

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, physics, mathematics and medicine to better understand the intersection of law and science.

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

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.

Curriculum Overview

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

There are two concentrations within the forensic science major for students to choose from: criminalistics or crime scene investigation. Both of these concentrations provide students with the hands-on application of scientific techniques to investigations.

The criminalistics concentration is a science-focused concentration for those students interested in working in a crime laboratory, in fields such as DNA analysis, drug chemistry, trace evidence and toxicology. Students in this concentration also can work in fields such as crime scene investigation, fingerprints, firearms and death investigation.

The crime scene investigation concentration is an interdisciplinary concentration combining forensic science, criminal justice, psychology, and introductory biology/chemistry courses for students interested in fields such as crime scene investigation, death investigation, fingerprints and firearms. The crime scene investigation concentration also provides paths for law school and graduate school.

The program also hosts the Forensic Science Club, which offers forensic-related activities and exploration and a Forensic Science Honor Society. In addition, the program provides a mentor program for freshmen to connect with a junior/senior forensic science major.

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 internships 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 local, regional, national and international internship opportunities.

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 to apply forensic science techniques. Students can conduct research in a variety of fields, such as forensic DNA analysis, fingerprint techniques and forensic chemistry, alongside faculty.

Careers

Recent graduates who majored in forensic science at SLU work in various professional roles, including DNA analysts, fingerprint examiners, firearms examiners, death/crime scene investigators, drug chemists, forensic toxicologists, chemical/pharmaceutical researchers and others. Alumni have also gone on to top graduate programs in the country in forensic science, pathology, medicine, law, forensic anthropology, veterinary and health service.

A degree 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.

Admission Requirements

Begin Your Application (<https://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 or HiSET.

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/>)

- All academic records must include an English translation. An official course-by-course transcript evaluation may be required and accepted.

Tuition

Tuition	Cost Per Year
Undergraduate Tuition	\$54,760

Additional charges may apply. Other resources are listed below:

Net Price Calculator (<https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php>)

Information on Tuition and Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition/>)

Miscellaneous Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/fees/>)

Information on Summer Tuition (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer/>)

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 through grants and loans, some of which require repayment.

Saint Louis University makes every effort to keep our education affordable. In fiscal year 2023, 99% of first-time freshmen and 92% of all students received financial aid (<https://www.slu.edu/financial-aid/>) and students received more than \$459 million in aid University-wide.

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

For more information on scholarships and financial aid, visit the Office of Student Financial Services (<https://www.slu.edu/financial-aid/>).

Learning Outcomes

- 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.
- Graduates will be able to recognize the limitations of evidence and the ethical responsibilities linked to decision-making.
- Graduates will be able to recognize, explain and apply basic research methods in forensic science, including research design, data analysis and interpretation.
- 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.
- 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

Code	Title	Credits
Undergraduate University Core (https://catalog.slu.edu/academic-policies/academic-policies-procedures/university-core/)		32-35
Major Requirements		
FRSC 2600	Survey of Forensic Science	3
FRSC 2800	Professional Issues in Forensic Science	3
FRSC 3500	Forensics and Law	3
FRSC 4750	Forensic Science Senior Seminar	1
STAT 1300	Elementary Statistics with Computers	3
<i>Capstone Experience</i>		3
Choose one:		
FRSC 4910	Internship	
FRSC 4960	Capstone in Forensic Science	
FRSC 4970	Advanced Independent Research in Forensic Science	
<i>Concentration</i>		60
Choose one:		
Criminalistics Concentration (p. 2)		
Crime Scene Investigation Concentration (p. 3)		
General Electives		9-12
Total Credits		120

* For those students in the Criminalistics Concentration, FRSC 3620 Forensic Chemistry (2 cr) and FRSC 3630 Forensic Biology (2 cr) **MUST** be taken. Students in the CSI Concentration can enroll in either section based on prerequisites.

