



SAINT LOUIS UNIVERSITY

1818 ADVANCED COLLEGE CREDIT PROGRAM

FRSC 2600 Survey of Forensic Science

YOUR High School (you could add the high school symbol)

Advanced College Credit - Forensic Science

Full Year—3 credit hours

[1818 Academic Calendar](#)

School Year:

2025-2026

Instructor:

Teacher Adjunct Name

Contact Information:

Website:

Tutoring:

Approved Text/Resources Information: It is recommended to use Criminalistics: An Introduction to Forensic Science by Saferstein, but this is not required. If you are choosing new textbooks for the future, I would suggest adopting this one moving forward.

High School Prerequisites for this course:

1818 SLU Course Description:

Forensic science is the application of science to the law and involves various scientific disciplines. This course introduces the methodologies and applications used in forensic science, increases the understanding of the roles of various disciplines in crime investigation, and demonstrates the use of forensic science in actual cases. Problem solving and critical thinking skills will be utilized through the application of science concepts, illustrated through student research, projects, activities and class writings. Laboratory work that demonstrates the use of forensic science is an integral part of this course.

Forensic Science is a two-semester class. Forensic science is offered as a dual credit course in conjunction with St. Louis University as a part of the 1818 program. Students may apply for college credit in the fall semester of the class. A minimum of one major paper, presentation and/or project is required. **ALL students will take the common 1818 final exam.**

Course Teaching GOALS:

1. To introduce the various fields of forensic science, describing the forensic techniques, equipment and technology used in each.
2. To present the roles that the various scientific disciplines (biology, chemistry, earth science, and physics) play in crime investigation
3. To demonstrate the use of forensic science in actual cases.

4. To introduce important past and present individuals in the field of forensic science.
5. To design activities to improve problem solving and critical thinking skills.
6. To educate the potential jury pool into one that is ready to serve with an understanding of the importance of forensic science

Course Learning OBJECTIVES*:

Students will be able to:

1. compare and contrast the various fields of forensic science by showing an understanding of the techniques, equipment and technology used in each.
2. differentiate and review the roles that the various scientific disciplines play in crime investigations.
3. demonstrate the use of forensic science in actual cases through research, writings and various exams
4. critique the importance of past and present individuals in the field of forensic science.
5. perform activities that demonstrate the use of problem solving and/or critical thinking.
6. justify and support a jury decision with the use of forensic evidence on a common final exam.

Ways of Thinking: Natural and Applied Sciences

This course is part of the Saint Louis University Core, an integrated intellectual experience completed by all baccalaureate students, regardless of major, program, college, school or campus. The Core offers all SLU students the same unified approach to Jesuit education guided by SLU's institutional mission and identity and our nine undergraduate [Core Student Learning Outcomes](#) (SLOs).

Ways of Thinking: Natural and Applied Sciences is one of 19 Core Components. The University Core SLO(s) that this component is designed to intentionally advance are listed below:

University Core Student Learning Outcomes
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The Core SLO(s) that this component is intentionally designed to advance are:

SLO 2: Integrate knowledge from multiple disciplines to address complex questions

SLO 3: Assess evidence and draw reasoned conclusions
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Additionally, the Core Component-level Student Learning Outcomes are listed below:
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Component-level Student Learning Outcomes
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Students who complete this course will be able to:
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| <ul style="list-style-type: none"> ● Acquire knowledge of the world through a scientific discipline (natural or applied sciences) ● Express how scientific disciplines approach complex questions ● Use scientific thinking to draw conclusions about multidimensional problems ● Assess data used to make evidence-based decisions |
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High School Course Grading Scale:

- A... 90-100%
- B... 80-89%
- C... 70-79%
- D... 60-69%
- F ... Below 60%

SLU Grading Information: Unless otherwise presented in this section, Saint Louis University has reviewed and approved the above course grading scale to be used by the instructor for the transcribed Saint Louis University college grade. Saint Louis University's undergraduate grading system follows a 0 - 4.000 grade point scale. Grades are assigned to the SLU transcript as follows:

Grade	Grade Scale	Percent	Interpretation
A	4.000	93-100	High achievement and intellectual initiative
A-	3.700	90-92.9	
B+	3.300	87-89.9	Above average, approaching high achievement
B	3.000	83-86.9	Above average achievement
B-	2.700	80-82.9	
C+	2.300	77-79.9	Midway between B and C
C	2.000	73-76.9	Average achievement
C-	1.700	70-72.9	
D	1.000	60-69.9	Inferior but passing achievement
F	0	<60	Failure

Note on SLU undergraduate Cumulative GPA: The grade earned through the 1818 Advanced College Credit Program are considered Saint Louis University grades and will become part of the student's undergraduate GPA if the student enrolls at Saint Louis University as a full time student.

