

Cross-College Courses and Programs

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)

Pre-Professional Programs

A carefully-crafted baccalaureate degree can prepare a student for entrance to a professional school. The following programs of study will be helpful for students planning such a career.

Preparation for the Catholic Priesthood

Preparation for entering a postgraduate seminary takes place best in a college-level seminary. St. John Vianney college seminary, located on the St. Thomas campus, provides an integrated program of spiritual and apostolic formation, along with the academic coursework available through the university.

Seminarians may major in a variety of fields. However, they must complete certain prerequisites in philosophy, theology and languages according to the direction of their diocese.

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

Twenty-four credits of philosophy

Twenty credits of theology

Language requirements: Latin or Spanish if determined by the student's diocese.

Interested students should contact the rector, Rev. William Baer, at St. John Vianney Seminary:

wjbaer@stthomas.edu

Pre-Engineering (PNGR)

Tommet (PHYS), Marsh (CHEM), Jalkio (ENGR), advisory committee

Besides offering degree programs in electrical and mechanical engineering, the University of St. Thomas offers a choice of pre-engineering programs to provide the student with a broad range of engineering fields. The program prepares for all engineering fields which include: aeronautical, aerospace, agricultural, architecture, biomedical, chemical, civil, computer, electrical, engineering science, geological, industrial, materials science, mechanical, metallurgical, mineral and nuclear.

The programs of study are arranged so that a student may transfer to an engineering school with a maximum number of acceptable credits and yet, if a change in major is made while at the university, a maximum number of credits will be applicable to the St. Thomas requirements for graduation. In addition to the liberal arts, courses pre-requisite to an engineering school program are available in areas of mathematics, physics, chemistry, computer programming, and engineering. There are few significant differences in courses taken in the first two years of undergraduate study toward any type of engineering field. All pre-engineering students take mathematics, physics, and chemistry courses, along with a seminar introducing them to the various fields of engineering and to the work of engineers.

A Liberal Arts-Engineering (3-2) program is offered formally in cooperation with the University of Notre Dame, Washington University in St. Louis, and the University of Minnesota, and informally with virtually any other engineering school. The student will normally spend three years at St. Thomas and, upon approval of St. Thomas and acceptance by the engineering school, two additional years at the engineering school in an engineering field. Upon satisfying the requirements for graduation of both institutions, the student will receive a bachelor of arts (B.A.) degree from the University of St. Thomas and a bachelor of science degree in the selected field of engineering from the engineering school.

A four-year (4-2) program is offered formally in cooperation with the University of Minnesota, and informally with virtually any other engineering school. The student normally spends four years at St. Thomas and graduates with a major in Physics, Mathematics, Chemistry, or Quantitative Methods and Computer Science. The student then enters a masters or bachelors program at an engineering school.

A two-year (2-2) program is offered in which the student normally spends two years at St. Thomas (although transfer may be initiated at any time) and two years in a selected engineering field at an engineering school. No St. Thomas degree is awarded.

For all these programs, students are strongly encouraged to discuss with a pre-engineering adviser their own individual program. Each student, field, and school has different needs and requirements.

Liberal Arts – Engineering Program

CHEM 111 General Chemistry I

CHEM 112 General Chemistry II

ENGR 150 Introduction to Engineering (0 credit)

ENGR 151 Introduction to Engineering Design (1 credit)

MATH 113 Calculus I

MATH 114 Calculus II

Pre-Professional Programs

MATH 200	Multi-Variable Calculus
MATH 210	Linear Algebra and Differential Equations
PHYS 111	Introduction to Classical Physics I
PHYS 112	Introduction to Classical Physics II
QMCS 230	Software Design Using the JAVA Language

At least three additional courses are required. Which technical courses are needed will depend upon the field of engineering. Students must discuss their program with a pre-engineering adviser.

Pre-Health Professions

Ovechka, adviser

The pre-health professions adviser will help students interested in any of the health professions to plan a specific program of coursework in preparation for a professional school.

To aid students in making an informed choice of a health professions career, there are four non-credit health professions internships:

- BIOL 215 Regions Hospital Volunteer Program (0 credit)
- BIOL 216 Basic Nursing Skills Training Program (0 credit)
- BIOL 217 Students and Physicians Program (0 credit)
- BIOL 218 Pre-Dental Internship Program (0 credit)

Pre-dentistry

Most schools of dentistry require a minimum of three years of college coursework prior to admission to their programs. The University of Minnesota School of Dentistry requires at least 87 semester credits. However, the majority of first-year dental students complete four or more years of college.

