinker? We will attempt to look at crucial historical questions concerning modern England and English Catholicism using the lens of literature, paying special attention to: the rise of romanticism and its relationship to classicism, the emerging challenge of modernity and the Church’s place in responding to that challenge, and the personalities of certain important literary figures. The course will include English Catholic writers such as John Henry Newman, Gerard Manley Hopkins, Alice Meynell, Robert Hugh Benson, Ronald Knox, Hilaire Belloc, J. R. R. Tolkien, and G.K. Chesterton. In addition, it will include study of Protestant authors who were instrumental in the development of Catholic thought, such as William Wordsworth, Samuel Taylor Coleridge, and C. S. Lewis. Students will write weekly short assignments and one longer paper.

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 201, 202, 203, or 204

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 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 and one 200-level THEO course

Catholic Studies (CATH)

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 and one 200-level or 300-level THEO course, PHIL 115, some college-level background in science, preferably biology, physics, or chemistry

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 387 John Henry Newman (4 Credits)

John Henry Newman has been called, somewhat misleadingly, the father of the Second Vatican Council. The church historian, Jaroslav Pelikan, argued that he was the most important theological thinker of the modern era. T.S. Eliot had insisted that he is one of the two most eloquent sermon writers in the English language. Pope Benedict XVI stressed his importance as the theologian of conscience. In this course we will examine not only Newman's most important theological works focusing on the development of doctrine and the role of conscience in relation to Church authority, but also his philosophical works addressing the relations of faith and reason, his work on university education and selected poetry, meditations and devotions, and sermons.

Prerequisite: THEO 101

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 and one 200-level or 300-level THEO course

CATH 392 Dante's Divine Comedy (4 credits)

This interdisciplinary Catholic Studies/literature course explores Dante Alighieri's *Divine Comedy* in its literary, historical, theological, religious, political, and linguistic contexts. The course studies in critical detail the complete text of the *Commedia* in English as well as portions of related works such as Dante's *La Vita Nuova*. Throughout the course, particular attention will be paid to the *Divine Comedy's* Catholic Christian themes

Prerequisites: English 111/112 or 190.

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.

This course will satisfy the third level of the Faith and Catholic Tradition core requirement.

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

Marsh (Chair), Borgerding, Donato, Fink, Fort, Gengenbach, Gittins, Guino-o, Ippoliti, Layfield, Ocampo, Ojala, Ewbank-Popescu, Prevette, Uzcatogui, Wammer

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 professional 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 491); (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)

Chemistry (CHEM)

- 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)

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 444 Advanced Metabolism (2 credits)

CHEM 487, 488 Topics (2 credits each)

CHEM 491 Research (2 credits each)

*required for a B.S. in Chemistry with a biochemistry concentration, plus a research project in biochemistry

Plus:

A research requirement that can be satisfied by taking CHEM 491 Research (2 or 4 credits) in the list above or by completing a summer research project approved by the department.

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

CHEMICAL DEPENDENCY (CHDC), minor in

See Social Work

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 444 Advanced Metabolism (2 credits)

CHEM 487, 488 Topics (2 credits each)

CHEM 491 Research (2 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)*

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)

Chemistry (CHEM)

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 20-24 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 12 additional credits from the following:

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 444 Advanced Metabolism (2 credits)

CHEM 487, 488 Topics (2 credits each)

CHEM 491 Research (2 credits each)*

*A student may take four credits of research for the minor with the approval of the department chair.

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 109 General Chemistry for Engineering (4 credits)

Principles of chemistry and the properties of matter explained in terms of modern chemical theory with emphasis on topics of general interest to the engineer. Topics include atomic structure, chemical bonding, solids, liquids, gases, acids and bases, thermodynamics, kinetics, polymer chemistry and materials science. This is an accelerated course

requiring excellent preparation in math and science and is a terminal course intended only for those engineering students who do not plan to take additional courses in chemistry. Offered spring semester.

Prerequisite: Math placement at 109 or higher, or equivalent of MATH 113, and ENGR 150 or Permission of Instructor.

NOTE: Students who receive credit for CHEM 109 may not receive credit for CHEM 100, 101, 111 or 115.

This course is not equivalent to CHEM 111, CHEM 112 or CHEM 115 and will not substitute for them.

CHEM 110 Introduction to Chemistry (1 credits)

An introduction to fundamental concepts in chemistry with an emphasis on problem solving. Topics to be covered include measurement in scientific study, the fundamentals of the periodic table, chemical bonding, chemical equations, and stoichiometry. This course is designed as a preparatory course for students who do not pass the chemistry placement exam but wish to eventually enroll in CHEM 111. Offered January term.

Prerequisite: Math placement at 108 or above

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 and satisfactory performance on the chemistry placement examination

NOTE: Students who receive credit for CHEM 111 may not receive credit for CHEM 100, 101, 109, 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, 109, 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)

Chemistry (CHEM)

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, 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.

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 and spring 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 444 Advanced Metabolism (4 credits)

This course is designed to offer senior students an introduction to current research topics in biochemistry. The goal of the course is to increase exposure to a wide variety of topics through discussions of the biochemical principles associated with each one. The course material will focus on advanced topics in metabolism including secondary metabolite production, biochemical pathways associated with disease, biochemistry of biofuel production, and applied biotechnology to generate novel biochemical pathways.

Prerequisite: A C- or better in CHEM 442, or a C- or better in CHEM 440 with instructor permission.

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>.

Classical Civilization (CLAS)

CHEM 491 Individual Research (2 or 4 credits)

See the description of this course at the beginning of the "Curricula" section of this catalog.

CHEM 495 Individual Study (2 or 4 credits)

See the description of this course 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) 328, (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.

As a major or minor field of study at St. Thomas, Classical Civilization is an opportunity for students to include various disciplines under one rubric, thus allowing them to explore their talents and demonstrate their versatility. It also enhances students' understanding of the origins of modern western culture - including its relationship to the ancient Near East -- while training them to work as different disciplines require. As a major or minor this interdisciplinary program includes introductory foundations courses and a series of courses from a variety of supporting disciplines. For the major, there is also a capstone senior paper requirement.

Major in Classical Civilization

The major in Classical Civilization is comprised of five components: 1) Foundations courses, 2) Language courses, 3) Art History courses, 4) History courses, and 5) Elective courses.

Foundations courses (16 credits -- all required)

CLAS 225 The Classical Hero, Epic and Film (4 credits)

CLAS 245 Classical Mythology (4 credits)

CLAS 480 Senior Paper (0 credits)

ENGL 220 The Classical Tradition (4 credits)

PHIL 200 Ancient Philosophy (4 credits)

Language Courses (complete a minimum of four credits)

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

Art History Courses (complete a minimum of four credits)

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

ARTH 305 Greek Art and Archaeology (4 credits)

ARTH 310 Roman Art and Archaeology (4 credits)

History Courses (complete a minimum of eight credits)

HIST 111 Origins of the Modern World to 1550 (4 credits)

HIST 203 Ancient Egypt and the Near East (4 credits)

HIST 205 The Ancient Greek World (4 credits)

HIST 208 History of the Roman World (4 credits)

HIST 386 Historical Archaeology (4 credits)

Elective Courses (complete a minimum of eight credits, in two different areas)

CLAS 397 Topics (4 credits)

Any ARTH course listed above not already taken

Any GREK or LATN course above 212 not already taken

Any HIST course listed above not already taken

Minor in Classical Civilization

The minor in Classical Civilization will be comprised of four components: 1) Foundations courses, 2) Language courses,

3) History courses, and 4) Elective courses.
 Foundations Courses (complete a minimum of eight credits)
 CLAS 225 The Classical Hero, Epic and Film (4 credits)
 CLAS 245 Classical Mythology (4 credits)
 CLAS 397 Topics (4 credits)

Language Courses (complete a minimum of four credits)
 GREK or LATN - Four credits numbered 212 or above

History Courses (complete a minimum of four credits)
 HIST 203 Ancient Egypt and the Near East (4 credits)
 HIST 205 The Ancient Greek World (4 credits)
 HIST 208 History of the Roman World (4 credits)
 HIST 386 Historical Archaeology (4 credits)

Elective Courses (complete a minimum of eight credits)
 ARTH 260 Women in Ancient Art & Culture (4 credits)
 ARTH 305 Greek Art and Archaeology (4 credits)
 ARTH 310 Roman Art and Archaeology (4 credits)

Any CLAS course listed above not already taken (4 credits)
 ENGL 220 The Classical Tradition (4 credits)
 Any GREK/LATN above 212 (4 credits)
 Any HIST course listed above not already taken (4 credits)
 PHIL 200 Ancient Philosophy (4 credits)
 PHIL 320 Aristotelian Logic (4 credits)

CLAS 225 The Classical Hero, Epic and 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. Both Greek and Roman myths will be examined from a variety of theoretical perspectives, including aetiological, structuralist, and psychological theories. Consideration will also be given to the study of literature in translation, art history, religion, and history. The course grade will be principally based on writing assignments and class discussions.

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.

Communication and Journalism (COJO)

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) 119, (651) 962-5250

O'Donnell (chair), Armada, Bruess, Bryan, Gavrilos, Gregg, Guan, Keston, Moorhouse, Neuzil, Petersen, Sauter, Vandegrift, Wyatt. Emeritus faculty: Connery, Craig, Scully.

Department Web Site: <http://www.stthomas.edu/cj/>

CURRICULA

In the Department of Communication & Journalism, we focus on the theory and practice of communication in all its forms - interpersonal, organizational and 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, websites 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 begin their studies with a core of courses that provide basic competence in writing, speaking and production from informative and persuasive perspectives. COJO majors then choose one of five tracks, that allow them to specialize in a particular area of communication. All COJO students end their major with a capstone seminar in Communication Ethics, ensuring that they understand how ethical principles and practice apply to all forms of communication.

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 nonprofit organizations; or for graduate or law school.

Students will find media opportunities at TommieMedia.com and KUST Radio. TommieMedia, St. Thomas' web-based news organization, provides experience in news and advertising presented to the larger university community. A digital television studio and Mac-equipped lab support student work in audio, video and graphic design. Student organizations include chapters of the American Advertising Federation, the Lambda Pi Eta honor society and the Public Relations Student Society of America. The department also hosts an annual conference for undergraduate communication research.

COJO majors must complete six of their 11 courses in COJO at St. Thomas. COJO minors must complete three of their five courses in COJO at St. Thomas.

Major in Communication and Journalism

All Communication and Journalism majors must take 11 courses totaling 44 credits.

All COJO majors must complete the following core and elective requirements in addition to one of the specified COJO tracks.

COJO 111 Intro to COJO I
COJO 112 Intro to COJO II
COJO 480 Communication Ethics

Note: COJO 111 and/or 112 are the prerequisite courses for many other courses in the department. The department chair may waive these prerequisites for students majoring in departments outside COJO. The prerequisites will not be waived for COJO majors.

Note: COJO majors are strongly encouraged to complete COJO 111 and 112 before enrolling in any 300- or 400-level COJO courses. Students who have taken COJO 111 are eligible for most 200-level COJO courses.

COJO Electives:

Students must complete three or four additional courses from the COJO curriculum. See each track below for its elective requirement.

Tracks - choose one track from the five listed below:

Creative Multimedia Track

All students in the Creative Multimedia track must complete these courses:

COJO 232 Visual Communication
COJO 240 Digital Imagery and Sound
COJO 256 Design Concepts of Communication

COJO 258 Writing & Designing for the Web
or COJO 360 Videography

COJO 342 Media, Culture & Society

COJO Electives

Choose three (3) additional courses from the COJO curriculum with at least two (2) at the 300-level or above. These electives can include individual study, experiential learning, study abroad or topics courses.

Interpersonal Communication Track

All Interpersonal Communication track students must complete these courses:

COJO 211 Communication Inquiry
COJO 220 Interpersonal Communication

COJO 274 Small Group Communication
or COJO 320 Organizational Communication

COJO 370 Intercultural Communication
COJO 374 Family & Couple Communication

COJO Electives

Choose three (3) additional courses from the COJO curriculum with at least one (1) at the 300-level or above. These electives can include individual study, experiential learning, study abroad or topics courses.

Journalism Track

All students in the Journalism Track must complete these courses:

COJO 240 Digital Imagery & Sound
COJO 251 Multimedia Reporting
COJO 252 Editing

Communication and Journalism (COJO)

COJO 342 Media, Culture & Society
COJO 451 Advanced Multimedia Reporting

COJO Electives

Choose three (3) additional courses from the COJO curriculum with at least one (1) at the 300-level or above. These electives can include individual study, experiential learning, study abroad or topics courses.

Persuasion and Social Influence Track

All students in the Persuasion & Social Influence track must complete these courses:

COJO 212 Rhetorical Criticism

COJO 326 Communication in Popular Culture
or COJO 328 Communication of Race, Class & Gender

COJO 342 Media, Culture & Society

COJO 366 Persuasion
or COJO 376 Argumentation & Advocacy

COJO Electives

Choose four (4) additional courses from the COJO curriculum with at least one (1) at the 300-level or above. These electives can include individual study, experiential learning, study abroad or topics courses.

Strategic Communication Track

All students in the Strategic Communication track must complete the following:

COJO 211 Communication Inquiry
COJO 212 Rhetorical Criticism
COJO 234 Principles of Strategic Communication
COJO 344 Writing for Strategic Communication
COJO 470 Strategic Communication Campaigns

COJO Electives

Choose three (3) additional courses from the COJO curriculum with at least one (1) at the 300-level or above. These electives can include individual study, experiential learning, study abroad or topics courses.

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 Core

COJO 111 Intro to COJO-I
COJO 112 Intro to COJO-II

COJO Electives

Choose three (3) additional courses from the COJO curriculum. These courses can include individual study, experiential learning, study abroad or topics courses. At least one of these courses must be at the 200-level or above. At least one of these courses must be at the 300-level or above.

COJO 100 Public Speaking (4 credits)

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 intended for non-Communication and Journalism majors. COJO major students may take this course with the permission of the department chair.

COJO 105 Communication in the Workplace (4 credits)

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 may be taken by Communication and Journalism majors only with the permission of the department chair.

COJO 111 Communication and Citizenship (4 credits)

This is the first of a two-course sequence that introduces students to essential skills in the communication and journalism discipline. Students develop skills 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 and develop basic skills in digital production. Students are strongly encouraged to complete this course and COJO 112 before taking any 300- or 400-level COJO courses.

COJO 112 Public Communication: Speaking and Writing (4 credits)

This is the second of a two-course sequence that introduces students to essential skills in the communication and journalism discipline. In this course, students build upon the skills developed in COJO 111, applying more sophisticated theoretical and analytical concepts and producing more advanced writing, speaking and multimedia projects. Prerequisite: COJO 111 or permission of instructor. Students are strongly encouraged to complete COJO 111 and this course before taking any 300- or 400-level COJO courses.

COJO 211 Communication Inquiry (4 credits)

Communication Inquiry provides an overview of the concepts, methods, and tools by which communication research is designed, conducted, interpreted, and critically evaluated. The primary goals of this course are to help you become a knowledgeable consumer and a limited producer of communication research as you develop skills in gathering, organizing, interpreting and presenting research information using competent and ethically defensible methods. Prerequisite: COJO 111 or permission of instructor

COJO 212 Rhetorical Criticism (4 credits)

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 220 Interpersonal Communication (4 credits)

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.

COJO 232 Visual Communication (4 credits)

Introduction to the history, theory and principles of communicating visually through art, illustration, photography, design, typography, film, video and other visual forms.

COJO 234 Principles of Strategic Communication (4 credits)

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 240 Digital Imagery and Sound (4 credits)

This class provides a foundation for producing digital photographs, videos and sound recordings that will enable the student to create a wide range of media texts, including journalistic multimedia stories, documentary films, dramatic or

Communication and Journalism (COJO)

comedic productions, and audio productions. The class covers the basics of digital information, basic equipment operation, basic composition for still and moving images, high quality sound recording and basic digital editing, including digital storage and workflow. Students learn how to create digital media with an eye on technique and aesthetic quality.

Prerequisite COJO 111

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)

Preparation of copy for publication; evaluation of news; headline writing; news display, including typography; picture editing; and editing magazines.

Prerequisite: COJO 111

COJO 254 Photojournalism (4 credits)

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)

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.

COJO 258 Writing and Designing for the Web (4 credits)

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 262 Audio Production (4 credits)

An introduction to audio production. Students will produce projects digitally that are designed to acquaint them with genres, styles and production techniques. Production planning, scripting, the use of sound effects, field production, multitrack recording, mixing and editing are covered.

COJO 272 Advertising Media and Connections Planning (4 credits)

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)

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 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)

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 Communication in Popular Culture (4 credits)

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. This course fulfills the Human Diversity Core requirement.

Prerequisite: Junior standing, or permission of instructor

COJO 328 Communication of Race, Class, and Gender (4 credits)

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: Junior standing or Permission of the instructor

COJO 330 Communication History (4 credits)

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)

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)

A look at journalistic writing style as a literary prose form, with emphasis upon late 19th- and 20th-century American writing, and upon the tradition of literary journalism. Newspaper and magazine articles from both centuries and book-length works from the past 50 years will be read and discussed. Students will have the option of writing a research essay or a literary journalistic article for the final project.

Prerequisite: Junior or senior standing

COJO 336 Communication Law (4 credits)

The course focuses on legal standards that protect and constrain communications in America, particularly, but not exclusively, in the context of mass media. Students consider First Amendment philosophy, examine historic free expression cases that have affected the collection and dissemination of information, and explore how recent legal and technological developments influence both the character and the content of communication in all facets of American society today.

Prerequisite: COJO 111 and junior standing, or permission of instructor

COJO 338 Political Communication (4 credits)

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)

This course will provide students with the opportunity to understand television as a text situation in a cultural context.

Communication and Journalism (COJO)

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 342 (formerly 430) Media, Culture and Society (4 credits)

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: Junior standing or permission of instructor

COJO 344 Writing for Strategic Communication (4 credits)

Writing for Strategic Communication provides practical experience in public relations and advertising writing including: strategic communication plans, news releases, position statements, brochures, query letters, feature stories, social media posts and ad copy. The course emphasizes weekly drafting and editing in class with the aim of giving students the fundamental skills that constitute excellent writing. Students leave the course with a portfolio of written work that can be utilized in multiple communication environments (agencies, corporations, non-profits, political, education, healthcare organizations, etc.). *Students who have received credit for COJO 268 or 270 may not also receive credit for this course.

Prerequisite: COJO 234

COJO 346 (formerly 428) Social Media in Strategic Communication (4 credits)

This course examines the ways social media are affecting human interaction and communication practices, especially in the advertising and public relations professions. The course will ask such questions as how social media may foster discourse between communicators and audiences, and whether social media help create communities or isolate audiences into niches. Students will gain familiarity with social media tools and how to use them strategically. The course will combine in-class learning and online activities. Prerequisite: COJO 234 or permission of instructor

COJO 350 Magazine Writing (4 credits)

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 352 (formerly 432) Media Structure and Power (4 credits)

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 permission of instructor

COJO 360 Videography: Television Production in the Field (4 credits)

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 240 or permission of instructor

COJO 366 Persuasion (4 credits)

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 Advertising Portfolio (4 credits)

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 234

COJO 370 Intercultural Communication (4 credits)

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: Junior Standing

COJO 372 Environmental Communication (4 credits)

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 374 (formerly 472) Family and Couple Communication (4 credits)

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: Junior or senior standing, or permission of instructor

COJO 376 (formerly 276) Argumentation and Advocacy (4 credits)

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: Junior Standing 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)

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

COJO 460 Advanced Video Production (4 credits)

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 Strategic Communication Campaigns (4 credits)

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 344

COJO 480 Communication Ethics (4 credits)

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

Computer and Information Sciences (CISC)

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 (CISC)

College of Arts and Sciences, Department of Computer and Information Sciences

O'Shaughnessy Science Hall (OSS) 402, (651) 962-5470

Curran (chair), Jarvis, Marrinan, Miracle, Myre, Sawin, Werness, Yilek

CURRICULA

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 four majors: (1) Computer Science, (2) Information Systems, (3) Information Security, and (4) Statistics. In addition, two tracks within the Computer and Information Science majors are offered for those students who wish to complete a Master of Science degree through the Graduate Programs in Software (GPS). 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.

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 (B.S.)

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.

Required 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 major

CISC 230* Object-Oriented Design and Programming (4 credits)

CISC 231* Data Structures Using Object-Oriented Design (4 credits)

CISC 340* Computer Architecture (4 credits)
CISC 350* Information Security (4 credits)
CISC 380* Algorithms (4 credits)
CISC 480* Senior Capstone (4 credits)
STAT 220 Statistics I (4 credits)

* Note: A grade of C- or above must be earned by majors in these courses.

Plus 16 credits from the following:

CISC 310 Operating Systems (4 credits)
CISC 342 Computers in Experimental Sciences (4 credits)
CISC 370 Computer Networking (4 credits)
CISC 375 Web Development (4 credits)
CISC 410 Advanced Information Security (4 credits)
CISC 440 Artificial Intelligence and Robotics (4 credits)
CISC 450 Database Design I (4 credits)
CISC 451 Database Design II (4 credits)
STAT 360 (formerly IDTH 360) Advanced Statistical Software (4 credits)
STAT 400 (formerly IDTH 400) Data Mining and Machine Learning (4 credits)

Allied requirements:

MATH 109 Calculus with Review II (4 credits)
OR MATH 113 Calculus I (4 credits)
MATH 114 Calculus II or STAT 320 Statistics II
MATH 128 Introduction to Discrete Mathematics (4 credits)

Fast Track: Masters in Graduate Programs in Software (with a Bachelor of Science degree in Computer Science)

Students in the fast track program will take four Graduate Programs in Software (GPS) crosslisted classes and, after completing their undergraduate degree, continue on to take 10 additional GPS classes, instead of 14, to obtain their Master of Science degree in either Software Engineering or Software Management.

For each of the graduate-level cross-listed courses(^) in the list below that a St. Thomas undergraduate student completes with a grade of at least C-, St. Thomas Graduate Programs in Software (GPS) will grant a three credit reduction in the number of credits required to complete the Master of Science (MS) degree (either major software engineering or software management) and waive the corresponding required GPS course up to a maximum of 12 credits.

The MS degree requires the student to complete 42 graduate credits. With the above credit reductions for CISC courses taken as a UST undergraduate, that student as a graduate student must complete a minimum of 30 graduate credits (10 graduate courses) at the University of St. Thomas for GPS to award the MS degree. The student must begin their GPS MS program within one year of completing their UST undergraduate degree to be eligible for these credit reductions.

Required 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);
CISC 131 is recommended for this major

CISC 230* Object-Oriented Design and Programming (4 credits)
CISC 231 * Data Structures Using Object-Oriented Design (4 credits)
CISC 340* Computer Architecture (4 credits)
CISC 350* Information Security (4 credits)
CISC 380* Algorithms (4 credits)

Computer and Information Sciences (CISC)

CISC 480* Senior Capstone (4 credits)
STAT 220 Statistics I (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)

* Note: A grade of C- or above must be earned by majors in these courses.

Plus four credits from the following:

CISC 310 Operating Systems (4 credits)
CISC 342 Computers in Experimental Sciences (4 credits)
CISC 370 Computer Networking (4 credits)
CISC 375 Web Development (4 credits)
CISC 410 Advanced Information Security (4 credits)
CISC 440 Artificial Intelligence and Robotics (4 credits)
STAT 360 (formerly IDTH 360) Advanced Statistical Software (4 credits)
STAT 400 (formerly IDTH 400) Data Mining and Machine Learning (4 credits)

Allied requirements:

MATH 109 Calculus with Review II (4 credits) or MATH 113 Calculus I (4 credits)
MATH 114 Calculus II or STAT 320 Statistics II
MATH 128 Introduction to Discrete Mathematics (4 credits)

CURRICULA

Major or Minor 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. In addition, there are two minors, one in Applied Statistics and one in Mathematical Statistics.

See Statistics

Teacher Licensure

Elementary Education with a co-major in Science, Technology, Engineering 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.

Computer and Information Sciences (CISC)

CISC 120 Computers in Elementary Education (4 credits)

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 tools such as MicroWorlds, Scratch, and HTML. This course fulfills the third course in the Natural Science and Mathematical and Quantitative Reasoning.

Prerequisite: Elementary Education or STEM major

CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits) (CISC 131)

Computer and Information Sciences (CISC)

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

Prerequisite: Placement into MATH 108 or higher or completion of STAT 220 with a C- or better, or completion of one of: MATH 108, 109, 113, 114, or 200

CISC 131 Introduction to Programming and Problem Solving (4 credits) (CISC 130)

This course is designed for students with majors in the Department of Computer and Information Sciences and focuses on logical thinking, the design and implementation of algorithms in a procedural language, testing, correctness, and the use of common programming structures such as arrays. In addition, basic machine concepts are covered including hardware organization and representation of information in the machine. The typical student will be adept at using the computer but will have no prior programming experience. 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

Prerequisite: Placement into MATH 108 or higher or completion of STAT 220 with a C- or better, or completion of one of: MATH 108, 109, 113, 114, or 200

CISC 200 Introduction to Computer Technology and Business Applications (4 credits) (CISC 216)

This course will prepare students to use computers in a business environment and in daily life. This course will prepare students to use computers in a business environment and in daily life. It will provide an introduction to programming and problem solving for non-majors. Spreadsheet and database software will be used to solve problems related to business. The course includes an overview of hardware and software, how computers acquire and process information, and related topics.

NOTE: Students who receive credit for CISC 200 may not receive credit for CISC 110 or 216

CISC 216 Quantitative Techniques in Business (2 credits) (CISC 200)

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)

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, algorithms, modeling, design requirements and representation, Uniform Modeling Language specification, implementation of object-oriented models, testing, and verification, and elementary design patterns. Lab included.

Prerequisites: A minimum grade of C- in CISC 130 or 131

CISC 231 Data Structures Using Object-Oriented Design (4 credits)

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: A minimum grade of C- in CISC 230, and MATH 128 (may be taken concurrently)

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)

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.

Computer and Information Sciences (CISC)

Prerequisite: A minimum grade of C- in CISC 340 or ENGR 330

CISC 320 Systems Analysis and Design I (4 credits)

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: A minimum grade of C- in CISC 230

CISC 321 Systems Analysis and Design II (4 credits)

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 340 Computer Architecture (4 credits)

Introduction to the design and organization of computer systems. Topics covered in this course include digital logic, machine data and instruction representations, computer arithmetic, instruction sets and assembly language, ALU and CPU design, pipelining, cache systems, memory, performance metrics, and parallelism.

Prerequisites: a minimum grade of C- in CISC 230

CISC 342 Computer Applications in Experimental Sciences (4 credits)

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 scientific data acquisition and analysis. Emphasis is placed on application of concepts and techniques including hands-on work with data acquisition electronics and LabVIEW programming. Topics include laboratory device interfacing, analog-signal acquisition and processing, frequency transformations, data analysis, image processing, and math modeling and simulation.

Prerequisites: A minimum grade of C- in either CISC 130 or 131; and MATH 109 or 111 or 113; and one course in a laboratory science.

CISC 350 Information Security (formerly CISC 210) (4 credits)

An introductory course in computer security. Topics include operating system security, cryptography, user authentication, application security, secure programming, web security and privacy issues, and ethical issues in the field of computer security. Emphasis is on understanding the technical aspects of how adversaries exploit systems and the techniques for defending against these attacks.

Prerequisites: MATH 128 (may be taken concurrently), and a minimum grade of C- in CISC 230

CISC 370 Computer Networking (4 credits)

An introduction to computer networking covering theory and implementation of basic networking concepts including communication protocols, local area networks, http protocol and client-server and peer-to-peer computing.

Prerequisites: A minimum grade of C- in CISC 231

CISC 375 (Formerly CISC 270) (4 credits)

This course examines the theory and practice of developing applications for the World Wide Web. Students will learn practical technique for designing and implementing Web applications, with a particular emphasis on server-side processing and data-driven Web sites.

Prerequisite: A minimum grade of C- in CISC 230

CISC 380 Algorithms (4 credits)

Introduction to the design and analysis of algorithms. Course topics include the following algorithm design paradigms: divide and conquer, graph algorithms, dynamic programming, and greedy algorithms. The course will also give an introduction to computational complexity, including NP-completeness and the P versus NP problem.

Prerequisites: MATH 128 and, a C- or better in CISC 231

CISC 410 Advanced Information Security (4 credits)

A more in-depth study of security issues than CISC 350 (formerly CISC 210). This course will focus on modern attack techniques and defenses in the areas of application security, network security, cryptographic protocols, and web security.

Prerequisite: A minimum grade of C- in CISC 350 (formerly CISC 210)

CISC 419 Accounting Information Systems (4 credits)

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 200, and previous or concurrent enrollment in ACCT 316

CISC 440 Artificial Intelligence and Robotics (4 credits)

Theory and implementation techniques using computers to solve problems, play games, prove theorems, recognize patterns, create artwork and musical scores, translate languages, read handwriting, speak and perform mechanical assembly. Emphasis placed on implementation of these techniques in robots.

Prerequisites: CISC 230 and STAT 220ENTR 449

CISC 450 Database Design I (4 credits)

This course introduces the fundamental concepts of database management, including aspects of data models, database languages, database design, indexing, and other topics in the field. Emphasis on general purpose relational database management systems using Relational Algebra and SQL.

Prerequisites: MATH 128 and a minimum grade of C- in CISC 230

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 480 Senior Capstone (4 credits)

The senior capstone course provides computer science majors the opportunity to integrate the knowledge that they have gained from across the curriculum. Students will work in groups to design, document and implement a large sized software project. During this process, students will be exposed to programming team organization, software development practices, as well as tools that facilitate the development of software systems.

Prerequisites: Senior standing and a C- or better in: CISC 330, CISC 340 and CISC 380

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.

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

Computer and Information Sciences (CISC)

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: A minimum grade of C- in 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.

Prerequisite: a Minimum grade of C- in 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 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.

Prerequisites: MATH 128 and a minimum grade of C- in CISC 230

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

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.

IDTH 483, 484 Seminar (2 credits)

IDTH 485, 486 Seminar (4 credits)

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

IDTH 487, 488 Topics (2 credits)

IDTH 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>.

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

Hartmann (chair), Check, Hendrickson, Kim, Marcott, Papagapitos, Rho, Riley, Saavedra, Schipper, Vincent, Walrath, 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, 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 four 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. Finally, students wishing to pursue careers in the government sector or graduate study in public policy should consider the path in Public Policy Economics.

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 an honors thesis under the supervision of an economics faculty member. A committee composed of the faculty supervisor and two other faculty members chosen by the student will read each thesis. Each member of the committee will determine if the thesis is suitable for the honors requirement,

Economics (ECON)

with a majority rule determining honors designation. Candidates must achieve a grade-point average of 3.75 or higher in the major and 3.5 or higher overall. To be eligible, students must complete a minimum of 32 non-research credits in Economics.

Major in Economics (B.A.)

ECON 251 Principles of Macroeconomics (4 credits)
ECON 252 Principles of Microeconomics (4 credits)
ECON 315 Introduction to Econometrics (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 Introduction to Econometrics (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 four paths below: Business, International, Public Policy, 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)

Plus eight credits from the following:

ACCT 215 Managerial Accounting (4 credits)

FINC 300 Finance for Non-Business Majors (4 credits)

FINC 321 Financial Management (4 credits)

MGMT 305 Management and Organizational Behavior (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.

Twelve credits from the following:

ECON 345 Economics of Development and Growth (4 credits)

ECON 346 Country and Area Studies in Economics (4 credits)

ECON 341 Economics of International Finance (4 credits)

ECON 342 International Trade (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

Public Policy Economics

A path which prepares students for careers in the government or non-profit sectors, or for graduate study in public policy.

ECON 337 Economics of the Public Sector (4 credits)

Plus eight credits from the following:

ECON 324 Health Economics (4 credits)

ECON 333 Regional and Urban Economics (4 credits)

ECON 370 Environmental and Natural Resource Economics (4 credits)

Plus:

Eight credits in elective economics courses numbered 300 or above

Plus:

POLS 104 American Government in Comparative Perspective (4 credits)

POLS 205 Citizen Participation and Public Policy (4 credits)

Plus:

Four credits in elective political science courses numbered 300 through 319

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)

Plus:

Eight credits in elective economics courses numbered 300 or above

Plus:

Economics (ECON)

MATH 114 Calculus II (4 credits)

MATH 200 Multi-Variable Calculus (4 credits)

MATH 240 Linear Algebra (4 credits)

Note: STAT 333 Applied Statistical Methods may be substituted for ECON 315

Students applying to graduate school are advised to complete MATH 240 prior to submitting their application.

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)

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 Introduction to Econometrics (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: Eight credits of Economics at the 300- or 400-level, 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 324 Health Economics (4 credits)

This course provides an application of economic principles to the health care system and health policy topics with the focus on the critical economic issues in producing, delivering and financing health care. The course focuses on the U.S. health care sector but will also feature discussion of other developed and developing countries.

Prerequisite: ECON 252

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 327 Sports Economics (4 credits)

The application of industrial organization, public finance, labor economics, and economic history to the sports entertainment industry with a view toward better understanding the many economic issues in sports, such as Major League Baseball's antitrust exemption, the deontological and consequentialist bases for the public subsidization of sports stadiums, and the underpayment of salaries to professional athletes in North America.

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

Economics (ECON)

unions; mobility and migration, discrimination; public policies in labor markets.

Prerequisite: ECON 252

ECON 341 International Macroeconomics (4 credits)

This course introduces students to a variety of tools and methods used to analyze international asset flows with a view toward better understanding issues and problems arising in the global financial world. Topics include: exchange rate determination; balance of payments; foreign exchange and derivatives markets; the international monetary system; optimum currency areas; and monetary policy in an open economy.

Prerequisites: ECON 251 and ECON 252

ECON 342 International Trade (4 credits)

This course examines the economics of international trade and trade policy.

Topics include: theories of why countries trade and their implications for income distribution and gains from trade; implications of policies that affect trade; strategic trade policy; regional agreements (including multilateral trade agreements, free trade areas, customs unions, common markets and economic unions); international factor movements; trade issues related to developing countries, the environment and economic growth.

Prerequisite: ECON 251 and 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. 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

Minneapolis Opus Hall (MOH) 302, (651) 962-4420

Vandercook (chair), Nistler (Associate Chair), Busch, Cho, Frank, Monson, Neilson Gatti, Payne, Smith, Stansberry Brunahan, Trout, Warring, Westberg

Note: The University of St. Thomas Teacher Education programs are in alignment with Minnesota state licensure regulations. 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.

The School of Education is accredited by the Council for the Accreditation of Educator Preparation (CAEP). 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 information outlines 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 apply for admission to the Teacher Education program while enrolled in EDUC 210. Criteria for admission to the education program include:

- Cumulative GPA of at least 2.75 for all credits earned at UST
- Positive recommendations based on a department review of a personal essay

Retention in the Program

Students accepted into the program must:

- Maintain a 2.75 GPA
- Earn a grade of C or better in all education courses
- Earn a grade of C- or better for all content area and allied content courses required for licensure
- Demonstrate ability to consistently exhibit all professional dispositions
- Show evidence of satisfactory field experiences
- Complete (but not necessarily pass) all three components (reading, writing and mathematics) of the MTLE: Basic Skills or ACT/SAT approved substitutes. Candidates will need to pass all three components and all required MTLE II pedagogy and content exams by the time of program completion in order to apply for licensure in the state of Minnesota.
- Successfully complete program Assessments at Transition Points

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 the following: senior status; successful completion of Assessments at Transition Points; satisfactory completion of all education courses in Blocks 1, 2, and 3 and licensure-related content courses; and satisfactory demonstration of all Minnesota Standards of Effective Practice. World Languages candidates must arrange to pass the Oral Proficiency Interview (based on ACTFL Guidelines). For information regarding this, contact the Field and Clinical Placement Manager in the School of Education.

With Departmental approval, candidates may be able to complete half of their Clinical Practice in an international setting.

Program Completion

Following completion of all program requirements, a candidate may apply for Minnesota state licensure after passing all three sections of the MTLE: Basic Skills exam and passing all required MTLE pedagogy and content area exams, or other Minnesota BOT approved licensure exams. On the basis of our approved Minnesota licensure program and our accreditation from the Council for the Accreditation of Educator Preparation (CAEP), 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.

Minor in Education

Some students who cannot complete the entire Teacher Education licensure program in four years may decide to complete the coursework to meet the requirements of a content major and come back to complete their licensure requirements on the graduate level. Declaring a minor in Teacher Education would designate this on their transcript and also be beneficial for them as they seek employment. All courses must be a 2.75 GPA or higher. This minor is also available to any undergraduate student who completes the required courses with the approval of the Chair of Teacher Education. While the minor alone does not complete the requirements for teaching licensure, the remaining courses, field experience, and clinical practice may be completed at the graduate level through the Department of Teacher Education.

Students wishing to complete the Education Minor must complete the following courses (20 credits):

- EDUC 210 Education's Place in Society and Field (4 credits)
- EDUC 211 Field Experience I: Exploration (0 credits)
- EDUC 329 Diverse Learners & Families (4 credits)
- EDUC 330 Psychology for Teaching & Learning (4 credits)
- EDUC 332 Field Experience II: Learning & Teaching (0 credits)
- EDUC 355 Reading for the 5-12 Teacher OR EDUC 350 Language Dev., Literacy & Literature (4 credits)
- One elective (4 credits) selected in consultation with the Chair of Teacher Education

Recommended courses include:

- SPUG 450 Survey of Exceptionality
- EDUC 327 Engineering in the P-12 Classroom
- EDUC 361 Language and Culture for Academic Development
- SOCI 110 Social Problems
- PSYC 200 Infancy and Childhood
- PSYC 202 Lifespan Development
- PSYC 203 Psychology of Adolescence
- COJO 220 Interpersonal Communication

Completion of Assessment at Transition Points I and II

ESL Education Minor (22 cr) (Please note, no new students are being accepted to this major)

The number of people in the United States whose first language is not English is increasing rapidly. Those who are seeking teaching licensure, whether at the elementary, middle/secondary or K-12 level, may choose a minor in ESL Education to provide a base of knowledge in how to work with students who are learning English.

This minor may also be useful for those pursuing other people/service related majors, such as social work, psychology, English, communications, etc., since these fields may also require work with people whose first language may not be English.

