

FORENSIC SCIENCE, B.S.

Forensic science is the scientific method of gathering and analyzing evidence. The forensic science major at Saint Louis University is an interdisciplinary program that employs the methods, tools and perspectives of biology, chemistry, anthropology, sociology, physics, mathematics and medicine to better understand the intersection of law and science.

Forensic science is well known for its application in civil and criminal law, however, the field is quite broad, and has important applications in natural and man-made disasters, accidents, and historical/archaeological evaluations of lifestyles and causes of death as well.

Forensic science is an appropriate major for all students who want to pursue graduate studies or professional work in any scientific or professional field. Completion of the major places students in a position to address the scientific basis of civil and criminal law through further legal studies or research.

Curriculum Overview

SLU's forensic science major follows the guidelines for accreditation standards of the Forensic Science Education Programs Accreditation Commission (FEPAC).

The major in this fascinating and quickly developing scientific field enables students to compete with the most accomplished and well-educated students from prestigious universities on a national and global level. Upon completing the major in forensic science, students will be well versed in scientific methodology and equipped to apply their understanding of law and science across various industries.

Fieldwork and Research Opportunities

The department has connections with forensic science laboratories in the St. Louis metropolitan area. Fieldwork internships and/or independent research are required for forensic science majors, which can include working at an operating forensic science lab and performing forensic research projects in those labs, or at Saint Louis University.

Fieldwork practicums also allow students to be involved in the laboratories of law enforcement agencies and legal and medical organizations in the area. Students should meet with the department internship director for assistance when applying for internship opportunities, local, regional, national and international.

The Forensic Science Laboratory is a 1,000-square-foot teaching and research lab with the latest hardware, software and safety equipment, as well as materials used in the application of forensic science techniques. Each fall semester, the lab hosts a crime scene investigation course. The program also hosts the Forensic Science Club, which offers forensic-related activities and exploration and a Forensic Science Honor Society.

Careers

Recent graduates who majored in forensic science at SLU work in a variety of fields, including medical examination and research. Alumni have also gone onto top graduate programs in the country in forensic science, forensic anthropology, pathology, medicine, law and health service.

Admission Requirements

Begin Your Application (<http://www.slu.edu/apply.php>)

Saint Louis University also accepts the Common Application.

Freshman

All applications are thoroughly reviewed with the highest degree of individual care and consideration to all credentials that are submitted. Solid academic performance in college preparatory coursework is a primary concern in reviewing a freshman applicant's file.

To be considered for admission to any Saint Louis University undergraduate program, applicants must be graduating from an accredited high school, have an acceptable HiSET exam score or take the General Education Development (GED) test.

Transfer

Applicants must be a graduate of an accredited high school or have an acceptable score on the GED.

Students who have attempted fewer than 24 semester credits (or 30 quarter credits) of college credit must follow the above freshmen admission requirements. Students who have completed 24 or more semester credits (or 30 quarter credits) of college credit must submit transcripts from all previously attended college(s).

In reviewing a transfer applicant's file, the Office of Admission holistically examines the student's academic performance in college-level coursework as an indicator of the student's ability to meet the academic rigors of Saint Louis University. Where applicable, transfer students will be evaluated on any courses outlined in the continuation standards of their preferred major.

International Applicants

All admission policies and requirements for domestic students apply to international students along with the following:

- Demonstrate English Language Proficiency (<https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/>)
- Proof of financial support must include:
 - A letter of financial support from the person(s) or sponsoring agency funding the time at Saint Louis University
 - A letter from the sponsor's bank verifying that the funds are available and will be so for the duration of study at the University
- Academic records, in English translation, of students who have undertaken postsecondary studies outside the United States must include the courses taken and/or lectures attended, practical laboratory work, the maximum and minimum grades attainable, the grades earned or the results of all end-of-term examinations, and any honors or degrees received. WES and ECE transcripts are accepted.

Scholarships and Financial Aid

There are two principal ways to help finance a Saint Louis University education:

- **Scholarships:** Scholarships are awarded based on academic achievement, service, leadership and financial need.
- **Financial Aid:** Financial aid is provided in the form of grants and loans, some of which require repayment.

For priority consideration for merit-based scholarships, apply for admission by Dec. 1 and complete a Free Application for Federal Student Aid (FAFSA) by March 1.

For information on other scholarships and financial aid, visit www.slu.edu/financial-aid (<https://www.slu.edu/financial-aid/>).

