



Bachelor of Science Degree

University Profile

The University of Saint Francis was founded in 1890 and has a rich heritage of offering quality education. Rooted in the Catholic and Franciscan traditions of Faith and Reason, the University of Saint Francis engages a diverse community in learning, leadership and service.

The campus has 108 acres of rolling lawns and trees with 19 buildings and four residence halls that surround beautiful Mirror Lake.

Personal attention to students is what makes a USF education so meaningful and enriching to its approximately 2,000 students.

Chemistry Faculty

The chemistry faculty are dedicated to excellence in teaching. Small class sizes optimize interactions between professors and students. Learning occurs not only in the classroom, but also in the laboratory and in the field. Our faculty are experts in molecular biochemistry, applied organic chemistry, inorganic chemistry, geochemistry, instrumental chemistry, and quantitative analytical chemistry.

Chemistry Programs

A successful chemistry career begins with an introduction to the major fields of chemistry in a course combining classroom and laboratory experiences. A core curriculum of chemistry classes in organic and inorganic chemistry, analytical chemistry, physical chemistry, and research is a requisite for all chemistry majors. At the University of Saint Francis, two distinct tracks of study are available in biochemistry and analytical chemistry. These tracks allow students to focus on the areas of chemistry that are essential for achieving their career goals.

Research Opportunities

Collaborative research with faculty offers exciting opportunities for learning and engagement with the scientific community. Chemistry labs are stocked with instruments

designed to provide the student with hands-on experience. Our instrument inventory features an NMR (Nuclear Magnetic Resonance), several HPLCs (High Performance Liquid Chromatographers), and an array of spectrometers including gas chromatograph, mass, ultraviolet, visible light, infrared, fluorescence, and atomic absorption spectrometers. Students participate in undergraduate research projects in the fields of molecular, mineral and inorganic chemistry and biochemistry.

Many of our graduates have gone on to complete advanced degrees in chemistry and medicine, while others have cultivated careers in research, industry, government, and education.

Science Symposium

Twice a year for over 30 years, the University of Saint Francis has offered a science symposium for qualified high school students to study cutting edge topics in the fields of math and science. This opportunity has cumulative scholarship potential for the student who chooses to matriculate to USF and major in the sciences. Past topics have included Pheromones, Polymers, the Chemistry of Color, and Forensics.

Science Seminars

All Biology, Pre-Professional, Clinical Laboratory Science (Medical Technology), Chemistry, Early Entry Physician Assistant, Environmental Science, and Secondary Education Biology/Chemistry/General Science majors attend Seminar once a week for every semester they are on campus. Seminars consist of outside speakers such as MDs, Veterinarians, Clinical Laboratory Scientists (Medical Technologists), Physician Assistants, Osteopathic Physicians, Pharmacists, Environmental Scientists, Research Biologists, Research Chemists, and others. Faculty members explain their research programs and offer students opportunities to participate directly in these projects or to propose their own research projects. Upper level students

make presentations about research they have done or internships they have completed. There is no tuition charge for Seminar except for the one semester students are required to make a presentation. Seminar provides an opportunity for all science majors to interact and get to know the faculty who also attend Seminar each week.

Sample Curriculum

Freshman Year

Fall (16 hours)

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|----------------------------|---|
| Principles of Chemistry I | 4 |
| Principles of Biology I | 4 |
| iConnect | 3 |
| English Composition | 3 |
| Phys Ed Gen Ed Requirement | 2 |
| Seminar | 0 |

Spring (17 hours)

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|--|---|
| Principles of Chemistry II | 4 |
| Principles of Biology II | 4 |
| Fund. of Public Communication | 3 |
| Soc. Responsibility Gen Ed Requirement | 3 |
| Religion Gen Ed Requirement | 3 |
| Seminar | 0 |

Sophomore Year

Fall (17 hours)

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|-----------------------------------|---|
| Organic Chemistry I | 4 |
| Calculus I | 3 |
| Physics I | 4 |
| Literature Gen Ed Requirement | 3 |
| Social Science Gen Ed Requirement | 3 |
| Seminar | 0 |

Spring (17 hours)

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|------------------------------------|---|
| Organic Chemistry II | 4 |
| Calculus II | 3 |
| Physics II | 4 |
| Society and Env Gen Ed Requirement | 3 |
| History Gen Ed Requirement | 3 |
| Seminar | 0 |

Junior Year

Fall (15-16 hours)

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|---------------------------------|-----|
| Advanced Organic Chemistry | 3 |
| Molecular Bio or Inst. Analysis | 3 |
| Genetics or Statistics | 3-4 |
| Theology Gen Ed Requirement | 3 |
| Elective | 3 |
| Seminar | 0 |

Spring (16 hours)

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|--------------------------------|---|
| Inorganic Chemistry | 3 |
| Analytical Chemistry | 4 |
| Biochemistry or Environ Chem | 3 |
| Phil/Ethics Gen Ed Requirement | 3 |
| Elective | 3 |
| Seminar | 0 |

Senior Year

Fall (14-16 hours)

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|-------------------------------|--------|
| Biotech Lab or Diff Equations | 1 or 3 |
| Physical Chemistry I | 4 |
| Research (capstone course) | 3 |
| Elective | 3 |
| Elective, if needed | 3 |
| Seminar | 0 |

Spring (16-17 hours)

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|------------------------------|-----|
| Physical Chemistry II | 4 |
| Fine Arts Gen Ed Requirement | 2-3 |
| Elective | 3 |
| Elective | 3 |
| Elective, if needed | 3 |
| Seminar | 1 |

Financial Aid

Financial aid is available in the form of scholarships, grants, loans, and work study. Over 95 percent of undergraduate students receive some form of financial assistance; most receive more than one type of aid. Early estimator packages are available for dependent students during the fall at www.sf.edu/financialaid.

All students are encouraged to complete the Free Application for Federal Aid (FAFSA). Priority deadline is no later than March 10.

For More Information

Contact the Office of Admissions at 260-434-3279 or 1-800-729-4732, or visit our website at www.sf.edu/biology.