

## Program Assessment: Annual Report

**Program(s):** Forensic Science  
**Department:** Sociology and Anthropology  
**College/School:** Arts and Sciences  
**Date:** September 6, 2023  
**Primary Assessment Contact:** Erik Hall

1. Which program student learning outcomes were assessed in this annual assessment cycle?

Goal #3: Forensic Science majors will understand the role of Critical Thinking Skills in Forensic Science.

Learning Outcomes:

- a) demonstrate the ability to build a pattern from diverse evidence
- b) demonstrate the ability to assemble diverse evidence to form a whole
- c) demonstrate the ability to create a new meaning or structure.

2. What data/artifacts of student learning were collected for each assessed outcome? Were Madrid student artifacts included?

Direct measures including final 'capstone' papers (ie. crime scene practicals) were used from crime scene investigation to assess the goals. In addition, exit interviews with graduating seniors in Forensic Science as well as forensic science internship site supervisor evaluations were used to assess the goals

3. How did you analyze the assessment data? What was the process? Who was involved?

**NOTE: If you used rubrics as part of your analysis, please include them in an appendix.**

For the capstone projects, a standard rubric was used (see attached) and included all three of the goals listed above and a numbering scale of 1-5. The exams and rubric were distributed to 2 faculty members (Erik Hall and Kathryn Heinzmann) for review and scoring. The results were then tabulated and averaged together. The exit interviews were conducted by Dr. Melinda McPherson, Kathryn Heinzmann, and Director of Forensic Science, Erik Hall with 9 of our graduating seniors in an in-person roundtable format prior to graduation.

4. What did you learn from the data? Summarize the major findings of your analysis for each assessed outcome.

**NOTE: If necessary, include any tables, charts, or graphs in an appendix.**

The data showed that overall the students were meeting the learning objectives (See attached excel sheet with scoring averages). Learning objectives 1 and 3 were scored with an average near 4 across all students. Many of the capstone papers received a 4 on the rubric across the reviewers and showed that a wide variety of students were meeting and exceeding the expectations of our goals. If anywhere was lacking (average score of just above 3) it was on the ability to form a whole from diverse evidence (outcome 2). Students in the exit interviews also had a difficult time with this concept and struggled to come up with a

time in class that they did this. 3 students were able to articulate how what they did in the crime scene practical met this objective, but some of the others were not able/did not respond. More emphasis should be placed on this particular component moving forward. During exit interviews students also expressed additional interest in a testimony class as well as additional chemistry classes (microscopy, toxicology) to offer a wide array of classes in the major.

5. How did your analysis inform meaningful change? How did you *use the analyzed data to make or implement recommendations for change* in pedagogy, curriculum design, or your assessment plan?

While many of the outcomes were met with above average results, more can be done to improve the students ability to be clear about the links between evidence and forming the whole. A new course called Advanced Crime Scene Reconstruction was approved this past spring and will be implemented in the next academic year or two. This course is specifically designed to have students meet these outcomes and goal. The current crime scene investigation course will still include a practical component and require that students provide in more detail the ways diverse evidence (specific examples) comes together to form a whole. More emphasis will be placed on this moving forward through reconstruction in the 2 crime scene classes. We are currently evaluating new courses in forensic chemistry and will be proposing at least one of them moving forward to feed the students interest for next academic year. In addition during our annual faculty meeting conversation was had about how to better implement critical thinking in the curriculum. We discussed the need/option of having more critical thinking components on exams, discussed other course work, such as a pseudoscience class offered by Dr. Mary Vermilion, as well as more problem-solving activities in the classroom. Through a combination of the above measures it is believed the students will more fully capture the assessment goal of critical thinking in forensic science.