Courses required in this minor:

- EDUC 358 Additional Language Acquisition for Diverse Learners (4 cr)
- EDUC 361 Language and Culture for Academic Development (4 cr)
- EDUC 363 Introduction to Linguistics for Teachers of Diverse Learners (4 cr)
- EDUC 364 Literacy and Oral Language Development for Diverse Learners (4 cr)
- EDUC 368 Testing and Assessment for Diverse Learners (2 cr)
- EDUC 378 (Grammar Instruction for Diverse Learners (4 cr)

Special Education Exceptionalities Minor (20 cr)

Education (EDUC) - School of Education

This minor supports the development of knowledge, skills, and dispositions for those adult learners who will be facilitating the learning and development of preschoolers/children/youth with disabilities, giftedness, or other areas of diversity. This minor is **an excellent** option for undergraduates who are teacher education majors, and those in related fields who want to expand their knowledge and skills with children/youth with disabilities and exceptionalities.

Required courses (12 credits):

- SPUG 414 Collaboration Skills for School Professionals (4 credits)
- SPUG 450 Survey of Exceptionality (4 credits)
- SPUG 485 Behavior Management (4 credits)

Choose two of the following courses (8 credits):

- SPUG 416 Fundamentals for Students with Mild to Moderate Needs (4 credits)
- SPUG 419 Social, Emotional and Behavioral Interventions (4 credits)
- SPUG 421 Introduction to the Education of Twice Exceptional and Underserved GCT Learners (4 credits)
- SPUG 478 Fundamentals for Preschoolers (4 credits)

Elementary Education

Persons earning this major are licensed as K-6 generalists.

Majors must complete the following:

Core Elementary Education (K-6) Requirements

Block 1

- EDUC 210 Education's Place in Society and Field Experience (4 credits)
- EDUC 211 Field Experience I: Exploration (0 credits)
- MTLE: Basic Skills or other Minnesota BOT approved licensure exam

Block 2

- EDUC 329 Diverse Learners and Families (4 credits)
- EDUC 330 Psychology for Teaching and Learning (4 credits)
- EDUC 332 Field Experience II: Learning & Teaching (0 credits)
- EDUC 350 Language Development, Literacy, and Literature I (4 credits)

Block 3 (Note: Allied Math, Science, and Social Studies requirements must be completed as a prerequisite to

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)

Block 4

- EDUC 431 Use of Technology for Instruction (2 credits)
- EDUC 460 Clinical Practice: Student Teaching and Seminar (10 credits)

Plus:

Successful completion of Program Assessments at Transition Points
Demonstrated competence on all required state standards and MTLE II Pedagogy & Content Area

Exams required for license

Plus:

Allied core curriculum math, science, and social studies courses to meet state competencies (must be completed

before Block 3):

- MATH 121 Structures of Elementary Mathematics I (4 credits)
- MATH 122 Structures of Elementary Mathematics II (4 credits)
- MATH 223 Structures of Elementary Mathematics III (4 credits)

Four (4) credits from each of the following areas - biology, chemistry, geology, physics.

Chose only from courses that are approved to meet the Natural Science core requirement (16 credits total)

PSYC 111 General Psychology OR SOCI 100 Intro to Sociology (4 credits)

POLS 104 American Government (4 credits)

The above courses will also fulfill the Social Analysis Core Curriculum Requirement.

HIST 113 Early Amer. in Global Perspective OR HIST 114 The Modern US in Global Perspective (4 credits)

HIST 112, 115, 116, 118, or 119 (all non-US history courses) (4 credits)

The above courses will also fulfill the Historical Studies Core Curriculum Requirement.

GEOG 113 World Geography (4 credits)

The above course will also fulfill the Human Diversity Core Curriculum Requirement.

A concentration or minor is strongly recommended in one or more of the following areas:

STEM (Science, Technology, Engineering and Math for Elementary Education)

Engineering Education

ESL Minor

SPED Minor

20-24 additional credits or minor in a content area such as English, History, Spanish, etc.

Science, Technology, Engineering and Mathematics (STEM) for Elementary Education

Rezac (MATH) (director), Hickson (GEOL), Gittins (CHEM), Besser (ENGR), Verhoeven (BIOL), Johnston (PHYS), Werness (CISC)

Co-major with Elementary Education (K-6).

Note: A Co-major cannot be a stand-alone major.

This co-major provides an integrated background in science, technology, engineering and mathematics appropriate for individuals who will teach in the elementary grades. The STEM for Elementary Education major is designed as a co-major to elementary education and should be considered by students planning to pursue a degree in elementary education who wish to enhance their skills in the STEM fields. Students who complete the STEM for Elementary Education can choose their STEM specialization sequence in one of several tracks. Two tracks: 5-8 Science and 5-8 Mathematics, will help students to pursue completion of the Minnesota Board of Teaching 5-8 Endorsement in Science or Mathematics. A third track, Engineering, will help students pursue further integration of their STEM skills and take advantage of the University's Center for Engineering Education. The Engineering Education minor with two additional classes. Lastly, for students who have specific interests in any one discipline: Biology, Chemistry, Computer and Information Science, Geology or Physics can complete a two-course specialization in one of those areas, with approval from the program director. Students should contact the program director, the Department of Teacher Education, or members of program faculty for further information on this co-major.

STEM for Elementary Education is only available as a co-major for those students also majoring in elementary education. Students must complete the requirements for Elementary Education plus the following STEM program.

STEM 181 Science Seminar (0 credit)

STEM 182 Science Seminar (0 credit)

STEM 359 Integrated Studies in Science and Mathematics (4 credits) or EDUC 327 Engineering in the P-12 classroom (4 credits)

Plus:

CISC 120 Computers in Elementary Education (4 credits)

Plus a specialization sequence of eight credits in one of four tracks:

5-8 Science Track - students who choose this track will complete the Science content required for the MN BoT 5-8 License endorsement.

PHYS 104

And one of PHYS 105, ENGR 130, ENGR 171

5-8 Math Track

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MATH 113
Math 128

Engineering Track

ENGR 130
ENGR 171

Department Specific Track

Consisting of eight or more additional credits in one department, to be approved by the student's STEM 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 (Biology, Chemistry, Computer and Information Science, Geology or Physics) or Engineering. Students must complete the initial four credits in each department as listed above, but may use further credits in one department for this specialization sequence. For example, a student who completes the sequence BIOL 207, BIOL 208, BIOL 209 may use BIOL 208 and BIOL 209 for the eight-credit specialization sequence, but must complete an additional four credits within Chemistry to complete this sequence.

Middle/Secondary Level and K-12 Education

Programs are designed to provide professional preparation for teaching in middle, and 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)
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 207 Genetics, Ecology, and Evolution (4 credits) and BIOL 208 Biological Communication and Energetics (4 credits) and BIOL 209 Biology of Sustainability (4 credits)
PHYS 101 Physics for the Liberal Arts (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)

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 211 Field Experience I: Exploration (4 credits)
MTLE: Basic Skills or other Minnesota BOT approved licensure exams

Block 2

EDUC 329 Diverse Learners and Families (4 credits)
EDUC 330 Psychology for Teaching and Learning (4 credits)
EDUC 332 Field Experience II: Learning & Teaching (0 credit)

Block 3

EDUC 355 Reading for the 5-12 Teacher (4 credits)*
 *Taken by all licensure areas except Music Education

Methods Courses as noted in individual licensure area requirements and corresponding Field Experience III:

- EDUC 336 Field Experience III: Communication Arts and Literature (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)

Block 4

EDUC 431 Use of Technologies for Instruction (2 credits)
 EDUC 460 Clinical Practice: Student Teaching and Seminar (10 credits)**
 or EDUC 463 Student Teaching and Seminar, Dual Licensure (12 credits)**
 ** As determined by your specific program(s)

Plus:

Demonstrated competence on all required state standards and MTLE II Pedagogy & Content Area Exams or other
 Minnesota BOT approved exams required for licensure

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 481 Seminar (1 credit)
 CHEM 484 Seminar (1 credit)
 CHEM 491 Research (2 or 4 credits)
 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:

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Demonstrated competence on all required state standards

To complete a major in Chemistry (B.A.), additional courses are required. See Chemistry section in the catalog.

Communication Arts and Literature (5-12)

Co-major in Communication Arts and Literature (5-12) and a Co-major in Middle/Secondary Education
to complete Note: A Co-major cannot be a stand-alone major. Students seeking licensure in this area who also want
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 111 Public Communication (4 credits)

COJO 211 Communication Inquiry (4 credits)

COJO 212 Rhetorical Criticism (4 credits)

COJO 220 Interpersonal Communication or COJO 370 Intercultural Communication (4 credits each)

ENGL 121 Critical Thinking: Literature and Writing (4 credits)

Select One: ENGL 201, 202, 203, or 204 Texts in Conversation (4 credits)

ENGL 280 Introduction to English Studies (4 credits)

ENGL 300 Theory and Practice of Writing (4 credits)

ENGL 305 Linguistics: English Language (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, additional courses are required. See Communication section in the catalog.

Earth and Space Science (9-12)

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 113 The Earth's Record of Climate (4 credits)

GEOL 114 The Science of Natural Disasters (4 credits)

GEOL 162 The Earth's Record of Climate (4 credits)

Plus:

BIOL 207 Genetics, Ecology, and Evolution (4 credits)

CHEM 111 General Chemistry I (4 credits)

CHEM 112 General Chemistry II (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 460 Advanced Field Geology or GEOL 491 Research (credit varies, consult with Education department)
PHYS 101 Physics for the Liberal Arts (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, additional courses are required. See Geology section in the catalog.

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 101 General Biology (credit varies, see Education department for guidance)

BIOL 207 Genetics, Ecology, and Evolution (4 credits)

BIOL 208 Biological Communication and Energetics (4 credits)

BIOL 209 Biology of Sustainability (4 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 advisor

To complete a major in Biology, additional courses are required. See Biology section in the catalog.

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)

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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)
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 (4 credits)

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 and Aural Skills I (4 credits)
MUSC 114 Music Theory and Aural Skills II (4 credits)
MUSC 133 Music of the United States: Aural and Written Traditions (2 credits)
MUSC 140 Music Media (2 credits)
MUSC 201 Piano Skills III (1 credit)
MUSC 202 Piano Skills IV (1 credit)

Students for whom piano or organ is the primary instrument will take the following courses in lieu of

MUSC 101, 102, 201, and 202:

MUSC 192 Technical Skills for Keyboard Majors (1 credit)
MUSC 292 Functional Skills for Keyboard Majors I (1 credit)
MUSC 293 Functional Skills Keyboard Majors II (1 credit)
MUSC xxx Piano Elective (1 credit) to be chosen from the following: MUSP 121, 131 (organ majors only), 135 (piano majors only), 153, MUSN 171, 172, 182, or MUSW 501

MUSC 213 Music Theory and Aural Skills III (4 credits)
 MUSC 214 Music Theory and Aural Skills IV (4 credits)
 MUSC 231 Introduction to Conducting I (1 credit)
 MUSC 233 Music of the World: Aural and Written Traditions (4 credits)
 MUSC 263 Entrepreneurial Careers in Music, and Professional Practice (1 credit)
 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 181, 185 or 186 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 214 Aural-Skills Proficiency (0 credits)
 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 181, 185 or MUSN 186.

Allied Requirements:

PHYS 105 Musical Acoustics (4 credits)

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 and Aural Skills I (4 credits)
 MUSC 114 Music Theory and Aural Skills II (4 credits)
 MUSC 133 Music of the United States: Aural and Written Traditions (2 credits)
 MUSC 140 Music Media (2 credits)
 MUSC 201 Piano Skills III (1 credit)
 MUSC 202 Piano Skills IV (1 credit)

Students for whom piano or organ is the primary instrument will take the following courses in lieu of MUSC 101, 102, 201, and 202:

MUSC 192 Technical Skills for Keyboard Majors (1 credit)
 MUSC 292 Functional Skills for Keyboard Majors I (1 credit)
 MUSC 293 Functional Skills Keyboard Majors II (1 credit)

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MUSC xxx Piano Elective (1 credit) to be chosen from the following: MUSP 121, 131 (organ majors only), 135 (piano majors only), 153, MUSN 171, 172, 182, or MUSW 501

MUSC 213 Music Theory and Aural Skills III (4 credits)
MUSC 214 Music Theory and Aural Skills IV (4 credits)
MUSC 231 Introduction to Conducting I (1 credit)
MUSC 233 Music of the World: Aural and Written Traditions (4 credits)
MUSC 263 Entrepreneurial Careers in Music, and Professional Practice (1 credit)
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 142 or 160 Ensemble (6 semesters) (0 credits each semester)*
MUSP 3xx Performance studies (6 semesters) (1 credits each semester)
MUSR 114 Aural-Skills Proficiency (0 credits)
MUSR 200 Piano Proficiency (0 credits)
MUSR 214 Aural-Skills 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 credits)

Physical Education (K-12) (Please note, no new students are being accepted to this 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 302 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)

Plus:

PHED 110 Technical Skills for Team Sports (2 credits)

PHED 111 Technical Skills for Lifetime/Individual Sports (2 credits)

HLTH 250 Personal Health and Wellness (4 credits)

PHED 202 Physical Education Curriculum, Instruction and Assessment (2 credits)

PHED 208 Human Anatomy and Physiology (4 credits)

PHED 300 Motor Development (2 credits)

EXSC 326 Kinesiology (4 credits) *formerly PHED 326*

EXSC 332 Exercise Physiology (4 credits) *formerly PHED 332*

PHED 351 Teaching of the Special Needs Student (2 credits)

PHED 430 Measurement and Evaluation (4 credits)

PHED 105 Water Safety and Lifeguard Training (0 credits)

Allied Courses:

PSYC 111 General Psychology (4 credits)

BIOL 101 General Biology (4 credits) or BIOL 105 Human Biology (4 credits)

Plus:

Two PHED 101 Activity Electives (2 credits each)

Physical Education(K-12) and Health Education (5-12)

Major in Physical Education and Health Education 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 341 Health Education: 5-12 Curriculum and Assessment (4 credits)

HLTH 351 Health Education: 5-12 Methods and Instruction (4 credits)

EDUC 339 Field Experience III: Health Education (0 credits)

PHED 302 PE Methods: Elementary (2 credits)

PHED 304 PE Methods: Secondary (4 credits)

EDUC 343 Field Experience III: Phy Ed (0 credits)

Plus:

HLTH 250 Personal Health and Wellness (4 credits)

HLTH 285 Alcohol, Tobacco and Other Drugs (2 credits)

HLTH 341 Health Education: 5-12 Curriculum and Assessment (4 credits)

HLTH 345 Nutrition for Health and Fitness (4 credits)

HLTH 462 Human Sexuality Education (4 credits)

PHED 110 Technical Skills for Team Sports (2 credits)

PHED 111 Technical Skills for Individual Sports (2 credits)

PHED 202 Physical Education Curriculum, Instruction and Assessment (2 credits)

PHED 208 Human Anatomy and Physiology (4 credits)

PHED 300 Motor Development (2 credits)

PHED 351 Teaching Students with Special Needs (2 credits)

EXSC 332 Exercise Physiology (4 credits)

PHED 105 Water safety and Lifeguard Training (0 credits)

Plus four credits from the following:

BIOL 101 General Biology (4 credits)

BIOL 105 Human Biology (4 credits)

Plus:

PSYC 111 General Psychology (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)

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)

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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 207 Genetics, Ecology, and Evolution (4 credits)

BIOL 208 Biological Communication and Energetics (4 credits)

BIOL 209 Biology of Sustainability (4 credits)

Plus:

Demonstrated competence on all required state standards

To complete a major in Physics (B.A.), additional courses are required. See Physics section in the catalog.

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 Environmental Challenges and Sustainable Solutions (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 118 The Middle East and North Africa in Global Perspective (4 credits)

HIST 119 East Asian Civilizations in Global Perspectives (4 credits)

HIST 240 Foundations of Chinese Civilization (4 credits)

HIST 241 The History of Modern China (4 credits)

HIST 244 Modern East Asia (4 credits)

HIST 253 Cities of the Middle East (4 credits)

HIST 348 Japan: History Through Literature (4 credits)

HIST 349 History of the Ottoman Empire (1300-1922) (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 is 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.

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:

World Languages candidates must arrange to pass the Oral Proficiency Interview (based on ACTFL Guidelines). For information regarding this, contact the Director of Field and Clinical practice in the Department of Teacher Education.

Plus a major in French, German, or Spanish:

French (Please note, no new students are being accepted to this major)

28 credits numbered FREN 300 and above with a minimum of eight (8) credits in each of the following areas:

Oral and Written Language

FREN 300 Advanced Oral & Written French I

FREN 302 Questiones de Langage

FREN 371 French Conversation

Culture/Civilization

FREN 311 French Civilization I

FREN 312 French Civilization II

Literature

FREN 301 French Poetry

FREN 402 The French Novel

German (Please note, no new students are being accepted to this major)

A minimum of six (6) credits must be in Literature.

No more than 12 credits may be in the area of advanced language skills.

Students must complete the following courses:

GERM 311 Conversation & Composition (4 credits)

GERM 315 Influential Ideas in Non-Fiction German (4 credits)

GERM 320 Contemporary Germany and Current Events (4 credits)

GERM 341 Highlights of German Literature I (4 credits)

GERM 350 Genre Studies in German Literature (4 credits)

GERM 440 Introduction to Business German and German Business (4 credits)

Plus four (4) elective credits

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28 credits total

Spanish

32 credits numbered SPAN 300 and above.

All students must take SPAN 300, 301, and SPAN 305

Plus SPAN 315, SPAN 331 or 332, and SPAN 335

Additional credits are required, please consult the "Major in Spanish" section of the catalog for more details on following the requirements for either the 'Cultural and Literary Studies' track of the 'Linguistics and Applied Language Studies' track.

Teacher Education Courses

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 (4 credits)

This course is a critical analysis of education as a career choice, as a tool of society, and as a crucial path to a positive future in a rapidly changing world. Education's impact is examined from personal, historic, philosophic, social, and policy perspectives; schools are studied as complex organizations within an increasingly assessment and technology-driven context and global environment. The course is taken concurrently with EDUC 211 a guided, reflective, in-school field experience.

EDUC 211 Field Experience I: Exploration (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 grad ranges for which they will be licensed and with diverse student populations. The first field experience is a 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 that 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?

Co-requisite: EDUC 210

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, <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

Education (EDUC) - School of Education

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 application of developmentally appropriate practice and differentiated instruction for a range of learners in grades 5-12, including curriculum content and sources; national and state standards; performance-based assessment strategies; data literacy and data-driven instructional decisions; connections with community resources; lesson and unit planning; and technology integration. Prerequisites: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; Concurrent registration: EDUC 336 Field Experience III: 5-12 Communication Arts and Literature.(Fall semester)

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 application of developmentally appropriate practice and differentiated instruction for a range of learners in grades 5-12, including curriculum content and sources; national and state standards; performance-based assessment strategies; data literacy and data-driven instructional decisions; connections with community resources; lesson and unit planning; and technology integration. Prerequisites: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; concurrent registration: EDUC 341 Field Experience III: 5-12 Mathematics. (Fall semester)

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 application of developmentally appropriate practice and differentiated instruction for a range of learners in grades 5-12, including curriculum content and sources; national and state standards; performance-based assessment strategies; data literacy and data-driven instructional decisions; connections with community resources; lesson and unit planning; and technology integration. Prerequisites: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; concurrent registration: EDUC 344 Field Experience III: 5-12 Science (Fall semester)

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 application of developmentally appropriate practice and differentiated instruction for a range of learners in grades 5-12, including curriculum content and sources; national and state standards; performance-based assessment strategies; data literacy and data-driven instructional decisions; connections to community resources; lesson and unit planning; and technology integration. Prerequisites: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; concurrent registration: EDUC 346 Field Experience III: 5-12 Social Studies. (Fall semester)

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 327 Engineering in the P-12 Classroom (4 credits)

This course will focus on an overview of current P-12 engineering education programs; exploration of pedagogy and content; links to national and State Academic Standards; and a survey of assessment mechanisms that evaluate impact of classroom initiatives. A variety of delivery modes will be used to introduce students to methods and to educators who have successfully introduced engineering into a wide variety of classes across several disciplines. Engineering resources for teachers will be presented and discussed. A final project is required, in which students create a unit or module focused on a hands-on engineering activity for P-12 students in their licensure area.

EDUC 329 Diverse Learners and Families (4 credits)

This course is designed to equip prospective teachers with the knowledge, instructional practices, and dispositions to successfully manage diverse classrooms, using their understanding of multiple learning modalities and all types of diversity to promote all students' personal and academic achievement. The course engages candidates with issues such as race, class, gender, exceptionality, oppression, and discrimination while examining the crucial role of educators in influencing positive, systemic change for social justice. Fulfills Minnesota Human Relations requirement. This course satisfies the Human Diversity core requirement.

EDUC 330 Psychology for Teaching and Learning (4 credits)

This course integrates principles of learning with evidence-based strategies for effective instruction. Prospective K-12 teachers explore the scientific knowledge base that underlies good teaching and build a repertoire of practices to support individual learner success within positive classroom environments. Participants analyze and personalize standards-based instruction, differentiation strategies, performance-enhancing assessment, and technology-assisted teaching and learning. Prerequisite: EDUC 210 or permission of chair.

Co-requisite: EDUC 332 Field Experience II: Learning and Teaching.

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, 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 370

EDUC 339 Field Experience III: Health (0 credits)

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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 351

EDUC 341 Field Experience III: Mathematics (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 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 351

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 adolescent; 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? 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 sequence 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 emphasize best practice in literacy instruction for meeting the diverse needs of all students. The course presents 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 focuses on language development, assessment and interpretation of relevant data regarding literacy processes, and serves as the knowledge base for understanding curricular development in and applications for literacy in the elementary classroom. Participants will research critical issues in the field of literacy development.

Prerequisite: EDUC 210.

EDUC 355 Reading for the 5-12 Teacher (4 credits)

This course is designed to equip prospective teachers with knowledge, skills, and attitudes for assisting grades 5-12 students effectively gain knowledge from content-area written media. Campus and school-site experiences emphasize best practice in literacy instruction for meeting the diverse needs of all students. Emphasis is on supporting students' academic achievement through research-based, differentiated strategies for teaching content through reading materials such as textbooks, written directions, newspapers, graphs/charts/maps, and manuals.

Prerequisite: EDUC 210.

EDUC 358 Additional Language Acquisition for Diverse Learners (4 credits)

This course is an overview of additional language acquisition principles, theories, issues and implications for teaching diverse learners in K-12 settings. Special attention will be paid to differences between first, and second or additional language acquisition. Part of this course involves collecting data from language learning situations and critically examining it against theories and our personal assumptions. (Spring semester)

EDUC 361 Language and Culture for Academic Development (4 credits)

This course examines the roles culture and society play in the acquisition of an additional language. Aspects of sociolinguistics and anthropology will be addressed as will the impact of social class and gender on student experiences with schooling. A primary focus will be on field observations and interactions with linguistically and culturally diverse learners in K-12 classrooms. The course will look specifically at some of the large immigrant and refugee populations in Minnesota, including newly arrived linguistic and cultural groups. (Spring semester)

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 363 Introduction to Linguistics for Teachers of Diverse Learners (4 credits)

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This course examines an array of tools that inform language teaching. The course will include an overview of phonetics, IPA, phonology, morphology, syntax, semantics, historical-comparative linguistics and language universals. This course explores how teachers can use the above tools to structure instruction such that diverse learners will develop academic language proficiency in the areas of listening, speaking, reading and writing. (Summers)

EDUC 364 Literacy and Oral Language Development for Diverse Learners (4 credits)

This course examines current theories, instructional methods and materials, and issues in teaching reading, writing and oral language development to diverse learners. The course will focus on the foundations for successful literacy instruction for linguistically and culturally diverse learners, including the importance of academic oral language practice and development. Relevant research will be investigated, and relationships between research and best practice will be discussed and applied. (Fall semester)

EDUC 366 Philosophy and Organization of Middle Schools (2 credits)

A comparison of the conceptual structure, curriculum and methodology of various organizational units in American education, with special focus on the unique characteristics of the middle school and the middle school child. Required for Middle Level Endorsement.

EDUC 367 Interdisciplinary Planning in Middle Schools (2 credits)

A basic inquiry into instructional skills, techniques and methods of developing actual experiences in literature, math, science, social studies, art, music, physical education, and language for all middle school children. Special emphasis will be placed on developing interdisciplinary units for middle level learners. Required for Middle Level Endorsement. Prerequisite: EDUC 366

EDUC 368 Testing and Assessment for Diverse Learners (2 credits)

This course looks at issues involved in the testing and assessment of diverse learners in a variety of educational settings. Instruments and procedures for assessing the language proficiency, as well as content knowledge and skills will be examined and discussed. Uses of test results, assessing the four language domains and issues of advocacy will be included. (Summers)

EDUC 370 Language Development, Literacy, and Literature II (4 credits)

This course is Part II of a two-course literacy sequence 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 emphasize best practice in literacy instruction for meeting the diverse needs of all students. The course presents research-based best practices in teaching for kindergarten, primary, and intermediate grades. This second course in the literacy sequence extends the foundations in language, assessment, and interpretation of relevant data regarding literacy processes, and explorations into children's literature to classroom applications in composing processes (writer's workshop), assessment and evaluation as it informs teaching, planning and reflection, and interdisciplinary instruction. Participants will research critical issues in the field of literacy development. Prerequisite: EDUC 330, 332 and 350; successful completion of Assessment II and admission to advanced candidacy; concurrent registration with EDUC 337, 371, 372 and 373 or 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 application of developmentally appropriate practice and differentiated instruction for a range of learners in grades K-6, including curriculum content and sources; national and state standards; performance-based assessment strategies; data literacy and data-driven instructional decisions; connections to community resources; lesson and unit planning; and technology integration. The course includes field-based experiences. Prerequisites: EDUC 330, 332; MATH 100, 121; successful completion of Assessment II and admission to advanced candidacy; concurrent registration with EDUC 337, 370, 372, and 373 or 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 application of developmentally appropriate practice and differentiated instruction for a range of learners in grades K-6, including curriculum content and sources; national and state standards; performance-based assessment strategies; data literacy and data-driven instructional decisions; connections to community resources; lesson and unit planning; and technology integration. The course includes field-based experiences.

Prerequisites: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; concurrent registration with EDUC 337, 370, 371, and 373 or permission of Chair.

EDUC 373 Teaching Social Studies and Fine Arts (4 credits)

This course is designed to prepare teachers who will effectively engage learners with social studies and the fine arts. Emphasis is on application of developmentally appropriate practice and differentiated instruction for a range of learners in grades K-6, including curriculum content and sources; national and state standards; performance-based assessment strategies; data literacy and data-driven instructional decisions; connections to community resources; lesson and unit planning; and technology integration. The course includes field-based experiences.

Prerequisites: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; concurrent registration with EDUC 337, 370, 371, and 372 or permission of Chair.

EDUC 378 Grammar Instruction for Diverse Learners (4 credits)

This course systematically examines the grammar of English specifically as it relates to the teaching of English to non-native speakers and bilingual learners. The class will examine English structures in depth, recognize basic linguistic features of English including morphology, syntax and semantics. The relationship of English grammar to other languages will be explored, as will the history and development of English. (Fall semester)

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 and Cultures. Emphasis is on application of developmentally appropriate practice and differentiated instruction for a range of learners in grades K-12, including curriculum content and sources; national and state standards; performance-based assessment strategies; data literacy and data-driven instructional decisions; connections to community resources; lesson and unit planning; and technology in education.

Prerequisites: EDUC 330, 332; successful completion of Assessment II and admission to advanced candidacy; concurrent registration: EDUC 347 Field Experience III: 5-12 World Languages and Cultures.

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 431 Use of Technology for Instruction (2 credits)

This course examines the key aspects of understanding the role and relevance of technology in today's learning environment. The participants will develop the skills, knowledge, and strategies to effectively utilize instructional tools to facilitate teaching and learning activities. This course will provide resources to help educators develop 21st century skills to utilize technology for communication, collaboration, and creativity. Taken prior to or concurrently with EDUC 460 or EDUC 463

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 deal-

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ing 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.

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 (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.

01 (K-8)
02 (5-12)
03 (K-12)

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, Technology, Engineering and Mathematics (STEM)

STEM 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.

STEM 182 Science Seminar (0 credit)

Same as STEM 181. This number is used for the second semester of the seminar.

STEM 359 Integrated Studies in Science and Mathematics (4 credits)

The capstone course in the STEM for Elementary Education 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 121 and 122, PHYS 101 (in certain cases, permission of the STEM for Elementary Education Director may allow a substitution).

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 416 Fundamentals: Students with Mild-Moderate Needs (4 credits)

Provides an overview to the disabilities of autism spectrum disorder, developmental disabilities including developmental cognitive disabilities, emotional or behavioral disorders, specific learning disabilities and other health disorders. Definitions, eligibility criteria, characteristics, etiology and family and community supports and resources. Students will use this fundamental information and apply to IEP development, use of assistive technology and contemporary issues in the field.

SPUG 419 Social Emotional Behavioral Intervention (4 credits)

Examines the social, emotional, and behavioral development in students with mild to moderate disabilities and corresponding range of interventions to support these areas of development. This course uses the 3-tiered prevention pyramid model for supporting social, emotional, and behavioral competence. Students will gain knowledge and skill in designing, implementing and evaluating social, emotional, and positive behavioral interventions for universal, secondary, and individual positive behavioral support.

SPUG 421 Introduction to the Education of Twice Exceptional and Underserved GCT Learners (4 credits)

This course focuses on recognizing, understanding, and accommodating the needs of students with gifts or talents who also present with specified disabilities, such as ASD, EBD, ADD/ADHD, and LD, economically disadvantaged learners, culturally diverse, and ELL learners. The course will focus on: (1) the most recent developments in identification and assessment; and (2) research-based program, curricular, and instructional services that accommodate the needs of these four general categories of special needs and underserved gifted learners.

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 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 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 analysis 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, Acton, Bach, Baxter, Bennett, Besser, Forliti, George, Greene, Hennessey, Jalkio, Kaban, Koerner, Lederle, Min, Mowry, Nelson-Cheeseman, Nepal, Rajagopalan, Salmay, Secord, Shepard, Thomas, Welt,

Engineering (ENGR) - School of Engineering

Wentz, You.

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 Computer Engineering (BSCPE)
- 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 and Electrical Engineering
- Pre-engineering/Liberal Arts Engineering (see the Pre-Engineering advisor in the Physics department)
- 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 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. (www.abet.org)

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 Engineering Skills:** Use engineering skills and principles appropriate to the major to create systems, products, and services that meet needs of people, improve the quality of their lives, and use resources wisely.
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 One's 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 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, the Electrical, Mechanical and Computer 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 Computer Engineering (BSCPE)

Computer Engineering is an interdisciplinary field that integrates the principles and techniques of the electrical engineering and computer science disciplines. Computer engineers study the close interaction between the hardware and software in a computer system and explore ways to integrate computing systems in general. A computer engineer is a sought-after job profile today requiring holistic hardware and software understanding and hands-on skills in embedded processing.

Computer Engineering Major Requirements

ENGR 150 Introduction to Engineering (1 credit)
 ENGR 230 Digital Design (4 credits)
 ENGR 240 Circuit Analysis (4 credits)
 ENGR 330 Microprocessor Architectures (4 credits) OR CISC 340 Computer Architecture (4 credits)
 ENGR 331 Designing with Microprocessors (4 credits)
 ENGR 345 Electronics I (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)

Allied Requirements

CISC 130 Introduction to Programming and Problem Solving (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 610 Software Engineering (4 credits)
 MATH 113 Calculus I (4 credits)
 MATH 114 Calculus II (4 credits)
 MATH 128 Intro to Discrete Math (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)

Electives

Science/Math electives:
 A total of 8 credits in the sciences (PHYS, CHEM, BIO) or Math (MATH/STAT)

Technical electives:

A total of 8 credits at 200-level or higher in Computer Science (CISC) or Engineering (ENGR)

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 as well as sample degree plans may be found at: www.stthomas.edu/engineering/electrical. In addition to satisfying the University of St. Thomas Core Curriculum requirements, 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. The B.S.E.E. program is accredited by the Engineering Accreditation Commission (EAC) of ABET. Program outcomes and objectives may be found at www.stthomas.edu/engineering/electrical/

Electrical Engineering Major Requirements

ENGR 150 Introduction to Engineering (1 credit)
 ENGR 230 Digital Design (4 credits)
 ENGR 240 Circuit Analysis (4 credits)
 ENGR 331 Designing with Microprocessors (4 credits)
 ENGR 340 Signals and Systems (4 credits)
 ENGR 342 Electromagnetic Fields and Waves (4 credits)

Engineering (ENGR) - School of Engineering

ENGR 345 Electronics I (4 credits)
ENGR 346 Electronics II (4 credits)
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 8 credits of engineering electives as approved by the Program

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)

Students must also choose a track. Students may either complete two tracks (for a total of four electives), or one track (two electives) PLUS eight credits in technical courses above 200 level as pre-approved by the program director.

Each track will be satisfied by completing two courses from those listed below.

CURRICULA

Power Track

ETLS 744 Intro to Power Systems [required in track] (3 credits)
ETLS 746 Power Electronics (3 credits)
ETLS 747 Electrical Machines (3 credits)
ETLS 748 Renewable Energy and the Future (3 credits)

Signal Processing & Communications Track

ETLS 620 Analog Communications [required in track] (3 credits)
ETLS 621 Digital Communications (3 credits)
ETLS 810 Advanced Control Systems (3 credits)

Embedded Systems Track

ENGR 330 Microprocessor Architectures (4 credits)
ENGR 431 Embedded Systems (4 credits)

E&M Track

PHYS 347 Optics (4 credits)
ETLS 751 Electromagnetic Fields and Waves (3 credits)

Physics Track

See also Dual Degree BSEE and Physics BA

PHYS 215 Modern Physics (4 credits)
And four credits of physics electives as approved by the chair

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/.

In addition to satisfying the University of St. Thomas Core Curriculum requirements (see page 20), 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 Statics (4 credits)
ENGR 221 Mechanics of Materials (4 credits)
ENGR 320 Machine Design and Synthesis (4 credits)
ENGR 322 Dynamics (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)
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 four credits of engineering electives

Mechanical Engineering Allied Requirements

CHEM 109 General Chemistry for Engineers (4 credits) (or CHEM 111 however, CHEM 109 is preferred for this major)
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 preferred 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 either a B.S. in Electrical Engineering or a B.S. in 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)

Engineering (ENGR) - School of Engineering

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 105 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 one electrical engineering track of two courses.

Plus:

PHYS 215 Foundations in Modern Physics (4 credits)

And four credits of physics electives

Dual Degree in Electrical Engineering (BSEE) and Computer Science

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 degree* in Computer Science and a Bachelor of Science 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 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 350 (formerly CISC 210) Information Security (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)

*Prior to fall 2017 the major in Computer Science is part of a Bachelor of Arts degree. Beginning fall 2017 the major in Computer Science is part of a Bachelor of Science degree.

Major in Civil Engineering (B.S.C.E.)

All Civil Engineering majors must complete the following courses

Core Engineering courses:

ENGR 160 1 credit Surveying
 ENGR 220 4 credits Statics
 ENGR 221 4 credits Mechanics of Materials
 ENGR 322 4 credits Dynamics
 ENGR 383 4 credits Fluid Mechanics
 ENGR 480 4 credits Engineering Design Clinic I
 ENGR 481 4 credits Engineering Design Clinic II

Discipline Specific courses:

ENGR 171 4 credits Engineering Graphics and Design
 ENGR 362 4 credits Construction and Engineering Economic Analysis
 ENGR 363 4 credits Soil Mechanics and Civil Materials
 ENGR 364 4 cr Structural Analysis
 ENGR 365 4 credits Design of Steel and Concrete Structures
 ENGR 463 4 credits Foundation Design and Geotechnical Engineering
 ENGR 466 4 credits Transportation Engineering
 ENGR 467 4 credits Environmental Engineering, Hydrology and Hydraulics

Allied Courses:

CISC 130 4 credits Intro to Programming and Problem Solving
 CHEM 109 4 credits General Chemistry for Engineers
 MATH 113 4 credits Calculus I
 MATH 114 4 credits Calculus II
 MATH 210 4 credits Introduction to Differential Equations & Systems
 STAT 220 4 credits Statistics I
 PHYS 111 4 credits Classical Physics I
 PHYS 112 4 credits Classical Physics II

PRE-ENGINEERING/LIBERAL ARTS ENGINEERING PROGRAM

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 Environmental Challenges and Sustainable Solutions (4 credits)
 ENVR 212 Society and Sustainability (4 credits)
 ENVR 301 Environment Ethics (4 credits)
 GEOG 111 Human Geography (4 credits)
 GEOG 113 World Geography (4 credits)

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POLS 326 International Law and Organizations (4 credits)
POLS 352 Third World Politics and Government (4 credits)
SOC 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.

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 Statics(4 credits)
ENGR 240 Circuit Analysis (4 credits)
ENGR 330 Microprocessor Architectures (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 230 Digital Design (4 credits)
ENGR 240 Circuit Analysis (4 credits)*
ENGR 330 Microprocessor Architectures (4 credits)
ENGR 331 Designing with Microprocessors (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)

**Note: credit will not be given for both ENGR 240 and ENGR 350*

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 171 Engineering Graphics and Design(4 credits)
 ENGR 220 Statics (4 credits)
 ENGR 221 Mechanics of Materials (4 credits)
 ENGR 320 Machine Design and Synthesis (4 credits)
 ENGR 322 Dynamics (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 420 Computer Aided Manufacturing (4 credits)
 ENGR 430 Applications of Thermodynamics (4 credits)
 ENGR 460 Engineering Economics and Project Management (4 credits)
 ENGR 470 Fundamentals of Mechatronic Engineering I (4 credits)

Minor in Engineering Education

The Engineering Education minor is designed for students who are majoring in Education. The minor is intended to give pre-service teachers a solid background in basic engineering concepts that can be applied to a P-12 classroom. Special effort is made throughout the program to tie engineering concepts to the Minnesota academic standards in science.

Students must complete the following courses:

ENGR 130 Fundamentals of Engineering for Educators I (4 credit)
 ENGR 171 Engineering Graphics and Design (4 credits)
 EDUC 327 Engineering in the P-12 Classroom (4 credits)

Plus eight elective credits from the following list:

ENGR 123 Energy and the Environment (4 credits)
 ENGR 220 Statics (4 credits)
 ENGR 230 Digital Design (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)

*Any other ENGR course may be substituted for elective credit with the permission of the minor advisor.

Plus four credits from the following list may be used towards the eight elective credits:

PHYS 104 Astronomy (4 credits)
 PHYS 105 Musical Acoustics (4 credits)
 PHYS 109 General Physics I (4 credits)
 PHYS 110 General Physics II (4 credits)
 PHYS 111 Classical Physics I (4 credits)
 PHYS 112 Classical Physics II (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 130 Fundamentals of Engineering for Educators (4 credits)

This is a one-semester survey of engineering topics. Topics will span machine design, manufacturing, thermodynamics,

Engineering (ENGR) - School of Engineering

electronics, computer programming, and chemical engineering. The course will have weekly lab sessions which will allow students to apply what they are learning from lectures in a hands-on setting. Emphasis will be placed on how the material is used by practitioners. Numerous examples will be given of how this material can be presented in a way that meets Minnesota education standards. Each topics unit will include a component dedicated to the historic and current relevance of the concepts and skills presented. Whenever appropriate, and feasible, guest lectures and field trips will be arranged. The goal of this course is to provide teachers with a short, hands-on introduction to a variety of engineering.