Continuation Standards

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

Criminalistics Concentration

Code	Title	Credits
Forensic Science courses		
FRSC 3620	Forensic Chemistry	2
FRSC 3621	Forensic Chemistry Laboratory	1
FRSC 3630	Forensic Biology	2
FRSC 3631	Forensic Biology Laboratory	1
<i>Choose 6 credits from courses with a Forensic Science - Criminalistics Elective attribute, such as:</i>		6
FRSC 3640	Fingerprints	
FRSC 3660	Forensic Microscopy	
FRSC 4550 & FRSC 4551	Crime Scene Investigation and Crime Scene Investigation Laboratory	
Biology courses		
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
Chemistry courses		

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

Physics courses

PHYS 1310 & PHYS 1320	College Physics I and College Physics I Laboratory	4
PHYS 1330 & PHYS 1340	Physics II and Physics II Laboratory	4

Mathematics

MATH 1510	Calculus I	4
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BIOL/CHEM Elective courses 12

Choose 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.

Total Credits 60**Crime Scene Investigation Concentration**

Code	Title	Credits
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Forensic Science courses

FRSC 3400	Digital Forensic Investigation	3
FRSC 3625	Forensic Chemistry for the Investigator	2
FRSC 3635	Forensic Biology for Investigators	2
FRSC 3640	Fingerprints	3
FRSC 3650	Forensic Laboratory Techniques for the Investigator	1
or FRSC 3621	Forensic Chemistry Laboratory	
or FRSC 3631	Forensic Biology Laboratory	
FRSC 4550 & FRSC 4551	Crime Scene Investigation and Crime Scene Investigation Laboratory	3
FRSC 4650 & FRSC 4651	Advanced Crime Scene Reconstruction and Advanced Crime Scene Reconstruction Laboratory	3

Choose 8 credits from courses with a Forensic Science - Crime Scene Investigation Elective attribute 8

Anthropology

ANTH 3280	Forensic Anthropology	3
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Biology and/or Chemistry courses 8

Choose 2 course sequences below for a total of 8 credits:

BIOL 1240 & BIOL 1245	General Biology: Information Flow and Evolution and Principles of Biology I Laboratory	
BIOL 1260 & BIOL 1265	General Biology: Transformations of Energy and Matter and Principles of Biology II Laboratory	
CHEM 1110 & CHEM 1115	General Chemistry 1 and General Chemistry 1 Laboratory	
CHEM 1120 & CHEM 1125	General Chemistry 2 and General Chemistry 2 Laboratory	

Criminal Justice courses

CCJ 1010	Introduction to Criminal Justice	3
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Choose 9 credits from courses with a Forensic Science CCJ Elective attribute 9

Psychology, Biology, and/or Chemistry courses 12

Choose 12 credits from courses with a Forensic Science BIOL/CHEM Elective attribute or Forensic Science Psychology Elective attribute

Total Credits 60**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 of 30 credits required.
- Complete remaining credits with a second major, minor, certificate 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- and 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.

Crime Scene Investigation Concentration

Course	Title	Credits
Year One		
Fall		
CHEM 1110	General Chemistry 1 *	3
CHEM 1115	General Chemistry 1 Laboratory *	1
BIOL 1240	General Biology: Information Flow and Evolution *	3
BIOL 1245	Principles of Biology I Laboratory *	1
University Core/General Electives		7
Credits		15

Spring

FRSC 2600	Survey of Forensic Science (satisfies CORE 3200. Note: This course is also offered during the winter and summer sessions.)	3
PSY 1010	General Psychology **	3
CCJ 1010	Introduction to Criminal Justice **	3
University Core/General Electives		6
Credits		15

Year Two**Fall**

FRSC 2800	Professional Issues in Forensic Science	3
STAT 1300	Elementary Statistics with Computers	3
CCJ Elective		3
BIOL/CHEM/PSY Elective		3
University Core/General Electives		3
Credits		15

Spring

FRSC 3625	Forensic Chemistry for the Investigator	2
BIOL/CHEM/PSY Elective		3
CCJ Elective		3
University Core/General Electives		7
Credits		15

Year Three**Fall**

FRSC 3635	Forensic Biology for Investigators	2
FRSC 3500	Forensics and Law	3
FRSC 3400	Digital Forensic Investigation	3
CCJ Elective		3
University Core/General Electives		4
Credits		15

Spring

FRSC 3640	Fingerprints	3
University Core/General Electives		6
FRSC 3650	Forensic Laboratory Techniques for the Investigator	1
FRSC Elective/CSI Conc. Elective		2
BIOL/CHEM/PSY Elective		3
Credits		15