Learning Outcomes

1. Graduates will be able to identify and explain major concepts and their categories of evidence, patterns of evidence, trends in forensic science, and the scientific basis of investigative and analytical methods.
2. Graduates will be able to recognize the limitations of evidence and the ethical responsibilities linked to decision making.
3. Graduates will be able to recognize, explain and apply basic research methods in forensic science, including research design, data analysis and interpretation.
4. Graduates will be able to engage in skeptical inquiry, think critically and creatively, and use a scientific approach to solve problems related to behavior and mental processes. Students will also be able to recognize the holistic nature of forensic science, law, society and ethics.
5. Graduates will be able to apply the knowledge of ethical issues inherent in the forensic sciences and the skill to be able to contribute to the profession through careful documentation and reporting of evidence, and the recognition and ethical reporting of errors.

Requirements

Forensic science students must complete a minimum total of **76 credits** for the major.

| Code | Title | Credits |
|--|--|---------|
| University Undergraduate Core (https://catalog.slu.edu/academic-policies/academic-policies-procedures/university-core/) 32-35 | | |
| Major Requirements | | |
| <i>Sociology and Anthropology Requirements</i> | | |
| FRSC 2600 | Survey of Forensic Science | 3 |
| FRSC 2800 | Topics in Forensic Science | 2 |
| FRSC 3620 & FRSC 3621 | Chemical Forensics and Chemical Forensics Laboratory | 3 |
| FRSC 3630 & FRSC 3631 | Forensic Biology and Forensic Biology Laboratory | 3 |
| FRSC 4550 & FRSC 4551 | Crime Scene Investigation and Crime Scene Investigation Laboratory | 3 |
| FRSC 4610 | Death Investigation | 2 |
| ANTH 3280 | Forensic Anthropology | 3 |
| SOC 3590 | Law and Society | 3 |
| <i>Capstone Experience</i> | | |
| Choose one of the following: | | 3 |
| FRSC 4910 | Internship | |
| FRSC 4960 | Capstone in Forensic Science | |
| FRSC 4970 | Independent Research in Forensic Science | |
| <i>Biology Requirements</i> | | |
| BIOL 1240 & BIOL 1245 | General Biology: Information Flow and Evolution and Principles of Biology I Laboratory | 4 |

| | | |
|-----------------------|---|---|
| BIOL 1260 & BIOL 1265 | General Biology: Transformations of Energy and Matter and Principles of Biology II Laboratory | 4 |
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| <i>Chemistry Requirements</i> | | |
|-------------------------------|--|---|
| CHEM 1110 & CHEM 1115 | General Chemistry 1 and General Chemistry 1 Laboratory | 4 |
| CHEM 1120 & CHEM 1125 | General Chemistry 2 and General Chemistry 2 Laboratory | 4 |
| CHEM 2410 & CHEM 2415 | Organic Chemistry 1 and Organic Chemistry 1 Laboratory | 4 |
| CHEM 2420 & CHEM 2425 | Organic Chemistry 2 and Organic Chemistry 2 Laboratory | 4 |

| <i>Physics Requirements</i> | | |
|-----------------------------|--|---|
| PHYS 1310 & PHYS 1320 | College Physics I and College Physics I Laboratory | 4 |
| PHYS 1330 & PHYS 1340 | College Physics II and College Physics II Laboratory | 4 |

| <i>Mathematics Requirement</i> | | |
|--------------------------------|------------|---|
| MATH 1510 | Calculus I | 4 |

| <i>Statistics Requirement</i> | | |
|-------------------------------|--------------------------------------|---|
| STAT 1300 | Elementary Statistics with Computers | 3 |

| <i>Major Elective Courses</i> | | |
|--|--|----|
| Select 12 credits of a science specialization from 3000 or 4000 level BIOL and/or CHEM courses (with a Forensic Science BIOL/CHEM Elective attribute), including a minimum of two laboratory courses (with a Forensic Science BIOL/CHEM Lab Elective attribute). | | 12 |

| <i>General Electives</i> | | 9-12 |
|--------------------------|--|------|
|--------------------------|--|------|

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|----------------------|--|------------|
| Total Credits | | 120 |
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Continuation Standards

Students with a major in forensic science must maintain a 2.00 GPA in their major coursework.

Graduation Requirements

- Complete a minimum of 120 credits (excluding pre-college level courses numbered below 1000).
- Complete the University Undergraduate Core curriculum requirements.
- Complete major requirements: minimum 30 credits required.
- Complete remaining credits with a second major, minor, certificate and/or electives to reach the minimum of 120 credits required for graduation.
- Achieve at least a 2.00 cumulative grade point average, a 2.00 grade point average in the major(s) and a 2.00 grade point average in the minor/certificate, or related elective credits.
- Complete department-/program-specific academic and performance requirements.
- Complete at least 50% of the coursework for the major and 75% for the minor/certificate through Saint Louis University or an approved study abroad program.
- Complete 30 of the final 36 credits through Saint Louis University or an approved study abroad program.
- Complete an online degree application by the required University deadline.