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 160 Surveying (1 credit)

Introduction to surveying including the identification of distances, elevations and angles. Construction staking. Calculations including earthwork, closure. Introduction and applications of GIS and GPS.

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 175 Introduction to Electrical Engineering (2 credits)

A hands-on introduction to a variety of basic concepts in Electrical Engineering. The course includes lessons, labs, and projects that explore analog and digital electronics in both theory and practice. Students will develop proficiency in the basic tools and skills required for electrical engineering projects and coursework, and gain insight into EE as a potential major, minor, and/or career. The class will also take weekly field trips to local facilities that showcase applications of electrical engineering and introduce students to engineers in action.

ENGR 220 Statics (4 credits)

Principles of statics including such topics as rigid bodies, equilibrium, equivalent systems of forces, 2D structures, distributed forces, centroids and centers of gravity, moments of inertia, friction, forces in beams & cables, and the principle of virtual work. Emphasis on applications with integrated labs/hands-on projects.

Prerequisites: ENGR 171 and a minimum grade of C- in PHYS 111

ENGR 221 Mechanics of Materials (4 credits)

Principles of deformable body mechanics including stress, strain, basic loading situations, transformations of stress and strain, beam theory, and energy methods. Emphasis on applications with integrated labs/hands-on projects.

Prerequisites: 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. **Note: credit will not be given for both ENGR 240 and ENGR 350*

Prerequisites: A minimum grade of C- in PHYS 112 and concurrent registration with or prior completion of MATH 210

ENGR 270 LabVIEW for Engineers (2 credits)

Through a combination of lecture, group discussion, hands on exercises, student presentations and a student project, students will learn to use LabVIEW for data acquisition, data analysis, instrument control and application development. This course that explores LabVIEW® as a programming tool. The student will learn the basics of programming including creating programs (VI's and sub-VI's), basic programming structures such as looping and branching, understand the basics of different data types and be able to perform data acquisition and data analysis (including file I/O). This

course will prepare students to gather and analyze data for engineering applications.

ENGR 271 Roman Structures, Engineering and Society (4 credits)

Modern Rome is a living tribute to the contributions made by the engineers of Ancient Rome and the Holy Roman Empire. Their legacies of art, architecture, public health innovations, design and construction techniques advanced the Roman rural society to an urban culture of well-defined principles and planning. The course will be conducted in Rome, Naples and Florence where many of these examples still exist. On-site visits will be made in the above areas where discussions and observations can take place. Visits to two Italian universities for lectures will again be included; La Sapienza in Rome and Federico II in Naples. Academic research will be presented by their instructors with discussion and comments from our students. We will evaluate examples in today's society and use ancient and modern Roman and Italy as our backdrop for these discussions.

This course is a Study Abroad offering. Acceptance policies and procedures are available on the Study Abroad site: <http://studyabroad.stthomas.edu/>

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 220 and in ENGR 221

ENGR 322 Dynamics (4 credits)

Principles of dynamics including such topics as kinematics of particles, Newton's Second Law, energy and momentum methods, plane motion of rigid bodies, and forces and acceleration. Applied mathematics is used to solve resulting ordinary differential equations numerically with MATLABM. Emphasis on applications with integrated labs/hands-on projects.

Prerequisites: A minimum grade of C- in ENGR 220, and MATH 210

ENGR 330 Microprocessor Architectures (4 credits)

Introduction to computer architecture and implementation of architectural features in terms of digital logic. Hardware components and relationships between hardware and software are covered. Tradeoffs between architectures and design approaches are discussed.

Prerequisite: A minimum grade of C- in both ENGR 230 and CISC 130

ENGR 331 Designing with Microprocessors (4 credits)

Topics include communication and bus protocols, A/D and D/A conversion, interrupts and common microcontroller peripherals.

Prerequisite: A minimum grade of C- in both ENGR 230 and CISC 130, and concurrent registration in either ENGR 350 or ENGR 240 or permission of instructor.

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

Engineering (ENGR) - School of Engineering

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

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.

**Note: credit will not be given for both ENGR 240 and ENGR 350*

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 109 (preferred), or CHEM 111, or CHEM 115

ENGR 362 Construction and Engineering Economic Analysis (4 credits)

Introduction to construction processes including construction planning, equipment, delivery methods, contract documents, procurement, construction methods, scheduling, critical path method, project management, estimating and safety. Construction of buildings, and transportation infrastructure including bridges, roads, rail and highways. Principles of engineering economy including cash flow analysis, cost, analysis and uncertainty.

Prerequisites: MATH 113, ENGR 160 (concurrent enrollment allowed); ECON 251 recommended

ENGR 363 Soil Mechanics and Civil Materials (4 credits)

Introduction to civil materials, specifications, laboratory procedures and test equipment for materials including soils, aggregates, asphalt, concrete, metals, masonry, wood and engineered materials. Introduction to asphalt and concrete mix design. Specifications and test methods for aggregates, asphalt, concrete, wood and steel.

Prerequisites: ENGR 220, GEOL 163 (concurrent enrollment allowed)

ENGR 364 Structural Analysis (4 credits)

Identification of loads and load paths through a structure. Analysis of internal loading, stress and deflection in trusses, beams and frames. Topics include shear and moment diagrams, influence lines, and determination of deflection through energy methods.

Prerequisite: ENGR 221

ENGR 365 Design of Steel and Concrete Structures (4 credits)

Introduction to the design of steel structures; behavior of tension, compression, bending and combined force members and their connections; theoretical, experimental, and practical bases for proportioning members and their connections. Study of the strength, behavior, and design of reinforced concrete members subjected to axial forces, shear forces and moment forces.

Prerequisite: ENGR 220, ENGR 364

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 and ENGR 221 (or concurrent registration)

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 and Math 210

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 Manufacturing(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, ENGR 371 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 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 463 Foundation Design & Geotechnical Engineering (4 credits)

Principles of geotechnical engineering. Shear strength of soil, settlement, slope stability, soil stabilization, erosion control and drainage systems. Theories related to and design of retaining structures. Design of retaining walls, footings, mat foundations and pile foundations. Engineering design will adhere to professional practice, current codes/standards, considerations for economics and safety.

Prerequisite: ENGR 363

English (ENGL)

ENGR 466 Transportation Engineering (4 credits)

Introduction to the design, planning, operation, management, and maintenance of transportation systems. Principles for planning integrated multi-modal transportation systems (highways, air, rail, etc.) are presented. Introduction is provided on the layout of highways, airports, and railroads with traffic flow models, capacity analysis, and safety. Functional design concepts are introduced for both the facilities and systems areas of study with life cycle costing procedures and criteria for optimization.

Prerequisite: ENGR 160

ENGR 467 Environmental Engineering, Hydrology and Hydraulics (4 credits)

Introduction to water resources engineering, hydrology and hydraulics. Hydrological cycle, analysis and urban hydrology. Design elements of pipe and channel flow including groundwater flow, distribution systems, pumping systems, reservoirs and storm sewer collection systems. Design of water and wastewater systems.

Prerequisite: CHEM 109, and prior completion of, or concurrent enrollment in, ENGR 388

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 well.

Prerequisites: Either (ENGR 320, 350, 371 and 381) or (ENGR 331, 346, and 410) or (CISC 231, ENGR 345, and concurrent registration in-or prior completion of-ENGR 431)

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.

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, Herrera, James, Larson, Lawrence, Li, MacKenzie, Miller, Muse, Otto, Pawlowski, 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 creativewriting emphasis that combines a foundation of literary study with a sequence of writing courses focused on poetry, fiction, and literary nonfiction.
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 121: Critical Thinking: Literature and Writing

Plus one of:

- ENGL 201, 202, 203, or 204

Note: Students with qualifying ACT test scores may in enroll in one of ENGL 201 through 204 plus one of the following 4-credit *literature* courses in English:

- 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 280: Introduction to English Studies
- ENGL 481 or ENGL 482: Senior Capstone

In addition to the above courses, students must also select courses that fulfill the following *Approaches and Methods* and *Area Literature requirements*. Some courses may count for both an *Approaches and Methods* and an *Area Literature* requirement.

English (ENGL)

Approaches and Methods Requirements:

Four credits of Historical Perspectives

- ENGL 211 British Authors I (4 credits)
- ENGL 212 British Authors II (4 credits)
- ENGL 214 American Authors I (4 credits)
- ENGL 215 American Authors II (4 credits)
- ENGL 217 Multicultural Literature (4 credits)
- ENGL 218 Women in Literature: Critical History (4 credits)
- ENGL 220 The Classical Tradition (4 credits)
- ENGL 221 The Modern Tradition (4 credits)
- ENGL 222 The Catholic Tradition in Literature (4 credits)

Four credits of Contexts and Convergences

- ENGL 325 Special Studies in Genre, Region, or Theme [some sections and topics only] (4 credits)
- ENGL 334 Literature from a Christian Perspective (4 credits)
- ENGL 337 The Literature of Human Diversity (4 credits)
- ENGL 341 Literature by Women: Critical Questions (4 credits)
- 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 (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 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 [some section and topics only] (4 credits)
- ENGL 395 Issues in Literature, Language, and Culture [some sections and topics only] (4 credits)

Four credits in Genre Study

- ENGL 255 Introduction to Imaginative Writing (4 credits)
- ENGL 321 Writing Poetry (4 credits)
- ENGL 322 Writing Fiction (4 credits)
- ENGL 323 Writing Creative Nonfiction (4 credits)
- ENGL 324 Genre Studies (4 credits)
- ENGL 325 Special Studies in Genre, Region, or Theme [some sections or topics only] (4 credits)
- ENGL 326 Topics in Creative Writing (4 credits)
- ENGL 390 Major Literary Figures [some sections and topics only] (4 credits)
- ENGL 395 Issues in Literature, Language, and Culture [some sections and topics only] (4 credits)

Four credits in Theory and Practice

- ENGL 300 Theory and Practice of Writing (4 credits)
- ENGL 304 Analytical and Persuasive Writing (4 credits)
- ENGL 305 Linguistics (4 credits)
- ENGL 311 Criticism of Literature (4 credits)
- ENGL 315 Topics in Professional Writing (4 credits)

Area literature requirements:

Four credits in Early American Literature

- ENGL 214 American Authors I (4 credits)
- ENGL 370 Colonial and Early-American Literature (4 credits)
- ENGL 371 Nineteenth-Century American Literature (4 credits)
- ENGL 390 Major Literary Figures [some sections and topics only] (4 credits)
- ENGL 395 Issues in Literature, Language and Culture [some sections and topics only] (4 credits)

Four credits in Early British Literature

- ENGL 211 British Authors I (4 credits)
- 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 (4 credits)
- ENGL 365 The Romantic Age in Britain (4 credits)
- ENGL 390 Major Literary Figures [some section and topics only] (4 credits)
- ENGL 395 Issues in Literature, Language, and Culture [some sections and topics only] (4 credits)

Four credits in Diversity Literature

- 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)
- ENGL 390 Major Literary Figures [some sections and topics only] (4 credits)
- ENGL 395 Issues in Literature, Language, and Culture [some sections and topics only] (4 credits)

All English majors should complete 44 credits in English and maintain a GPA of 2.0 in English. Students should take 16 credits in literature, chosen from among the following: 211, 212, 214, 215, 217, 218, 220, 221, 222, 297, 298, 324, 325, 334, 341, 360, 361, 362, 362, 364, 365, 366, 367, 370, 371, 372, 373, 390, 395. A minimum of 16 credits in English at or above ENGL 211 must be taken at St. Thomas.

Major in English with Creative Writing Emphasis

- ENGL 121

Plus one of:

- ENGL 201, 202, 203, or 204

Note: Students with qualifying ACT test scores may enroll in one of ENGL 201 through 204 plus one of the following 4-credit literature courses in English:

- 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

In addition to the above core curriculum courses, students must also select courses that fulfill the following area distribution and course-level requirements:

Distribution Requirements

ENGL 280 Introduction to English Studies (4 credits)

Sixteen credits from the following writing courses:

- ENGL 255 Introduction to Imaginative Writing: Writing Poetry, Fiction, and Creative Nonfiction (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 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 creative writing sequence normally includes:

- first - ENGL 255
- then - ENGL 321 and/or ENGL 322 and/or 323 and/or 326
- then - ENGL 405

Plus:

English (ENGL)

Twelve credits in literature to include:

Four credits from Historical Perspectives

- ENGL 211 British Authors I (4 credits)
- ENGL 212 British Authors II (4 credits)
- ENGL 214 American Authors I (4 credits)
- ENGL 215 American Authors II (4 credits)
- ENGL 217 Multicultural Literature (4 credits)
- ENGL 218 Women in Literature: Critical History (4 credits)
- ENGL 220 The Classical Tradition (4 credits)
- ENGL 221 The Modern Tradition (4 credits)
- ENGL 222 The Catholic Tradition in Literature (4 credits)

Four credits from the following Genre Studies Courses

- ENGL 324 Genre Studies (4 credits) (section 31 only)
- ENGL 325 Special Studies in Genre, Region, or Theme (4 credits) (section 31 only)
- ENGL 390 Major Literary Figures [some sections and topics only] (4 credits)
- ENGL 395 Issues in Literature, Language, and Culture [some sections and topics only] (4 credits)

Four additional English credits in literature numbered 211 or above (includes ENGL 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).

Four credits in another English course numbered 211 or above

Course-Level Requirements

- At least 12 credits numbered ENGL 211-299 (note: 4 of these credits must come from ENGL 280)
- At least 16 credits numbered ENGL 300-399
- At least 4 credits numbered ENGL 400-499

Plus:

- Four additional credits numbered ENGL 211 or above

All English with creative writing emphasis majors should complete 44 credits in English and maintain a GPA of 2.0 in English. A minimum of 16 credits in English at or above ENGL 211 must be taken at St. Thomas.

Major in English with a Teacher Education Emphasis (5-12)

- ENGL 121

Plus one of:

- ENGL 201, 202, 203, or 204

Note: Students with qualifying ACT test scores may enroll in one of ENGL 201 through 204 plus one of the following 4-credit literature courses in English:

- 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 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 280: Introduction to English Studies (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)

Four additional credits EITHER in English at the 300 or 400 level, or COJO 326 Communication in Popular Culture 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 240, 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, and 328 are not required for licensure, but a student completing COJO 111 and either COJO 326 or 328 together with the COJO courses required for licensure will have also completed a minor in Communication and Journalism upon approval by the COJO department chair. To register for any of these courses without the prerequisite of COJO 111, please contact the instructor for permission to register.

LITERARY STUDIES

See *Literary Studies*

Minor in English

The minor in English consists of twenty-four credits:

ENGL 121

Plus one of:

ENGL 201, 202, 203, or 204

Note: Students with qualifying ACT test scores may in enroll in one of ENGL 201 through 204 plus one of the following 4-credit *literature* courses in English:

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

Plus sixteen credits numbered ENGL 211-490

A minimum of eight credits in English at or above ENGL 211 must be taken at the University of St. Thomas.

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

ENGL 121 Critical Thinking: Literature and Writing (4 credits)

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, question 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. The writing load for this course is a minimum of 12 pages of formal revised writing.

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)

English (ENGL)

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. The writing load for this course is a minimum of 15 pages of formal revised writing. Prerequisite: ENGL 121

ENGL 202 Texts in Conversation: Interdisciplinary Perspectives (4 credits)

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. The writing load for this course is a minimum of 15 pages of formal revised writing. Prerequisite: ENGL 121

ENGL 203 Texts in Conversation: Thematic and Intertextual Perspectives (4 credits)

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). The writing load for this course is a minimum of 15 pages of formal revised writing. Prerequisite: ENGL 121

ENGL 204 Texts in Conversation: Perspectives on Language, Culture, and Literacy (4 credits)

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. The writing load for this course is a minimum of 15 pages of formal revised writing. Prerequisite: ENGL 121

ENGL 211 British Authors I (4 credits)

How have heroic ideals changed from Beowulf to the 18th century? How did marriage evolve from an arrangement between tribes and families to love between two people? Such questions will be explored in a chronological framework through extensive readings in the British literary tradition from approximately 900-1780. Threaded throughout the literature are themes such as war and conflict, the history of love, humor and satire, social reform, religious reform, and the rights of the individual. This course fulfills the Historical Perspectives requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 212 British Authors II (4 credits)

How has the category of "English literature" expanded as a result of global changes over the nineteenth and twentieth centuries? How have authors responded to fundamental upheavals in the individual, religion, the British Empire, the role of women, and the value of poetry and art? Such questions will be explored in a chronological framework through extensive readings in the British literary tradition from approximately 1789 to the present. Threaded throughout the literature are themes such as revolution and reform, authorship, war, nationality and race, and the relationships between literature and other arts. This course fulfills the Historical Perspectives requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 214 American Authors I (4 credits)

Where does the popular perception of America as the "New World" come from? How could slavery flourish in a land idealizing freedom? Why were immigrants so feared and reviled? Why did expansionism push out some and make millionaires of others? Such questions will be explored in a chronological framework through extensive readings from the beginnings of the American literary tradition to the turn of the twentieth century. Threaded throughout the literature are themes such as religious identity, political reform, race, slavery, war, gender, and industrialization. This course fulfills the Historical Perspectives requirement in the English major. Prerequisites: ENGL 201, 202, 203 or 204.

ENGL 215 American Authors II (4 credits)

How did the modern warfare of World War I change those who fought and those who stayed at home? Why did so many of the best American artists flee to Paris? How did the traditionalism and stability of the 1950s lead to the radicalism and rebellion the 60s? How has technology, from the typewriter to the

internet, reshaped literature? Such questions will be explored in a chronological framework through extensive readings in American literature from the beginning of the twentieth century to the present. Threaded throughout the literature are themes such as progress and innovation, war, the “lost generation,” the New Woman, race, and conformity and individuality. This course fulfills the Historical Perspectives requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 217 Multicultural Literature (4 credits)

What does it mean to be labeled an African American dramatist? A Latino/a poet? A transgender novelist? An Asian American essayist? A Native American environmental writer? How do the varied experiences and backgrounds of authors writing from diverse subject positions inform, mark, and/or transform their writing? How do the works of these writers fit into, conflict with, actively resist, or even redefine the American Literary canon as it has been traditionally understood? These questions and more will be explored in a chronological framework through extensive reading of literature from: a) American communities of color; b) postcolonial peoples; c) immigrant and/or diasporic peoples; or d) LGBTQ communities. This course will focus on the literary and cultural texts of one or more of these groups with an emphasis on the cultural, political, and historical contexts that surround them. This course fulfills the Historical Perspectives requirement in the English major, and the Human Diversity Requirement in the Core Curriculum. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 218 Literature by Women: Critical History (4 credits)

From Sappho to Austen to Woolf to Morrison - women have been rendering the world into exquisite words for centuries. But how has the writing of women served as a critique of patriarchy? What impact has women’s writing had on important cultural and political movements such as abolition, suffrage, and environmentalism? In what ways has the writing of women been more radical than polite, more aggressive than demure, more confrontational than deferential? How have women consistently defied the limiting expectations of them through the creation of some of the most experimental, risky, and defiant works of literature in existence? These questions and more will be explored in this course, which focuses on the history of literature by women. While it will concentrate mainly on British and American women writers, the course will also address the work of non-western writers. Ultimately, this course will examine gender and its role in both the composition and reading of literary texts. This course fulfills the Historical Perspectives requirement in the English major, and the Human Diversity Requirement in the Core Curriculum. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 220 The Classical Tradition (4 credits)

What might it mean to speak of “the classical tradition?” What does that include and exclude? And how does it matter to us today? From the ancient Greek gods in their serenity to the howls of the damned in Dante’s vision of the afterlife, whether mythological or theological, the works to be studied engage us in the most fundamental questions about what it means to be human. Such questions will be explored in a chronological framework through extensive readings of representative texts of Western literature in translation from ancient Greece to the Renaissance, including some interactions of the European traditions with ancient or medieval Asian, Mesopotamian, or Middle Eastern literatures. Authors may include Homer, Aeschylus, Sappho, Virgil, Dante, Rumi, Marie de France, and Christine de Pizan. This course fulfills the Historical Perspectives requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 221 The Modern Tradition (4 credits)

What might it mean to speak of “the modern tradition?” What does that include and exclude? And how does it matter to us today? How does the modern tradition help us understand about concepts such as authorship, originality, literacy, and literary excellence? Such questions will be explored in a chronological framework through extensive readings of representative texts of Western literature in translation from the seventeenth century through the present, including some interactions of the European traditions with modern African, Latin American, or Asian literatures. Authors may include Racine, Goethe, Flaubert, Dostoevsky, Rilke, Solzhenitsyn, Duras, Lispector, and Achebe. This course fulfills the Historical Perspectives requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 222 Catholic Literary Tradition (4 credits) (equivalent to CATH 222)

What makes a text a work of Catholic literature? How do Catholic writers struggle with the existential questions of meaning, purpose, or suffering in a unique fashion? How do the themes they engage—such as forgiveness, redemption, or the power of grace in the world—place them within the Catholic

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tradition? Is there a sacramental imagination or incarnational theology at the root of a work of Catholic literature? Such questions will be explored in a chronological framework through extensive readings of representative texts of Catholic literature in both English and translation from the medieval era through the present. This course fulfills the Historical Perspectives requirement in the English major.

Prerequisites: 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 201, 202, 203, or 204

ENGL 255 Introduction to Imaginative Writing: Writing Poetry, Fiction, and Creative Nonfiction (4 credits)

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. This course fulfills the Genre Study requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204

ENGL 280 Intro to English Studies (4 credits)

This gateway course into the English major and the minor is an introduction to (a) literary tools, techniques, and terminology for reading and writing in English studies; (b) the history of English Studies as a discipline and the intellectual concepts and critical debates that have shaped the field; and (c) the practices of English Studies, from close reading and analysis of literary and critical texts to interpretation and scholarly research.

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 or the English Department website.

Prerequisites: ENGL 201, 202, 203, or 204

ENGL 300 Theory and Practice of Writing (4 credits)

This course introduces students to current rhetorical, pedagogical, and writing theory, and helps them develop a vocabulary for talking about writing and strengthen their abilities to write and to assist others in developing their academic literacy. Students will practice writing in a variety of forms such as academic writing, professional writing, experimental writing, and writing with particular attention to social justice. Required for secondary licensure in communication arts and literature students. This course fulfills the Theory and Practice requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 304 Analytical and Persuasive Writing (4 credits) (formerly 403)

This course examines rhetorical strategies used in published writing, focusing in particular on the roles of analysis and persuasion in the writing process. Students will strengthen their writing through various projects and possible partnerships with community organizations with an eye toward the writing they will be doing upon graduation. This course fulfills the Theory and Practice requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 305 Linguistics: English Language (4 credits)

This course is an introduction to the systematic study of the English language, with an emphasis on connections between academic linguistics and relevant social and educational questions. Students will study the English sound system through phonetics and phonology, how words are formed through morphology, how words combine to create clauses and meaning through syntax and semantics. After learning the linguistic tools to describe the English language, students will examine the contexts of language production in real life through the study of U.S. dialects, historical and ongoing changes in English, and various social interactions in language. This course fulfills the Theory and Practice requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 311 Theory and Practice of Literary Criticism (4 credits)

This course engages students in the study, reading, and writing of literary criticism. Emphasis may be placed on historical periods of criticism, schools of thought, modes of writing, or the application of theories, such as Marxist, feminist, postcolonial, psychoanalytic, or eco-critical to literary works. This course fulfills the Theory and Practice requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 315 Topics in Professional Writing (4 credits)

This course provides intensive study and practice in a particular area of professional writing. All sections concentrate on learning professional terminology and conventions and on writing for specific audiences and purposes. The focus of genre and study will vary for each section offered; credit may be earned more than once under this number for different emphases. This course fulfills the Theory and Practice requirement in the English major. Prerequisite: 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. This course fulfills the Genre Study requirement in the English major. Prerequisite: ENGL 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. This course fulfills the Genre Study requirement in the English major. Prerequisite: ENGL 255 or permission of instructor.

ENGL 323 Writing Creative Nonfiction (4 credits)

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. This course fulfills the Genre Study requirement in the English major. Prerequisites: ENGL 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. This course fulfills the Genre Study requirement in the English major. Prerequisites: 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. This course fulfills the Genre Study requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204

ENGL 326 Topics in Creative Writing (4 credits)

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. This course fulfills the Genre Study requirement in the English major. Prerequisites: ENGL 255 or permission of the instructor

ENGL 334 Literature from a Christian Perspective (4 credits) (equivalent to CATH 334)

This course provides an in-depth exploration of how literature engages Christian thought, experience, and practice and how a reader engages works of imaginative literature from an intellectually serious Christian perspective. The course will also provide an introduction to theories in the interdisciplinary

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field of religion and literature. Religious themes studied will come from a variety of literary forms, including those of myth, history, parable, short story, essay, children's literature, poem, and novel. The literature chosen may reflect a variety of cultural backgrounds so that, among other things, we may consider how meaning may be affected by changes in worldview. Specific topics vary; accordingly, credit may be earned more than once for this course number. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204

ENGL 337 The Literature of Human Diversity (4 credits)

This course provides an in-depth exploration of literatures that focus intensively on topics related to race, ethnicity, nation, class, gender, and/or sexual orientation. It examines questions related to how these literatures fit in "the canon" and how they speak to or inform each other, which critical approaches are relevant for studying these literatures, how issues of power and privilege are connected to our understanding of these literatures, and what provocations and concerns emerge from the study of these literatures. Specific topics vary; accordingly, credit may be earned more than once for this course number. This course fulfills the Contexts and Convergences requirement in the English major, and the Human Diversity requirement in the core curriculum. Prerequisites: ENGL 201, 202, 203, 204.

ENGL 341 Literature by Women: Critical Questions (4 credits)

This course will offer an in-depth exploration of select body of women's writing, organized by period, genre, or theme. As a Women's Studies course, it will examine diverse situations of women, nationally or globally, and discuss strategies of social change. Examples might include women, sport, and the body in literature; women writers and celebrity in the Victorian era; female independence and female friendship; or women writing about exile. Specific topics vary; accordingly, credit may be earned more than once for this course number. This course fulfills the Contexts and Convergences requirement in the English major, and the Human Diversity requirement in the core curriculum. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 360 Chaucer and the Medieval Period (4 credits)

This course provides an in-depth exploration of a select group of texts or authors of the British Middle Ages, a time of international literary culture, transformation of the English language, courtly love, and the Crusades. Alongside the work of Chaucer, the selected texts or authors will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include the role of the knight, religious controversy and the Inquisition, love and marriage, cross-Channel influences such as Marie de France and Dante, medieval women writers, and literatures of revolt. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 361 Shakespeare and the Early Modern Period (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from British literature of the Renaissance or early modern era, a time of religious schism, early British imperialism, the rebirth of the classical world, and the birth of the professional theatre in England. Alongside the work of Shakespeare, the selected texts or authors will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include Shakespeare and the rise of the Renaissance theatre; Elizabethan writers and the Islamic world; Shakespeare and the idea of the human in the drama, sonnet, and personal essay; your brain on Shakespeare: cognitive literary studies. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 362 Milton and Seventeenth-Century British Literature (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from British literature of the seventeenth century, a time of English civil war and the upheaval of national identity, political satire, metaphysical poetry, and scientific inquiry. Alongside the work of John Milton, the selected texts or authors will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include Revolution to Restoration in British Literature, women and the stage in seventeenth century Britain, Paradise Lost and its cultural history. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 364 Eighteenth-Century British Literature: The Age of Satire and the Novel (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from British literature

of the eighteenth century, a time of exploration that launched industrialization, capitalism, the slave trade, imperialism, and the police force and prisons, as well as the vibrant new genres of the novel, biography, and the first comprehensive dictionary. Selected texts or authors (such as Behn, Defoe, Fielding, Pope, Haywood, and Austen) will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include bawdy dramas vs. elegant novels of manners, “secret histories” of disguise and mistaken identity, criminal biographies and moral philosophy, and how to choose a marriage partner. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 365 Romantic Literature (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from British literature of the Romantic period, 1789-1837, a time of scientific and industrial revolutions, national independence and reform movements, passions and interiority, suffering genius-artists, the first science fiction, Regency “romances,” and Byronic heroes. Selected texts or authors (such as Wollstonecraft, Blake, Wordsworth, Scott, Byron, Austen, the Shelleys, and the Brontë sisters) will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include Transatlantic Romanticism; what is a poet?; Romantic science and the birth of science fiction; the Byron-Shelley Circle and writing communities. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 366 Victorian Literature (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from British literature and culture of the Victorian age, 1837-1901, a time of the expansion of the British Empire, religious doubt, Darwinism, the periodical press, and the New Woman. Selected texts or authors (such as Dickens, Christina Rossetti, Wilde, and George Eliot) will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include Victorian novels and the popular press, Victorian detectives, the Aesthetic Movement in literature and art. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisite: ENGL 201, 202, 203, or 204.

ENGL 367 Twentieth-Century British Literature (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from British literature of the twentieth and early twenty-first century, an era of world wars, new technologies, changing literacies, women’s suffrage, modernism and the avant-garde, globalization and post-colonizing, and postmodernism. Selected texts or authors (such as Yeats, Woolf, Derek Walcott, J. M. Coetzee, and Zadie Smith) will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include postcolonial British literature and film, modernism across the arts, writing war across the twentieth century, literature in the age of mechanical reproduction, the twentieth-century manifesto. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 370 Colonial and Early-American Literature (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from American literature from the period of European discovery and colonization through the first decades following American independence. Selected texts or authors (such as Native American oral tales, Benjamin Franklin, Anne Bradstreet, Mary Rowlandson, Phillis Wheatley, and Jonathan Edwards) will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include native voices in early American literature; poetry, journals, and the religious experience in colonial New England; representations of and responses to the slave trade in Colonial America; captivity narratives as literature and ideology; the myth of the wilderness. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 371 Nineteenth-Century American Literature (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from nineteenth-century American literature, a time of national expansion, civil war and restoration. Selected texts and authors (such as Emerson, Hawthorne, Zitkala-Ša, Melville, Douglass, Dickinson, Henry James) will be

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studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include American literature in the age of Darwin, literary representations of the Civil War, transatlantic Romanticism; the national and the regional in late 19th-century American women's writing; the concept of freedom in American literature. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 372 Modern American Literature (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from American literature of the first half of the twentieth century. Selected texts or authors (such as Fitzgerald, Hemingway, Ellison, Wharton, Faulkner, Cather, Elizabeth Bishop and Zora Neale Hurston) will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include literary representations of and responses to the world wars, literature and the rise of cinema, literature and the agrarian movement, the proletarian tradition in literature, atom-smashing and literary modernism, American literature and American psychoanalysis. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 373 Contemporary American Literature (4 credits)

This course provides an in-depth exploration of a select group of texts or authors from American Literature from the late twentieth century to the present. Selected texts or authors (such as Baldwin, Morrison, Erdrich, and David Foster Wallace to the most contemporary) will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Examples might include American literature and new media, literature and civil rights, immigration narratives, American regionalisms, changing American identities, changing notions of authorship. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 390 Major Literary Figures in Context (4 credits)

This course provides an in-depth exploration of a significant body of work by a major writer, for example, Jane Austen, Charles Dickens, James Baldwin, Toni Morrison, or Virginia Woolf. The author's work will be studied in terms of a particular historical, cultural, or other context, or in terms of a convergence with authors or texts from other literary traditions or intellectual disciplines. Specific topics vary; accordingly, credit may be earned more than once for this course number. This course fulfills the Contexts and Convergences requirement in the English major. Prerequisite: ENGL 201, 202, 203, or 204.

ENGL 395 Issues in Literature, Language and Culture (4 credits)

Any written text emerges out of a significant context; that is, the historical and cultural moment that gives rise to the text. This course offers an intensive focus on texts, both popular and traditional, and their significant "extra literary" context: for example, religious movements; political and social hierarchical structures; cultural, political and national identities; moral and political implications of language use. The course emphasizes, appropriate critical approaches, dependent on course topic, such as critical race theory, Marxism, post-colonial theory, third-wave feminism, etc. Course content varies; some sections will fulfill the Human Diversity requirement. Credit may be earned more than once under this number for different emphases. Some sections of this course fulfill the Contexts and Convergences requirement in the English major; other sections fulfill the Theory and Practice requirement in the English major. Prerequisites: ENGL 201, 202, 203, or 204.

ENGL 405 Advanced Poetry, Fiction, or Creative Nonfiction Writing (4 credits)

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. This course fulfills the Genre Study requirement in the English major. Prerequisite: ENGL 321 or 322 or 323 or permission of instructor based on examination of a portfolio.

ENGL 421 and 422 Literary Magazine Practicum, Parts I and II

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 core 121 and 201-204, including ENGL 280. 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 Capstone Seminar: Literary Studies Emphasis (4 credits)

As a capstone seminar, ENGL 481 is designed to synthesize the intellectual experiences of the English major within the whole of the undergraduate curriculum, and to serve as a transition between undergraduate liberal arts education and the next steps in students' lives in graduate school or other career paths in the humanities. Students in this course will synthesize their disciplinary skills by exploring a particular literary problem or issue in depth; they will focus on, and write about, their own postgraduate vocational plans and aspirations within the field of English or related postgraduate endeavors.

Prerequisites: Four ENGL courses beyond the core requirements and ENGL 380 or ENGL 280

ENGL 482 Capstone Seminar: Pre-professional Emphasis (4 credits)

As a capstone seminar, English 482 is designed to synthesize the intellectual and the professional elements of the English major—to bridge the gap between academia and the public sphere and help students use the knowledge and skills acquired within the English major to enter the conversation of the next stage of their lives. Through discussion, reading, writing, and individualized research, the seminar engages students in a focused exploration of their career aspirations. Each student will conduct research and write a substantial essay, apply their findings for different rhetorical situations, and produce reflective writing on their intellectual development and vocational goals.

Prerequisites: Four ENGL courses beyond the core requirements and ENGL 380 or ENGL 280

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 or the English Department website.

Prerequisites: ENGL 201, 202, 203, or 204

Environmental Science (ESCI)

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 201, 202, 203, or 204

ENTREPRENEURSHIP

See Business Administration

ENVIRONMENTAL SCIENCE (ESCI)

College of Arts and Sciences, Interdisciplinary Program

Owens Science Hall (OWS) 352, (651-962-5220

Martinovic-Weigelt (BIOL), program director; Lamb (GEOL), assistant director

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, B.S.

All students must complete these core requirements for the Environmental Science major. Students will also choose one track from Biology, Chemistry and Geosciences.

Environmental Science core requirements:

Environmental Science courses (8 credits)

ESCI 310 Environmental Problem Solving (4 credits)

ESCI 430 Senior Research Seminar (4 credits)

Biology course (4 credits):

BIOL 209 Biology of Sustainability

Geology courses (8 credits):

GEOL 115 Environmental Geology (4 credits)

GEOL 252 Geomorphology or GEOL 310 Environmental Geochemistry (4 credits each)

Chemistry courses (4-8 credits):

CHEM 111 and CHEM 112 General Chemistry I and II (8 credits total)

or CHEM 115 Accelerated General Chemistry (4 credits)

Physics courses (4 credits)

PHYS 111 Classical Physics I (4 credits)

*PHYS 109 General Physics I - an acceptable Physics choice for Biology and Geosciences track majors only (4 credits)

Mathematics courses (4-8 credits):

MATH 108 and MATH 109 Calculus with Review I and II (8 credits total)

or

MATH 113 Calculus I (4 credits)

Students must also complete the courses from their chosen track as listed below.

Biology Track

All Biology track students must complete the following four (4) courses:

BIOL 207 Genetics, Ecology, and Evolution
BIOL 208 Biological Communication and Energetics
ENGR 123 Energy and the Environment
STAT 220 Statistics I

Plus 12 credits from the following (at least 4 credits must be 400-level)

BIOL 211 Introduction to Field Research
BIOL 328 Environmental Toxicology and Health
BIOL 333 Ecology
BIOL 335 Conservation Biology
BIOL 361 Medical Geology
BIOL 435 Aquatic Biology
BIOL 480 Urban Ecosystem Ecology
BIOL 486 Seminar
BIOL 491 Individual Research

Plus 8 elective credits from the following (all courses are 4 credits each)

CHEM 201 Organic Chemistry I

ECON 370 Environmental and Natural Resource Economics

ENVR 212 Society and Sustainability
or ENVR 301 Environmental Ethics*
or ENVR 351 Environmental Policy

GEOG 321 Geographic Info Systems

GEOL 211 Earth Materials
or GEOL 252 Geomorphology
or GEOL 260 Regional Geology and Geological Field Methods
or GEOL 310 Environmental Geochemistry
or GEOL 410 Hydrogeology
or GEOL 491 Individual Research

MATH 114 Calculus II

PHYS 112 Classical Physics II
or PHYS 110 General Physics II

PHIL 258 Environmental Ethics*

POLS 309 Environmental Policy

To help students meet specific academic goals, other classes may be taken for this requirement with prior approval from the ESCI director.

*Credit may only be granted once for PHIL 258 or ENVR 301 Environmental Ethics.

Chemistry track

All Chemistry track students must complete the following five (5) courses:

CHEM 201 Organic Chemistry I

Environmental Science (ESCI)

CHEM 202 Organic Chemistry II
CHEM 300 Quantitative Analysis
MATH 114 Calculus II
PHYS 112 Classical Physics II

Plus 16 credits from the following 4-credit courses (4-credits of which must be CHEM)

CHEM 320 Instrumental Analysis
or CHEM 331 Chemical Thermodynamics and Reaction Dynamics
or CHEM 332 Quantum Chemistry and Molecular Spectroscopy
or CHEM 440 Biochemistry I
or CHEM 491 Research (4-credit option only)

BIOL 207 Genetics, Evolution and Ecology
or BIOL 208 Biological Communication & Energetics
or BIOL 211 Introduction to Field Research

ECON 370 Environmental and Natural Resource Economics

ENGR 123 Energy and the Environment

ENVR 212 Society and Sustainability
or ENVR 301 Environmental Ethics*
or ENVR 351 Environmental Policy

GEOG 321 Geographic Info Systems

GEOL 211 Earth Materials
or GEOL 252 Geomorphology
or GEOL 260 Regional Geology and Geological Field Methods
or GEOL 310 Environmental Geochemistry
or GEOL 410 Hydrogeology
or GEOL 491 Individual Research

PHIL 258 Environmental Ethics*

POLS 309 Environmental Policy

To help students meet specific academic goals, other classes may be taken for this requirement with prior approval from the ESCI director.