Year Four**Fall**

FRSC 4550 & FRSC 4551	Crime Scene Investigation and Crime Scene Investigation Laboratory (Collaborative Inquiry)	3
FRSC 4551	Crime Scene Investigation Laboratory	1
FRSC Elective/CSI Conc. Elective		3
Forensics Internship/Capstone/Research		3
University Core/General Electives		5
Credits		15

Spring

FRSC 4650	Advanced Crime Scene Reconstruction	2
FRSC 4651	Advanced Crime Scene Reconstruction Laboratory	1

FRSC Elective/CSI Conc. Elective		3
ANTH 3280	Forensic Anthropology	3
University Core/General Electives		6
Credits		15
Total Credits		120

* NOTE: Students can also take two semesters of Gen Bio (I and II) or two semesters of Gen Chem (I and II).

**NOTE: Students should take PSY 1010 and CCJ 1010 in Year One (fall or spring semester).

Program Notes

FRSC 2600 for Majors is offered in the spring of the first year. Forensic Science Capstone Experience (Internship/Research) may be taken in summer, fall or spring semester. Students must enroll in an internship, capstone, or research prior to graduation.

Criminalistics Concentration

Course	Title	Credits
Year One		
Fall		
CHEM 1110	General Chemistry 1	3
CHEM 1115	General Chemistry 1 Laboratory	1
BIOL 1240	General Biology: Information Flow and Evolution	3
BIOL 1245	Principles of Biology I Laboratory	1
MATH 1510	Calculus I	4
University Core/General Electives		3
Credits		15
Spring		
CHEM 1120	General Chemistry 2	3
CHEM 1125	General Chemistry 2 Laboratory	1
BIOL 1260	General Biology: Transformations of Energy and Matter	3
BIOL 1265	Principles of Biology II Laboratory	1
FRSC 2600	Survey of Forensic Science *	3
University Core/General Electives		4
Credits		15
Year Two		
Fall		
CHEM 2410	Organic Chemistry 1	3
CHEM 2415	Organic Chemistry 1 Laboratory	1
BIOL/CHEM Science Elective *		3
FRSC 2800	Professional Issues in Forensic Science	3
University Core/General Electives		5
Credits		15
Spring		
CHEM 2420	Organic Chemistry 2	3
CHEM 2425	Organic Chemistry 2 Laboratory	1
BIOL/CHEM Science Elective *		3
STAT 1300	Elementary Statistics with Computers	3
University Core/General Electives		5
Credits		15

Year Three**Fall**

FRSC 3620	Forensic Chemistry	2
FRSC 3621	Forensic Chemistry Laboratory	1
PHYS 1310	College Physics I	3
PHYS 1320	College Physics I Laboratory	1
FRSC 3500	Forensics and Law	3
University Core/General Electives		5
Credits		15

Spring

FRSC 3630	Forensic Biology	2
FRSC 3621	Forensic Chemistry Laboratory	1
PHYS 1330	College Physics II	3
PHYS 1340	College Physics II Laboratory	1
University Core/General Electives		8
Credits		15

Year Four**Fall**

FRSC Elective	Criminalistics Conc. Elective	3
BIOL/CHEM	Science Elective with Lab *	4
Forensics Internship/Capstone/Research		3
University Core/General Electives		5
Credits		15

Spring

FRSC Elective	Criminalistics Conc. Elective	3
BIOL/CHEM	Science Elective with Lab *	4
FRSC 4750	Forensic Science Senior Seminar	1
University Core/General Electives		7
Credits		15
Total Credits		120

* FRSC 2600 for Majors is offered in the Spring of the first year.

Program Notes

Forensic Science Capstone Experience (Internship/Research) may be taken in the summer, fall or spring semester. Students must enroll in an internship, capstone or research prior to graduation. For a career in DNA analysis: Must have at least 3 credits in each of the following subjects: statistics, genetics, molecular biology, and biochemistry. For a career in drug chemistry or toxicology: Analytical Chemistry with Laboratory is recommended.

2+SLU

2+SLU programs provide a guided pathway for students transferring from a partner institution.

Forensic Science, B.S. (STLCC 2+SLU) (<https://catalog.slu.edu/academic-policies/office-admission/undergraduate/2pluslu/stlcc/forensic-science/>)