6. Did you follow up (“close the loop”) on past assessment work? If so, what did you learn? (*For example, has that curriculum change you made two years ago manifested in improved student learning today, as evidenced in your recent assessment data and analysis?*)

Students were required to pay more attention to the chain of custody on their practical assignments, including filling out the chain of custody on actual evidence envelopes and continuing to answer questions on the exams throughout crime scene investigation and other classes. It is learned that besides looking at the evidence and asking a question or two on an exam it can be difficult to assess if students are truly grasping the concept of chain of custody. A new class period/lab was put into place for forensic science majors during the crime scene investigation class for fall 2023 to address chain of custody and is being incorporated into laboratory reports this fall as well. Attention was also paid to continued development of the professional issues in forensic science class which highlights some of the past suggestions from assessments on getting stronger on ethics in forensics as well as more on the professional aspects of forensic science. In addition a senior seminar class was added this past spring to also address previous concerns on the professional aspects of the field. Attached you will find the most recent version of FRSC 2800 which was put into place to address past concerns.

***IMPORTANT: Please submit any revised/updated assessment plans to the University Assessment Coordinator along with this report.***

**Rubric for Assessing Goal #3**

Group # \_\_\_\_\_

**1. Does the student demonstrate the ability to build a pattern from diverse evidence?**

Poor		Adequate		Excellent	
1	2	3	4	5	Not applicable to paper's topic

Comments:

**2) Does the student demonstrate the ability to assemble diverse evidence to form a whole?**

Poor		Adequate		Excellent	
1	2	3	4	5	Not applicable to paper's topic

Comments:

**3) Does the student demonstrate the ability to create a new meaning or structure?**

Poor		Adequate		Excellent	
1	2	3	4	5	Not applicable to paper's topic

Comments:

2023 Forensic Science Program Review Direct Measures

Demonstrate the ability to build a pattern from diverse evidence

Artifact	Scoring		
	Rater 1	Rater 2	Average
Group 1	4	4	4
Group 2	4	4	4
Group 3	4	4	4

Demonstrate the ability to build assemble from diverse evidence to form a whole

Artifact	Scoring		
	Rater 1	Rater 2	Average
Group 1	3	3	3
Group 2	4	3	3.5
Group 3	3	3	3

Demonstrate the ability to create a new meaning or structure

Artifact	Scoring		
	Rater 1	Rater 2	Average
Group 1	4	4	4
Group 2	4	4	4
Group 3	3	3	3

---

## Topics in Forensic Science FRSC 2800-01,-H01

---

**Professor:**

Dr. Melinda K. McPherson (she/her)  
Assistant Professor of Forensic Science

**Office:** 1908 Morrissey Hall

**Office hours:** Virtual or in-person by appointment; please email to set up a meeting.

**Email:** melinda.mcpherson@slu.edu

**Phone:** 314-977-2616

### COURSE DESCRIPTION

This lecture course will explore the intersection of Forensic Science with topics such as ethics, courtroom/expert witness testimony, quality assurance, law, professional practice, and social justice. This class will allow students to bridge the gap between an introductory survey of forensics class and advanced classes by discussing topics that will affect their ability to succeed in the field of forensic science. The class will discuss current topics in the media and the role of the forensic scientist in these topics.

### COURSE INFORMATION/PREREQUISITES/COURSE NEEDS

Class times and Location

Monday and Wednesday, 11:00-11:50am, Beracha Hall, Room 213

Pre-requisite

FRSC 2600

Requirements

Textbook: Strom, K. J. and Hickman, M. J. (2015). Forensic Science and the Administration of Justice: Critical Issues and Directions. Los Angeles, CA: Sage Publications, Inc.

*Recommended* Textbook: Houck, M. M. (2015). Professional Issues in Forensic Science. San Diego, CA: Elsevier.

Website: Links to additional required readings, as well as other references and resources, will be posted on the Canvas class website. Supplementary readings may include ebooks, journal articles, newspaper articles, magazines and social media posts. It is the student's responsibility to check the website frequently for new postings.

Email: SLU email must be used to send and receive messages in this course. Check your SLU email daily.