*Credit may only be granted once for PHIL 258 or ENVR 301 Environmental Ethics.

Geosciences track

All students in the Geosciences track must complete the following four (4) courses:

BIOL 207 Genetics, Evolution and Ecology
BIOL 333 Ecology or BIOL 335 Conservation Biology
ENGR 123 Energy and the Environment
STAT 220 Statistics I

Plus 12 credits from the following (all courses are 4-credits):

GEOL 162 Earth's Record of Climate
GEOL 211 Earth Materials
GEOL 220 Oceanography
GEOL 252 Earth Surface Processes and Geomorphology
GEOL 260 Regional Geology and Field Methods
GEOL 461/BIOL 361 Medical Geology
GEOL 410 Hydrogeology
GEOL 462 Advanced Earth's Record of Climate

GEOL 491 Research

Plus eight (8) elective credits from the following (all courses are 4-credits):

BIOL 208 Biological Communication & Energetics
or BIOL 211 Introduction to Field Research

CHEM 201 Organic Chemistry I

ECON 370 Environmental and Natural Resource Economics

ENVR 212 Society and Sustainability
or ENVR 301 Environmental Ethics*
or ENVR 351 Environmental Policy

GEOG 321 Geographic Info Systems

MATH 114 Calculus II

PHIL 258 Environmental Ethics*

PHYS 112 Classical Physics II
or PHYS 110 General Physics II

POLS 309 Environmental Policy

To help students meet specific academic goals, other classes may be taken for this requirement with prior approval from the ESCI director.

*Credit may only be granted once for PHIL 258 or ENVR 301 Environmental Ethics.

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 or BIOL 209, 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 430 (previously 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.

Family Studies (FAST)

See Geography and Environmental Studies

FAMILY STUDIES (FAST)

College of Arts and Sciences, Interdisciplinary Program
Dr. Tonia Bock (PSYC), Director

Family studies is an interdisciplinary field of study in which the family is the primary unit of analysis. The purpose of this major and 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 major and minor in family studies are flexible and multidisciplinary, providing for both broad exposure and disciplinary integration. Both the major and minor provide preparation for advanced study in family studies and the allied fields, as well as professional work in organizations focusing on families.

Major in Family Studies

A student may take no more than three courses from a single discipline toward the major in Family Studies. The major in family studies does not provide a license for a student to do therapy or counseling; it does provide a foundation for employment in the human services field and/or for graduate studies in multiple areas where a license can be earned, if so desired. Students will select elective courses in careful consultation with the director of family studies and/or his or her advisor, choosing those that best support the student's future professional, graduate and/or personal goals and aspirations. The elective selections might also include strong recommendations for a double major in another discipline and/or courses in research methods taken in a constituent department - the latter especially recommended for students wishing to pursue graduate work in Family Social Science or Psychology, Social Work, or other related fields.

All students must take:

FAST 200 Foundations of Family Studies (4 credits)
FAST 400 Family Studies Capstone Seminar (4 credits)

All students must take 8 credits (2 courses) of the following:

COJO 374 Family and Couple Communication (4 credits)
PSYC 288 Psychology of Marriage and the Family (4 credits)
SOCJ 321 Marriages and Families (4 credits)

And 24 credits (6 courses) from the following courses (not already used above), in consultation with student's advisor, considering future goals:

CATH 234/PHIL 234 Love, Sex and Friendship (4 credits)
CHDC 305 Chemical Dependency and the Family (4 credits)*
COJO 220 Interpersonal Communications (4 credits)
COJO 374 Family and Couple Communication (4 credits)
ENTR 349 Family Business Management (4 credits)
FAST 243, 393, or 495 Individual Study (2 or 4 credits)
FAST 498 Experiential Learning/Internship (2 or 4 credits)
HLTH 342 Health and Family Education: Curriculum, Assessment, and Administration (4 credits)
HLTH 462 Human Sexuality Education (4 credits)
IDSC 291 The 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 Psychology of Adulthood and Aging (4 credits)
PSYC 288 (Psychology of Marriage and the Family (4 credits)
SOWK 2100C Relationships, Intimacy and Sexuality (4 credits)*
SOWK 340T Human Behavior and the Social Environment (4 credits)
SOWK 401T Generalist Practice I: Small Client Systems (4 credits) Available only to Social Work majors
SOWK 441T Family Resilience and Diversity (4 credits)
SOCJ 304 Adolescence in Society (4 credits)

SOCI 321 Marriages and Families (4 credits)
 SOCI 354 Sex in Society (4 credits)
 THEO 423 Christian Marriage (4 credits)

TOTAL 40 Credits

Minor in Family Studies

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.

All students must take:

FAST 200 Foundations of Family Studies (4 credits)

Plus four credits from the following:

COJO 374 Family and Couple Communication (4 credits)
 PSYC 288 Psychology of Marriage and the Family (4 credits)
 SOCI 321 Marriages and Families (4 credits)

Plus twelve credits from the following:

CATH 234 Love, Sex and Friendship
 CHDC 305 Chemical Dependency and the Family (4 credits)
 COJO 220 Interpersonal Communications (4 credits)
 COJO 374 Family and Couple Communication (4 credits)
 ENTR 349 Family Business Management (4 credits)
 FAST 243, 393, 495 Individual Study (2 or 4 credits each)
 FAST 476 (2 credits each) or 478 (4 credits each) Experiential Learning/Internship
 HLTH 342 Health and Family Education: Curriculum, Assessment, and Administration (4 credits)
 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 Psychology of Adulthood and Aging (4 credits)
 PSYC 288 Psychology of Marriage and the Family (4 credits)
 SOWK 210T/2100C Relationship, Intimacy, and Sexuality (4 credits)
 SOWK 340T Human Behavior and the Social Environment (4 credits)
 SOWK 401T Generalist Practice with Individuals, Groups and Families (4 credits) Available only to Social Work majors
 SOWK 441T Family Resiliency and Diversity (4 credits)
 SOCI 304 Adolescence in Society (4 credits)
 SOCI 321 Marriages and Families (4 credits)
 SOCI 354 Sex in Society (4 credits)
 THEO 423 Christian Marriage (4 credits)
 FAST 400 Family Studies Seminar (4 credits) Available to minors only with permission of instructor

FAST 200 Foundations of Family Studies (4 credits)

As a foundation of the Family Studies major and minor, this course provides an interdisciplinary exploration of the discipline and profession of Family Studies. Students will be introduced to primary family theories and the practical nature of theorizing for understanding, explaining and strengthening all families; read original and translated/applied research on family topics; explore substantive topics of the field; examine the current state of Family Studies and its multidisciplinary roots; become familiar with family studies' occupations and professional organizations; review ethical principles of working with and studying families; and examine a range of contemporary issues for families in the 21st century.

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

Film Studies (FILM)

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 major is a multidisciplinary seminar taken after a student has completed at least four courses in the Family Studies major. The course incorporates a variety of methods, theories, and pedagogies drawn from the family studies paradigm. A substantial portion of the course will be devoted to student experience in the community and professions, including reflections and analyses that incorporate family studies scholarship.

Prerequisite: FAST 200, plus two of PSYC 288, SOCI 321, COJO 374 (formerly COJO 472), plus six other courses from the list of approved courses for the major.

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.

FAST 476, 478 Experiential Learning (2 or 4 credits)

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

FILM STUDIES (FILM)

College of Arts and Sciences, Interdisciplinary Program

Kroll (Director; MCL), Chaudhury (ENGL), Ehrmantraut (MCL), Gregg (CoJo), Kachian (MUSC), Rey-Montejo (MCL), Sauter (COJO)

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

The minor in film studies is an interdisciplinary program that provides students with a foundation of film history and theory and is enriched by offerings in film by departments across the College of Arts and Sciences. By completing this minor, students will be able to understand the historical development of film language (camera work, acting, and editing) including film's pre-history and relationship to photography and theatre; identify and analyze films from the major film traditions, movements, genres (narrative, documentary, and experimental-surreal), studios and directors; understand developments in world cinema, including expression, imagery and representations of nationhood, ethnicity, race, sex, gender, sexuality, social class, cultural values, religious values, political movements, etc; articulate and apply major film theories and critical approaches; understand the political and economic context of film, including the impact of distribution and circulation on the production and reception of film and video/DVD; and develop skills relevant to film production, such as writing, directing, acting, design, composition and the acquisition & editing of images and sound.

Minor in Film Studies

Students will complete 20 credits for the FILM minor:

FILM 200 Introduction to Film Studies (4 credits)

FILM 300 World Cinema (4 credits)

Plus four credits in film theory/history/criticism/analysis:

COJO 332 Documentary in American Culture (4 credits)

CLAS 225 The Classical Hero, Epic, and Film (4 credits)

ENGL topics courses as appropriate and approved by FILM Studies. Examples of ENGL courses with recent or potential film studies topics:

ENGL 324 Genre Studies ((Literature into Film)4 credits)

ENGL 337 The Literature of Human Diversity (Arab Film) (4 credits)

ENGL 395 Issues in Literature, Language, and Culture (Film) (4 credits)

ENGL 481 (Seminar) Hispanic Cinema Studies (Third World Cinema) (4 credits)

FILM 350 Current Issues in Film (4 credits)
 FREN 490 French Cinema (4 credits)
 MUSC 170 Music of Film (4 credits)
 SPAN 415 Hispanic Cinema Studies (4 credits)

Plus four credits in production/practice

COJO 240 Digital Imagery and Sound (4 credits)
 COJO 360 Videography (4 credits)
 COJO 460 Advanced Video Production (4 credits)

ENGL topics courses as appropriate and approved by director of FILM studies. Examples of ENGL courses with recent or potential film production/practice topics:

ENGL 297 Topics (Introduction to Screen Writing) (4 credits)

ENGL 326 Topics in Creative Writing (Screen Writing) (4 credits)

THTR 214 Beginning Acting (4 credits)

THTR 218 Acting for the Camera (4 credits)

Plus four additional credits from those listed above, internship, experiential learning, or independent study as approved by FILM studies director

At least two courses should be numbered 300 or higher

FILM 200 Introduction to Film Studies (4 credits)

FILM 200 introduces students to film analysis, providing the basic tools to understand, appreciate, and analyze the technical and aesthetic dimensions of film and to understand how these elements come together to create meaning. The course will focus on specific filmmaking techniques, provide a brief overview of film history, and introduce students to the concepts of genre, ideology and style. In addition to attending class sessions, students will be required to attend a weekly film screening (lab). This course fulfills the Fine Arts requirement in the core curriculum.

FILM 300 World Cinema (4 credits)

In this course, students will view feature-length films from Africa, Asia, the Americas, Europe, and possibly India and/or the Middle East. Via an introduction to directorial styles, film movements, and cinematic language and technique, students will become familiar with basic vocabulary and categories for discussing global cinema. Further, students will gain understanding of the development of cinema in several countries throughout the twentieth century and beyond, and will learn about the contribution of major directors from various continents and countries. Engaging in critical viewing of films both in class and outside of class, critical reflection, discussion, and analytical writing, students will practice the art of film analysis and will learn how cinema engages the world as a form of entertainment, as art, as historical document, and as an instrument of social change. This course fulfills the Human Diversity requirement of the core curriculum.

Prerequisite: FILM 200

FILM 350 Current Issues in Film (4 credits)

This course is organized around a topic or area of inquiry and allows students to view, discuss, and read and write about feature-length films that engage with the topic of inquiry in depth. The course entails engaged viewing films in and outside of class, reading of several critical articles per week, writing a weekly film journal, completing quizzes and a midterm, completing research papers, and active in-class participation. Possible subject areas may include cinema and social or political conflict, cinema and the environment, cinema and science fiction, or a focus on the work of a particular director or genre. Course may be repeated for credit with a different topic.

Prerequisite: FILM 200

FILM 295, 296 Topics (2 credits)

FILM 297, 298 Topics (4 credits)

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

FILM 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 AND ENVIRONMENTAL STUDIES

College of Arts and Sciences, Department of Geography and Environmental Studies
John Roach Center for the Liberal Arts (JRC) 432, (651) 962-5569
Kelley (chair), Lorah, McKay

The mission of the department of Geography and Environmental Studies is to provide both the highest quality liberal arts education and applied, career-oriented preparation. Our students learn to integrate knowledge and gain the depth of expertise to prepare them competitively for professional life and/or graduate school. We value the application of theory and research to real-world problems that affect the common good.

The Department of Geography and Environmental Studies offers multiple courses of study including a major and minor in geography, a major in environmental studies with various concentrations, a geographic information systems (GIS) minor (for non-geography majors) and a concentration area in GIS for majors, as well as a minor in sustainability.

With foundations in both the natural and social sciences, our courses prepare students for a wide range of careers in government, the private sector, and education. Geography and environmental studies graduates collect and analyze demographic data, model landscapes with GIS, perform location analysis for retail and service stores, are urban planners and land use managers, teach, and hold a wide variety of other jobs in the public and private sectors. Graduates also pursue advanced degrees in geography, environmental studies, business, urban and regional planning, community development, GIS, and natural resource management.

The GIS major and minor pair well with other majors in the physical and social sciences, and complement studies in education, marketing, real estate, and entrepreneurship. Our emphasis on GIS laboratory work, internships, collaborative faculty-student research, and service learning give our students a solid foundation in geographic principles and techniques, as well as an appreciation for the diversity of people and places.

The Environmental Studies major and Sustainability minor provide 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.

Major in Geography

- GEOG 111 Human Geography (4 credits)
- GEOG 113 World Geography (4 credits)
- GEOG 111 Introductory Physical Geology (4 credits) or GEOL 114 The Science of Natural Disaster (4 credits) or GEOL 115 Environmental Geology (4 credits)
- GEOG 321 Geographic Information Systems (4 credits)
- GEOG 402/ENVR 401 Field Seminar (4 credits)

Plus sixteen credits from the following courses:

- GEOG 230 Weather and Climate (4 credits)
- GEOG 322 Geographical Analysis (4 credits)
- GEOG 330 Geography for Business and Planning (4 credits)
- GEOG 331 Conservation Geography (4 credits)
- GEOG 421 Applied Geographic Information Systems (4 credits)
- GEOG 298 Special Topics in Geography [focus changes with each offering] (4 credits)
- GEOG 478 Experiential Learning (4 credits) or GEOG 491 Research (4 credits)

Note: At least twelve of the credits used to fulfill the major must be at the 298-level or above.

CURRICULA

Major in Geography - Geographic Information Systems (GIS)

GEOG 111 Human Geography (4 credits)
 GEOG 113 World Geography (4 credits)
 GEOL 111 Introductory Physical Geology (4 credits) or GEOL 114 The Science of Natural Disaster (4 credits) or GEOL 115 Environmental Geology (4 credits)
 GEOG 321 Geographic Information Systems (4 credits)
 GEOG 402/ENVR 401 Field Seminar (4 credits)
 GEOG 421 Applied Geographic Information Systems (4 credits)

Plus twelve credits from the following methods courses:

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 491 Research (4 credits)

Plus:

STAT 220 Statistics I (4 credits)

Minor in Geography

Twenty credits (5 courses) in Geography, no more than eight credits (2 courses) of which may be at the GEOG 100-level and at least four credits (1 course) of which must be numbered GEOG 300 or above.

Selection of the specific courses to fulfill the requirements should be done in consultation with a member of the department faculty.

Minor in Geographic Information Systems (GIS)

This minor is only available to non-geography majors.

GEOG 321 Geographic Information Systems (4 credits)
 GEOG 421 Applied Geographic Information Systems (4 credits)

Plus twelve credits from the following courses:

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 491 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

The Environmental Studies degree 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 major 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 40 credits in core courses. The core courses are designed to provide the student with a foundation in the physical, social and ethical dimensions of environmental issues. In addition to the core courses, students are required to earn either a second major or a minor, or take another 24 credits in concentration-area courses. The requirement of a double major, a related minor, or six concentration area courses is 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 department Chair can assist students in constructing successful concentration area proposals. Stu-

Geography and Environmental Studies

dents are encouraged, but not required, to take additional courses in writing and computer applications, and should consult the Chair of the department for recommendations.

Major in Environmental Studies

All ENVR majors must take the following 3 courses:

ENVR 151 Environmental Problems and Sustainable Solutions (4 credits)

ENVR 212 Sustainability in Context (4 credits)

ENVR 401 Field Seminar (WID designated WAC course) (4 credits)

Plus courses in each of the following competency areas:

Public Policy (4 credits)

ENVR 351/POLS 309 Environmental Policy

JPST 355 Public Policy Analysis and Advocacy

SOWK 391 Social Policy for Change

Social Science Method Course (8 credits)

ENVR 330 Social Science Research Methods

GEOG 321 GIS with Sustainable Communities Partnership

GEOG 331 Conservation Geography

PSYC 334 Psychology of Sustainability

SOWK 380 Social Work Research w/SUST

Communication (4 credits)

COJO 100 Public Speaking w/ SUST

COJO 372 Environmental Communication

ENGL 202 Fictions of Nature

ENGL 304 Analytical and Persuasive Writing w/ SUST

Ecological Literacy (8 credits)

BIOL 102 Conservation Biology or BIOL 209 Biology of Sustainability

CHEM 101 Environmental Chemistry

ENGR 123 Energy and the Environment

ESCI 310 Environmental Problem Solving

GEOL 115 Environmental Geology or GEOL 162 Earth's Record of Climate

Entrepreneurial/Leadership Skills (4 credits)

ECON 370 Environmental and Natural Resource Economics

ENTR 200 Foundations of Entrepreneurship

ENTR 490 Environmental Sustainability and Innovation

JPST 365 Leadership for Social Justice

PSYC 342 Psychology of Work w/SUST

SOWK 430 Development and Fundraising for Social Service Agencies

Plus:

Complete a 6-course concentration (24 credits), a 2nd major, or a minor in a discipline of choice.

Notes:

- For those students selecting the 6-course concentration option, students must meet with the department chair to develop a coherent area of emphasis.
- Students cannot complete both a major in Environmental Studies and a minor in Sustainability.
- Not every SUST designated course fulfills ENVR major requirements. Those that do are stipulated above.

Minor in Sustainability

Available only to non-Environmental Studies majors

All Sustainability minors must take the following course:

ENVR 151 Environmental Challenges and Sustainable Solutions (4 credits)

Plus 16 credits from Sustainability (SUST) designated courses as listed on the Office of Sustainability Initiatives website:

<http://www.stthomas.edu/gale/sustainability/sustainabilityacrossthecurriculum/sustcourses/>

Total credits: 20

Geography Courses (GEOG)

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, globalization and how cultural landscapes are shaped by power and privilege. Offered every semester. This course fulfills the Social Analysis and Human Diversity requirements in the core curriculum.

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 230 Weather and Climate (4 credits)

This course explores 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, forecasting, and observational techniques through data collection and hands-on exercises.

GEOG 231 Global Migrations (4 credits)

A broad study of the history of human migrations from the earliest to modern times, and an examination of migration issues, such as why people migrate, where they come from and where they go. Part of the course will focus on the experiences of local immigrant groups: Somali, Hmong, Latino, and others.

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 242 Latin America (4 credits)

A country-by-country tour of Latin America, this course addresses the physical geography and resources, as well as key features of history, ethnicity, government, economy, and modern issues of each country. Such issues may include land tenure, social conditions, environmental problems, indigenous movements, or any topic that is important to understand a particular country..

GEOG 243 Africa (4 credits)

A broad tour of Africa, including geography, history, and political economy. The course addresses both the broad physical and human geography of Africa, and includes specific topics such as indigenous governance, colonialism, independence leaders, Cold War politics, modern governance, ethnic conflicts, and health and environmental problems.

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)

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. This course uses a blended course format and students should be prepared to spend 50% of their time working

Geography and Environmental Studies

independently.

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 economic development. Offered alternate years.

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.

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.

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 350 Geography of Global Health (4 credits)

This class introduces students to the concepts, theories and research techniques used by medical geographers. We study the underlying environmental, cultural and demographic processes that shape the distribution and spread of disease in an effort to achieve a deeper understanding of the factors influencing human health. Much of the semester is spent using Geographic Information Systems (GIS) to help community partners analyze and address health care challenges in the Twin Cities.

GEOG 384 Field Study in Geography (4 credits)

A geographic analysis through field experience. Includes study-abroad courses.
Prerequisite: consent of instructor

GEOG 402 Field Seminar (4 credits)

A capstone course that combines field experience with classroom seminar. Student teams will conduct collaborative, broadly interdisciplinary analyses of selected environmental problems. Field-based projects are chosen by the students in consultation with course instructor. Classroom seminars are used for exchange of information between teams and for discussion of readings pertinent to individual research projects or, more broadly, to the interdisciplinary character of environmental problem-solving. Each team produces a major paper that examines the selected problems through humanities, natural-science and social-science lenses.

This class is cross-listed with, and is equivalent to, ENVR 401.

Prerequisites: four geography courses or permission of the 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.

Prerequisite: GEOG 321 or consent of the 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 481 Advanced Field Study in Geography (4 credits)

A geographic analysis through field experience. Designed for advanced students in geography. Includes study-abroad 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.

Environmental Studies Courses (ENVR)

ENVR 151 Environmental Challenges and Sustainable Solutions (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 Society and Sustainability (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 330 Environmental Studies Research Methods (4 credits)

This course introduces students to the empirical nature of environmental studies, grounding them in how knowledge is acquired in the various social sciences that contribute to this interdisciplinary field of study. The course provides students with opportunities to learn ethical research protocols, practices, and methods. A combination of lectures, reading, practical exercises, and projects will be used to explore how these methods can best be incorporated into interdisciplinary research designs. This course also provides students with the experience of developing their own research project, prepares students to be savvy consumers of information, and enhances decision-making competencies concerning environmental issues.

Geology (GEOL)

Prerequisite: ENVR 151 or permission of the instructor.

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 the selected problems through humanities, natural-science and social-science lenses.

This class is cross-listed with, and is equivalent to, GEOG 402.

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.

CURRICULA

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.

GEOLGY (GEOL)

College of Arts and Sciences, Department of Geology

Owens Science Hall (OWS) 153, (651) 962-5216

Theissen (chair), Clotts, Donatelle, Hickson, Lamb, McDermott, Navratil, Vislova

Geology is the field of study that tackles a wide range of issues facing society today: preparing for natural disasters, finding and extracting natural resources in responsible and sustainable ways, understanding and preparing for global environmental change, preventing, assessing and mitigating environmental pollution, and public health issues, to name a few. Many of us grew up thinking geologists simply study rocks. Although it is true rocks provide some of the fundamental clues to understanding these issues, geologists also study soil, sediments, lakes, groundwater, and the interior of the earth. Spatial analysis using ArcGIS, numerical computer modeling, and geochemical analysis using sophisticated instrumentation are common methods used by different geoscientists.

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 Geology program. At the heart of this program are a number of hands-on learning opportunities, a fundamental and basic component of a St. Thomas geoscience degree. Department faculty emphasize the fact that geology must be learned by practicing skills and as a result offer analytical experi-

ences 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 as well as use analytical instrumentation.

Major in Geology (B.A.)

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:

- 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)

Plus sixteen credits from the following (and four credits of which must be at the 300 or 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 491 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 207 Genetics, Ecology, and Evolution (4 credits) and BIOL 208 Biological Communication and Energetics (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 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:

Geology (GEOL)

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)
One additional 300-or 400- level elective course in Geology(4 credits)

Plus sixteen credits from the following (four credits of which must be at the 400-level and four credits of which must be at the 300 or 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 491 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 207 Genetics, Ecology, and Evolution (4 credits) and 208 Biological Communication and Energetics (4 credits)
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 111 Introductory Physical Geology (4 credits)
GEOL 114 Natural Disasters (4 credits)
GEOL 115 Environmental Geology (4 credits)
GEOL 130 Earth History (4 credits)
GEOL 161 Medical 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 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 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

Geology (GEOL)

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

Prerequisites: one of GEOL 110, 111, 114, 115, 130, 162, or 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. This course fulfills the core area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

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, 161 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, 161, 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 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, 161 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, 161, 162, and 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, 161, 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, 161 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, 161 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

Geology (GEOL)

surroundings.

Prerequisite: one of GEOL 110, 111, 114, 115, 130, 161 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. This course fulfills the core area in natural science in the Natural Science and Mathematical and Quantitative Reasoning requirement in the core curriculum.

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

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)

See Modern and Classical Languages

HEALTH AND HUMAN PERFORMANCE

College of Arts and Sciences, Department of Health and Human Performance
Anderson Athletic Recreation Center (AARC) 206, (651) 962-5970
Manske (Chair), Bruininks, Korak, Mead, Mellick, Sage, Scibora

Health and Human Performance offers the following undergraduate professional programs of study:

1. A major in physical education teaching leads to licensure at the elementary, middle, and secondary levels. Candidates successfully completing all coursework and MN teacher licensure requirements will be able to effectively execute and teach numerous physical activities in a K-12 setting.
2. A major in health education teaching leads to licensure at the middle and secondary school levels. Candidates successfully completing all coursework and MN teacher licensure requirements will be able to effectively teach numerous health topics in a 5-12 setting.
3. A major in public health studies prepares students for work in public and community health. Students graduating with a major in public health studies will be able to effectively apply the knowledge and skills required in public health, community health education, preventive health care and nonprofit health advocacy settings.
4. A major in health promotion prepares a student for work as a fitness 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 exercise science prepares the student for entrance into a doctor of physical therapy program, graduate programs - in exercise science or other related fields. A student graduating with a major in exercise science will be trained on highly sophisticated assessment equipment and will have gained real-world experience in a variety of settings outside the classroom.
6. A minor in public health studies provides students with basic public health concepts and skills that complement the student's major.
7. A minor in exercise science is intended for students looking to enhance their career objectives and goals who may be considering work in the allied health, wellness or fitness world. A minor increases a student's knowledge base, enhances qualifications, provides for a greater competitive edge in the job market and builds individual credibility. This minor is a good complement to a number of other disciplines such as business, marketing, communications and psychology.

CURRICULA

Major in Public Health Studies (B.A.)

- HLTH 250 Personal Health and Wellness (4 credits)
- HLTH 285 Alcohol, Tobacco, and Other Drugs (2 credits)
- HLTH 310 Global Health (4 credits)
- HLTH 342 Health and Family Education: Curriculum and Assessments (4 credits)
- HLTH 345 Nutrition for Health and Fitness (4 credits)
- HLTH 352 Community Health Education: Methods and Instruction (4 credits)
- HLTH 353 Consumer, Community and Environmental Health (4 credits)

Health and Human Performance

HLTH 400 Epidemiology (4 credits)
HLTH 462 Human Sexuality Education (4 credits)
HLTH 464 Critical Issues in Health Education (4 credits)
HLTH 465 Health Research Methods (4 credits)
HLTH 470 Health Internship 100 hours (2 credits)

Allied requirements

PHED 208 Anatomy and Physiology (4 credits)
PSYC 111 General Psychology (4 credits)

Four credits from the following:

PHED 430 Measurements and Evaluations (4 credits)
STAT 220 Statistics (4 credits)

Four credits from the following:

SOCI 100 Introduction to Sociology (4 credits)
SOCI 110 Social Problems (4 credits)

Four credits from the following:

BIOL 101 General Biology (4 credits)
BIOL 105 Human Biology (4 credits)
BIOL 106 Women, Medicine and Biology (4 credits)

Four credits from the following:

COJO 105 Communication in the Workplace (4 credits)
COJO 111 Intro to COJO I (4 credits)

Four credits from the following:

ENVR 151 Environmental Challenges and Sustainable Solutions (4 credits)
ENVR 212 Society and Sustainability (4 credits)
GEOL 161 Medical Geology (4 credits)

Major in Health Promotion (B.S.)

HLTH 120 Foundations of Health Promotion (2 credits)
HLTH 250 Personal Health and Wellness (4 credits)
HLTH 275 Lifelong Stress Management (2 credits)
HLTH 285 Alcohol, Tobacco and Other Drugs (2 credits)
HLTH 345 Nutrition for Health and Fitness (4 credits)
HLTH 465 Health Research Methods (4 credits)
EXSC 213 Human Anatomy (4 credits)
EXSC 214 Human Physiology (4 credits)
EXSC 326 Kinesiology (4 credits)
EXSC 332 Exercise Physiology (4 credits)
EXSC 426 Biomechanics (4 credits)
PHED 430 Measurement and Evaluation (4 credits)
EXSC 432 Advanced Exercise Physiology (4 credits)
EXSC 450 Health Promotion/Exercise Science Internship (2 credits)
First Aid/CPR/AED Certification recommended (Must provide proof of certification)

Allied requirements

MKTG 300 Principles of Marketing (4 credits)

Plus four credits from the following:

MGMT 305 Management and Organizational Behavior (4 credits)
MKTG 320 Integrated Marketing Communication (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 101 Environmental Chemistry (4 credits)
 CHEM 111 General Chemistry (4 credits)

Plus four credits from the following:

COJO 105 Communication in the Workplace (4 credits)
 COJO 112 Public Communication (4 credits)

Note: Eighty-four credits are required outside the areas of EXSC, PHED, and HLTH.

MAJOR IN PHYSICAL EDUCATION K-12

See Education

MAJOR IN HEALTH EDUCATION 5-12

See Education

Major in Exercise Science (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 or graduate school in Biomechanics or Exercise Physiology. Additional coursework may be required for some professional fields. (Consult Advisor)

HLTH 250 Personal Health and Wellness (4 credits)
 HLTH 275 Lifelong Stress Management (2 credits)
 HLTH 345 Nutrition for Health and Fitness (4 credits)
 EXSC 130 Foundations of Exercise Science (2 credits)
 EXSC 213 Human Anatomy (4 credits) (formerly PHED 213)
 EXSC 214 Human Physiology (4 credits) (formerly PHED 214)
 EXSC 240 Medical Terminology (2 credits) (formerly PHED 240)
 EXSC 326 Kinesiology (4 credits) (formerly PHED 326)
 EXSC 332 Exercise Physiology (4 credits) (formerly PHED 332)
 EXSC 426 Biomechanics (4 credits) (formerly PHED 426)
 EXSC 432 Advanced Exercise Physiology (4 credits) (formerly PHED 432)
 EXSC 449 Exercise Science Research Methods (4 credits) (formerly PHED 449)
 EXSC 450 Health Promotion/Exercise Science Internship (2 credits) (formerly PHED 450)

Allied requirements

BIOL 207 Genetics, Ecology, and Evolution (4 credits)
 BIOL 208 Biological Communication and Energetics (4 credits)
 CHEM 111 General Chemistry I and CHEM 112 General Chemistry II (4 credits each)
 OR CHEM 115 Accelerated General Chemistry (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)
 STAT 220 Statistics I (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 EXSC, PHED, and HLTH.

Minor in Public Health Studies

HLTH 250 Personal Health and Wellness (4 credits)
 HLTH 310 Global Health (4 credits)

Health and Human Performance

HLTH 400 Epidemiology (4 credits)

Elective Courses (8 credits): Given that Public Health is a very broad discipline, students are allowed to choose from a wide variety of supporting courses, focusing on the issues which interest them most. Students must select four credits from each of the following groups.

Group 1

Four credits from the following:

PSYC 151 Cross Cultural Psychology (4 credits)
BIOL 105 Human Biology (lab) (4 credits)
BIOL 106 Women, Medicine, and Biology (lab) (4 credits)
SOC 110 Social Problems (4 credits)
ENVR 151 Environmental Challenges and Sustainable Solutions (4 credits)
GEOL 161 Medical Geology (lab) (4 credits)
HLTH 275 Lifelong Stress Management (2 credits)
HLTH 285 Alcohol, Tobacco, and Other Drugs (2 credits)
PSYC 207 Drugs, and Behavior (4 credits)
PHED 208 Human Anatomy and Physiology (4 credits)
ENVR 212 Social Dynamics / Environment (4 credits)
WMST 205 Foundations in Women's Studies (4 credits)
ESCI 310 Environmental Problem Solving (4 credits)

Group 2

Four credits from the following:

HLTH 345 Nutrition for Health and Fitness (4 credits)
HLTH 353 Consumer, Community, and Environmental Health (4 credits)
HLTH 462 Human Sexuality Education (4 credits)
HLTH 464 Critical Issues in Health Education (4 credits)

Minor in Exercise Science

EXSC 213 Human Anatomy (4 credits)
EXSC 214 Human Physiology (4 credits)
EXSC 326 Kinesiology (4 credits)
EXSC 332 Exercise Physiology (4 credits)

Plus four credits from the following:

EXSC 426 Biomechanics (4 credits) (formerly PHED 426)
EXSC 432 Advanced Exercise Physiology (4 credits) (formerly PHED 432)

Students majoring in Health Promotion are not eligible to declare this minor.

Exercise Science Courses (EXSC)

EXSC 130 Foundations of Exercise Science (2 credits)

This is the introductory course in the Exercise Science major and provides an overview of the field of applied exercise science. The student will gain exposure to various career options and possible settings for professional practice of exercise science, and will be introduced to the foundations of Biomechanics, Exercise Physiology, Exercise Psychology and Sociology.

EXSC 213 Human Anatomy (4 credits)

This course is a study of the anatomical structure of the human body, from microscopic to gross structure across the organ systems. Of particular importance is 1) the complementarity of human anatomy structure and function, 2) the interrelationships between organ systems, and 3) the application of anatomical knowledge to common diseases and clinical conditions. Technology is utilized in both the laboratory and lecture components of the course to facilitate achievement of course learning goals. The co-requisite laboratory component of this course parallels and reinforces concepts and material covered in lectures. Two laboratory hours per week.

EXSC 214 Human Physiology (4 credits)

This course is designed to provide students with an understanding of the regulation and function of the human body and physiological integration for the maintenance of homeostasis. Areas of study include muscular, neural, cardiovascular, respiratory, renal, endocrine and reproductive systems. This course is a three-hour lecture course with a two hour lab section. Two laboratory hours per week.

EXSC 240 Medical Terminology (2 credits)

This course is intended to introduce students to technical terminology used in the health profession. Emphasis will be placed on nomenclature, medical vocabulary, pronunciation, spelling, and accurate definition. The Greek and Latin root words that form the basis of the technical terminology used in the health profession will be studied, thus providing students with an understanding of the fundamental building blocks of this terminology.

EXSC 295, 296 Topics (2 credits) (formerly PHED 295, 296)

EXSC 297, 298 Topics (4 credits) (formerly PHED 297, 298)

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>.

EXSC 326 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. Laboratory experiences will be done within the scheduled class time.

Prerequisites: PHED 208 or EXSC 213

EXSC 332 Exercise Physiology (4 credits)

This course is designed to provide an introduction to physiological responses experienced when training for, and participating in, sport and physical activity. Basic exercise physiology topics will be covered including the principles of exercise as well as adaptations to exercise for the purposes of cardiovascular fitness, muscular strength and/or endurance. Training for sport, detraining and ergogenic aids, cardiovascular disease, and obesity will also be studied. Laboratory experiences will be done within the scheduled class time.

Prerequisites: PHED 208 or EXSC 214

EXSC 426 Biomechanics (4 credits)

This course is designed to build on the basic understanding of the skeletal and muscular systems as they relate to human movement, data collection and analyzing sport performance and movement will be emphasized. Research techniques will be introduced and students will participate in designing and conducting a Biomechanics research project. Two hour laboratory per week.

Prerequisite: Minimum grade of C- in EXSC 326

EXSC 432 Advanced Exercise Physiology (4 credits)

Application of the principles of anatomy and physiology to the study of metabolic, respiratory, cardiovascular, musculoskeletal and nervous system changes during exercise and physical activity. The student will gain an understanding for the acute and chronic adaptations of these systems and how to impose those adaptations. In addition, students will gain hands-on experience in the testing and measurement of individuals in an exercise physiology laboratory. This course is a three-hour lecture course with a two-hour lab section.

Prerequisites: PHED 208 and PHED 304 for physical education majors only; EXSC 332 for Exercise Science and Health Promotion majors

EXSC 449 Research Methods in Exercise Science (4 credits)

This course is designed to teach research methodology specific to the field of Exercise Science. Students are required to engage in hands-on research focused on an area of interest in the field of Exercise Science. Students will learn research skills through locating primary literature sources, formulating a research question, conducting original research and presenting it in several formats.

Prerequisite: EXSC 426 and EXSC 432

EXSC 450 Health Promotion/Exercise Science Internship (2 credits)

This course meets the internship requirement for majors in the Exercise Science program. The required 100 observational hours fulfills a requirement for application to graduate clinical programs (e.g., physical therapy, chiropractic school, physician assistant school) for the Exercise Science majors. S-R grading option only.

Prerequisite: Permission of instructor and EXSC 426, EXSC 432.

First Aid/CPR/AED Certification required (must provide proof of certification)

EXSC 475, 476 Experiential Learning (2 credits)

EXSC 477, 478 Experiential Learning (4 credits)

Health and Human Performance

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

EXSC 483, 484 Seminar (2 credits)

EXSC 485, 486 Seminar (4 credits)

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

EXSC 487, 488 Topics (2 credits)

EXSC 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>.

EXSC 269, 389, 491 Research (2 or 4 credits)

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

EXSC 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 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 110 Team Sports

Motor skill acquisition, strategies and knowledge, and approach tendencies toward team sports. A variety of team sports will be analyzed, practiced, and assessed both cognitively and physically. This class will also better meet the Minnesota Subject Standards for Physical Education.

PHED 111 Technical Skills for Individual and Lifetime Activities (2 credits)

Motor skill acquisition, strategies and knowledge, and approach tendencies toward individual lifetime sports. A variety of individual lifetime activities will be analyzed, practiced, and assessed both cognitively and physically. This class will also better meet the Minnesota Subject Standards for Physical Education.

PHED 208 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 300 Motor Development (4 credits)

This course provides an in-depth study of the principles of human growth and life span motor development and motor learning. Topics of study will include physical growth and aging, development of motor skills across the life span, perceptual motor development and the interaction of exercise and structural constraints.

PHED 302 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 AAHPERD Fitnessgram Computer Programs. Successful completion of a clinical site teaching experience at the elementary level is required.

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 required.

PHED 351 Teaching of the Special-Needs Student (4 credits)

Knowledge and applications of physical education methods for teaching students with disabilities and diverse learning needs.

PHED 430 Measurement and Evaluation (4 credits)

This course is designed to provide a statistical background for students planning to work in the health promotion field. The purpose of measurement, testing and evaluation as they relate to human performance will be examined. Areas of study will include descriptive statistics, normal distribution, correlation and prediction, norm-referenced reliability and validity, and criterion-referenced reliability and validity. Students will gain experience measuring physical fitness, activity and health in adults, and statistically analyzing the data.

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.

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.