Specifically required or highly recommended courses vary from one dental school to another. The University of Minnesota School of Dentistry requires study in each of the following subjects:

- two semesters of biology
- two semesters of general chemistry
- two semesters of organic chemistry
- one semester of biochemistry
- two semesters of physics
- two semesters of English
- one semester of psychology
- college algebra, pre-calculus, computer science or statistics

Pre-medicine

Most medical schools require a baccalaureate degree before entrance into their programs.

Two semesters of study in each of the following subjects are required for admission to most medical schools:

- biology
- general chemistry
- organic chemistry
- physics
- English

A number of medical schools also require one semester of calculus or other college-level mathematics or statistics. The University of Minnesota (Twin Cities and Duluth) also require one semester of biochemistry. Medical schools generally do not require a specified undergraduate major.

The health professions adviser is available to help students choose the specific coursework necessary to meet admissions requirements, explain admissions procedures, provide information to students about career alternatives, *etc.* Students interested in a career in medicine should consult with the health professions adviser early in their freshman year to plan an appropriate four-year program.

Pre-pharmacy

Required courses vary from one school to another, and students are encouraged to research various programs early in their undergraduate program. The Pharm.D. program at the University of Minnesota requires completion of the following courses:

- one semester of biology
- two semesters of anatomy and physiology
- one semester of microbiology
- two semesters of general chemistry
- two semesters of organic chemistry
- two semesters of physics
- one semester of calculus
- two semesters of behavioral science
- two semesters of English
- one semester of economics
- one semester of public speaking

Cross-College Courses and Programs

Pre-veterinary

Required courses vary from one school to another, and students are encouraged to research various programs early in their undergraduate program. The veterinary school at the University of Minnesota requires the following coursework:

- two semesters of biology
- two semesters of general chemistry
- one semester of organic chemistry
- one semester of biochemistry
- one semester of mathematics
- two semesters of physics
- one semester of genetics
- one semester of microbiology
- two semesters of English

Four courses from history and social sciences, arts and humanities are also required. No more than two of these courses should be from one single department.

Other Pre-Health Professions

Many courses are offered at St. Thomas to prepare students for admission to the following health professional schools: chiropractic, optometry, osteopathic medicine, physical therapy, physician assistant, podiatric medicine, and public health.

Students are encouraged to research the programs at each professional school and to seek the guidance of the pre-health professions adviser.

Pre-Law

Hatting (POL) 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
- BLAW 303 International Business Law
- BLAW 401 Legal Research, Advocacy, and Dispute Resolution
- ECON 321 Law and Economics
- ECON 332 Industrial Organization
- HIST 326 English Law and Government before the American Revolution
- HIST 365 U.S. Constitutional History
- IDSC 340 Criminal Law and the Social Order
- JOUR 304 Media Law
- POL 205 Introduction to American Public Policy Process
- POL 312 Judicial Process
- POL 313 Constitutional Law and Politics
- POL 314 Constitutional Rights and Liberties
- POL 326 International Law and Organizations
- POL 414 Seminar in Law and Judicial Politics

B. Fostering critical thinking about society

- ENGL 402 Writing Literary Nonfiction
- HIST 361 American Thought and Culture Since the Civil War
- PHIL 357 Political Philosophy
- PHIL 359 Philosophy of Law
- POL 373 Political Thought from Marx to the Present
- POL 375 American Political Thought

C. Providing useful skills and improving analytical ability

- ACCT 205 Introduction to Accounting
- COMM 100 Public Speaking
- COMM 250 Argumentation and Advocacy
- ECON 251 Principles of Macroeconomics
- ECON 252 Principles of Microeconomics
- ENGL 251 Writing in the Academy
- ENGL 252 Writing Nonfiction Prose
- ENGL 403 Analytical and Persuasive Writing

JOUR 311 Persuasion in Writing
MATH 101 or 113 Finite Mathematics or Calculus I
PHIL 220 Logic

Special Programs

Renaissance Program

The Renaissance Program minor is a means for students to combine a liberal arts education with career preparation.

See Renaissance Program in the “College of Arts and Sciences Interdisciplinary Programs” section in this catalog.

Parents-on-Campus Program

Effective fall semester 2005, 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. Parents enrolled in the program prior to that date are governed by the pre-existing rules.

The dependent daughter/son must be a full-time day student taking at least twelve credits.

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

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

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

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