Method for Determining Final Grade for the Forensic Science ACC Course:

Tests	40%
Labs and Activities	20%
Writing Assessments and Projects	20%
Final:	20%

Special Instructions for this class: must include attendance and late work policy, could include specific school policies, covid instructions, on line instructions, class website instructions, etc

1818 Registration

The director of the 1818 Advanced College Credit Program at Saint Louis University is Beth Collier. She may be reached at 314-977-1818. Registration will take place during the first semester. The cost is \$75/hour. This is a 3-hour college credit course, so the total cost is \$225.00. To be eligible to register, you must be a junior or senior with a 3.0 GPA (on a 4.0 scale). You must meet the expectations of the class with at least a "C" average. Additional information concerning dropping the course with no transcript entry and withdrawing from the course with a "W" can be found at <http://www.slu.edu/1818>.

Student Registration Period: Aug 25th – Sept 29th, 2025

Student Scholarship Request Period: Aug 25th – Sept 29th, 2025

Last Day to Drop: Nov 7th, 2025

Full-year Tuition Due: Dec 1st, 2025

Last Day to Withdraw with a "W": Jan 9th, 2026

Significant Learning Activities / Evaluation Strategies and Approximate Deadlines and/or Calendar: Students will complete various labs and activities to learn the content. Each semester there will be a minimum of one major project. Summative evaluations will be taken at the end of each unit.

This is a college level class. ALL students will be required to complete ALL assignments, labs and/or projects regardless of whether class is being taken for college credit or not. All work is expected to be turned in on or before the due date.

The research and writing assessments for this class are: True Crime Case, Dollhouse Crime Scene Project, Print Portfolio, and the Lemur Project

True Crime Case Study:

All students taking Survey of Forensic Science through Saint Louis University will be required to research and write about one true crime. In this class you will do this by:

FIRST SEMESTER COURSE CALENDAR: Tentative Schedule, Objectives and Major Assessments			
Time Range	UNIT	Common Learning Objectives	ASSESSMENTS —Labs, projects, writing assessments, True Crime or unit test.
1-2 weeks	Introduction <ul style="list-style-type: none"> Forensic science history Frye vs Daubert Forensic Labs and Agencies Types of Evidence Facets of Guilt Eyewitness and Reasonable Doubt Forensic Experts Forensic Careers 	1.Relate important advances in forensic science over time 2.Demonstrate the importance of Frye and Daubert as it pertains to evidence 3.Identify and describe the work of the various labs associated with a criminal investigation 4.Describe how an expert witness is determined and how an expert witness shows effectiveness 5.Justify the importance of having the means, motive, and opportunity in a criminal investigation. 6.Compare/contrast physical evidence, giving an example of the different types	
2-3 weeks	Crime Scene <ul style="list-style-type: none"> Responsibilities of a crime team Documenting and working a crime scene Evidence collection, packaging, and chain of custody Warrants, rights, and amendments 	1.Describe the responsibilities of each member of the investigative team 2.Specify the workings of a search warrant 3.State the 4 th and 5 th amendments as it applied to criminal investigations 4.Interpret one's Miranda Rights 5.Determine how evidence is collected and chain of custody is maintained	
3-4 weeks	Trace <ul style="list-style-type: none"> Individual vs class characteristics Probative value of trace evidence Locard's principle Collecting and identifying types of trace evidence Scientific equipment and techniques used to identify types of trace evidence 	1 Describe individual and class characteristics of various types of evidence 2 Identify different types of trace evidence and how each is collected and processed. 3.Describe the importance of Locard's principle to trace evidence 4.Apply class and individual characteristics to trace evidence 5.Determine the probative value and/or importance of various types of trace evidence found at crime scenes 6.Determine a means of identifying different types of trace evidence (hair, fiber, glass, paint, sand, soil, etc) through various laboratory techniques	
3-4 weeks	Fingerprints and Biometrics <ul style="list-style-type: none"> History of identification and fingerprinting Types of prints Identifying Minutia Lifting techniques Biometrics NGI 	1.Sequence the historical use of fingerprinting 2.Determine the type of fingerprint (loops, arches, or whorls) from various surfaces 3.Identify minutia within a fingerprint 4.Identify ways to lift prints using various methods 5.Describe biometric means of identification and their probative value 6.Explain the work of NGI (next generation identification), including AFIT	
3 weeks	Pathology <ul style="list-style-type: none"> Basic Human Anatomy Coroner vs Medical Examiner Process and instruments of an autopsy Manner, cause, and mechanism of death Time of Death—including rigor, livor and algor mortis 	1.Compare a medical examiner with a coroner 2.Describe the process and instruments of an autopsy 3.Explain the terms manner, cause, and mechanism of death with examples 4.Illustrate the differences between rigor, livor, and algor mortis with what can be determined from each. 5.Demonstrate the ability to determine a range since death using various means	
1-2 weeks	Criminology (optional) <ul style="list-style-type: none"> Profiling and Victimology 		