Health Courses (HLTH)**HLTH 120 Foundations of Health Promotion (2 credits)**

This course is designed as an entry-level foundations course for Health Promotion majors and those considering entering the Health Promotion field. This course examines the historical foundations of worksite health promotion, and methods of identification and assessment of employee needs. Students will learn effective ways of planning worksite Health Promotion programs, selecting healthy lifestyle programs, and preparing for the financial aspects of Health Promotion program delivery. They will also learn how to launch worksite health programs and evaluate them. Shadowing Health Promotion professionals in the field is a required component of this course.

HLTH 250 Personal Health and Wellness (4 credits)

This course will examine the components of a healthful lifestyle. The interrelationship of physical, intellectual, spiritual and emotional health will be emphasized. Specific areas such as mental health, stress and coping, human sexuality, resiliency enhancement, disease prevention, aging, grief and loss will be addressed.

HLTH 275 Lifelong Stress Management (2 credits)

The focus of the course 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. For those going into health education either in the field or for licensure, there will be ample items that you could adopt into your own teaching and classroom. This course is open to students from all fields.

HLTH 280 Exploring Medicine (2 credits)

Exploring Medicine: A physician or faculty-physician taught 2-credit course that applies basic science to clinical cases. This course involves job shadowing.

Prerequisites, other than an interest in medicine, include sophomore standing and completion of or concurrent registration in BIO 207 or EXSC 213 (formerly PHED 213)

Health and Human Performance

HLTH 285 Alcohol, Tobacco and Other Drugs (2 credits)

This course will introduce students to the current drug abuse issues. An overview of the various drugs of abuse, public policies concerning those drugs, and the related consequences and concerns will be discussed. The primary goals of the course are to provide students with current information regarding drugs of abuse and to increase their awareness of the issues and consequences surrounding drug use, abuse, and addiction. Trends in drug abuse, legal issues, determinants of use, pharmacology, and other issues will all be covered in this course.

HLTH 310 Global Health (4 credits)

Interacting among the Twin Cities' many global health organizations and communities, students will research, wrestle with, and uncover solutions to global health issues from a community health framework. This foundational perspective will allow students to apply their learning on an international scale.

HLTH 341 Health Education: 5-12 Curriculum and Assessment (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. 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 will be discussed. There will be opportunities for learners to actively engage in review and development of authentic assessment strategies. Learners will evaluate real-world health programs in the field and demonstrate effective in-service strategies and networking. Learners will engage in leadership approaches in enhancement of quality coordinated health education programs for families, schools, and communities.

HLTH 342 Health and Family Education: Curriculum and Assessments (4 credits)

Learners will explore effective strategies for development and evaluation of Community Health Education and Family Life Education curriculum. This exploration will include growth and developmental concerns, innovative learning theories, participant-centered and proactive learning, and best practices in pedagogy. There is an emphasis on interactive and interdisciplinary learning paradigms, population assessment, and curricula development and evaluation. Strategies for educating students and families from diverse populations will be incorporated.

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 recommendations will be included. This course is open to all students from all fields of study.

HLTH 351 Health Education: 5-12 Methods and Instruction (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 352 Community Health Education: Methods and Instruction (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. Strategies for effectively using and evaluating telecommunications and interactive multimedia in community health programs will be discussed. In addition, learners will investigate and design active partnerships with clients, representatives of the medical field, health insurance agencies and business communities.

HLTH 353 Consumer, Community and Environmental Health (4 credits)

This course uses popular and academic texts and video and online technology as well as external educators and events to bring to life the reality of community health. In the course, you will examine the theories and principles of health promotion, disease prevention and health behavior change within the context of consumer, environmental and community health. Community health is emphasized because it encompasses consumer and environmental health. In addition, many examples used are from adolescent health. This course provides a foundation for future health profes-

sionals, allied health professionals, teachers, journalists, clergy and others with the ability to provide population centered, interdisciplinary, prevention oriented health care through an understanding of what creates health in individuals and more so in communities. Models are examined for effectiveness within various social, psychological, cultural, political and economic contexts.

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 and 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: PHED 430 or STAT 220

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 curricular and community needs and concerns of K-12 students. Effective and appropriate teaching strategies and learning activities reflecting approved educational content and guidelines for a variety of audiences 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. 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 341/342 and 351/352 (may be taken concurrently) or permission of instructor

HLTH 465 Health Research Methods (4 credits)

This course is designed to teach research methodology specific to the fields of Community Health and Health Promotion. Students will be required to engage in hands-on research focused on an area of interest in the field of Community Health and Health Promotion. Students will learn research skills through locating primary literature sources, formulating a research question, conducting original research and presenting it in several formats

Prerequisites: HLTH 464, or EXSC 426 and EXSC 432

HLTH 470 Health Internship 100 hours (2 credits)

This is the 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 instructor

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)**

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)

History (HIST)

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), Blaakman, Cavert, Klejment, Nagy, Schrunck, Woytanowitz, Williard, Zimmerman

The Department of History offers a wide variety of courses dealing with the principal periods and topics of American, European, and World history, as well as selected non-European/non-U.S. fields such as East Asia, Latin America, the Atlantic World, and the Middle East. All history courses are designed to increase students' knowledge about how human agency and contingency, patterns of continuity and change, and the interactions of cultures affect our understanding of history. Thus, students not only learn historical content, but they also develop the habits of mind needed for the critical investigation and appreciation of history.

Among our regular offerings are 100-level courses that fulfill the Historical Studies component of the core curriculum. The learning objectives for these courses are:

1. To teach basic methods of historical inquiry and analysis of sources;
2. To increase knowledge of the history of the modern world and its origins;
3. To raise awareness of diversity within human history and the importance of intercultural learning;
4. To address issues related to the professional ethics of historians and the ethical use of historical materials.

The organizing theme of these courses is "Contact and Change," which affords students an opportunity to examine two of the principal challenges facing historians: accounting for change and understanding people and societies separated from us by space and time.

The History Department also offers a history major and a minor. Students may pursue the history major by itself or paired with another major or minor to prepare for careers in education, business, law, communications, government, and library, museum, or archival work. The history major also prepares students for graduate work in History or in other history-related academic disciplines. Interested students may also select individual history courses as electives that complement and enhance another major. History pairs especially well with majors or minors in Political Science, International Studies, Education, Justice and Peace Studies, Art History, English, Modern and Classical Languages, American Culture and Difference, Communication and Journalism, and Legal Studies. Students who pursue liberal arts majors like History are also eligible for the Renaissance program.

The history major consists of a combination of 100-, 200-, and 300-level courses and a 400-level capstone seminar. Because the 100-level courses are survey courses, they provide our majors and minors with a broad base of knowledge in a relatively long period of history and in a large geographic area. Students also learn basic critical thinking skills and close reading of primary source materials and secondary texts. Likewise, the 200-level courses are survey courses, but they are somewhat more narrowly defined and require more in-depth reading and writing assignments than the 100-level courses. Basic critical thinking skills and close reading of primary source materials and secondary texts are reinforced at this level, and students begin to acquire a few more skills in historical research, evaluating historical evidence, and crafting arguments in support of or against particular interpretations of historical events. The 300-level history courses focus on a specific historical period or event or a particular methodological approach to doing history. In terms of skill development, these courses ask students not only to employ evidence in support of historical interpretations but also to think critically about the relationship between varying types of evidence, to engage in prevalent debates within fields of historical scholarship, and to evaluate historical questions themselves for their utility and manageability. In the 400-level capstone seminar, students employ the knowledge they have acquired throughout their course of studies and the skills necessary to the discipline of History to research, write, and present a significant research project of their own. The 400-level capstone seminar is required for the history major but is optional for the history minor.

The learning objectives for the history major can be found at <http://www.stthomas.edu/history/majors/default.html> under "Curricular Overview."

History Honor Society

A campus chapter of *Phi Alpha Theta*, the national honor society in History, was established at St. Thomas in 1950. Candidates must have completed at least three courses in History and maintained a GPA of at least 3.1 in their history courses and a GPA of 3.0 overall to qualify.

Major in History

Forty-four credits (11 courses) complete the *major*, no more than twelve credits (3 courses) of which may be at the 100-level and at least sixteen credits (4 courses) of which must be numbered HIST 300 or above.

Transfer students: At least twenty-four (24) of the total credits needed for the history major must be taken at the University of St. Thomas or in a St. Thomas approved study abroad program. 200- and 300-level transfer courses require the approval of the department chair in order to be counted toward the major. The capstone seminar (HIST 463, 464, or 465) must be taken at St. Thomas.

1. Select 8 credits from two of the following areas:

Four credits from World History:

- HIST 111 Origins of the Modern World to 1550 (4 credits)
- HIST 112 The History of the Modern World since 1550 (4 credits)
- HIST 115 The World Since 1900 (4 credits)

Four credits of American History:

- HIST 113 Early America in Global Perspective (4 credits)
- HIST 114 The Modern U.S. in Global Perspective (4 credits)
- HIST 116 African American History in Global Perspective (4 credits)

Four credits of non-Western History:

- HIST 118 The Middle East and North Africa in Global Perspective (4 credits)
- HIST 119 East Asian Civilizations in Global Perspective (4 credits)

Note: No more than three 100-level History courses may be applied to the major.

2. Select at least four credits from each of the following areas:

Ancient and Medieval World:

- HIST 203 Ancient Egypt and the Near East (4 credits)
- HIST 205 The Ancient Greek World (4 credits)
- HIST 208 History of the Roman World (4 credits)
- HIST 310 Europe: Middle Ages to 1000 (4 credits)
- HIST 311 Europe from 1000 to 1450 (4 credits)
- HIST 386 Historical Archaeology (4 credits)

Europe since 1450:

- HIST 222 Early Modern Europe, 1450-1750 (4 credits)
- HIST 223 Survey of Irish History: Celtic Ireland to 1972 (4 credits)
- HIST 225 The Making of Modern Europe, 1750 to 1914 (4 credits)
- HIST 226 Modern Europe since 1914 (4 credits)
- HIST 322 Tudor and Stuart Britain, 1485-1714 (4 credits)
- HIST 324 Britain Since 1815 (4 credits)
- HIST 328 The French Revolution and Napoleonic Era (4 credits)
- HIST 333 East-Central Europe: From Monarchy to the European Union (4 credits)
- HIST 335 Nazi Germany and the Holocaust (4 credits)

The Americas and Their Colonial Antecedents:

- HIST 210 Modern Latin America, 1800 to the Present (4 credits)
- HIST 211 Women and Families in the Americas (4 credits)
- HIST 262 American Colonial History (4 credits)
- HIST 263 United States Military History (4 credits)
- HIST 266 Minnesota History (4 credits)

History (HIST)

- HIST 268 History of Women in the United States (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 365 U.S. Constitutional History (4 credits)
- HIST 366 History of the American Catholic Church (4 credits)
- HIST 371 History of U.S. Foreign Policy (4 credits)
- HIST 372 Vietnam and the United States (4 credits)

The Non-Western World:

- HIST 240 Foundations of Chinese Civilization (4 credits)
- HIST 241 The History of Modern China (4 credits)
- HIST 244 Modern East Asia (4 credits)
- HIST 253 Cities of the Middle East (4 credits)
- HIST 348 Japan: History Through Literature (4 credits)
- HIST 349 History of the Ottoman Empire (1300-1922) (4 credits)

At least twelve credits (3 courses) must be numbered HIST 300-399 or above. A student may choose to take a second capstone seminar to complete four credits (1 course) of this requirement, but this should only be in consultation with his/her major advisor.

3. Plus four credits from among the following:

- HIST 463 Capstone Seminar in European History (4 credits)
- HIST 464 Capstone Seminar in Non-Western History (4 credits)
- HIST 465 Capstone Seminar in History of the Americas (4 credits)

Teacher Licensure

Middle Level Teaching Endorsement 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 (5 courses) in history, no more than eight credits (2 courses) of which may be at the 100-level and at least four credits (1 course) of which must be numbered HIST 300 or above. Selection of the specific courses to fulfill the requirements should be done in consultation with a member of the department faculty.

Transfer students: At least twelve credits (3 courses) of the total needed for the history minor must be taken at the University of St. Thomas or in a St. Thomas approved study abroad program. 200- and 300-level transfer courses require the approval of the department chair in order to be counted toward the minor.

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. Students will learn about the historical processes that led to the emergence of an interdependent world. Topics will include: the establishment of Europe's world hegemony in the years leading up to World War I, the internal conflicts which beset European civilization in the years between the wars, in particular, the rise of Communism and Fascism and the world economic crisis of the 1930s which pushed Europe and Asia toward World War II. Students will also examine the character of the world order that emerged after 1945, the origins of the Cold War between the United States and the Soviet Union, and the problems of some of the nations newly emerging from colonial domination. Finally, we discuss 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 and its challengers; migration; changes during the depression and WWII; black nationalism and independent Africa; the freedom movements of the North and South; and the post civil rights era. This course fulfills the Historical Studies requirement in the core curriculum.

HIST 118 The Middle East and North Africa in Global Perspective (4 credits)

This course will introduce students to the history and cultures of the Middle East and North Africa with special attention to the impact of successive Islamic movements that shaped the modern-day political system of Islam and that continues to inform their interactions with Europe and the West today. The organizing theme of the course is "Contact and Change," which will afford an opportunity to examine two of the principal challenges facing historians: accounting for change and understanding people and societies separated from us by space and time. This course fulfills the Historical Studies requirement in the core curriculum.

HIST 119 East Asian Civilizations in Global Perspective (4 credits)

This course uses a culture of East Asia (China or Japan) as a focal point for investigating the history of the region. Students will gain a broad-based historical and cultural understanding of East Asia in its global context, beginning with the origins of this culture, and including its inter-regional connections and its encounters with the West. In this way, this course addresses the preconception that East Asia existed unchanged until the arrival of Europeans. The theme of this course is "Contact and Change," which will afford an opportunity to examine two of the principal challenges facing historians: accounting for change and understanding people and societies separated from us by space and time. This course fulfills the Historical Studies requirement in the core curriculum. Fall semester focuses on Japan; spring semester focuses on China.

HIST 203 Ancient Egypt and the Near East (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 (8000 B.C. to A.D. 750). 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 205 The Ancient Greek World (4 credits)

History (HIST)

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 208 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 210 Modern Latin America, 1800 to the Present (4 credits)

This course surveys the historical and cultural developments of Latin America from Independence to the present. Select topics include: political and economic development, race relations, social power and privilege, revolution, urban and rural societies, militarism and the struggle for social justice, and the historical role of the Catholic Church. The relationship between the U.S. and Latin America is examined from a Latin American perspective. This course fulfills the Human Diversity Requirement.

HIST 211 Women and Families in the Americas (4 credits)

This course examines how seemingly impersonal forces are historically associated with personal changes for women and the family across the Americas. We will analyze how women and the family intersected with the economy, politics, and society. A comparative approach allows for consideration of national circumstances and social norms regarding race, ethnicity, and class. Examining the history of women and the family throughout the Americas also highlights similarities and differences within the reciprocal relationship between private lives and public policy. Topics include working women and the family economy, slavery, political rights and protective legislature, social movements, youth culture and immigration. Understanding the history of women and the family helps explain current contentions over women's roles and modern family structure.

HIST 222 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 223 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 225 The Making of Modern Europe, 1750-1914 (4 credits)

This course is a close examination of the cultural, social, economic, and political development of Europe from the Age of Enlightenment to the outbreak of WW I. The course will investigate Europe's transformation from pre-modern to modern and the continent's rise to hegemony throughout a very long nineteenth century. Topics include, but are not limited to, Enlightenment and enlightened absolutism, French Revolution, liberalism, Napoleonic Wars, nationalism and the rise of the nation-state, 1848 revolutions, origins of Communism, Crimean War, Colonialism, and the unification of Italy and Germany.

HIST 226 Modern Europe since 1914 (4 credits)

This course is a close examination of twentieth century European history or, as some historians refer to it, the "short twentieth century" of the "dark continent." It follows the cultural, social, economic, and political development of Europe through wars and reconstruction. Topics include, but are not limited to, imperial and national rivalry, WW I and its aftermath, Russian Revolution, Fascism and Nazism, WW II and its aftermath, Cold War and the division of Europe, 1989, and the emergence of the European Union.

HIST 240 Foundations of Chinese Civilization (4 credits)

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 241 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 244 Modern East Asia (4 credits)

In this course, we will read about and discuss the development of "modern" societies in China, Korea, and Japan from early modern times to the present. We will focus on problems such as empire, historical memory, and the formation of modern nation-states. Readings include memoirs and other personal writings as historical texts, as a way to understand the times.

HIST 253 Cities of the Middle East (4 credits)

A survey of the history of major cities in the Middle East and Africa. This course will trace the region's history through the foundation and development of the cities that served as the centers of the significant political entities since 600 A.D. Each week will focus on the symbolism and functionality of urban space and architecture as well as the role of politics, religion, and global trade in the formation of one of the following cities: Jerusalem, Mecca and Madina, Baghdad, Cairo, Istanbul, Isfahan, Beirut and Algiers. The course will seek an answer to the question of whether history shapes the city or the city shapes history.

HIST 262 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 263 United States Military History (4 credits)

This course provides an overview of the military history of the United States from its revolutionary origins to its contemporary challenges. It examines the composition and employment of the United States military as a product of the larger political and cultural aims of American society while also paying attention to the reciprocal effect that wars have on the societies that engage in them. Special attention will be devoted to the human experience of warfare as an ethical, social, and intellectual problem.

HIST 266 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 268 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, slavery and servitude, industrialization of home and workplace, voluntary associations, women social activists, women's rights, and various approaches to achieving social equality for women. This course fulfills the Human Diversity requirement in the core curriculum.

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 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

History (HIST)

Church. Recovery of Byzantine Empire; Islamic World under Umayyad and Abbasid Caliphates.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

HIST 333 East-Central Europe: From Monarchy to the European Union (4 credits)

This course is an examination of the history of East-Central Europe from 1848 to 2010. The subject of our study is one of the most fascinating places one can learn about. The "other Europe," as some people refer to it, is a multiethnic and multicultural region with a turbulent history. The geographical focus of our course will be Poland, Czech Republic, Slovakia, Hungary, and the former Yugoslavia. The course allows students to gain knowledge of the region's history and culture. It promises to be a captivating ride, for the "land between" often served as a laboratory for the various ideological and political movements of the nineteenth and twentieth century (liberalism, nationalism, fascism, socialism/communism, capitalism etc).

Prerequisite: One 100-level history course.

HIST 335 Nazi Germany and the Holocaust (4 credits)

This course examines the origins of modern anti-Semitism, the rise of the Nazi Party and the subsequent radicalization of its racial policy from persecution to genocide. The course conceptualizes the Holocaust in the European/global framework-beyond Germans and Jews. It investigates the relationship between the various segments of the continent's population and complexities of such concepts as collaboration and resistance. Finally, it examines the legacy, influence, and contemporary understanding of the Holocaust.

Prerequisite: One 100-level HIST course

HIST 348 Japan: History Through Literature (4 credits)

This course examines modern Japanese history through novels and short stories written between the turn of the century to the present. We will consider how and why fiction can be used as historical texts even while it has not "facts." As we read and analyze works of literature as historical texts we will address the question, "How do various people negotiate change at different points in time?" Throughout the course we will discuss themes such as modernization, empire, postwar society, and consumer culture.

Prerequisite: One 100-level history course.

HIST 349 History of the Ottoman Empire (1300-1922) (4 credits)

This course is a survey of the history of the Ottomans from its origins as a small medieval principality in Asia Minor to a major global power in the sixteenth century, and to its eventual disintegration by the end of World War I. The course will concentrate on the main political, social and cultural institutions of the Ottoman society, and how these changed over time. It will also introduce students to some of the major themes and recent trends in Ottoman historiography, including debates on the origins and decline of the Ottomans, the issue of Ottomans' legacy for the successor states, as well as the growing research on the formerly underrepresented groups such as women, minorities, etc.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

HIST 358 Twentieth-Century United States (4 credits)

An intensive study of 20th-century United States domestic history, with emphasis on social change and social thought. Topics include: reform movements, industrialization, urbanization, the economy, the homefront, consumer culture, suburbanization, liberation movements, and deindustrialization.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

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 American Catholics of color emphasize the rich thought and religious experiences of Catholics from diverse backgrounds. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: One 100-level history course.

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.

Prerequisite: One 100-level history course.

HIST 372 Vietnam and the United States (4 credits)

The causes, events, personalities and consequences of U.S. involvement in the Vietnam War. Background on Vietnamese culture, nationalism, colonial status, wartime occupation, social revolution, and civil war. Role of cold war culture and politics, the media, public opinion, and military strategy in defining the U.S. commitment in Southeast Asia. Analyzes the strategies of opponents of the war and the aftermath of the war in the U.S. and Vietnam. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: One 100-level history course.

HIST 386 Historical Archaeology (4 credits)

HONORS Courses (HONR)

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.

Prerequisite: One 100-level history course.

HIST 463 Capstone 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. Students in the seminar will complete and present to other members of the class a significant research project.

Prerequisites: at least three History courses numbered 200 or above, including at least one of the following: HIST 222, 223, 225, 226, 310, 311, 322, 324, 328, 333.

HIST 464 Capstone 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. Students in the seminar will complete and present to other members of the class a significant research project.

Prerequisites: at least three History courses numbered 200 or above, including at least one of the following: HIST 240, 241, 244, 253, 348, 349.

HIST 465 Capstone Seminar in History of the Americas (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. Students in the seminar will complete and present to other members of the class a significant research project.

Prerequisites: at least three History courses numbered 200 or above, including at least one of the following: HIST 210, 262, 266, 268, 353, 355, 358, 366, 371, 372.

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 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

HONORS COURSES (HONR)

HONR 479, 480 Honors Seminar (2-6 credits) (Formerly IDSC 479, 480)

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. (HONR 479 is used if the seminar has been approved to partially fulfill a requirement in the core curriculum.)

INTERDISCIPLINARY COURSES (IDSC)

Cross-College Program

Wendy Wyatt, Associate Vice Provost for Undergraduate Studies, 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 environmental 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.

Interdisciplinary Courses (IDSC)

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 course 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 multicultural 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.

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 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

ary 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 365 Materials Science and Engineering Practicum (0 credits)

Participants in the Interdisciplinary Minor in Materials Science and Engineering complete a Materials-based practicum. This practicum will give them real-world experience with issues relevant to Materials Science and Engineering. Students are encouraged to be proactive in selecting their practicum experience, as well as to explore and consider options in both industry and academic research. A variety of options and opportunities is available through the Career Center. Students are also encouraged to discuss possibilities with Materials-related faculty.

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 ongoing 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 world views 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.

Interdisciplinary Courses (IDSC)

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 carry out 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 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 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
John Roach Center (JRC) 408, 651-962-5722
Buhr (POLS), director

This major seeks to give the student an 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 world geography and a foreign language beyond the College's general education requirement. The program takes an explicitly interdisciplinary approach, which is intended to instill in students the core knowledge shared by international studies scholars and professionals.

Students graduating with a major in international studies will be capable of critical thought and writing in the professional style of the discipline. Majors will also develop skills such as research fundamentals, analysis, and collection and interpretation of empirical data. These skills enable graduates to relate their international interests to a broad range of careers including government, international business, international law, nonprofit organizations and teaching. Graduates will also be well-prepared to undertake graduate studies in related disciplines such as international relations, public policy, law and business.

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)

or HIST 115 The World Since 1900 (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 or other globally-focused courses as approved by the director. 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 341 Economics of International Finance (4 credits)

ECON 342 International Trade (4 credits)

ECON 345 Economics of Development and Growth (4 credits)

ECON 346 Country and Area Studies in Economics (4 credits)

ECON 349 Comparative Economic Systems (4 credits)

HIST 210 Modern Latin America, 1800 to the Present (4 credits)

HIST 225 The Making of Modern Europe, 1750 to 1914 (4 credits)

HIST 226 Modern Europe since 1914 (4 credits)

HIST 241 History of Modern China (4 credits)

HIST 244 Modern East Asia (4 credits)

International Studies

HIST 253 Cities of the Middle East (4 credits)
HIST 324 Britain Since 1815 (4 credits)
HIST 333 East-Central Europe From Monarchy to the European Union (4 credits)
HIST 348 Japan: History through Literature (4 credits)
HIST 349 History of the Ottoman Empire (4 credits)
HIST 371 History of U.S. Foreign Policy (4 credits)
HIST 372 Vietnam and the United States (4 credits)
POLS 225 World Politics (4 credits)
POLS 320 American Foreign Policy (4 credits)
POLS 321 Comparative Foreign Policy (4 credits)
POLS 326 International Law and Organizations (4 credits)
POLS 328 International Security (4 credits)
POLS 350 Comparative Politics of the New Europe (4 credits)
POLS 352 Politics of the Developing World (4 credits)
POLS 354 Politics of Post-Soviet States (4 credits)
POLS 356 Politics of India, Pakistan and South Asia (4 credits)
POLS 424 Seminar in International Relations (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

CURRICULA

Recommended courses:

The following courses may be of particular use to students with a long-term interest in international business or non-profit work.

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)
STAT 200 Statistics (4 credits)
CISC 200 Introduction to Computer Technology and Business Applications (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

JAPANESE (JAPN)

See Modern and Classical Languages

JUSTICE AND PEACE STUDIES (JPST)

College of Arts and Sciences, Interdisciplinary Program
O'Shaughnessy Education Center (OEC) 470, (651) 962-5420
Finnegan (JPST) (chair), Klein (JPST), Nelson-Pallmeyer (JPST)

Justice and peace studies is an interdisciplinary department designed to prepare students to be responsible critics of contemporary societies and effective agents for positive social transformation. The program offers a general major or minor, along with three optional tracks for major concentrations:

- The Conflict Transformation concentration prepares students to analyze the dynamics and identify transformative opportunities in conflicts at multiple levels, from interpersonal to international, while developing practical skills in mediation and conflict resolution through partnerships with local practitioners and organizations that exemplify best practices in the field.
- The Public Policy Analysis and Advocacy concentration develops social analysis skills for public policy formation, evidence-based research and argumentation, as well as communication and networking skills for effective advocacy around issues such as environmental sustainability and climate change, foreign policy and peacebuilding, and economic justice and social welfare.
- The Leadership for Social Justice concentration helps students anticipate and begin preparing for the full arc of a career in which successful community organizing requires them to institutionalize the changes they seek, through social entrepreneurship and nonprofit management.

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, social conflict, or 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. 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 historical examples of its use. Students will also learn the techniques and appropriate uses of other methods of social change, with special focus on community organizing, social entrepreneurship, nonprofit management and public policy advocacy. They will be able to engage in respectful dialogue with people whose values and positions 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. Others core courses focus on action possibilities. All students who major in justice and peace studies take each of the signature courses from the three concentration areas: JPST 375 Conflict Analysis and Transformation, JPST 355 Public Policy Analysis and Advocacy, and JPST 365 Leadership for Social Justice.

Major in Justice and Peace Studies: Concentration in Leadership for Social Justice

JPST 250 Introduction to Justice and Peace Studies (4 credits)

JPST 280 Active Nonviolence (4 credits)

JPST 355 Public Policy (4 credits)

JPST 365 Leadership for Social Justice (4 credits)

JPST 375 Conflict Analysis and Transformation (4 credits)

JPST 473 Vocational Internship Seminar (0 credits, in conjunction with internship)

THEO 421 Theologies of Justice and Peace (4 credits) – Based on student career interests, other THEO 400 classes may

Justice and Peace Studies (JPST)

substitute for this course, with permission of the program director.

Significant experience engaging student directly with situation of poverty, injustice, social conflict, or marginalization (0 credits – see section below for more information)

Internship during junior or senior year (0-4 credits – see section below for more information)

Plus:

SOCI 110 Social Problems
ENTR 200 Foundations of Entrepreneurship
ENTR 490 Social Entrepreneurship
SOCI 365 Social Psychology
COJO 111 Communication & Citizenship

One additional cultural awareness course from the following list:

COJO 326 Communication in Popular Culture
COJO 328 Communication of Race, Class, and Gender
COJO 342 Media, Culture and Society
COJO 352 Media Structure and Power
COJO 370 Intercultural Communication
PSYC 151 Cross-Cultural Psychology
SOCI 251 Race and Ethnicity
SOCI 301 General Anthropology
SOCI 350 Social Inequality: Privilege & Power

Two applied communication courses from the following list:

COJO 220 Interpersonal Communication
COJO 274 Small Group Communication
COJO 320 Organizational Communication
COJO 338 Political Communication
COJO 366 Persuasion
COJO 376 Argumentation & Advocacy
JPST 370 Conflict Mediation
JPST 478 Experiential Learning [internship taken for credit]

CURRICULA

Major in Justice and Peace Studies: Concentration in Conflict Transformation

JPST 250 Introduction to Justice and Peace Studies (4 credits)
JPST 280 Active Nonviolence (4 credits)
JPST 355 Public Policy (4 credits)
JPST 365 Leadership for Social Justice (4 credits)
JPST 375 Conflict Analysis and Transformation (4 credits)
JPST 473 Vocational Internship Seminar (0 credits, in conjunction with internship)
THEO 421 Theologies of Justice and Peace (4 credits) – Based on student career interests, other THEO 400 classes may substitute for this course, with permission of the program director.

Significant experience engaging student directly with situation of poverty, injustice, social conflict, or marginalization (0 credits – see section below for more information)

SOCI 110 Social Problems
COJO 111 Communication and Citizenship
SOCI 365 Social Psychology
COJO 376 Argumentation and Advocacy
JPST 370 Conflict Mediation
JPST 478 Experiential Learning [internship taken for 4 credit hours]

Plus one of the following:

IDSC 291 The Anatomy of Violence
SOCI 350 Social Inequality: Privilege & Power

Plus one of the following:

- COJO 328 Communication of Race, Class, and Gender
- COJO 370 Intercultural Communication
- PSYC 151 Cross-Cultural Psychology
- SOCI 251 Race and Ethnicity
- SOCI 301 General Anthropology

Major in Justice and Peace Studies: Concentration in Public Policy Analysis and Advocacy

- JPST 250 Introduction to Justice and Peace Studies (4 credits)
- JPST 280 Active Nonviolence (4 credits)
- JPST 355 Public Policy (4 credits)
- JPST 365 Leadership for Social Justice (4 credits)
- JPST 375 Conflict Analysis and Transformation (4 credits)
- JPST 473 Vocational Internship Seminar (0 credits, in conjunction with internship)
- THEO 421 Theologies of Justice and Peace (4 credits) – Based on student career interests, other THEO 400 classes may substitute for this course, with permission of the program director.

Significant experience engaging student directly with situation of poverty, injustice, violence, and/or marginalization (0 credits – see section below for more information)

Internship during junior or senior year (0-4 credits – see section below for more information)

Recommendations:

- As students fulfill their social analysis requirement in the core curriculum, they should anticipate which of the disciplines below they will focus upon, in order to meet prerequisites for classes in this concentration.
- As students fulfill their lab science requirements in the core curriculum, they are encouraged to take one of the following courses:
 - BIOL 102 Conservation Biology
 - CHEM 101 Environmental Chemistry
 - GEOL 113 Earth's Record
- As students fulfill their third math and science requirement in the core curriculum, they are encouraged to take the following course:
 - STAT 220–Statistics 1

Plus at least 3 courses in one discipline from the following clusters, plus 1 course each in 2 other disciplines (5 total):

Economics:

- ECON 211 Current Economic Issues (4 credits)
- ECON 252 Principles of Microeconomics (4 credits)
- ECON 326 Industry Studies (4 credits)
- ECON 333 Regional and Urban Economics (4 credits)
- ECON 370 Environmental and Natural Resource Economics (4 credits)

Environmental studies:

- ENVR 151 Environmental Challenges and Sustainable Solutions (4 credits)
- ENVR 212 Society and Sustainability (4 credits)
- ENVR 301 Environmental Ethics (4 credits)
- ENVR 351 Environmental Policy Formation (4 credits)

Geography:

- GEOG 298 Geography for Social Analysis (4 credits)
- GEOG 321 Geographic Information Systems (4 credits)

And one of the following:

- GEOG 322 Geographical Analysis (4 credits)
- GEOG 331 Conservation Geography (4 credits)

Justice and Peace Studies (JPST)

GEOG 421 Applied GIS (4 credits)

Public policy in the U.S.:

POLS 104 American Government in Comparative Perspective (4 credits)

POLS 205 Citizen Participation and Public Policy (4 credits)

POLS 303 Urban and Metro Politics (4 credits)

Foreign policy and international relations:

POLS 225 World Politics (4 credits)

POLS 320 American Foreign Policy (4 credits)

POLS 321 Comparative Foreign Policy (4 credits)

Sociology and Social Work:

SOCI 110 Social Problems (4 credits)

SOCI 251 Race and Ethnicity (4 credits)

SOCI 350 Social Inequality: Privilege and Power (4 credits)

SOWK 281 Introduction to Social Work (4 credits)

SOWK 391 Social Policy for Social Change (4 credits)

Two applied communication courses:

COJO 111 Communication & Citizenship (4 credits)

COJO 320 Organizational Communication (4 credits)

COJO 338 Political Communication (4 credits)

COJO 366 Persuasion (4 credits)

COJO 372 Environmental Communication (4 credits)

COJO 376 Argumentation & Advocacy (4 credits)

JPST 370 Conflict Mediation (4 credits)

JPST 478 Experiential Learning [internship taken for 4 hours credit]

Major in Justice and Peace Studies (generalist track)

JPST 250 Introduction to Justice and Peace Studies (4 credits)

JPST 280 Active Nonviolence (4 credits)

JPST 355 Public Policy (4 credits)

JPST 365 Leadership for Social Justice (4 credits)

JPST 375 Conflict Analysis and Transformation (4 credits)

JPST 473 Vocational Internship Seminar (0 credits, in conjunction with internship)

THEO 421 Theologies of Justice and Peace (4 credits) – Based on student career interests, other THEO 400 classes may substitute for this course, with permission of the program director.

Significant experience engaging student directly with situation of poverty, injustice, social conflict, or marginalization (0 credits – see section below for more information)

Internship during junior or senior year (0-4 credits – see section below for more information)

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 Communication in Popular Culture (4 credits)

COJO 328 Communication of Race, Class, and Gender (4 credits)

COJO 342 Media, Culture and Society (4 credits)

COJO 352 Media Structure and Power (4 credits)

COJO 370 Intercultural Communication (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 Environmental Challenges and Sustainable Solutions (4 credits)

ENVR 212 Society and Sustainability (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)
 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 Vietnam and the United States (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 World Politics (4 credits)
 POLS 301 Political Identity and Participation (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 General 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 366 Persuasion (4 credits)
 COJO 376 Argumentation and Advocacy (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 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)
 THEO 432 Black Religious Experience (4 credits)
 THEO 447 Faith, Social Transformation and Social Work
 THEO 449 Christian Faith and the Engineering Profession
 THEO 454 The Morality of War
 THEO 455 The Church in Latin America
 THEO 456 Christianity and Consumer Culture
 THEO 457 Theology and Public Discourse
 THEO 458 The Bible from a Multicultural Perspective

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THEO 459 Theology and the Environment
THEO 460 Christian Ethics and U.S. Immigration
THEO 465 The Bible and Justice

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:
Additional courses to be selected with the approval of the program director, to bring the total number of credits to 44 (40 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 Citizen Participation and Public Policy (4 credits)
SOC 210 Research Methods in Sociology (4 credits)
SOC 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 one of the following:
JPST 355 Public Policy (4 credits)
JPST 365 Leadership for Social Justice (4 credits)
JPST 375 Conflict Analysis and Transformation (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.

Significant experience:

Appropriate experience of poverty, injustice, social conflict, 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.).

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 work-

ing 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 at least 7-10 hours a week of justice and peace work. Students doing internships for credit by enrolling for JPST 475-478 Experiential Learning are usually required to do a total of 100 hours of work for 2 credit hours, or 200 hours of work for 4 credit hours.

Students doing a concentration in Conflict Transformation, Public Policy Analysis and Advocacy, or Leadership for Social Justice must choose an internship that allows them to develop skills in their area. In general, 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 sometimes 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.

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 355 Public Policy (4 credits)

In this class students will investigate how and why particular public policies are developed, proposed, adopted, and implemented; will explore how social values shape and impact public policies; and will learn how to frame issues in ways that allow for more effective advocacy. The class will examine the relative power of diverse corporate and non-profit sectors in influencing policy debates and outcomes, including the role of think tanks. Students will analyze the limitations and strengths of diverse approaches to advocacy ranging from third-party appeals and solidarity efforts to elite decision makers, as well as the prospects for a politics of agency rooted in citizen-centered politics in which people mobilize to meet the needs of their communities. The course will integrate basic theory, interaction with public policy analysts and advocates, personal experience in persuasive advocacy, and case studies focused on issues such as climate change, economic inequality, land-food-hunger, and approaches to health care. Assignments will introduce students to various tools for persuasive advocacy and allow them develop skill sets for using them

JPST 365 Leadership for Social Justice (4 credits)

Leadership for Social Justice examines the arc of leadership through the process of creating, sustaining, then institutionalizing positive social change. The course examines models and case studies of authoritative, positional, influential and situational leadership in diverse settings such as community organizing, social movements, social entrepreneur-

Justice and Peace Studies (JPST)

ship and nonprofit management. The course also explores approaches to ethical leadership and provides opportunities for students to develop the skills and vision needed to become ethical leaders for social justice. Students will analyze the role of leadership in the tensions between preserving order and promoting transformation. They will develop a critical approach to the dynamics of power in order to effect systemic change.

JPST 370 Conflict Mediation (4 credits)

This course will focus on mediation and the third-party role of the mediator. Much class time will be spent learning the process of mediation and the skills needed to be a mediator whether in a formal sense or informally as a life skill. Experiential in nature, the course will elicit and build upon students' own experiences of conflict and will use various experiential learning tools to develop practical mediation skills. Students will also survey various streams in the practice of mediation as they have developed historically, along with its theoretical basis. Special attention will be given to arenas/situations in which mediation is and is not appropriate or indicated, to cultural implications of mediation and to some of the ethical dilemmas mediators face. For Justice and Peace Studies majors doing a concentration in Conflict Transformation, the course will complement JPST 375 Conflict Analysis and Transformation, but there are no prerequisites and the course is open to students in other majors.

JPST 375 Conflict Analysis and Transformation (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 coexistence. For Justice and Peace Studies majors doing a concentration in Conflict Transformation, the course will complement JPST 375 Conflict Mediation, but there are no prerequisites and the course is open to students in other majors.

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 coexistence. 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.