Roadmap

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

| Course | Title | Credits |
|-----------------------|--|--------------|
| Year One | | |
| Fall | | |
| CHEM 1110 & CHEM 1115 | General Chemistry 1 and General Chemistry 1 Laboratory | 4 |
| BIOL 1240 & BIOL 1245 | General Biology: Information Flow and Evolution and Principles of Biology I Laboratory | 4 |
| MATH 1510 | Calculus I (satisfies CORE 3200) | 4 |
| CORE 1000 | Ignite First Year Seminar | 2-3 |
| CORE 1500 | Cura Personalis 1: Self in Community | 1 |
| Credits | | 15-16 |
| Spring | | |
| CHEM 1120 & CHEM 1125 | General Chemistry 2 and General Chemistry 2 Laboratory | 4 |
| BIOL 1260 & BIOL 1265 | General Biology: Transformations of Energy and Matter and Principles of Biology II Laboratory | 4 |
| FRSC 2600 | Survey of Forensic Science (satisfies CORE 3200. Note: This course is also offered during the winter and summer sessions.) | 3 |
| CORE 1900 | Eloquentia Perfecta 1: Written and Visual Communication | 3 |
| CORE 1600 | Ultimate Questions: Theology | 3 |
| Credits | | 17 |
| Year Two | | |
| Fall | | |
| CHEM 2410 & CHEM 2415 | Organic Chemistry 1 and Organic Chemistry 1 Laboratory | 4 |
| PHYS 1310 & PHYS 1320 | College Physics I and College Physics I Laboratory | 4 |
| FRSC 2800 | Topics in Forensic Science (satisfies CORE 3200) | 2 |
| CORE 1700 | Ultimate Questions: Philosophy | 3 |
| CORE 1200 | Eloquentia Perfecta 2: Oral and Visual Communication | 3 |
| Credits | | 16 |
| Spring | | |
| CHEM 2420 & CHEM 2425 | Organic Chemistry 2 and Organic Chemistry 2 Laboratory | 4 |
| PHYS 1330 & PHYS 1340 | College Physics II and College Physics II Laboratory | 4 |
| STAT 1300 | Elementary Statistics with Computers | 3 |

| | | |
|---|---|----------------|
| CORE 2500 | Cura Personalis 2: Self in Contemplation | 0 |
| Credits | | 11 |
| Year Three | | |
| Fall | | |
| FRSC 3630 & FRSC 3621 | Forensic Biology and Chemical Forensics Laboratory (Note: Only offered in the fall semester for majors) | 3 |
| BIOL/CHEM Science Elective ¹ | | 3 |
| SOC 3590 | Law and Society (or FRSC Law Class or equivalent) | 3 |
| CORE 2800 | Eloquentia Perfecta 3: Creative Expression | 3 |
| General Elective | | 3 |
| Credits | | 15 |
| Spring | | |
| FRSC 3630 & FRSC 3631 | Forensic Biology and Forensic Biology Laboratory (Note: Only offered in the spring semester for majors) | 3 |
| BIOL/CHEM: Science Elective with Lab ¹ | | 4 |
| BIOL/CHEM: Science Elective ¹ | | 3 |
| CORE 3400 | Ways of Thinking: Aesthetics, History, and Culture | 3 |
| Credits | | 13 |
| Summer | | |
| Forensics Internship/ Capstone/ Research | Student must take 1 of the 3 listed prior to graduation | 3 |
| Credits | | 3 |
| Year Four | | |
| Fall | | |
| FRSC 4550 & FRSC 4551 | Crime Scene Investigation and Crime Scene Investigation Laboratory (Collaborative Inquiry) | 3 |
| FRSC 4610 | Death Investigation (Note: Death investigation is generally offered in the fall and spring semesters) | 2 |
| BIOL/CHEM: Science Elective with Lab ¹ | | 4 |
| CORE 3500 | Cura Personalis 3: Self in the World | 1 |
| General Electives | | 5 |
| Credits | | 15 |
| Spring | | |
| ANTH 3280 | Forensic Anthropology | 3 |
| BIOL/CHEM: Science Elective ¹ | | 3 |
| Forensics Internship/ Capstone/ Research | Student must take 1 of the 3 listed prior to graduation | 3 |
| General Electives | | 6 |
| Credits | | 15 |
| Total Credits | | 120-121 |

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For career in Forensic DNA analysis: Must have at least 3 credits in each of the following subjects: Statistics, Genetics, Molecular Biology, and Biochemistry. For careers in Drug chemistry or toxicology: Recommend taking Analytical Chemistry with Laboratory

Program Notes

Specialized Science Elective Courses: minimum 12 credit hours and must include at least 2 courses with a laboratory. Look for Forensic Science Elective Attributes under BIOL and CHEM 3000/4000 level courses to see what counts towards the 12 credit hours for science electives and laboratories.