Final Exam			FIRST SEMESTER FINAL EXAM--(description here)
SECOND SEMESTER COURSE CALENDAR			
Time Range	Units	COMMON LEARNING OBJECTIVES	ASSESSMENTS —Labs, projects, writing assessments, True Crime or unit test.
2-3 weeks	Toxicology <ul style="list-style-type: none"> • Work of a forensic toxicologist • Drugs, poisons, and alcohol • Presumptive and confirmatory tests • Techniques, procedures, and instrumentation in a toxicology lab 	1. Describe the presumptive and confirmatory tests for drugs 2. Assess a poison, its effects on the body, its toxicity, and forensic means of identification 3. Summarize the work of a toxicology lab 4. Identify instruments used in a toxicology lab and describe their uses 5. Describe the importance of toxicology to a criminal investigation	
3-4 weeks	DNA <ul style="list-style-type: none"> • DNA structure • Typing—PCR, STR, mtDNA, y-Chromosomal • CODIS 	1. Describe the structure of DNA 2. Summarize the PCR method 3. Interpret and draw conclusions based on STR data 4. Compare and contrast nuclear DNA with mitochondrial DNA 5. Summarize the work of CODIS	
3 weeks	Blood Evidence/Serology <ul style="list-style-type: none"> • Blood structure and characteristics • Blood detection and collection • Blood pattern analysis • Other types of serology--semen 	1. Describe testing methods for determining if a substance is blood 2. Compare and contrast animal and human blood 3. Determine the angle of impact, point of convergence, area of intersect 4. Draw conclusions based on blood spatter pattern(s)	
3 weeks	Anthropology and Odontology <ul style="list-style-type: none"> • Work of an anthropologist • Bone structure • Identification of major bones • Determination of age, height, sex, and race • Teeth 	1. Describe the role of an anthropologist in a criminal investigation 2. List the major large bones of the body that are most useful in forensic science and rank their importance 3. Determine sex, age, race, and height from a set of bones 4. Summarize the process of how teeth are used in the identification of a deceased	
2-3 weeks	Entomology <ul style="list-style-type: none"> • Work of a forensic entomologist • Human decomposition • Useful insects and their sequencing in decomposition • PMI and determining time since death 	1. Describe the role of an entomologist in a criminal investigation 2. Explain the progression of human decomposition 3. Sequence insect infestation on a decaying body and describe its significance to time of death 4. Describe how PMI is determine 5. Explain why determining PMI is important	
1-2 weeks	Documents and Digital Forensics (optional)		
FINAL EXAM WEEK		This is a college class and all students must take the final exam. It is comprehensive and covers both semesters.	SLU Common Final Exam
* The instructor reserves the right to adjust the schedule and assessments to meet the needs of the class.			
<u>To Be Developed and Accomplished in Any Unit. Students will be able to:</u> <ul style="list-style-type: none"> ✓ Discuss and evaluate the contributions of forensic experts in various fields ✓ Research high profile cases, the main evidence involved, and the forensic work that was accomplished. 			

Information Essential to Student Success in SLU Course:

Academic Integrity Syllabus Statement

Academic integrity is the commitment to and demonstration of honest and moral behavior in an academic setting. Since the mission of the University is "the pursuit of truth for the greater glory of God and for the service of humanity," acts of integrity are essential to its very reason for existence. Thus, the University regards academic integrity as a matter of serious importance. Academic integrity is the foundation of the academic assessment process, which in turn sustains the ability of the University to certify to the outside world the skills and attainments of its graduates. Adhering to the standards of academic integrity allows all members of the University to contribute to a just and equitable learning environment that cultivates moral character and self-respect. The full University-level Academic Integrity Policy can be found on the Provost's Office

website at: <https://www.slu.edu/provost/policies/academic-and-course/academic-integrity-policy.pdf>.

SLU Disability Services Academic Accommodations

Students with a documented disability who wish to request academic accommodations must formally register their disability with the University. Once successfully registered, students also must notify their course instructor that they wish to use their approved accommodations in the course.

Please contact the Center for Accessibility and Disability Resources (CADR) to schedule an appointment to discuss accommodation requests and eligibility requirements. Most students on the St. Louis campus will contact CADR, located in the Student Success Center and available by email at accessibility_disability@slu.edu or by phone at 314.977.3484. Once approved, information about a student's eligibility for academic accommodations will be shared with course instructors by email from CADR and within the instructor's official course roster. Students who do not have a documented disability but who think they may have one also are encouraged to contact to CADR. Confidentiality will be observed in all inquiries.