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)

Literary Studies

BLAW 351 Environmental Law (4 credits)
BLAW 352 Gender Issues and the Law (4 credits)
BLAW 353 Employment and Labor Law (4 credits)
BLAW 401 Legal Research, Advocacy, and Dispute Resolution (4 credits)
BLAW 402 Law of Electronic Commerce (4 credits)
BLAW 403 Marketing Law (4 credits)
COJO 336 Communication Law (4 credits)
ECON 321 Law and Economics (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 and Politics (4 credits)
POLS 313 Constitutional Powers of Government (4 credits)
POLS 314 Constitutional Rights and Liberties (4 credits)
POLS 326 International Law and Organizations (4 credits)
POLS 414 Seminar in Judicial Politics (4 credits)
THEO 436 Christian Faith and the Legal Profession (4 credits)

LEGAL STUDIES IN BUSINESS

See Business Administration

CURRICULA

LITERARY STUDIES

College of Arts and Sciences, Interdisciplinary Program
John Roach Center for the Liberal Arts (JRC) 335, (651) 962-5611
Scheiber (English) and Pinto (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

MATERIALS SCIENCE AND ENGINEERING

College of arts and Sciences, Interdisciplinary Program
B. Nelson-Cheeseman, Program Director: OSS 319 ex. 2-5773

Minor in Materials Science and Engineering

The Materials Science and Engineering (MSE) Minor is an interdisciplinary program that helps science and engineering students develop the knowledge and skills to properly select current materials for design and engineer future materials for advanced applications. As MSE is a broad interdisciplinary field, the program begins with a basic foundation and is then tailored by the student to overlap with their major field and highlight their materials area(s) of interest. Students learn about materials properties, structure, and processing through a variety of courses and a hands-on practicum. This minor serves those who plan to go on to graduate school in a materials-related field, as well as those entering industry who wish to gain expertise in the overlap between science and engineering.

Students wishing to enter this program should contact the program director.

All students must complete the following:

- PHYS 111 Classical Physics I (4 credits)
- PHYS 112 Classical Physics II (4 credits)
- Four (4) credits in thermodynamics. Choose one of
 - CHEM 331
 - ENGR 381
 - GEOL 340
 - PHYS 410
- ENGR 361 Engineering Materials (4 credits)
- IDSC 365 Materials Science and Engineering Practicum (0 credits)

Plus:
Eight (8) *additional* credits from approved materials-relevant course electives as listed here:

Key themes of MSE addressed by electives:

- Processing-Structure-Property-Performance/Applications Relations
- Crystal Structure and Bonding
- Thermodynamics and Phase Transformations
- Properties: Mechanical, Thermal, Electrical, Magnetic, Optical and Corrosive/Deteriorative

Mathematics (MATH)

Materials Characterization

Materials Types: Metals, Ceramics, Polymers, Composites, Biomaterials, Nanomaterials, Smart Materials.

BIOL 328 Environmental Toxicology and Health (4 credits)
BIOL 353 Microscopic Anatomy (4 credits)
BIOL 361 Medical Geology (4 credits)
BIOL 371 Cell Biology (4 credits)
CHEM 340 Organic Spectroscopy (2 credits)*
CHEM 400 Advanced Inorganic Chemistry (4 credits)*
CHEM 430 Polymer Chemistry (2 credits)*
CHEM 487 Biomaterials (2 credits)*
ENGR 221 Mechanics of Materials (4 credits)**
ENGR 371 Manufacturing Processes (4 credits)**
ENGR 381 Thermodynamics (4 credits)**
ETLS 699 Technology of Thin Films (3 credits)
ETLS 775 Polymers in Design (3 credits)
GEOL 211 Earth Materials (4 credits)
GEOL 340 Fundamentals of Lithosphere I (Petrology) (4 credits)
GEOL 360 Fundamentals of Lithosphere II (Structural Geology) (4 credits)
PHYS 225 Applications of Modern Physics (4 credits)
PHYS 347 Optics (4 credits)
PHYS 410 Statistical Mechanics and Thermodynamics (4 credits)
Other courses as approved by the program director

Total credits: 24

* Chemistry majors may only have one elective count towards both the CHEM major and the MSE minor.

** These courses may not be used as an elective for Mechanical Engineering majors.

Between ENGR 361 and the eight (8) elective credits, four (4) credits must be outside the student's major field. Only four (4) elective credits may be from courses <300 level.

CURRICULA

MATHEMATICS (MATH)

College of Arts and Sciences, Department of Mathematics
O'Shaughnessy Science Hall (OSS) 201, (651) 962-5520

Van Fleet (chair), Axtell, DeCelles, Dokken, Höft, Kroschel, Loe(associate chair), Lopukhova, Rawdon, Rezac, Shakiban, Shemyakin, Shvartsman, Stolarksa, Yang, Youn

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, 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 302 Abstract Algebra II (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)
 MATH 420 Topology (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)

Mathematics (MATH)

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

Remedial Mathematics

Entry-level mathematics courses require students to have an appropriate Math Placement Level. This placement level is determined by the student's ACT Math score or performance on the Math Placement Exam. Students that do not have the placement level required for their desired course can now take MATH 005 and/or MATH 006. These are 0-credit courses, offered every summer and J-term. MATH 005 has no placement requirement, and successful completion would allow a student to take MATH 006, MATH 100 or MATH 101. MATH 006 requires a Math Placement Level of 101 or of MATH 005 and successful completion allows a student to take MATH 103 or MATH 108.

Both MATH 005 and MATH 006 have affordable registration fees instead of regularly priced tuition, as they are 0-credit courses.

MATH 005 Basic Math Skills I (0 credit)

The objective of this course is to provide background knowledge necessary for students to place into MATH 006, MATH 100 or MATH 101. This course serves as a prerequisite for MATH 006, MATH 100, or MATH 101. Topics covered include the real numbers, operations with real numbers, first degree equations and inequalities, Cartesian coordinate system and lines, linear functions, and problem solving. This non-credit course is typically offered two weeks during J-term and two weeks during July/August. This course does not satisfy the core requirement in Natural Science and Mathematical and Quantitative Reasoning. Offered during July/August and J-Term.

MATH 006 Basic Math Skills II (0 credit)

The objective of this course is to provide background knowledge necessary for students to place into MATH 108. This course serves as a prerequisite for MATH 108. Topics covered include polynomials, rational expressions, exponents and radicals, quadratic equations, problem solving. This non-credit course is typically offered 2 weeks during J-term and 2 weeks during August. This course does not satisfy the core requirement in Natural Science and Mathematical and Quantitative Reasoning. Offered during July/August and J-term.

Prerequisite: Successful completion of MATH 005 or a mathematics placement score of 101.

MATH 100 Mathematical Sampler (4 credits)

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)

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, or MATH 005

MATH 103 College Algebra (2 credits)

The purpose of this course is to provide knowledge of pre-calculus topics necessary for MATH 111. This course serves as a prerequisite for MATH 111 and can also serve as a prerequisite for MATH 104. This 2-credit course does not satisfy a student's core curriculum requirement in mathematics. Topics covered include solving equations, inequalities, and systems of equations; graphing functions; inverse functions; polynomials; complex numbers; rational functions; exponential functions; properties of logarithms and logarithmic functions; applications. Offered as a directed study every semester. Note: students who receive credit for this course may not receive credit for MATH 105, MATH 108, or MATH 109

Prerequisite: Math placement at 108 or above or MATH 006

MATH 104 Trigonometry (2 credits)

The purpose of this course is to provide knowledge of trigonometric topics necessary for MATH 113. This course serves as a prerequisite for MATH 113. This 2-credit course does not satisfy a student's core curriculum requirement in mathematics. Topics covered include radian/degree measure; trigonometric and inverse trigonometric functions; graphs of trig functions; applications of trigonometry; analytic trigonometry; trigonometric formulae. Offered as a directed study every semester. Note: students who receive credit for this course may not receive credit for MATH 105, MATH 108, or MATH 109

Prerequisite: Math placement at 111 or above or MATH 103

MATH 105 Precalculus (4 credits)

The real numbers; basic algebra; analytical treatment of the elementary functions emphasizing the exponential, logarithmic and trigonometric functions and their graphs. (This course is intended as preparation for 113 and does not fulfill a general graduation requirement.)

Prerequisite: a satisfactory score on the mathematics placement examination. 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, or MATH 006

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 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

Mathematics (MATH)

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 103 or 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 who are considering taking MATH 114 should take MATH 113 instead of MATH 111.

NOTE: Students who receive credit for MATH 111 may not receive credit for MATH 108, 109, or 113.

MATH 112 The Calculus of Trigonometric Functions (2 credits)

This course is designed for students who have taken MATH 111 but need to have credit for MATH 113; it covers the material in MATH 113 that is not covered in MATH 111. This course serves as a prerequisite for MATH 114. This 2-credit course does not satisfy a student's core curriculum requirement in mathematics. Topics covered include trigonometric functions, inverse trig functions, trigonometric identities, solving trigonometric equations, limits of trigonometric functions, derivatives of trigonometric functions, and integrals of trigonometric functions, and applications.

Successfully completing this course is equivalent to successfully completing MATH 113.

Offered Fall and Spring as a directed study.

Prerequisite: MATH 111

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 of the derivative in engineering and 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 104 or 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; parametric/polar equations. 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 109 or MATH 113, or MATH 111 and 112

MATH 121 Structures of Elementary Mathematics (4 credits)

An examination of the mathematical underpinnings of the K-8 school curriculum with an emphasis on the conceptual understanding of mathematics. Topics include foundations of integer and rational arithmetic, notions of place-value and base, number sense and estimation, ratio and proportion, and mathematical problem-solving. This course is recommended as the first course in a three-course sequence in mathematics for prospective elementary teachers, and fulfills the core area requirement in mathematics in Natural Science and Mathematical and Quantitative Reasoning in the core curriculum. Offered fall and spring semesters.

Prerequisites: MATH 005, or placement at or above MATH 100 (information can be found at <http://www.stthomas.edu/marc/placement/>) and concurrent registration in any EDUC course.

MATH 122 Structures of Elementary Mathematics II (4 credits)

An examination of the mathematical underpinnings of the K-8 school curriculum with an emphasis on the conceptual understanding of mathematics. Concepts of shape and space will be covered, which will include geometry, measurement, area, volume, surface area, symmetry, the geometry of motion and change, and problem solving. This course is recommended as the second in a three-course sequence in mathematics for prospective elementary teachers. This course fulfills the core area requirement in mathematics or the third course requirement in the Natural Science and Mathematical and Quantitative Reasoning in the core curriculum. Offered fall and spring semesters.

Prerequisite MATH 121 or permission of 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 mathe-

atics 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 LaPlace transforms. Offered every semester.

Prerequisite: a grade of C- or above in MATH 114

MATH 223 Structures of Elementary Mathematics III (4 credits)

An advanced examination of the mathematical underpinnings of the K-8 school curriculum with an emphasis on the conceptual understanding of mathematics. Topics include counting, graph theory and other discrete topics, number theory, recursion, algebra and functions, probability and statistics. As the third course in a three-course sequence in mathematics for prospective elementary teachers, this course integrates uses of technology and problem solving in STEM applications appropriate for the K-8 classroom.

Prerequisites: MATH 121 and MATH 122

MATH 240 Linear Algebra (4 credits)

An introductory course in linear algebra, beginning with linear equations and matrix algebra. Subsequent topics include the study of vector spaces, orthogonality, eigenvectors, and innerproducts. 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 licensure endorsement 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. 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>.

NOTE: Depending on the subject matter of topics course, the course may or may not count towards a minor in Mathematics.

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: A grade of C- or above in MATH 210

MATH 301 Abstract Algebra I (4 credits)

Properties of sets, relations and mappings; introduction to groups, rings and fields. Offered every spring semester

Prerequisite: A grade of C- or above in MATH 240

MATH 302 Abstract Algebra II (4 credits)

Mathematics (MATH)

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: A grade of C- or above in 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: A grade of C- or above in 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: A grade of C- or above in 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.

MATH 315 Applied Mathematics and Modeling I (4 credits)

This is a topics course in applied mathematics. Course content will be drawn from topics that coincide with expertise of department members. Recent topics include finite element methods, techniques in scientific computing, wavelets and applications, mathematical biology, and weather modeling. Offered fall semester.

Prerequisites: A grade of C- or above in MATH 210 and MATH 240, or permission of instructor.

MATH 316 Applied Mathematics and Modeling II (4 credits)

This is a second topics course in applied mathematics. It does not 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: A grade of C- or above in 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: A grade of C- or above in MATH 240

MATH 325 Geometry (4 credits)

Axioms for geometries; geometrical transformations and their invariants; non-Euclidean geometries; additional topics. Offered spring semester of even-numbered years.

Prerequisites: A grade of C- or above in MATH 114; MATH 128 or MATH 240 recommended

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 fall semester of even-numbered years

Prerequisites: A grade of C- or above in 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: A grade of C- or above in MATH 210 or MATH 240, 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: A grade of C- or above in MATH 210 or MATH 240, or permission of instructor

MATH 420 Topology (4 credits)

Properties of Euclidean spaces; general spaces; mappings; separation properties; connectedness; compactness; me-

trizable spaces. Offered spring semester of even-numbered years.
Prerequisite: A grade of C- or above in MATH 240, or permission of instructor

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 Intelligence 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 or permission of instructor

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)

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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) 320, (651) 962-5150

Pinto, D (chair); Arabic - Khalek; Chinese (Mandarin) - He; Classics (coordinator) - Quartarone; French - Dziekowicz (coordinator), Lohse, Shams; German - Wagner (coordinator); Irish Gaelic - Jeffers; Italian- Faggioli; Japanese - Matsu-moto; Spanish - Ehrmantraut, Kroll, Miller, Nieto, Pinto, Rey-Montejo, Scham, Tar, Tight, Vigil

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 and through Individualized Majors/Minors at UST (contact department chair for details). Language classes are also available in Arabic, Chinese, Irish Gaelic, and Italian. In cooperation with the ACTC, courses in other languages not offered at UST are also available.

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 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 solid command of the German language for use in academic and/or professional life. They will gain the ability to use the language effectively in all four skills (speaking, listening, reading, and writing) with a cultural emphasis. They will have become acquainted with the literature and 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.

Modern and Classical Languages

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

Students seeking licensure for languages may pursue licensure programs in Elementary Education with a Specialty in World Languages and Cultures (K-8) or World Languages and Cultures (K-12) with a co-major in French, German, or Spanish. For details on these types of programs:

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

Chinese

CHIN 111 Elementary Chinese I (4 credits)

Introduction to fundamentals of Mandarin (Chinese) language structure and vocabulary. Practice in speaking, reading, writing and listening/understanding. Basic rules of grammar will be introduced, along with instruction of approximately 300 words.

CHIN 112 Elementary Chinese II (4 credits)

Continuation of CHIN 111.

Prerequisite: CHIN 111 or equivalent with a C- or better

CHIN 211 Intermediate Chinese I (4 credits)

Continuation of CHIN 112.

Prerequisite: CHIN 112 or equivalent 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)

For administrative purposes, students will complete assessment measures at the beginning of their major (in their 111 class) and during their final semester (211).

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. A solid command of the French language
- b. A thorough introduction to the literary and cultural origins of France and the role of French in today's world
- c. Enough diversity in courses to prepare for a variety of potential careers or possible co-careers for which their French skills will be of primary importance
- d. The intellectual background which characterizes those educated in a liberal arts setting.

Major in French

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.

Modern and Classical Languages

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 activi-

ties.

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)

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

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.

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:

Modern and Classical Languages

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, German Film, and German Poetry. May be taken twice with different topic.

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.

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)

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<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.

Modern and Classical Languages

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)

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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.

For administrative purposes, students will complete assessment measures at the beginning of their major (in their first 300 level class) and during their final semester.

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)

Modern and Classical Languages

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.

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

Italian

ITAL 111 Elementary Italian I (4 credits)

Pronunciation, essentials of grammatical structures, aural-oral practice, writing, reading of simple Italian prose, introduction to the cultures of the Italian-speaking world.

ITAL 112 Elementary Italian II (4 credits)

Continuation of ITAL 111. Emphasis on grammatical structures, aural-oral practice, writing, reading. Continuation of Italian culture.

Prerequisite: ITAL 111 or its equivalent with C- or better.

ITAL 211 Intermediate Italian I (4 credits)

Designed to increase listening, speaking, reading, and writing skills in Italian. Reinforcement and expansion of grammatical structures of Elementary Italian I and II. Continued exposure to Italian culture.

Prerequisite: ITAL 112 or its equivalent completed with a C- or better.

ITAL 212 Intermediate Italian II (4 credits)

Continuation of ITAL 211. Focus on intermediate grammatical structures. Emphasis on Italian culture, conversation, writing, and expansion of vocabulary based on thematic discussions and cultural readings.

Prerequisite: ITAL 211 or its equivalent completed with a C- or better.

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 desirative 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

JAPN 311 Advanced Japanese I (4 credits)

In-depth study of sentence patterns. Additional kanji characters will be presented to increase reading skills. Prerequisite: 212 or equivalent
Prerequisite: JAPN 212 or equivalent

JAPN 312 Advanced Japanese II (4 credits)

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.

Modern and Classical Languages

Major in Latin

Thirty-two credits in Latin (28 for double or triple majors) numbered 211 or higher.

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)

This course focuses on solidifying the basic skills of language mastery through reading, writing, speaking and listening. Reading selections will be taken from various authors, both prose and poetry; stories will be drawn from the early history of Rome. 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 305 Introduction to Medieval Latin (4 credits)

This course will focus on developing mastery of Latin through the four essential skills of reading, writing, speaking, and listening. We will read, discuss and write about (Latine!) selections drawn from various Medieval Latin authors, both Christian and secular, and further develop our literary exploration of various genres of writing. Readings will include texts drawn from the early Christian biographies and the history of the development of Christianity in Rome, as well as texts from the later medieval period.
Prerequisite: LATN 212 or instructor permission.

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 Topics in Philosophical and Scientific Latin (4 credits)

Topics in Philosophical and Scientific Latin. Work in this course explores Latin literature in the field of "natural history," from its origins in Greek philosophy through the medieval period to the flowering of modern science, and will introduce students to "classic" texts in the history of Science, in their original language. Students will develop their Latin skills and increase their mastery of the language through the basic tools of reading, writing, speaking, and listening. Readings will include elements of post-classical Latin that may be called "medieval," and to show the wide range of styles that "medieval" Latin attained, especially in technical or didactic writings. Prerequisite: LATN 212 or instructor permission

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.

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

Completion of SPAN 212 or its equivalent

In consultation with their major field adviser, students must complete thirty-two (32) credits in courses numbered 300

Modern and Classical Languages

and above:

Required Core Courses (12 credits):

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)

Areas of Concentration: Cultural and Literary Studies or Linguistics and Applied Language Studies

For the remaining 20 credits, students must choose an area of concentration and take a minimum of 12 credits in that area. Up to 8 of the 20 remaining credits may be taken from the other concentration.

Cultural and Literary Studies

Required for concentration (8 credits):

SPAN 335 Introduction to Spanish Literature (4 credits)

Plus

SPAN 331 Spanish Culture and Civilization (4 credits) *OR* SPAN 332 Latin American Culture and Civilization (4 credits)

For the remaining 12 credits, students may choose from the following electives. Up to eight (8) credits may be taken from the Linguistics and Applied Language Studies area. For the concentration in Cultural and Literary Studies, students must take a minimum of four (4) credits in courses numbered SPAN 340 or higher:

SPAN 340 Themes in Spanish Literature (4 credits)

SPAN 380 Themes in Latin 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)

Linguistics and Applied Language Studies

Required for concentration:

SPAN 315 Introduction to Hispanic Linguistics (4 credits)

For the remaining 16 credits, students may choose from the following electives. Up to eight (8) credits may be taken from the Cultural and Literary Studies area:

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 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 C- 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.

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. 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 C- or better 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 phonol-

Modern and Classical Languages

ogy. 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: 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 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: 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 318 Introduction to Spanish Translation (4 credits)

In this course students will learn introductory techniques and principles of translation, review Spanish grammar and improve their reading and writing skills. The main objective of this course will be to develop the necessary skills in order to become proficient communicators in bilingual contexts. We will mainly use Spanish as a source language to translate an array of journalistic, literary, academic, and technical texts into English. At some specific instances, we will translate from English to Spanish to give students the opportunity to practice this skill as well. To enhance the practical component of the course, we will reflect on key theoretical issues related to translation practice through selected readings on translation as a process and as a product, cultural issues in translation, and the role of the translator today.

Prerequisites: SPAN 301 and 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: 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 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 socioeconomic 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 Themes in Spanish Literature (4 credits)

A comparative study of major themes in the literature of Spain with the goal of understanding their cultural relevance. Works studied represent several of the following: the medieval era, the Golden Age, the baroque, romanticism, naturalism, modernism, and texts of the twentieth and twenty-first centuries. Genres may include poetry, theater, narrative, and essays, among others.

Prerequisites: Successful completion of SPAN 300, 301, 305 and 335 or their equivalents with a C- or better in each course.

SPAN 380 Themes in Latin American Literature (4 credits)

A comparative study of major themes in Latin American literature with the goal of understanding their cultural relevance. Works studied represent several of the following historical periods: the pre-Columbian era, the age of Spanish

exploration of the Americas, the colonial era, the nineteenth and twentieth centuries, and beyond. Genres may include poetry, theater, narrative, and essays, among others.

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, 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.

Music (MUSC)

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) 05, (651) 962-5850

George (chair), Broeker, Bryan, Cole, Cornett-Murtada, Gleason, Howard, Johnson, Kachian, Orzolek, Schmalenberger; Allen, Arons, Auerbach, Berget, Broeker, Brown, Capener, Carmack, Casey, Douglas, Eschedor, Garvin, Gerth, Griffith, Hauser, Itkin, Jenkins, Jensen, Jorstad, Kemperman, Kreitzer, Mitchell, Olson-Moser, Ostrander, Parker, Reed, Rinear, Schons, Schulz, Schwalbach, Skaar, 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 musical, 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.

Beyond the specific area of study, all students majoring in music take courses in six areas: performance studies, ensembles, music theory, musicology, music media, and for some, conducting. There is also a keyboard studies component.

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.
- Take at least four semesters of Student Convocation Hour - MUSC 001
- 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 a major 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, Writing Across the Curriculum 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 113 Music Theory and Aural Skills I (4 credits)

MUSC 114 Music Theory and Aural Skills II (4 credits)

MUSC 133 Music of the United States: Aural and Written Traditions (2 credits)

MUSC 140 Music Media (2 credits)

MUSC 201 Piano Skills III (1 credit)

MUSC 202 Piano Skills IV (1 credit)

Students for whom piano or organ is the primary instrument will take the following courses in lieu of MUSC 101, 102, 201, and 202:

MUSC 192 Technical Skills for Keyboard Majors (1 credit)

MUSC 292 Functional Skills for Keyboard Majors I (1 credit)

MUSC 293 Functional Skills for Keyboard Majors II (1 credit)

MUSC xxx Piano Elective (1 credit) to be chosen from the following: MUSP 121, 131 (organ majors only), 135 (piano majors only), 153, MUSN 171, 172, 182, or MUSW 501.

MUSC 213 Music Theory and Aural Skills III (4 credits)

MUSC 214 Music Theory and Aural Skills IV (4 credits)

MUSC 231 Introduction to Conducting (1 credit)

MUSC 233 Music of the World: Aural and Written Traditions (4 credits)

MUSC 263 Entrepreneurial Careers in Music & Professional Practice (1 credit)

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, 181, 185, 186, 190.

MUSP 3xx Eight semesters of performance studies in the same performance medium (2 credits per semester)

MUSR 114 Aural-Skills Proficiency (0 credits)

MUSR 200 Piano Proficiency (0 credits)

MUSR 214 Aural-Skills 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)

Music (MUSC)

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 and Aural Skills I (4 credits)

MUSC 114 Music Theory and Aural Skills II (4 credits)

MUSC 140 Music Media (2 credits)

MUSC 201 Piano Skills III (1 credit)

MUSC 202 Piano Skills IV (1 credit)

Students for whom piano or organ is the primary instrument will take the following courses in lieu of MUSC 101, 102, 201, and 202:

MUSC 192 Technical Skills for Keyboard Majors (1 credit)

MUSC 292 Functional Skills for Keyboard Majors I (1 credit)

MUSC 293 Functional Skills for Keyboard Majors II (1 credit)

MUSX xxx Piano Elective (1 credit) to be chosen from the following: MUSP 121, 131 (organ majors only), 135 (piano majors only), 153, MUSN 171, 172, 182, or MUSW 501.

MUSC 213 Music Theory and Aural Skills III (4 credits)

MUSC 214 Music Theory and Aural Skills IV (4 credits)

MUSC 231 Introduction to Conducting (1 credit)

MUSC 263 Entrepreneurial Careers in Music, & Professional Practice (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 - two of the six semesters in MUSN 171; two semesters in MUSN 172; and two semesters in one of: MUSN 140, 142, 143, 160, 161, 181, 182, 183, 185, 186

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 2xx Six semesters of performance studies in the same performance medium (1 credit per semester)

MUSR 114 Aural-Skills Proficiency (0 credits)

MUSR 200 Piano Proficiency (0 credit)

MUSR 214 Aural-Skills Proficiency (0 credits)

MUSR 270 Level I Recital (0 credit)

MUSR 350 Level II Recital (0 credit)

Plus 6 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 (2 credits)

MUSC 160 Introduction to Music Business (4 credits)

- MUSC 170 The Music of Film (4 credits)
- MUSC 216 Jazz in America (4 credits)
- MUSC 223 Arranging (2 credits)
- MUSC 224 Songwriting/Composition (2 credits)
- MUSC 233 Music of the World: Aural and Written Traditions (4 credits)
- MUSC 260 Fundamentals of Musicianship in Popular Music (4 credits)
- MUSC 281 Introduction to Accompanying (2 credits)
- EDUC 308 Pedagogy and Literature for Music Performers I (2 credits)
- EDUC 309 Pedagogy and Literature for Music Performers II (2 credits)
- MUSC 340 Theory Elective: Topics (2 credits)
- MUSC 354 Advanced Conducting and Materials: Instrumental Concentration (2 credits)
- MUSC 355 Advanced Conducting and Materials: Vocal Concentration (2 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 and Aural Skills I (4 credits)
- MUSC 114 Music Theory and Aural Skills II (4 credits)
- MUSC 140 Music Media (2 credits)
- MUSC 201 Piano Skills III (1 credit)

Students for whom piano or organ is the primary instrument will take the following courses in lieu of MUSC 101, 102, 201, and 202:

- MUSC 192 Technical Skills for Keyboard Majors (1 credit)
- MUSC 292 Functional Skills for Keyboard Majors I (1 credit)
- MUSC 293 Functional Skills for Keyboard Majors II (1 credit)
- MUSX xxx Piano Elective (1 credit) to be chosen from the following: MUSP 121, 131 (organ majors only), 135 (piano majors only), 153, MUSN 171, 172, 182, or MUSW 501.

- MUSC 202 Piano Skills IV (1 credit)
- MUSC 213 Music Theory and Aural Skills III (4 credits)
- MUSC 214 Music Theory and Aural Skills IV (4 credits)
- MUSC 231 Introduction to Conducting (1 credit)
- MUSC 263 Entrepreneurial Careers in Music, & Professional Practice (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 2xx Performance Studies (8 semesters) (1 credit each semester)
- MUSR 114 Aural-Skills Proficiency (0 credits)
- MUSR 200 Piano Proficiency (0 credits)
- MUSR 214 Aural-Skills Proficiency (0 credits)
- MUSR 270 Level I Recital (0 credits)
- MUSR 350 Level II Recital (0 credits)
- MUSR 450 Level III Recital (0 credits)

Music (MUSC)

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)

Students for whom piano or organ is the primary instrument will take the following courses in lieu of
MUSC 101 and 102:

MUSC 192 Technical Skills for Keyboard Majors (1 credit)

MUSC 292 Functional Skills for Keyboard Majors I (1 credit)

MUSC 113 Music Theory and Aural Skills I (4 credits)

MUSC 114 Music Theory and Aural Skills 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 233 Music of the World: Aural and Written Traditions (4 credits)

MUSC 260 Fundamentals of Musicianship in Popular Music (4 credits)

MUSC 263 Entrepreneurial Careers in Music, & Professional Practice (1 credit)

MUSC 363 Emerging Models in Music Industry (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 - two of the six semesters in MUSN 171; two semesters in MUSN 172; and two semesters in one of:

MUSN 140, 142, 143, 160, 161, 181, 182, 183, 185, 186

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 114 Aural-Skills Proficiency (0 credits)
 MUSR 200 Piano Proficiency (0 credits)
 MUSR 214 Aural-Skills Proficiency (0 credits)
 MUSR 270 Level I Recital (0 credits)
 MUSR 350 Level II Recital (0 credits)

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)
 ENTR 200 Foundations of Entrepreneurship (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 260 Entrepreneurial Thinking (4 credits)
 FINC 300 Finance for Non-Business Majors (4 credits)
 MKTG 320 Interactive Marketing (4 credits)

Minor in Music

MUSC 113 Music Theory and Aural Skills I (4 credits)
 MUSC 114 Music Theory and Aural Skills 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 (50 minute lessons) (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 162 Roots of Blues, Rock and Country Music (4 credits)
 MUSC 205 Advanced Studio Recording (4 credits)
 MUSC 224 Songwriting/Composition (2 credits)
 MUSC 305 The Art of Mixing (4 credits)

Minor in Popular Music

MUSC 162 The Roots of Blues, Rock, and Country Music (4 credits)
 MUSC 224 Songwriting/Composition (2 credits)
 MUSC 260 Fundamentals of Musicianship in Popular Music (4 credits)

Music (MUSC)

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 216 Jazz in America (4 credits)
MUSC 217 Music of the Americas (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)

Minor in Music Composition

MUSC 113 Music Theory and Aural Skills I (4 credits)
MUSC 114 Music Theory and Aural Skills II (4 credits)
MUSC 140 Music Media (2 credits)
MUSC 231 Intro to Conducting I (1 credit)
MUSN 1xx Four semesters of Ensemble (1 credit per semester)
including at least one semester of MUSN 176 New Music Ensemble.
MUSP 165 Four semesters of Composition Studies (50 minute lessons) (1 credit per semester)
MUSR 271 Level 1 Composition Recital (0 credits)

Plus four credits from the following, two of which need to be at the 200 level or above:

MUSC 101 Piano Skills I (1 credit)
MUSC 102 Piano Skills II (1 credit)
MUSC 201 Piano Skills III (1 credit)
MUSC 202 Piano Skills IV (1 credit)
MUSC 213 Music Theory and Aural Skills III (4 credits)
MUSC 224 Songwriting (2 credits)
MUSC 260 Fundamentals of Musicianship in Popular Music (4 credits)
MUSC 340 Music Theory Elective: Topics (2 credits)
MUSC 354 Advanced Conducting and Materials: Instrumental Concentration (2 credits)
MUSC 355 Advanced Conducting and Materials: Vocal Concentration (2 credits)

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.

Prerequisite: MUSC 113 (concurrent registration preferred)

MUSC 102 Piano Skills II (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, making practical applications of music theory, and the development of other skills studied in Piano Skills I. The final exam for this class will serve as the piano proficiency exam for BA in Music Business major students.

Prerequisite: MUSC 101, and MUSC 114 (concurrent registration preferred)

MUSC 113 Music Theory and Aural Skills I (4 credits)

This course, designed for those intending to major or minor 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 21st centuries. Assignments include the development of compositional and arranging skills. Lecture plus 90 minutes laboratory per week. Offered fall semester.

MUSC 114 Music Theory and Aural Skills 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 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.
Prerequisite: Music majors or permission of the instructor.

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 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 162 The Roots of Blues, Rock and Country Music (4 credits)

This course traces the development of American popular music from its roots through multiple genres such as minstrelsy, jazz, big band, swing, crooning, jump blues, gospel, rhythm and blues, country, western, folk/protest, and rock 'n' roll, concluding with the British Invasion. Popular music development is critically examines through four interrelated driving forces: identity (ethnicity, gender, culture, generation), centers vs. peripheries (the established vs. the innovative), technology (impact on musical performance and listening), and business/law (commercial competition and

Music (MUSC)

development). Multimedia presentations include extensive audio and video support. Designed for the Popular Music minor, this course fulfills the Fine Arts and Human Diversity requirement in the core curriculum.

MUSC 170 The Music of Film (4 credits)

Film is a form of communication that can be analyzed in terms of its images, as a historical record, and as a critical statement of the audience for which it is intended. Film music is a discreet yet complementary component used in some way and to some degree by nearly every filmmaker throughout history. Through readings, class discussion, and extensive directed viewing of movies, this course will provide a framework for analyzing the images and the sounds of films throughout the 20th and 21st centuries. Students will prepare and deliver oral presentations analyzing the images and sounds of select films. This course fulfills the Fine Arts requirement in the core curriculum.

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 192 Technical Skills for Keyboard Majors (1 credit)

This course teaches the technical keyboard skills required for music majors whose principal instrument is piano or organ. It includes study and performance of all major and minor scales, triad and seventh arpeggios, and chord progressions in every key.

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, making practical applications of music theory, and the development of other skills studied in Piano Skills II.

Prerequisites: MUSC 102, and MUSC 213 (concurrent registration preferred).

MUSC 202 Piano Skills IV (1 credit)

This course teaches the keyboard skills required for music majors whose principal instrument is not piano, and will culminate in the piano proficiency exam for all music students except for Music Business majors. It includes training in basic keyboard technique, 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 III. Prerequisite: MUSC 201, and MUSC 214 (concurrent registration preferred)

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 213 Music Theory and Aural Skills III (4 credits)

Continuation of MUSC 114. Offered in fall semester.

Prerequisite: MUSC 114 or successful placement test

MUSC 214 Music Theory and Aural Skills 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 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.

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.

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.

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. This course fulfills the Human Diversity requirement in the core curriculum.

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 292 Functional Skills for Keyboard Majors I (1 credit)

This course teaches the functional keyboard skills required for music majors whose principal instrument is piano or organ. It includes practical training in sight reading, harmonization, improvisation, playing by ear, transposing, score reading, and other applications of basic musicianship.

MUSC 293 Functional Skills for Keyboard Majors II (1 credit)

This course teaches the advanced functional keyboard skills required for music majors whose principal instrument is piano or organ. It includes practical training in sight reading, harmonization, improvisation, playing by ear, transposing, score reading, and other applications of basic musicianship.

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.

Music (MUSC)

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>.

Offered once per year - consult the Schedule of classes

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 231

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 231

MUSC 363 Emerging Models in Music Industry (4 credits)

This course will explore the evolution of the music industry and the emerging trends technologies and business models that continue to transform the music industry in all of its aspects. Topics addressed in the course will include but not be limited to analysis of innovation in multiple modes of the music industry; remix culture, copyright, and licensing limitation/innovation; the impact of social media on management, agency, and artist fan engagement; growth sectors of the music economy including concert promotion, & touring; crowd funding, and its impact on new ventures in music; and the impact of technology on communications culture, and the creative sector. Students will move regularly between theory and practice as they use evidence from the past and present to formulate new possibilities for the future architecture of the music industry.

Prerequisite: MUSC 160 or ENTR 260 or permission of instructor

MUSC 411 History and Literature of Music I (4 credits)

A survey of Western European music to 1750: the medieval, Renaissance, and Baroque eras. Historical development, social context, forms, styles and issues of expression are explored. Writing assignments are designed for teaching to the "Writing in the Discipline" objectives for the Writing Across the Curriculum initiative. This is a core course for students seeking a major degree in music. 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 1750 to the present: the Classical and Romantic eras and the twentieth century. Emphasis of study is on social context and issues of meaning and expression. Continuation of MUSC 411. Writing assignments are designed for teaching to "Writing in the Discipline" objectives for the Writing Across the Curriculum initiative. This is a core course for students seeking a major degree in music. Students must be at junior-level standing and have passed at least Theory II before enrolling in this course. Offered in spring semester.

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 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 ensem-

Music (MUSC)

bles: MUSN 140, 142, 143, 160, 181, 185, 186. A total of four semesters in MUSN 140, 142, 143 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 Donne Unite (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. A combination of four semesters in 140, 142, 143, and 160 fulfills the fine arts requirement for graduation.

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. A combination of four semesters in 140, 142, 143, and 160 fulfills the fine arts requirement for graduation.

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. A combination of four semesters in 140, 142, 143, and 160 fulfills the fine arts requirement for graduation.

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 21st 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. A combination of four semesters in 140, 142, 143, and 160 fulfills the fine arts requirement for graduation.

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 176 New Music Ensemble (0-1 credit)

A mixed instrumental ensemble devoted to the study and performance of new music. Repertoire may include non-tonal, avant-garde, indeterminate, and experimental genres, collaborative improvisation, and original composition. The ensemble meets once per week and presents at least one major performance per semester. Membership by audition.

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. Four semesters of participation fulfill the Fine Arts requirement in the core curriculum.

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)

Music (MUSC)

Study and performance of original works for wind-band; transcriptions, manuscripts, and solo repertoire with band 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 or a combination with MUSN 186 fulfills 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 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 113 Individual Lessons for Aural Skills Proficiency (1 credit)

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 160 Banjo: elective (1 credit)

MUSP 161 Harmonica: elective (1 credit)

MUSP 162 Mandolin: elective (1 credit)

MUSP 165 Music Composition (1 credit)

Music (MUSC)

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 or 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 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 114 Aural Skills Proficiency (0 credit)

Required of all students completing MUSC 114 (Music Theory and Aural Skills II). A combined grade for the final ear-training and sight-singing quizzes in Theory II Aural Skills Lab or C- or above will result in a grade of Satisfactory for this proficiency designation. See the Handbook for Music Majors and Minors for specific details. Taken concurrently with

Neuroscience

MUSC 114.

Prerequisite: MUSC 113 or successful placement test

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 214 Aural Skills Proficiency (0 credit)

Required of all students completing MUSC 114 (Music Theory and Aural Skills IV). A combined grade for the final ear-training and sight-singing quizzes in Theory IV Aural Skills Lab of C- or above will result in a grade of Satisfactory for this proficiency designation. See the Handbook for Music Majors and Minors for specific details. Taken concurrently with MUSC 214.

Prerequisite: MUSC 213 or successful placement test

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 271 Level I Recital (0 credit)

A level I composition recital can be given in any semester. It requires a minimum of 15 minutes of music. A recital of this length will usually be presented on a program with two or three other student performers or composers.

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

Beckmann (PSYC); Hankerson (PSYC); Heimovics (BIOL); Husak (BIOL); Illig (BIOL); Jackson (BIOL); Kay (BIOL); Prichard (PSYC); Robinson-Riegler (PSYC); Wolfe (PSYC)

The Neuroscience Program is an interdisciplinary, research-intensive major leading to the Bachelor of Science degree. Training in neuroscience requires a broad foundation in the natural sciences, and the major requires students to complete foundational courses in Biology, Chemistry, Mathematics and Psychology. Flexibility in course selection at the upper division level allows specialization in concert with student interest. Students who successfully complete this major will be well-prepared for graduate study in neuroscience or in related disciplines. The Program is jointly administered by the Biology and Psychology Departments, and students choosing this major may not take a second major or a minor in either Biology or Psychology.

Neuroscience Honor Society

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. To qualify, students must have a 3.2 or higher overall grade point average and a 3.5 or higher grade point average in specific neuroscience courses. For more information, go to <http://www.stthomas.edu/neuroscience/clubs/>

Major in Neuroscience (B.S.)*Required Foundational Courses (36 credits)*

BIOL 207 Genetics, Ecology, and Evolution (4 credits)
 BIOL 208 Biological Communication and Energetics (4 credits)
 BIOL 209 Biology of Sustainability (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)

Plus Introductory Neuroscience Core Courses (8 credits)

PSYC 212 Research Methods (4 credits)
 NSCI 301 Principles of Neuroscience (4 credits)

*Plus Advanced Neuroscience Core Courses, (8 credits, including at least four from * courses)*

BIOL 330 Animal Behavior (4 credits)
 BIOL 354 Neurobiology (4 credits)*
 PSYC 322 Sensation and Perception (4 credits)
 PSYC 401 Physiological Psychology (4 credits)*

Plus Electives (4 courses, 16 credits)

Sixteen additional elective credits should be chosen from the following categories that reflect the student's academic or professional goals. Courses completed to fulfill the Advanced Neuroscience Core requirements do not double-count as electives. Students may complete up-to four (4) credits of NSCI 389 for elective credit. Students must complete at least eight credits from the Neuroscience Elective category other than NSCI 389. Only one of PSYC 301, PSYC 315, PSYC 407, MATH 114 and STAT 320 may count for the degree.

Neuroscience Electives (must complete at least two):

NSCI 310 Cognitive Neuroscience (4 credits)
 NSCI 320 Human and Comparative Neurology (4 credits)
 NSCI 330 Neuropharmacology (4 credits)
 NSCI 340 Computational Neuroscience (4 credits)
 NSCI 389 Research* (2 or 4 credits)
 NSCI 398 Topics (4 credits)

Biology Electives:

BIOL 330 Animal Behavior (4 credits)
 BIOL 349 Comparative Anatomy and Physiology I (4 credits)
 BIOL 353 Microscopic Anatomy (4 credits)
 BIOL 354 Neurobiology (4 credits)
 BIOL 360 Genetics (4 credits)
 BIOL 365 Developmental Biology (4 credits)
 BIOL 371 Cell Biology (4 credits)
 BIOL 375 Endocrinology (4 credits)

Psychology Electives:

PSYC 301 Psychopathology (no lab) (4 credits)
 PSYC 315 Cognition (no lab) (4 credits)
 PSYC 322 Sensation & Perception (4 credits)
 PSYC 323 Learning & Memory (4 credits)
 PSYC 401 Physiological Psychology (4 credits)
 PSYC 407 Seminar in Behavioral Neuroscience (no lab)(4 credits)

Allied Electives (no more than one may count for the degree):

CHEM 440 Biochemistry I (4 credits)
 CISC 130 Introduction to Programming and Problem Solving in the Sciences (4 credits)
 CISC 440 Artificial Intelligence and Robots (4 credits)
 MATH 114 Calculus 2 (no lab)(4 credits)

Neuroscience

PHYS 109 Physics I or PHYS 111 Physics I with Calculus (4 credits)
STAT 320 Statistics II (no lab)(4 credits)

Plus Capstone Experience Course (4 credits)

BIOL 462 Molecular Biology (4 credits)

BIOL 486 Seminar in Physiology (4 credits)

BIOL 464 Bioinformatics (4 credits)

NSCI 450 Integrative Neuroscience (4 credits)

NSCI 490 Topics in Neuroscience (4 credits)

PSYC 415 Research Issues in Cognition (4 credits)

NSCI 301 Principles of Neuroscience (4 credits)

Human understanding of the brain and nervous system has improved dramatically over the past three decades. With the rapid expansion of knowledge has come an understanding that behavioral and cognitive disorders associated with both childhood development and with aging have a biological basis, and many have their origins in the interaction between the nervous system and environmental factors. Recent research has revealed that a healthy brain and nervous system depends on sound biologic function. Therefore, a basic understanding of the biology of the brain and nervous system—and of how the nervous system interacts with environmental factors—is necessary. This course will cover fundamental biological processes in the brain and nervous system, the role of the nervous system in human and animal behavior, and how environmental influences impact these processes at the cellular and organismal levels.

Prerequisite: C- or better in BIOL 209

NSCI 310 Cognitive Neuroscience (4 credits)

Cognitive neuroscience is the study of “how the brain enables the mind.” The purpose of this course is to develop an advanced understanding of the biological basis of mental activity. We will examine the biological roots of various mental phenomena including perception, attention, learning, memory, language, emotion and consciousness. In particular, we will focus on the roles of plasticity and evolutionary pressure in shaping the mind, and on the treatment of cognitive neuroscience in popular media.

Prerequisite: C- or better in NSCI 301 or permission of the instructor

NSCI 320 Human and Comparative Neurology (4 credits)

All neuroscience is a multidisciplinary enterprise that draws on findings from diverse fields, ranging from molecular genetics to comparative psychology. Comparative Neurology involves scrutinizing brain anatomy and physiology, relating brain structure to function, and linking each of these to behavior and ecology. In this course, we will explore how the human brain has emerged, discover some rules of how brains generally evolve, and determine what factors have guided the phylogenetic development of this complex structure. Throughout the course, laboratory projects and problem sets will support our classroom discussions.

Prerequisite: C- or better in NSCI 301 or permission of the instructor.

NSCI 330 Neuropharmacology (4 credits)

Neuropharmacology is the study of how drugs affect the cells of the nervous system and their ability to communicate with other target systems in the body. This course will cover different classes of neurotransmitters and neurohormones and the receptors on target cells that recognize and bind these substances, using a “clinical model” framework that ties these principles to the therapeutic use of drugs. A significant amount of time will be spent covering the transduction mechanisms involved in converting the signals into a biological response, the gaps in a therapeutic approach, and new technologies that are improving the study and application of neurochemistry in modern neuroscience.

Prerequisite: C- or better in NSCI 301 or permission of the instructor

NSCI 340 Computational Neuroscience (4 credits)

The brain is a complex, dynamical system consisting of billions of neurons. Computational models are essential for understanding how brain functions arise through neuronal interactions. This course covers current computational approaches of studying neural codes, network dynamics, and learning. In the process, we will learn how to characterize the coding and decoding in nervous systems, how the visual and auditory systems work, how to model individual neurons and network dynamics, how neural integrators function, and how learning occurs through synaptic plasticity, self-organization, and reinforcement learning. The goal is to understand how cognitive growth and human-level cognition emerge from interactions of neuronal networks.

Prerequisite: C- or better in NSCI 301 or permission of the instructor.

NSCI 398 Topics in Neuroscience (4 credits)

The subject matter of this 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.

Prerequisite: C- or better in NSCI 301 or permission of the instructor.

NSCI 430 Neuroecology (4 credits)

This international field course will focus on the development, structure and function of nervous systems in aquatic and terrestrial animals that populate various habitats. The course will explore a site that contains geomorphological and ecological variety, and which contains diverse terrestrial and aquatic habitats that are home to an array of vertebrate and invertebrate fauna. We will examine sensory, motor and integrative components of nervous system function and organization in the context of the unique environmental niche that each species populates, to learn about how animals orient, navigate, communicate, find food and avoid predation. Typically based at a biological research station, students engage in geological, morphological, physiological, behavioral and ecological research in both field and lab settings, and explore the ways that organisms and their environment are interrelated.

Prerequisites: BIOL 209 and one 300-level BIOL or NSCI course with a grade of C- or better

This course is a Study Abroad offering. Acceptance policies and procedures are available on the Study Abroad site:

<http://studyabroad.stthomas.edu/>

NSCI 450 Integrative Neuroscience (4 credits)

If we are to understand how behavior is guided by environmental cues, we must first understand how sensory information about the world is represented and processed in the brain. In this seminar-style course we will examine the neural organization of sensory systems, particularly the organization of cortical structures. We will first explore how various organizational strategies are used in different systems to perform specific functions, leading to the focus of our course: how information from different sensory modalities is integrated in higher-order cortical areas, and how this integration ultimately influences behavior.

Prerequisite: C- or better in any two elective courses in neuroscience

NSCI 490 Topics in Neuroscience (4 credits)

The subject matter of this 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. With the approval of the program director, this course may be used to fulfill the Capstone requirement for the major.

Prerequisite: C- or better in NSCI 301 or permission of the instructor.

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, Distelzweig, Feeney, Frost, Giebel, Grant, Heaney, Kemp, Kronen, Laumakis, Lemmons, Lu, Pawl, Rota, Spencer, Stoltz, Stuchlik, 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

Philosophy (PHIL)

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) or PHIL 215 Introductory Ethics: East and West (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 210 Chinese Philosophy (4 credits)

PHIL 304 Modern Philosophy (4 credits)

PHIL 306 Contemporary Philosophy (4 credits)

PHIL 308 Indian 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:

Sixteen 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).

Philosophy majors who are single majors must complete twenty-eight of their credits in philosophy at UST's St. Paul campus; philosophy majors who are double majors must complete twenty-four of their credits in philosophy at UST's St. Paul campus.

Minor in Philosophy

PHIL 115 Philosophy of the Human Person (4 credits)

PHIL 214 Introductory Ethics (4 credits) or PHIL 215 Introductory Ethics: East and West (4 credits)

Plus:

Twelve additional credits in philosophy. It is recommended that minors take PHIL 220 Logic (4 credits).

Philosophy minors must complete twelve of their credits in philosophy at UST's St. Paul campus.

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)

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 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, and first-order predicate calculus, 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 241 History and Philosophy of Medicine (4 credits)

This course presents an integrated, interdisciplinary examination of philosophical developments in the history of medical science and health care. Students will develop a critical and creative perspective on medicine and health care through philosophical exploration of their history, foundations, and purposes. Students will study important episodes and developments in the history of the theory and practice of medicine and explore philosophical analyses of and arguments about the nature of medical knowledge, health, disease and health care.

Prerequisite: PHIL 115

Philosophy (PHIL)

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 258 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 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 304 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 and one other PHIL Course

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, including thinkers from both the analytic and continental traditions.

Prerequisite: PHIL 220

PHIL 308 Indian Philosophy (4 credits)

An examination of foundational philosophical problems discussed in classical Indian schools of thought. Metaphysical, epistemological, and ethical themes will be considered. Though the primary aim of this course is to study Indian philosophy in its own terms, a secondary aim is to examine some ways in which Western thinkers have viewed Indian philosophy through lenses that have distorted its nature and value. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: PHIL 115 and one other PHIL course

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. Possible topics include: Aquinas's 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

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 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

Physics (PHYS)

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) 962-5224

Johnston (chair), Green, Jalkio, Lopez del Puerto, Ohman, Ruch, Wood; Blilie, Delain, Neller-moe, Schuler, 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; the Bachelor of Arts degree gives a solid background in physics with the flexibility to meet other needs, including preparation for professional programs such as medicine or patent law, or for students double majoring in areas such as mathematics or electrical engineering.

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.

Transfer students can transfer a maximum of 16 credits in physics towards the physics degree. Physics 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 department chair.

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 from 104, 105 or courses greater than 225

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)

MATH 240 Linear Algebra (4 credits)

Plus:

ENGR 240 Circuit Analysis (4 credits) or ENGR 350 Introduction to Electronics (4 credits)

ENGR 240 Circuit Analysis (4 credits) or ENG 350 Introduction to Electronics (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)

Physics (PHYS)

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 from 104, 105 or courses greater than 225

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:

ENGR 240 Circuit Analysis (4 credits) or ENGR 350 Introduction to Electronics (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)

PRE-ENGINEERING/LIBERAL ARTS 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

PHYS 111 Introduction to Classical Physics I (4 credits)

PHYS 112 Introduction to Classical Physics II (4 credits)

Plus:

Twelve PHYS credits from the following list:

PHYS 104 Astronomy (4 credits)

PHYS 105 Musical Acoustics (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)

Additional credits from other courses above PHYS 225

PHYS 101 Physics for Liberal Arts I (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 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 109 or MATH 113

NOTE: Students who receive credit for PHYS 111 may not receive credit for PHYS 109.

PHYS 112 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 (PHYS)

Prerequisites: A minimum grade of C- in PHYS 112 and in either MATH 200 or MATH 210.

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 even-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
High-Pippert (chair), Buhr, Lynch, 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 four political science sub-fields: American politics, comparative politics, international politics, and judicial politics. 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-eight credits in political science at St. Thomas. No more than eight of the credits taken outside the department shall be numbered 300 or above. Students minoring in political science must take a minimum of sixteen credits in political science at St. Thomas. The department also offers courses for non-majors to fulfill the Social Analysis component of the core curriculum.

Political Science Honor Society

Pi Sigma Alpha, the national political science honor society, established the Chi Theta chapter at St. Thomas in 1999. The purpose of Pi Sigma Alpha is to acknowledge superior performance in the study of political science, to forge closer links between faculty and political science majors and minors, and to stimulate political interest in the St. Thomas community.

Pi Sigma Alpha is open to juniors and seniors who meet the following qualifications for membership. Students must have completed at least three political science courses and be currently enrolled in or have taken a fourth. Two of the four courses must be UST political science courses, and one of the four must be at least a 300-level course. Additionally, students must have a grade point average of at least 3.00 in political science courses and be within the top third of their graduating class.

Major in Political Science

POLS 104 American Government in Comparative Perspective (4 credits)
POLS 205 Citizen Participation and Public Policy 4 credits)
POLS 225 World Politics (4 credits)
POLS 275 American Political Thought (4 credits)

Plus:

Sixteen credits in POLS 300-level courses
(completed in at least two of the five sub-fields)

Political Science (POLS)

Plus:

One POLS 400-level seminar

Four elective POLS 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 Citizen Participation and Public Policy (4 credits)

POLS 225 World Politics (4 credits)

POLS 275 American Political Thought (4 credits)

Plus:

Twelve credits in 300-level courses

(completed in at least two of the five sub-fields)

One 400-level seminar may be completed in place of a 300-level course.

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 Citizen Participation and Public Policy (4 credits)

This course focuses on American politics and public policy, with an emphasis on what both citizens and governments do, why they do it, and what difference it makes. It examines aspects of the policy process, such as agenda-setting and issue attention cycles, before covering substantive public policy issues such as education, civil rights, health care, energy and the environment, defense, and immigration. The ways in which citizens influence the public policy process through elections, interest groups, and measures of public opinion will also be considered. Prerequisite: POLS 104 or permission of instructor.

POLS 225 World Politics (4 credits)

This course serves as an introduction to the political science sub-fields of comparative politics and international relations. It introduces a range of divergent theories and perspectives concerning world politics and the nature of the contemporary global political system. It also focuses on the interactions between states and the impact of both states and non-state actors (such as international organizations and multinational corporations) on domestic and international outcomes. Themes include globalization and international trade, international security, foreign policy, international law and organizations, developing world, and European politics. Prerequisite: POLS 104 or permission of instructor.

POLS 275 American Political Thought (4 credits)

The course offers a survey of important American political themes, essays, and writers. Critical foundational documents

such as the Declaration of Independence, the Federalist Papers, and the Emancipation Proclamation, as well as debates and speeches central to American political thought, including the Lincoln-Douglas debates, the Gettysburg Address, and great political speeches of the 20th century, are examined.

Prerequisite: POLS 104 or permission of the instructor.

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 Political Identity and Participation (4 credits)

This course focuses on how and why people participate in politics in the United States, with an emphasis on how intersecting identities of citizens affect measures of political behavior, including partisanship, voting, and other forms of political involvement. Relevant identities include those rooted in race, ethnicity, class, gender, sexual orientation, and religion.

Prerequisite: POLS 205 or permission of the instructor.

POLS 302 Women and Politics (4 credits)

An examination of the political involvement of women in the United States, including 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 impact that women make in public office. Differences between women's and men's political lives and differences among women will also be explored. Potential explanations for the political underrepresentation of women will be evaluated.

Prerequisite: POLS 205 or permission of the instructor.

POLS 305 Congress and the Presidency (4 credits)

The institutions of Congress and the Presidency will be examined in this course, both independently and in the larger policymaking context of repeated interactions. Concepts such as representation, elections, cooperation, and what "success" looks like will be discussed, both in the contemporary context and with an eye towards the institution's historical development.

Prerequisite: POLS 205 or permission of the instructor.

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 104 or permission of instructor

POLS 312 Judicial Process and Politics (4 credits)

This course delves into both criminal and civil judicial process, and also considers the politics of law and justice. Concepts relating to achieving legal justice are emphasized throughout this course. Additionally, many different players in the process, such as lawyers, judges, juries, and witnesses, and their influence on a case's outcome, are considered.

Prerequisite: POLS 104 or permission of the instructor.

POLS 313 Constitutional Powers of Government (4 credits)

This course uses Supreme Court decisions primarily involving the first three articles of the Constitution to learn about the powers of both the federal and state governments in the United States. Questions of power, authority, and legitimacy are addressed throughout the course, both with respect to individual branches of government as well as interactions between the branches.

Prerequisite: POLS 104 or permission of the instructor. Junior or senior standing strongly recommended.

POLS 314 Constitutional Rights and Liberties (4 credits)

This course examines individual freedoms protected in the U.S. Constitution through the lens of Supreme Court precedent. While many political hot button issues are discussed throughout the semester, understanding and analysis of the varying interpretations of the Constitution and Supreme Court precedents are emphasized.

Prerequisite: POLS 104 or permission of the instructor. Junior or senior standing strongly recommended.

POLS 320 American Foreign Policy (4 credits)

This course will examine both the history and politics of U.S. foreign policy. As the United States developed from a

Political Science (POLS)

small post-colonial government to a world power, its foreign policy philosophies, goals, and behaviors changed markedly. By outlining important periods in U.S. history, then examining the role of certain political actors such as the President, Congress, the bureaucracy, and the American public, we can gain a better understanding of the forces that have shaped U.S. foreign policy in the past and will continue to shape it into the distant future.

Prerequisite: POLS 225 or permission of the instructor.

POLS 321 Comparative Foreign Policy (4 credits)

Examines the various theoretical approaches and frameworks that inform foreign policy decisions and behavior. Emphasis is placed upon the analysis of the domestic and external determinants of foreign policy in a comparative context. The theoretical approaches and frameworks are applied to the study of foreign policy of countries like Britain, Canada, China, France, Germany, India, Japan, and South Africa.

Prerequisites: POLS 225 or permission of the instructor.

POLS 326 International Law and Organizations (4 credits)

This course examines the ways in which state behavior is affected by international norms, international legal documents, and international organizations like the United Nations. It also looks closely at the ways in which states, individuals, and power relations shape the nature and objectives of international law and organizations. International law and organizations can be a force for good in the world; however, there is also the potential for "pathological behavior" to emerge in international organizations and their member states. This course aims to look beyond the simple explanations for IO pathologies and into the deeper causes and potential remedies for those pathologies.

Prerequisite: POLS 225 or permission of the instructor.

POLS 328 International Security (4 credits)

This course allows students to develop a deeper understanding of theories, cases and concepts in security studies. Students examine "traditional" security topics such as IR theory, regime security, and WMD technology/proliferation. Students will also examine a number of topics that have been added to this subfield in the post-Cold War era, including ethnic conflict, democratic peace theory, terrorism and human security. A better understanding of all of the topics included in security studies, both traditional and contemporary, will allow students to be better consumers of U.S. security policy and will set the stage for those students who choose to study national security at the graduate level.

Prerequisite: POLS 225 or permission of the instructor.

POLS 350 Comparative Politics of the New Europe (4 credits)

This course provides a deeper understanding of both the international relations and comparative politics aspects of politics in Europe. Topics include the evolution and role of the EU in European economics, governance, and reactions to crises. Additional topics focus on domestic politics and challenges faced by European states such as issues of national identity and discrimination, state "fragility" and persistent macroeconomic problems. Students will have ample opportunity to develop critical thinking skills, acquire the knowledge needed to be an informed consumer of news about Europe, and develop advanced theoretical and empirical knowledge that would prove useful for graduate-level study.

Prerequisite: POLS 225 or permission of the instructor.

POLS 352 Politics of the Developing World (4 credits)

A survey of the politics and economy of Asia, Africa and Latin America. Focuses on issues such as colonialism, democratization, human rights, gender, population, poverty, environment, political leadership, economic development and relations between developed and developing countries.

Prerequisites: POLS 225 or permission of the instructor.

POLS 354 Politics of Post-Soviet States (4 credits)

This course provides an in-depth understanding of the dynamics of political change in general and of the history of the Soviet Union and the fifteen post-Soviet states. General topics include revolution, totalitarian and authoritarian regimes, and problems of democratic transition experienced by many states both in and outside of the post-Soviet space. These topics are illustrated with case studies from the former Soviet Union, including Russia, East European and Central Asian states.

Prerequisite: POLS 225 or permission of the instructor.

POLS 356 Politics of India, Pakistan, and South Asia (4 credits)

An examination of the politics, economy, and society of India, Pakistan, and other countries of South Asia, namely Afghanistan, Bangladesh, Nepal, and Sri Lanka. Involves comparison between these countries utilizing themes such as political culture, political institutions, government structures and processes, political economy, and political development and transitions.

Prerequisite: POLS 225 or permission of the instructor.

POLS 404 Seminar in American Politics (4 credits)

Seminars in political science provide an opportunity for students to synthesize and further develop knowledge gained in previous courses and enhance their critical and analytical skills. Students 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.

Prerequisite: Juniors and seniors may enroll in a seminar once they have completed a 300-level course within that sub-field, or with permission of the instructor.

POLS 414 Seminar in Judicial Politics (4 credits)

Seminars in political science provide an opportunity for students to synthesize and further develop knowledge gained in previous courses and enhance their critical and analytical skills. Students 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.

Prerequisite: Juniors and seniors may enroll in a seminar once they have completed at 300-level course within that subfield, or with permission of the instructor.

POLS 424 Seminar in International Relations (4 credits)

Seminars in political science provide an opportunity for students to synthesize and further develop knowledge gained in previous courses and enhance their critical and analytical skills. Students 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.

Prerequisite: Juniors and seniors may enroll in a seminar once they have completed at 300-level course within that subfield, or with permission of the instructor.

POLS 454 Seminar in Comparative Politics (4 credits)

Seminars in political science provide an opportunity for students to synthesize and further develop knowledge gained in previous courses and enhance their critical and analytical skills. Students 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.

Prerequisite: Juniors and seniors may enroll in a seminar once they have completed at 300-level course within that subfield, or with permission of the instructor.

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)

Pre-Professional Programs

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.

CURRICULA

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 University of St. Thomas campus, provides an integrated program of spiritual and apostolic formation, along with the academic coursework available through the university.

All seminarians major in Philosophy, with the possibility to double major in a variety of fields. In addition, seminarians must complete prerequisites of theology and languages, according to the direction of their diocese, as well as the graduation requirements of the University of St. Thomas. All of these together provide in large measure the balance needed for the future study of theology at the major theologate. However, they must complete certain prerequisites in philosophy, theology and languages according to the direction of their diocese. St. John Vianney students will be expected to complete the following academic requirements in compliance with the Program of Priestly Formation:

Forty credits of philosophy

Twelve credits of theology

Language requirements: Latin or Spanish if determined by the student's diocese.

Interested students should contact the rector, Rev. Michael Becker, at St. John Vianney Seminary: beck8065@stthomas.edu

Pre-Engineering/Liberal Arts Engineering Dual Degree Program (EN32)

Cross-College Program

Jalkio (PHYS) Pre-Engineering advisor

The School of Engineering at the University of St. Thomas is home to several engineering programs. These 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 (dual degree) program.

The Liberal Arts-Engineering (dual degree) program is offered formally in cooperation with the University of Notre Dame and the University of Minnesota. Students typically spend three years at St. Thomas and then apply for transfer to one of the partner engineering schools. After being accepted by the partner institution, they complete their engineering curriculum at the partner school. 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.

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. Specific courses needed vary by engineering discipline so it is important to meet early with the Pre-Engineering advisor.

Contact the Pre-Engineering advisor in the Department of Physics for program specifics.

Liberal Arts - Engineering Dual Degree Program (Pre-Engineering)

CHEM 109 General Chemistry for Engineers (4 credits)
or 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 Pre-Engineering 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. The Office of Academic Counseling provides resource and support to students in choosing specific coursework necessary to meet professional school admission requirements and understanding application procedures.

Pre-dentistry

Most schools of dentistry require a minimum of three years of college coursework prior to admission to their programs. 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. Most dental schools require 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:

Pre-Professional Programs

- Biology
- General Chemistry
- Organic Chemistry
- Physics
- English

Medical schools generally do not require a specific undergraduate major. In addition, courses in the following subjects are highly recommended:

- Biochemistry
- Ethics
- Genetics
- Psychology
- Statistics
- Foreign Language
- Independent learning courses involving small group discussion
- Social and behavioral sciences and humanities

Pre-pharmacy

Required courses vary from one school to another, and students are encouraged to research various programs early in their undergraduate program. Most Pharm D. programs require 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. Most veterinary programs require completion of 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 typically 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, occupational therapy, 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 a representative from the Office of Academic Counseling.

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 353 Employment and Labor Law (4 credits)

BLAW 401 Legal Research, Advocacy, and Dispute Resolution (4 credits)

BLAW 403 Marketing Law (4 credits)

COJO 336 Communication Law (4 credits)

ECON 321 Law and Economics (4 credits)

ECON 332 Industrial Organization (4 credits)

HIST 365 U.S. Constitutional History (4 credits)

POLS 205 Citizen Participation and Public Policy (4 credits)

POLS 312 Judicial Process and Politics (4 credits)

POLS 313 Constitutional Powers of Government (4 credits)

POLS 314 Constitutional Rights and Liberties (4 credits)

POLS 326 International Law and Organizations (4 credits)

POLS 414 Seminar in Judicial Politics (4 credits)

B. Fostering critical thinking about society

ENGL 402 Writing Literary Nonfiction (4 credits)

PHIL 357 Political Philosophy (4 credits)

PHIL 359 Philosophy of Law (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 366 Persuasion (4 credits)

COJO 376 Argumentation and Advocacy (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 304 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

Robinson-Riegler (chair), Amel, Beckmann, Bock, Buri, Chalkley, Giebenhain, Hankerson, Jessee, Johnson, Prichard, 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 eight additional courses:

- At least one from each perspective
- Four of the eight must be 300/400 level
- Two must be lab courses (lab courses are italicized below; 212 is a prerequisite for all lab courses)

Perspective-Based Courses

BIOLOGICAL

PSYC 206 Brain and Human Behavior (4 credits)

PSYC 207 Drugs, and Behavior (4 credits)

PSYC 322 Sensation and Perception (4 credits)

PSYC 401 Physiological Psychology (4 credits)

COGNITIVE

PSYC 315 Cognition (4 credits)

PSYC 323 Psychology of Learning and Memory (4 credits)

PSYC 400 Seminar in Cognition (4 credits)
PSYC 415 Research Issues in Cognition (4 credits)

SOCIAL

PSYC 121 Social Psychology (4 credits)
PSYC 151 Cross-Cultural Psychology (4 credits)
PSYC 321 Research Issues in Social Psychology (4 credits)

DEVELOPMENTAL

PSYC 200 Infancy and Childhood (4 credits)
PSYC 202 Lifespan Development (4 credits)
PSYC 203 Psychology of Adolescence (4 credits)
PSYC 204 Adulthood and Aging (4 credits)
PSYC 402 Developmental Psychology Research (4 credits)

CLINICAL

PSYC 301 Psychopathology (4 credits)
PSYC 302 Personality Theories (4 credits)
PSYC 313 Psychological Testing (4 credits)
PSYC 428 Counseling and Psychotherapy (4 credits)

ELECTIVE COURSES

PSYC 205 Psychology of Women (4 credits)
PSYC 250 Positive Psychology (4 credits)
PSYC 288 Psychology of Marriage and Family (4 credits)
PSYC 308 Motivation and Emotion (4 credits)
PSYC 342 Industrial/Organizational Psychology (4 credits)
PSYC 365 Health Psychology (4 credits)

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 207 Genetics, Ecology, and Evolution (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)

Psychology (PSYC)

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 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)

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.

CURRICULA

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)

This is an introduction to the field of social psychology, which examines how an individual's thoughts, feelings, and behaviors are influenced by the social context. The course covers such topics as conformity, persuasion, stereotypes and prejudice, love and relationships, helping behavior and altruism, aggressions, the self-concept, and group dynamics.

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 reviews the principles, theories, research and application of cognitive, emotional, personality, social and physical development. Also examined is how children develop the knowledge, skills, and personality characteristics that allow them to become successful adults as well as how differences among children come about.

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)

An introduction to developmental principles and theories throughout the lifespan. The course also includes research, application and the interplay among the physical, emotional, social and intellectual variables in the process of growth and development. Also examined is how individuals develop the knowledge, skills, and personality characteristics that allow them to become successful later in life as well as how differences among individuals come about.

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)

An introduction to issues and theories of development dealing with adolescence. The course reviews the principles, theories, research and application of cognitive, emotional, personality, social and physical development. Also examined is how adolescents develop the knowledge, skills, and personality characteristics that allow them to become successful adults as well as how differences among teens come about.

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 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 250 Positive Psychology (4 credits)

This course explores current research on positive emotions, well-being, positive thinking, character strengths, virtues, values, wellness, resilience, positive relationships, and aspects of institutions (family, school, business, etc.) that cultivate positive experiences for their members. In addition to examining research on these topics, students will be expected to engage in positive psychology exercises related to the recognition of their own character strengths and the cultivation of gratitude.

Prerequisite: PSYC 111

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 psycho-

Psychology (PSYC)

logical 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. Counts toward fulfilling the Psychology major lab course requirement.

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 provides hands-on experience in the design, implementation, and presentation of a social psychology experiment. Class readings and discussion introduce social psychological research, link classic social psychological research to current social issues, and teach students to do what social psychology researchers do.

Prerequisites: PSYC 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 334 Psychology for Sustainability (4 credits)

Drawing from work in environmental psychology, ecopsychology, and conservation psychology we will address how psychological theory and research can be applied to promote a sustainable future and explore psychological aspects of the reciprocal relationship between humans and the rest of the natural world. This course will provide an overview of the basic knowledge, theories, and research methods that characterize the psychology of sustainable behavior. After completing this course, students will understand the causes and consequences of environmental degradation, understanding of the psychological underpinnings of the approaches being used to promote sustainable behavior and be able to describe important social, cultural, and policy factors that influence sustainable behavior.

Prerequisite: One of the following PSYC 111, ENVR 151, ENGR 123, BIOL BIOL 102, BIOL 209, GEOL 115 OR CHEM 101, or permission of the instructor.

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 344 Psychology of Sustainability (4 credits)

Drawing from work in environmental psychology, ecopsychology, and conservation psychology we will address how psychological theory and research can be applied to promote a sustainable future and explore psychological aspects of the reciprocal relationship between humans and the rest of the natural world. This course will provide an overview of the basic knowledge, theories, and research methods that characterize the psychology of sustainable behavior. After completing this course, students will understand the causes and consequences of environmental degradation, understanding of the psychological underpinnings of the approaches being used to promote sustainable behavior and be able to describe important social, cultural, and policy factors that influence sustainable behavior.

Prerequisite: One of the following PSYC 111, ENVR 151, ENGR 123, BIOL BIOL 102, BIOL 209, GEOL 115 OR CHEM 101, or permission of the instructor.

PSYC 365 Health Psychology (4 credits)

This survey course will examine the contributions of psychological research to the understanding, prevention, and treatment of a variety of health concerns. This course will employ a biopsychosocial model, which means we will study how social, emotional, behavioral, biological, and spiritual factors influence health. The specific topics include injury, stress, pain management, addictions, sleep, patient-physician relations, and chronic illnesses such as Alzheimer's, diabetes, and AIDS.

Prerequisite: PSYC 111

PSYC 400 Seminar in Cognitive and Language Development (4 credits)

Current theory and research in a specific topic related to cognition. Topics will vary, but will include in-depth coverage of specific topics related to thinking and consciousness. Sample topics include (but will not be limited to) specific aspects of consciousness (e.g. Sleep and Cognition), memory (e.g. eyewitness memory or memory distortion), social cognition (e.g. stereotyping), developmental cognition (e.g. language development), cognitive neuroscience (e.g. brain mechanisms underlying attention), comparative cognition (e.g. animal language), and applied cognition (e.g. human-computer interaction).

Prerequisites: PSYC 111 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 402 Developmental Psychology Research (4 credits)

This laboratory course presents methods and designs in developmental research methodology. The course examines observational, experimental and quasi-experimental research as well as analyses, ethics, and other core issues in developmental psychology.

Prerequisites: PSYC 200 or 202; and PSYC 212

Renaissance Program

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

PSYC 422 History of Psychology in Social Context (4 credits)

This course explores psychology's past with a special focus on events and movements representing the discipline's sustained interest in applying science to enhance human welfare. From its early days, U.S. psychologists have applied our discipline's knowledge to solve social problems. This course examines psychology's complicity, in its early years, with questionable cultural practices and unjust social norms (e.g. the eugenics movement, racial bias). We also study the social/historical context surrounding psychology's early applications. The goal is to promote reflection on the place of psychology in the broader culture and raise awareness of the complexities inherent in using science to solve social problems, in the service of preparing students to be "morally responsible leaders who think critically, act wisely, and work skillfully to advance the common good."

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 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, 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.

SCIENCE, MEDICINE AND SOCIETY

College of Arts and Sciences, Interdisciplinary Program
Distelzweig (Philosophy) and Wojda (Theology)

The "Science, Medicine, and Society" (SMDS) minor provides students with interdisciplinary, critical and constructive

Social Sciences

perspective on medicine, science, health and disease today. Through course offerings in the humanities and (mainly) social and behavioral sciences the minor explores contemporary and historical perspectives on: (1) the concepts of health and disease; and (2) the cultural, social, institutional, and geophysical context of science, medicine, and health care. It will help students better analyze, evaluate, and positively influence these important forces shaping society today.

Core courses

All students must take:

- PHIL 241 History and Philosophy of Medicine
OR PHIL 385 Philosophy of Science* with approval of program director
- PHIL 354 Biomedical Ethics

Plus one of the following 400-level Theology courses:

- THEO 420 Theology and the Biomedical Revolution
- THEO 437 Christian Faith and the Health Care Professions
- THEO 472 Theology and Public Health

With approval of the program director:

- THEO 434 Science and Christian Theology
- THEO 449 Theology and Engineering
- Another 400-level Theology course

Electives, choose three.

Group 1 - Humanities and Communication, choose up-to one course:

- COJO 372 Environmental Communication
- PHIL 385 Philosophy of Science*
- Other courses as pre-approved by the program director

*PHIL 385 may not count towards both Science, Medicine and Society core AND elective requirements.

Group 2 - Social, Behavioral and Natural Sciences, choose up-to three courses:

- BIOL 106 Women, Medicine and Biology
- BIOL 361/GEOL 461 Medical Geology
- ECON 324 Health Economics
- GEOG 350 Geography of Global Health
- HLTH 120 Foundations of Health Promotion
- HLTH 310 Global Health
- PSYC 121 Social Psychology
OR PSYC 151 Cross-Cultural Psychology
- PSYC 207 Alcohol, Other Drugs and Behavior
- PSYC 301 Psychopathology
- PSYC 365 Health Psychology
- Other courses as pre-approved by the program director.

Total required credits: 24 (six courses)

SOCIAL SCIENCES

College of Arts and Sciences, Interdisciplinary Program
O'Shaughnessy Education Center (OEC) 428, (651) 962-5686
Papagapitos (ECON), Cory (HIST), High-Pippert (POLS), Smith (SOC), 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

Carvalho (interim dean), Baboila, Bidwell, Chigbu, Chovanec, Fletcher, Graham, Hepperlen, Hill, Hollidge, Hurley-Johncox, Husebo, Itzkowitz, Kiesel, Kuechler, Lundquist, Marrs Fuschel, Nesmith, Peterson, Rand, Richardson, Roseborough, Shank, Solomonson, Toft, Vang, Whitebird, Winkler

Department Web Site: <http://www.stthomas.edu/socialwork/undergraduate/default.html>

The social work program is a partnership of St. Catherine University and the University of St. Thomas.

Your spark of idealism, belief in social justice and love of working with people, together with a degree from our accredited social work program, will prepare you for one of the fastest growing careers of the future. At St. Kate's-St. Thomas, you'll acquire professional knowledge, values and skills that will empower you for a challenging and rewarding career in social work.

St. Kate's-St. Thomas' social work major prepares students for work in a wide range of settings. Recent graduates have been hired in such diverse places as hospitals, community centers, human services departments, public schools, women's shelters, nursing homes and mental health centers. Other graduates find work in private industry, group homes, state and local government, chemical dependency programs, programs for the elderly, and privately supported family and children's agencies, to name a few.

The curriculum is rooted in a philosophy of social responsibility and respect for individuals' rights. Drawing from the Judeo-Christian traditions of social caring, we prepare students to use social work knowledge, values and skills to demonstrate the intrinsic value of all humankind as they serve those in need and promote social justice and human rights. Rooted in educational justice and community engagement, our program prepares generalist social workers committed to professional ethics and values, service, social justice and human rights. Our comprehensive program integrates theory, research, field and personal growth components. Social work majors also take courses in human biology, introduction to sociology, general psychology and lifespan developmental psychology.

Courses in the social work major will prepare students for generalist social work practice and for graduate study. The program is accredited by the Council on Social Work Education at the baccalaureate level and qualifies

Social Work (SOWK) - School of Social Work

graduates to take the examination for licensure at the licensed social worker (LSW) level.

Majors will expand their knowledge of social work beyond the boundaries of the classroom by completing two field education placements. During their junior and senior years, students will complete 600 hours of field practice experience (200 hours as Juniors, 400 hours as Seniors), engaging them in hands-on learning opportunities in a variety of settings.

We have developed strong agency partners and guide students through the process of interviewing and placement with these agencies. Field placements include opportunities such as case management, shelter advocacy, supervised visitation, community education and organizing, school social work, medical social work, research and grant writing, and county social work.

The School of Social Work includes 28 St. Kate's and St. Thomas faculty who are known for their teaching excellence and scholarship and are eager to lend their expertise concerning academic and professional issues. Our faculty members hold leadership positions in local, regional and national professional organizations and have expertise in areas such as medical social work, school social work, social policy, child welfare, AIDS and international social work. Your professors will enthusiastically challenge you and encourage you to reach your full potential.