TITLE IX Information and Resources

Saint Louis University and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have encountered any form of discrimination on the basis of sex, including sexual harassment, sexual assault, stalking, domestic or dating violence, we encourage you to report this to the University. Discrimination on the basis of sex includes discrimination on the basis of assigned sex at birth, sex characteristics, pregnancy and pregnancy related conditions, sexual orientation and gender identity. If you speak with a faculty member about an incident that involves a Title IX matter, **that faculty member must notify SLU's Title IX Coordinator that you shared an experience relating to Title IX.** This is true even if you ask the faculty member not to disclose the incident. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

If you are pregnant or experiencing a pregnancy related condition, the Title IX Coordinator can assist you in understanding your rights and options as well as provide supportive measures.

Anna Kratky is the Title IX Coordinator at Saint Louis University (DuBourg Hall, room 36; anna.kratky@slu.edu; 314-977-3886). If you wish to speak with a confidential source, you may contact the counselors at the University Counseling Center at 314-977-TALK or make an anonymous report through SLU's Integrity Hotline by calling 1-877-525-5669 or online at <http://www.lighthouse-services.com/slu>. To view SLU's policies, and for resources, please visit the following web addresses: <https://www.slu.edu/about/safety/sexual-assault-resources/index.php>

Generative AI – NOTE: You must include an AI statement – you can either allow, not allow, or sometimes allow – just be sure to define what you are doing for your class – below is an example of terminology I have used when NOT allowing AI.

Generative AI, including but not limited to Chat GPT, etc may not be used for work in this class. The use of such generative AI tools may compromise your learning by undermining your ability to come up with ideas, fully understand how to structure an argument, etc.

You may not use generative AI to compose theses or arguments, generate sources, or brainstorm. You may not use generative AI to in any way to augment your original work. For example, asking an AI to polish a piece of work you have written is not allowed. You may not use generative AI to compose work as a whole or in part for any assignment in this course.

Please review item three in the section labeled Plagiarism in the [Saint Louis University Academic Integrity Policy](#).

STUDENT SUCCESS CENTER

The Student Center (SSC) supports students in reaching their goals in and out of the classroom. Providing a variety of resources, the Student Success Center houses both the Center for Accessibility and Disability Resources (CADR) and Academic Support, which includes Tutoring, Supplemental Instruction, University Writing Services, and Student Success Coaching. The Student Success Center is located in the Busch Student Center, Suite 331, and students can make an appointment with any SSC resource via EAB Navigate. To learn more about the Student Success Center and its resources, please visit: <https://www.slu.edu/life-at-slu/student-success-center/index.php>

UNIVERSITY WRITING SERVICES

University Writing Services offers one-on-one consultations with trained writing consultants who help with everything from brainstorming, outlining, and proposing research questions to documenting sources, revising, and implementing feedback. These consultations can take place in-person, asynchronously, or via Zoom and can be scheduled through EAB Navigate – Student. Getting feedback benefits writers at all skill levels on different writing projects (including but not limited to class assignments, conference papers, cover letters, dissertations, group projects, multimedia assignments, personal statements, senior capstone projects, short answer questions on applications, speeches, and theses). For additional information, visit

<https://www.slu.edu/life-at-slu/student-success-center/academic-support/university-writing-services/index.php> or send an email to writing@slu.edu.

University Counseling Center Syllabus Statement

The University Counseling Center (UCC) offers free, short-term, solution-focused counseling to Saint Louis University undergraduate and graduate students. UCC counselors are highly trained clinicians who can assist with a variety of issues, such as adjustment to college life, troubling changes in mood, and

chronic psychological conditions. To make an appointment for a wellness consultation, call 314-977-8255 (TALK), or visit the clinic on the second floor of Wuller Hall. For after-hours needs, please press #9 after dialing the clinic number.

Wellness

With our Jesuit commitment to *cura personalis*, the University sees your academic success as connected to your health and well-being and provides resources to support your holistic wellness.

All students experience stressors and challenges at some point, and seeking support is both normal and beneficial. Such challenges may be the result of academic concerns (such as those related to particular assignments or content in a course), or they may be more personal in nature (such as concerns related to relationships, mental health, medical issues, loss, identities, alcohol or drugs, housing or food security, finances, or local/world events, among other things). If you experience these or other difficulties that are impacting your well-being and/or academic work, please consider seeking support from the resources available to you. For questions or concerns related to this course, please contact me. I am invested in your success and will support your success in the ways I can. Additionally, you have access to the many resources SLU provides in support of your personal wellness. You will find a list of available resources on [the Well-being page of the SLU website](#).