Field placements complement the academic work through integration of theory and practice. With this exceptional hands-on practice experience and meaningful course work, the vast majority of our social work graduates secure positions in their field within six months of graduation.

The School of Social Work is recognized as a national leader for its strong commitment to social justice. Social Work for Social Justice: Ten Principles, developed by the program and used in the baccalaureate and graduate programs, have been adopted by programs across the country. The social work program also has an active Social Work Club and Honor Society, Phi Alpha.

The social work program requires students to be formally admitted to the major. This process takes place in February of the junior year. Prospective majors must have a grade point average of 2.25 and must be interviewed by the School of Social Work faculty.

There are three social work minors available to all majors: Social Welfare, Chemical Dependency Counseling: Addiction and Recovery, and Social Services Management. These minors are not accredited by the Council on Social Work Education and do not qualify graduates to sit for the Minnesota Board of Social Work examination for State of Minnesota licensure at the licensed social worker level.

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.

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 your 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 (2 credits each) or 378* Junior Field Placement and Integrative Seminar (*378 only for students studying abroad fall or spring semester)

SOWK 380 Social Work Research (4 credits)

SOWK 385 Group Work Skills (4 credits)

SOWK 391 Social Policy for Social Change (4 credits)

SOWK 401 Generalist Practice I: Small Client Systems (4 credits)

SOWK 402 Generalist Practice II: Large Client Systems (4 credits)

SOWK 405 and 406 Senior Field Placement and Integrative Seminar (4 credits each)

Allied requirements

BIOL 105 Human Biology (4 credits) or BIOL 106 Women, Medicine and Biology (4 credits) or BIOL 1120C Biology of Women (4 credits)
PSYC 111 General Psychology (4 credits)
PSYC 202 Lifespan Development (4 credits)
SOCL 100 Introduction to Sociology (4 credits)

Required Field Education Experience

Field placements, arranged by the School of Social Work, provide hands-on practice experience 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 to ten hours per week off campus in a field agency setting totaling 200 hours, plus a weekly seminar course on campus. As a social work student contact your social work adviser or program director during the second semester of sophomore year to discuss the placement process.

Senior year:

Two semesters of approximately 12-16 hours per week off campus in a field agency setting totaling 400 hours, plus bi-weekly seminar course on campus.

Elective courses

Electives are updated frequently. Visit www.stthomas.edu/socialwork/undergraduate/curriculum/default.html for a current list of electives.

CHDC 300/CDC 3000 Chemical Dependency Assessment & Intervention (4 credits)
CHDC 305/CDC 3050 Chemical Dependency: Families & Cultural Diversity (4 credits)
IDSC 291/INDI 2910 The Anatomy of Violence (4 credits)
IDSC 293/INDI 2940 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)
SOWK 390 Faith, Social Transformation and Social Work (4 credits)*
SOWK 423 Practice with Older Adults and their Families (4 credits)
SOWK 434 Practice with Military Service Members, Veterans and their Families (4 credits)
SOWK 441 Family Resilience and Diversity: Immigrant/Refugee (4 credits)
SOWK 490 Topics: Child Welfare
SOWK 299C: Social Justice: Social Development International

*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 Drugs and Behavior (4 credits)
SOCL 251 Race and Ethnicity (4 credits)
SOWK 380 Social Research: Designs and Statistical Application (4 credits)

Minor in Social Services Management

The ability to administer programs, raise funds, and write grants is increasingly important in social service and non-profit work. The purpose of this minor is to prepare students for administrative, management, or fundraising roles with nonprofits and social service agencies. Students will be introduced to social work and social services, gain an understanding of the impact of social policies on the provision and scope of social services in the United States as well as gain tangible skills, such as fundraising, grant writing, management, program evaluation, and accounting or marketing, for work in social services management. Students will learn critical leadership skills necessary for effective management. Upon completion of the minor, students will have enhanced skills that will help to position them to be successful advocates, administrators, and managers within social service and nonprofit agencies.

Minor Objectives

- Gain a broad understanding of social work and social services in the United States
- Understand the impact of social policies and government programs on the scope of and provision of social services in the United States
- Develop marketable skills in fundraising, grant writing, leadership, evaluation, and development for nonprofit agencies and programs
- Build a strong core of business skills, knowledge, and management ethics that will enhance students' work in social service and nonprofit agencies

Required Courses:

ACCT 210 Intro to Financial Accounting (4 credits)
BUSN 200 Business Learning Through Service (0 credit)
MGMT 305 Management and Organizational Behavior (4 credits)
MKTG 300 Principles of Marketing (4 credits)
SOWK 281 Introduction to Social Work (4 credits)
SOWK 391 Social Policy fo Social Change (4 credits)
SOWK 430 Development and Fundraising for Social Service Agencies

(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.)

Minor in Chemical Dependency: Addiction and Recovery

This minor provides students preparing for work in a variety of settings (social work, health care, criminal justice, etc.) with a foundational understanding of addiction and recovery and their impact on multiple areas of life, how to identify abuse and addiction, beginning steps in assisting, advocating for, and referring people who have chemical health concerns. This minor is a part of the preparation for Minnesota's Alcohol and Drug Counselor Licensure.

Minor Objectives

- Understand addiction and recovery and their impact on multiple areas of life.
- Understand the interdisciplinary approach to addiction and recovery counseling.
- Pharmacology of substance abuse disorders and the dynamics of addiction including co-occurring disorders.
- Screening, intake, assessment, and treatment planning
- Understand and apply counseling theory and practice, models of treatment, and crisis intervention.
- Develop skills in case management, consultation, referral, treatment planning, reporting, record keeping.
- Understand professional and ethical responsibilities.
- Identify and respond to multicultural considerations of addiction and recovery.

Required Courses:

CHDC 300 Chemical Dependency Assessment & Interventions (4 credits)
CHDC 305 Chemical Dependency: Families & Cultural Diversity (4 credits)
SOWK 355 Communication and Interviewing Skills (4 credits)
CHDC 435 Co-Occurring Disorders & Pharmacology (4 credits)

Pursuing the License Drug and Addiction Counseling (LADC):

Students who are interested in pursuing licensure through the Licensed Alcohol and Drug Counselor application and exam process may have some additional requirements. These requirements can be met during or post completion of the undergraduate degree but must be taken at an accredited institution and be displayed on a transcript. Eligibil-

ity for the LADC requires 18 credits of course work plus 880 hours of practicum. A stipulation of the LADC is that the 18 credits required for the exam cannot be acquired from the practicum (CDC 355 & 425). Students interested in the LADC must take an additional 4 credits beyond the 18 offered in the minor to sit for the exam. It is an additional 4 credits because the LADC also requires the practicum. See the Minor and LADC course chart for potential course options.

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, community and societal levels. Special emphasis is placed on values, human diversity, social justice and social work fields of practice.

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 investigate how humans interact with their social environments. This is a theory-heavy course focusing on metacognition- training students to think about the way we think. The course provides students with knowledge of theories of the social environments and how they impact, as well as are impacted, by human behavior. Further, theories on human behavior are examined through the multidimensional framework constituting biological, psychological, spiritual, socio-cultural, political, and economic factors. Emphasis is on the role of and interaction between these multiple factors at the level of various systems: the individual, family, small group, organization, community, and society, including political and economic systems. The course consists of five modules: interpersonal relations and empowerment; social systems; political and economic systems; justice; and multiculturalism. The course investigates the multiple dimensions and intersections of diversity including gender, race/ethnicity, age, religion, ability, sexual orientation, nationality, and global and international perspectives. Students leave the class with a holistic understanding of the human experience within the environments that surround them.

Prerequisite or concurrent registration: SOWK 281/2810; Prerequisites: SOCI 100, PSYC 202/2025; BIOL /105/106/1120 or consent of the program director.

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.

SOWK 355/3550 is taken with SOWK 375/3750 (or 378/3780) in the fall by day students and with SOWK 3760 (or 3780) in the winter by Weekend College students. Prerequisites or concurrent registration with: SOWK 281/2810 and SOWK 340/3400 or by consent of the program director.

SOWK 3750C/375T and 3760C/376T (2 credits each) or 3780C/378T (4 credits) Junior Field Placement and Integrative Seminar

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 - 12 hours per week throughout two consecutive terms (fall and spring semesters).

Prerequisite or concurrent registration with: SOWK 281/2810 or consent of the program director and concurrent with SOWK 3550C/355T.

SOWK 380T Social Work Research (4 credits)

Social Work (SOWK) - School of Social Work

This course fosters competence in the research skills needed for generalist social work practice. Students will gain knowledge in the steps of conducting research; practice evaluation; conducting research with vulnerable participants; locating and critically evaluating relevant research to inform practice; and evidence-based practice. They will learn values of ethical research practice, using the Belmont Report and the NASW Code of Ethics as guidelines. Particular emphasis is placed on protecting vulnerable research participants. Students will also gain skills in writing and presenting a literature review, developing a research proposal, and applying relevant research to practice.

Prerequisites: SOWK 281/2810 and junior status or consent of the program director.

SOWK 3850C/385T Group Work Skills (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. This course provides experiential learning opportunities to integrate knowledge, values, and skills as both a group leader and a group member. The effects of diversity on group interaction are stressed. SOWK 385/3850 is taken with 376/3760 (or 378/3780) in the spring semester.

Prerequisite: SOWK 355/3550 or consent of the Program Director.

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 281/2810 or consent of the Program Director

SOWK 4010C/401T Generalist Practice I: Small Client Systems (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. SOWK 401/4010 is taken with 405/4050 in the fall by seniors.

Prerequisites: SOWK 355/3550 and SOWK 385/3850.

SOWK 4020C/402T Generalist Practice II: Large Client Systems (4 credits)

This course is a continuation of SOWK 401/4010 and the final of four courses in the practice sequence of the social work curriculum. The focus is on prevention/intervention methods-based on generalist social work knowledge that can be applied to client systems of all sizes. A special emphasis is placed on effecting planned change in groups, organizations, communities, and national and global society toward the pursuit of social justice. A combination of lecture, discussion, experiential learning, and small-group activities provides students with knowledge and skills for client advocacy and social change. SOWK 402/4020 is taken with 406/4060 in the spring semester.

Prerequisites: SOWK 401/4010.

SOWK 4050C/405T Senior Field Placement and Integrative Seminar (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 15-20 hours per week throughout two consecutive terms (fall and spring semesters).

Concurrent registration in SOWK 401/4010 is required.

SOWK 4060C/406T Senior Field Placement and Integrative Seminar (4 credits)

Concurrent registration in SOWK 402/4020 is required.

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, students will be given tools to advocate for children, and an opportunity to exercise new advocacy skills.

SOWK 423T Practice with Older Adults and Families (4 credits) (GRSW 523)

This course provides an introduction to, and overview of social work knowledge, skills, and values for working with older adults and their families. Content includes an examination of theories such as: "activity theory", "substitution theory", "continuity theory", "labeling theory", "transpersonal theories", and the "transition model" as well as the "strengths perspective and empowerment principles" as they apply to an elderly population. Students are expected to examine their own and societal attitudes about aging, risk factors of aging, the nature and limitations of gerontological social work, forces shaping the delivery system, major bio-psychological and spiritual dimensions in practice, and differential models of intervention.

SOWK 430T Development and Fundraising for Social Service Agencies (4 credits)

The purpose of this class is to provide students with an overview of key elements of supporting and expanding social service programs in nonprofit and public agencies. Topics covered include nonprofit governance and administrative structures, fundraising, program design and development, philanthropy, supervision of paid staff and volunteers, and grant-writing and program evaluation. An emphasis will be placed on linking agency work and agency mission. The course will emphasize application and synthesis of course concepts through community-based projects.

Prerequisite: Junior or Senior standing

SOWK 434T Practice with Military Service Members, Veterans, and Their Families (3 credits)

This course provides an introduction to and overview of military social work knowledge, skills, and values for working with service members, veterans, and their families at the foundation level. Content includes an examination of topics relevant to a foundation in military social work practice such as military culture, at-risk populations, as well as risk and resilience among deployed service members and their families. Students are expected to examine their own and societal attitudes about social work with military-impacted populations. Students will demonstrate competency through integrative, multi-level applications grounded in literature, current initiatives and resources for military-impacted populations, and current research and policy.

SOWK 441T Family Resiliency and Diversity: Immigrant/Refugee (4 credits) (GRSW 541)

This course presents the family resilience framework as a foundational context for working with diverse populations, focusing on strengths and adaptive capacity. Specifically, this course explores critical issues, theory and skills related social work practice with immigrants and refugees. Consideration is given to the macro context of immigration including related policy responses. Key factors in resettlement and transition, such as migration trauma, the social work delivery system, and the role of the social worker with clients, communities and organization will be addressed.

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.

Chemical Dependency (CHDC)**CHDC 300 Chemical Dependency Assessment & Intervention (4 credits)**

This course provides the student with an introduction to the philosophy of addiction treatment and an overview of the

Sociology and Criminal Justice (SOCI)

addiction process, prevention, treatment and recovery. Students will acquire the knowledge and skills needed for holistic practice with clients dealing with a variety of addictions. Students will gain understanding of the trans-disciplinary nature of addiction treatment. Students examine various biological, psychological, environmental and socio-cultural theories of what contributes to addiction. Students also gain understanding and skills for addiction screening, assessment, and intervention as well as an introduction to the range of services that are available regarding addiction and recovery.

CHDC 305 Chemical Dependency: Families and Cultural Diversity (4 credits)

This course is designed to educate students in the provision of alcohol and drug counseling to clients, family members and others who are directly affected by someone using alcohol or other drugs. The course will explore the relationship between addiction and the systems of the family and other cultures. Special attention will be paid to identifying typical long-term responses within various family members and cultural influences on the development and maintenance of addiction. This course is based on an interdisciplinary model of practice. This model incorporates sociological perspectives, cognitive, health and addiction theories. Spirituality in working with addictions is a specific focus, as well as treatment, intervention and the role of the professional in addiction treatment and recovery.

CHDC 435 Co-Occurring Disorders & Pharmacology (4 credits)

Students examine the therapeutic interventions developed for the treatment of addictions and their efficacy on the treatment of concurrent addictive behavior patterns and other mental illnesses. Special attention is focused on personality, mood, and anxiety disorders, and the following potential addictive behavior patterns: gambling, sexual activity, and eating. Students will gain an overview of the basics of pharmacology as applied to various classifications of mood altering chemicals. This will include examination of the interactions between the central nervous systems/ neurotransmitters and drugs/ alcohol, detoxification, withdrawal, pharmaceutical drug interaction and the dynamics of addiction. prerequisites: CHDC 300 and 305, PSYC 101

SOCIOLOGY AND CRIMINAL JUSTICE (SOCI)

College of Arts and Sciences, Department of Sociology and Criminal Justice
O'Shaughnessy Education Center (OEC) 431, (651) 962-5630

Smith (chair), Gladney (Law Enforcement Education Coordinator), Hodge, Karraker, Kinney, Waldner; Caldie, Clark, Finnegan, Goldstein, 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. We also offer courses with comparative perspectives on global issues such as crime, gender, 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. justice system. 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. Students will also be prepared to work as a crime victim advocate, crime research analyst, or work in agencies focused on social justice work related to the criminal justice field.

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 and Criminal Justice 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, geography, justice and peace studies, legal studies, political science, psychology, social sciences, social work, 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.

Students majoring in sociology or criminal justice must take a minimum of 16 credits in sociology from St. Thomas. Sociology and criminal justice minors need a minimum of 8 sociology credits from St. Thomas.

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 35th of their class and who have maintained a 3.0 grade point average in sociology courses taken at the University of St. Thomas.

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 370 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 may contact the department chair to waive 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 an area of special interest.

The program emphasizes the interrelationships among the various components of the criminal justice system (e.g., law enforcement, 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, is accredited by the Minnesota Board of Peace Officer Standards and Training (POST). This program prepares students for the peace officer licensing examination. Students who intend to take this examination must also complete SOCI 251 and PSYC 111. Please contact the department's Law Enforcement Education Coordinator for more information.

SOCI 100 Introduction to Sociology (4 credits)
SOCI 200 Introduction to Criminal and Juvenile 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)

Sociology and Criminal Justice (SOCl)

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 and Politics (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 Drugs and Behavior (4 credits)

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 may contact the department chair to waive SOCI 220.

Note: Students choosing to double major in sociology and criminal justice are limited to five courses that can be applied to both majors. Only the following courses may count toward requirements in both majors: SOCI 100, 200, 210, 220 and one 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 350 Social Inequality: Privilege and Power (4 credits)

SOCI 365 Social Psychology (4 credits)

SOCI 366 Self and Society (4 credits)

SOCI 370 Sociological Theory (4 credits)

Plus twelve additional credits from the list above or below:

SOCI 110 Social Problems (4 credits)

SOCI 130 Homicide (4 credits)

SOCI 220 Sociological Analysis (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)
 SOCI 474 Seminar in Sociology (4 credits)

Minor in Criminal Justice

SOCI 100 Introduction to Sociology (4 credits)
 SOCI 200 Introduction to Criminal and Juvenile 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 and Politics (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 or two courses 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 hypothesis testing within the social sciences with an emphasis on sociological and criminal justice research questions. Emphasis is placed on applied statistics as employed in sociology with skill devel-

Sociology and Criminal Justice (SOCI)

opment 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. Topics covered include descriptive statistics, confidence intervals, independent samples, t-test, analysis of variance, chi-square, correlation, regression, and quantitative reasoning. Students may not substitute STAT 220 for 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 General 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 or SOCI 110

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; 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 SOCI 110 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 SOCI 110 or permission of the instructor

SOCI 330 Religion in America 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 or SOCI 110

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.

Prerequisite: SOCI 100 or SOCI 110

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 or SOCI 110

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 or SOCI 110 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 SOCI 110 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 or SOCI 110

Sociology and Criminal Justice (SOCI)

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 370 Sociological Theory (Previously SOCI 470) (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.

Prerequisite: SOCI 100 and 8 additional credit-hours in sociology

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 or SOCI 110

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 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 SOCI 370 (previously SOCI 470) and SOCI 220 or concurrent registration

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)

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 347 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) 201, (651) 962-5520

Shemyakin (MATH) committee chair; Advisory committee: Curran (CISC), Dayananda (MATH), Werness (CISC)

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)

STAT 360 Advanced Statistical Software (4 credits) (Formerly IDTH 360)

STAT 400 Data Mining and Machine Learning (4 credits) (Formerly IDTH 400)

STAT 460 Statistical Research/Practicum - a capstone experience (4 credits)

Concentration in Mathematical Statistics

Statistics (STAT)

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)
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)
STAT 410 Operations Research I (4 credits) (Formerly IDTH 410)
STAT 411 Operations Research II (4 credits) (Formerly IDTH 411)

Allied Requirements:

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

Joint Minor in Statistics from MATH and CISC Departments

This joint minor allows students to pursue an interest in mathematical statistics, applied statistics, and related areas including biostatistics, operations research, and data mining.

Required courses (each of two tracks includes 6 courses with MATH, STAT designation numbered in the brackets):

MATH 113 Calculus I (1)
MATH 128 Introduction to Discrete Mathematics
or
MATH 240 Linear Algebra (2)

Plus:

For Mathematical Statistics track:

MATH 114 Calculus II (3)
MATH 200 Multivariable Calculus (4)
MATH 313 Probability (5)
STAT 314 Mathematical Statistics (6)

or

For Applied Statistics track:

STAT 220 Statistics I (3)
STAT 310 Bio-Statistics (4)
STAT 320 Statistics II (5)

Plus four credits from the following electives (6):

STAT 360 Advanced Statistical Software (Formerly IDTH 360)
STAT 400 Data Mining and Machine Learning (Formerly IDTH 400)
STAT 410 Operations Research I (Formerly IDTH 410)
STAT 411 Operations Research II (Formerly IDTH 411)

STAT 201 Introductory Statistics II (2 credits) (STAT 220)

This course is for students desiring to satisfy the coverage of STAT 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: STAT 206 or at least .35 semester, but less than one semester, of statistics

NOTE: Students who receive credit for STAT 201 may not receive credit for STAT 220

STAT 220 Statistics I (4 credits) (STAT 201)

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 may not receive credit for STAT 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)

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: STAT 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 moving average models; application to forecasting. Offered spring semester.

Prerequisites: MATH 303 or STAT 314 or permission of instructor

STAT 360 Advanced Statistical Software (4 credits) (Formerly IDTH 360)

This course introduces students to an advanced statistical software package to effectively apply statistical methods, in general. Students create data sets from raw data files, create variables within a data set, append and/or modify data sets, create subsets, then apply a whole host of statistical procedures, create graphs and produce reports. The course will be based on several leading advanced statistical software packages, which will be chosen from semester to semester to match the needs of the community.

Prerequisites: STAT 220 or STAT 314

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 400 Data Mining and Machine Learning (4 credits) (Formerly IDTH 400)

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

THEATER (THTR)

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 CISC 130 or CISC 131, and STAT 320 or STAT 333

STAT 410 Operations Research I (4 credits) (Formerly IDTH 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

STAT 411 Operations Research II (4 credits) ((Formerly IDTH 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 nonlinear programming.

Prerequisites: STAT 410

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

STAT 495, 496 Individual Study (2 credits)

STAT 497, 498 Individual Study (4 credits)

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

STUDY ABROAD

See Academic Information & Programs in the front section of this catalog

THEATER (THTR)

College of Arts and Sciences, Interdisciplinary Program

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 tehory 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.

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 or the English Department website. 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.

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.

Theology (THEO)

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.

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, Bushlack, Carvalho, Cory, Faggioli, Gavrilyuk, Hollerich, Jordon, King, Landry, Levad, Longo, Martens, McInroy, McMichael, Myers, Niskanen, Ozdemir, Penchansky, Rolnick, Sain, Schlabach, Senander, 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 that acquaint 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

Theta Alpha Kappa is devoted to encouraging and rewarding excellence in theology and the study of religion. The Greek letters stand for theos (God), anthropos (humans), and koinonia (community). In addition to recognizing excellence through induction into TAK, the Society also sponsors an essay contest, the winners of which are published in the TAK journal.

An induction ceremony is held at St. Thomas each spring. Those invited to join must meet academic criteria based on the number of theology courses taken, their GPA in theology courses, and their overall GPA.

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)

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)

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 406 Pastoral Ministry (4 credits) or 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)

Theology (THEO)

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 Tradition (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

Minor in Theology

THEO 101 The Christian Theological Tradition (4 credits)

16 additional credits in theology

Note: At least four credits must be 200 or 300 level, and at least 4 credits must be at the 400 level to fulfill the undergraduate core requirements.

*This minor is only available for non-theology majors

**Students may earn only one theology minor

Minor in Biblical Studies

A minor in biblical studies allows interested students to deepen their knowledge of sacred scripture. The minor is designed to build upon the skills of contemporary biblical exegesis introduced in THEO 101. *This minor is only available to non-theology majors.

The following three courses are required for a minor in biblical studies:

THEO 101 The Christian Theological Tradition

THEO 205 Introduction to the Old Testament

THEO 210 Introduction to the New Testament

Plus four credits from any 300 level scripture course:

THEO 330 Wisdom Writings in the Biblical Tradition

THEO 335 Writings of Paul

THEO 340 The Gospel of John

THEO 343 Apocalyptic Literature

THEO 345 Gospels of Matthew, Mark, and Luke

THEO 350 Historical Literature of the Old Testament

THEO 352 The Pentateuch

THEO 365 Prophetic Literature of the Old Testament

Plus four credits from any 400 level scripture course:

THEO 420 Women in the Old Testament

THEO 463 The Bible and American Politics

THEO 465 Justice and the Bible

THEO 466 The Qu'ran and the Bible

**Students may earn only one theology minor

Minor in Faithful Citizenship and the Common Good

A minor in Faithful Citizenship and the Common Good engages the Catholic intellectual tradition, particularly Catholic social thought, to explore robust civil discourse, faithful citizenship, and the common good. It will enable students to

examine the relationship of Christian faith and practice to moral, social, cultural, and economic issues of our times and to explore the meaning of faithful citizenship while advancing the common good.

*This minor is only available to non-theology majors.

The following courses are required for a minor in Faithful Citizenship and the Common Good:

THEO 101 Christian Theological Tradition (4 credits)
THEO 325 Catholic Social Tradition (4 credits)

Plus twelve credits from the following (at least four credits at the 400-level):

THEO 215 Christian Morality (4 credits)
THEO 231 American Catholicism (4 credits)
THEO 250 Global Christianity (4 credits)
THEO 411 Catholicism and Modernity (4 credits)
THEO 420 Theology and the Biomedical Revolution (4 credits)
THEO 421 Theologies of Justice and Peace (4 credits)
THEO 422 Christian Faith and Management Professions (4 credits)
THEO 433 Theology and Politics (4 credits)
THEO 436 Christian Faith and Legal Professions (4 credits)
THEO 437 Christian Faith and Healthcare Professions (4 credits)
THEO 438 Theology of Crime, Punishment, and Forgiveness (4 credits)
THEO 439 History of Religion in America (4 credits)
THEO 447 Faith, Social Transformation, and Social Work (4 credits)
THEO 450 Theology and Mass Media
THEO 451 Christianity and Nazism (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 459 Theology and the Environment (4 credits)
THEO 460 Christian Ethics and U.S. Immigration (4 credits)
THEO 463 The Bible and American Politics (4 credits)
THEO 465 Justice and the Bible (4 credits)

**Students may earn only one theology minor

Minor in Interreligious Studies and Comparative Theology

The minor in Interreligious Studies and Comparative Theology is a way for students to engage energetically with the diversity of living religious traditions, a mark of our social and cultural realities today. The disciplines of interreligious studies and comparative theology offer two interrelated ways to develop knowledge, understanding, and practical skills relevant to these contemporary realities as well as to perennial existential questions. As such, this minor prepares students to engage as leaders in our religiously pluralistic world. The discipline of interreligious studies examines the interactions of individuals and groups who relate to religion differently, as well as the implications of these interactions for society. Interreligious studies prepares leaders in the various vocations and professions for working in a religiously diverse world by increasing religious literacy, cooperation across religious and cultural boundaries, and the capacity to view reality from multiple perspectives. Comparative theology is a discipline that crosses religious boundaries in pursuing questions of ultimate reality. It is Anselm's "faith seeking understanding," which continues its seeking even into other religious traditions besides one's own. In the pursuit of truth, comparative theology demands "back-and-forth" reading across the boundaries of one's own religion and then returning "home" to one's own tradition, again and again. The discipline of comparative theology resists attempts to reduce all religions to the same truths or to mere examples of how "religion" works. This minor thus provides valuable knowledge and training to undergraduate students to be leaders for the common good today.

Required course (12 credits)

Theology (THEO)

All students must take:

THEO 101 - Christian Theological Tradition

THEO 317 - Mystical Journeys and Visions: Introduction to Comparative Theology
OR THEO 251 - Global Christianity

THEO 468 - Interreligious Encounter

Elective courses (8 credits)

Choose two courses in either one or both of the following areas*:

(Inter)Religious Studies:

THEO 424 Christianity and World Religions
THEO 425 Judaism
THEO 426 Islam
THEO 432 Black Religious Experience
THEO 439 History of Religion in America
THEO 440 Hinduism and Buddhism
THEO 464 Jesus Christ and Interreligious Dialogue
THEO 467 Muslim and Christian Dialogue

Comparative Theology:

THEO 317 Mystical Journeys and Visions: Introduction to Comparative Theology
THEO 394 Death & the Afterlife
THEO 421 Theologies of Justice & Peace
THEO 461 Comparative Theologies of Sex, Gender, and the Body
THEO 466 The Qur'an and the Bible

*NOTE: If THEO 251 is taken to complete 'second level' requirement, then one elective must be from Comparative Theology

Certificate In Lay Ministry

The Certificate in Ministry will consist of six (6) 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)
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 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 Tradition (4 credits)
THEO 373 Person and Mission of Jesus (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)

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.

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 experience.

Prerequisite: THEO 101

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

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

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

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

Theology (THEO)

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

THEO 230 Medieval Theology(4 credits)

A study of the development of Christian theology from the fall of the Roman Empire until the Renaissance. Special attention will be given to the main themes of the classical Christian views of faith/reason, grace/nature, God/creation in the theologies of such theologians as St. Thomas Aquinas and St. Bonaventure. Other themes that may be treated: the role of monasticism and mendicant life, medieval saints such as St. Francis of Assisi and Catherine of Siena, women's spirituality, mysticism, liturgical developments, religious art and architecture, and the interaction of Christians with Jews and Muslims

Prerequisite: THEO 101

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

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

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

THEO 251 Global Christianity (4 credits) *formerly THEO 471

The history of Christianity is a history of inculturation in diverse geographical and cultural settings. This course examines both the history and implications of this inculturation in various contexts, and investigates the resources that Christian theology and tradition offer for guiding how Christians live out their faith across cultures. Specific topics may include: the worldwide growth of Pentecostal/Charismatic Christianity; implications for the ecclesiology of the Roman Catholic and other historic churches; how Christians in different cultures read the Bible; the development of non-Western Christianities until the present day; and the Christian duty of global solidarity and its potential to reshape national, ethnic and class loyalties.

Prerequisite: THEO 101

THEO 269 Research (4 credits)

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

Prerequisite: THEO 101

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 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

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

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

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

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

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

THEO 325 Catholic Social Tradition (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

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

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

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

Theology (THEO)

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

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

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

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

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

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

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

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

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 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

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

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

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

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

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

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

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

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.

Theology (THEO)

Prerequisite: THEO 101

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

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

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

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

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

THEO 403 Theology and Genetics (4 credits)

Our knowledge of the fundamental properties of organic life has grown exponentially in the last several decades, as has our ability to manipulate those properties for the relief of suffering and the improvement of human life. The application of that knowledge to human life has sparked vigorous debate on a variety of distinct but related levels of inquiry: scientific, practical, moral, political, philosophical, and theological. This course aims to introduce students to a representative sampling of these debates. It emphasizes the theological dimension underlying them all.

Prerequisite: THEO 101 and one 200-level or 300-level THEO course and PHIL 115

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 setting. 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 411 Catholicism and Modernity (4 credits)

The course addresses the development of the Catholic Church and Catholic theology from the medieval age to contemporary times. A key theme in this history is an understanding of the "political culture" of Catholicism, that is to say, its developing theology of government, power, rights, revolution, geopolitics, and globalization. The course relies on history, Canon law, and political science as sources of its theological evaluation of the continuing encounter of Catholicism and modernity.

Prerequisites: THEO 101 and one 200-level or 300-level THEO course and PHIL 115

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 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 and one 200-level or 300-level THEO course and PHIL 115

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

Theology (THEO)

(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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

THEO 430 Music and the Bible (4 credits)

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 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 and one 200-level or 300-level THEO course and PHIL 115

THEO 434 Science and Christian Theology (4 credits)

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 and one 200-level or 300-level THEO course, PHIL 115, and one science course

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,

Theology (THEO)

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 and one 200-level or 300-level THEO course and PHIL 115

THEO 436 Christian Faith and the Legal Profession (4 credits)

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 and one 200-level or 300-level THEO course and PHIL 115

THEO 437 Christian Faith and the Health Care Professions (4 credits)

What is a good health care professional? 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 health care. Emphasis throughout will be on the Christian tradition of moral inquiry as a resource for responding to this question.

Prerequisite: THEO 101 and one 200-level or 300-level THEO course and PHIL 115

THEO 438 Theology of Crime, Punishment, and Forgiveness (4 Credits)

This course will explore U.S. criminal justice systems from several theological viewpoints and it will cultivate a conversation between the resources of theology and criminology in the search for responses to the current crisis in these systems. The overlapping themes in criminology and theology of crime and sin, punishment and penance, rehabilitation and redemption, restoration and forgiveness will shape the discussion. Students pursuing vocations in criminal justice will have an opportunity to consider the relationship between their work and Christian theology, while students who are interested in the topic as involved citizens may come to see how they may play a part in addressing this issue.

Prerequisite: THEO 101 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 disciplines, one 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 and one 200-level or 300-level THEO course and PHIL 115 and one Psychology 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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and one English course and PHIL 115

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 and one 200-level or 300-level THEO course and one Engineering course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

THEO 453 Theology and Art (4 credits)

Theology (THEO)

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 and one 200-level or 300-level THEO course and one Art History course and PHIL 115

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 concrete 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 and one 200-level or 300-level THEO course and PHIL 115

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. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: THEO 101 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

THEO 461 Comparative Theology of Sex, Gender, and Body (4 credits)

This course provides an introduction to theological reflection on sex, gender, and the body in the Christian tradition and the Islamic religious traditions. It is a comparative theological course in that it juxtaposes texts of diverse perspectives from these two religious traditions in order to seek deeper understanding of sex, gender, and the body. This "Bridge 2 course" prompts students to reflect on their vocation as a sexual, gendered, and embodied being, and to do so interreligiously. While the course will take into consideration how theology has collaborated with patriarchal, imperial, ethnic, heteronormative, and socio-economic powers, the central focus will be on contemporary feminist, queer, and post-colonial theologies that attempt to undermine oppressive systems in Asian, Latin American, North American, Middle Eastern, and/or other contexts. This course also fulfills the Human Diversity core requirement and is crosslisted with Women's Studies.

Prerequisites: THEO101, THEO 2xx or THEO 3xx, and PHIL115

THEO 462 Theology and Literature of C.S. Lewis (4 credits)

This course will focus primarily on C.S. Lewis' literary works, especially, but not exclusively, on his fiction. The course will also include some critical works, both Lewis' as well as others' work about Lewis. In addition, numerous biblical passages will be examined, including the parables of Jesus, which, as a parallel to Lewis' work, can demonstrate the theological possibility of narrative. Class lectures and readings in and about Lewis will explore Christian theology and its interdisciplinary relations to literature, especially myth. Through the lens of Lewis' literature, historical, philosophical, moral, educational, and global issues will be considered.

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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 and one 200-level or 300-level THEO course and PHIL 115

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. This course fulfills the Human Diversity requirement in the core curriculum.

Prerequisite: THEO 101 and one 200-level or 300-level THEO course and PHIL 115

Women's Studies (WMST)

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/prophecy, 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 and one 200-level or 300-level THEO course and PHIL 115

THEO 468 Interreligious Encounter (4 credits)

In the last half century religious diversity in the West has rapidly increased, bringing people from different religious traditions into daily contact. This has resulted in new conflicts, sometimes in violence, but also in new collaborations and friendships. Drawing on several approaches to interreligious conflict and relations, this course will examine the dynamic encounters that take place between and among people of different religious identities and ask students to reflect on their own role in religiously complex situations. Students will consider this interreligious reality and their role in it against the backdrop of their own individual relationship to spirituality, faith, and theology. To foster interreligious understanding beyond the classroom, students in this course will directly engage with the religious diversity of Minneapolis-St. Paul.

This course is a community-engagement course requiring a minimum of 15 hours of interreligious community engagement for all students enrolled (NOTE: service hours may contribute toward BUSN 200 requirement when BUSN200 is taken in same semester).

Prerequisites: THEO 101, and one 200-level or 300-level THEO course, and PHIL 115.

THEO 472 Theology and Public Health (4 credits)

This course will explore the relationship between theology and the public health professions. "Public health" is a term that refers to the art and science of a society's efforts to prevent disease and to promote health and human thriving. Topics will include biblical, theological, ethical, sociological, and epidemiological approaches to gender and economic-based disparities in health care. Special attention will be given to the religious dimension of global responses to crises in public health. Focus of sections will vary depending on the expertise of the faculty.

Prerequisites: Theo 101, a 200 or 300 level THEO course, and PHIL 115

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.

WOMEN'S STUDIES (WMST)

College of Arts and Sciences, Interdisciplinary Program
John Roach Center for the Liberal Arts (JRC) 123, (651) 962-5321
Myers (THEO), 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)

Internship Course (designated as Individual Study)

WMST 480 Women's Studies Seminar (4 credits) or a Directed Research Project may be substituted with approval of campus director

Plus:

Approved Women's Studies electives within the following categories:

Eight elective credits

Twelve upper-level elective credits

Four credits in global/racial/ethnic elective

Note: The elective credits must be either 8 credits within the Humanities and 12 credits within Social /Natural Sciences, or 12 credits within Humanities and 8 credits within Social/Natural Sciences.

Minor in Women's Studies

WMST 205 Foundations in Women's Studies (4 credits)

Plus:

Approved Women's Studies electives within the following categories:

Eight credits in Humanities

Eight credits in Social Sciences/Natural Sciences

Recommended:

WMST 480 Women's Studies Seminar (4 credits) or a Directed Research Project may be substituted with approval of campus director

Note: The seminar can count as one of the Humanities or Social/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.

Courses available for this program

Because the women's studies program at the University of St. Thomas is part of a consortium with three other area schools (Augsburg College, Hamline University, and the University of St. Catherine), appropriate courses may be taken at any of these institutions without the exchange course limitation. There is, however, potential for duplication of courses between schools, so students are urged to speak with the program director with any questions. Courses offered within the consortium are publicized by the program director, who can guide students in choosing eligible courses. Listed below are UST courses only.

Humanities Courses

Women's Studies (WMST)

- ARTH 260 Women in Ancient Art and Culture
- ARTH 297 Women in the Ancient World
- CLAS 245 Classical Mythology
- CLAS 397 Topics: Gender
- COJO 328 Communication of Race, Class, and Gender [Certain sections only]
- ENGL 218 Literature by Women: Critical History
- ENGL 341 Literature by Women: Critical Questions
- HIST 112 The History of the Modern World since 1550 [Certain sections only]
- HIST 268 Women in the United States
- HIST 298 Topics "Women and Family in the Americas"
- MUSC 297 "Women's Work" in Music
- THEO 428 Women and the Old Testament
- THEO 429 Women and the Christian Tradition
- THEO 431 Women in the Early Church
- THEO 490 Topics: Comparative Theologies of Sex, Gender, and the Body

Social Science and Natural Science

- BIOL 106 Women, Medicine, and Biology
- BLAW 352 Gender Issues and the Law (J-Term)
- POLS 302 Women and Politics
- PSYC 205 Psychology of Women
- SOCI 304 Adolescence in Society
- SOCI 321 Marriages and Families
- SOCI 353 Global Perspectives on Gender
- SOCI 354 Sex in Society

CURRICULA

Multicultural or Ethnic Studies

- ARTH 285 Arts of Africa
- COJO 370 Intercultural Communication
- HIST 116 African American History in Global Perspective
- MUSC 216 Jazz in America
- SOCI 251 Race and Ethnicity
- SOCI 301 General Anthropology

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.

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. She is responsible to the board of trustees for the functioning of the university and the administration of its policies. She 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/provost who is responsible for all academic units and academic support services; and for the day-to-day administrative operations of the university including fundraising, student affairs, information resources and technologies, and university and government relations; 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.

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<http://www.stthomas.edu/president/administration/presidentscabinet/>

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1954-1990

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