## WAYS OF THINKING: SOCIAL AND BEHAVIORAL 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: Social and Behavioral 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

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

Additionally, the Core Component-level Student Learning Outcomes are listed below:

### Component-level Student Learning Outcomes

Students who complete this course will be able to:

- Understand a range of social or behavioral theories and principles
- Use these theories and principles to acquire knowledge about individual, cultural, political, economic, or social events/processes
- Describe competing paradigms of knowledge (from the dominant discipline or field)
- Draw reasoned conclusions through the use of evidence and theories
- Apply social and behavioral knowledge to better understand contemporary issues and challenges

## COURSE LEARNING OBJECTIVES – Students will be able to:

1. apply ethics and quality assurance to the field of forensics and crime investigation.
2. explain the role that expert witness testimony plays in the solution of crime.
3. demonstrate the importance of having a sound scientific methodology in place prior to processing evidence.
4. Use information necessary to ensure bias is recognized as playing a role in forensic science.

## ATTENDANCE

Regular attendance is expected. See updated attendance policy for additional information concerning excused absences.

Exam dates are known in advance. Therefore, unless deemed an emergency by the instructor, there are no make-up exams. If an emergency occurs beyond your control,

you must contact the instructor by phone PRIOR to the start of the exam to explain the emergency. Students with absences deemed an emergency by the instructor, will be given the opportunity to make up the exam. The exam must be made up within the week and verification submitted at that time.

## CLASS STRUCTURE

"As a classroom community, our capacity to generate excitement is deeply affected by our interest in one another, in hearing one another's voices, in recognizing one another's presence." - bell hooks, *Teaching to Transgress*, p. 8

This is a discussion-based course and effective learning—your own and that of others—is contingent on active participation. Full engagement and participation in every class is required, as is your preparation, attendance, and timeliness.

In addition to the course text, readings, in the form of journal articles and other references, will be assigned through-out the semester. Students must read and be familiar with each of these prior to class and contribute to an active learning experience in the classroom, through discussion. In addition to the readings, student contributions will acquaint the class with a range of concepts, ideas, factors, and opinions regarding professional issues in forensic science.

Behaviors that disrupt other students' learning are not acceptable (e.g., arriving consistently late for class, cell phone use, reading non-course related materials, or social conversation during class), and will be addressed according to the University Policy.

## OTHER COURSE POLICIES

### **Academic Integrity**

*Academic integrity is honest, truthful and responsible conduct in all academic endeavors.* The mission of Saint Louis University is "the pursuit of truth for the greater glory of God and for the service of humanity." Accordingly, all acts of falsehood demean and compromise the corporate endeavors of teaching, research, health care, and community service through which SLU fulfills its mission. The University strives to prepare students for lives of personal and professional integrity, and therefore regards all breaches of academic integrity as matters of serious concern. 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/policy\\_academic-integrity\\_6-26-2015.pdf](https://www.slu.edu/provost/policies/academic-and-course/policy_academic-integrity_6-26-2015.pdf).

Additionally, each SLU College, School, and Center has its own academic integrity policies, available on their respective websites.

## **Disability 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](mailto: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**

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 sexual harassment, including sexual assault, stalking, domestic or dating violence, we encourage you to report this to the University. 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 and share the basic facts of

your experience. 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.

Anna Kratky is the Title IX Coordinator at Saint Louis University (DuBourg Hall, room 36; [anna.kratky@slu.edu](mailto: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>.

## **Student Success Center and Academic Support**

In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. The Student Success Center assists students with academic-related services and is located in the Busch Student Center (Suite, 331). Students can visit <https://www.slu.edu/life-at-slu/student-success-center/> to learn more about tutoring services, university writing services, disability services, and



academic coaching.

### **Mandatory Syllabus Statement on Face Masks (until further notice)**

Throughout the COVID-19 pandemic, key safeguards like face masks have allowed SLU to safely maintain in-person learning. If public health conditions and local, state, and federal restrictions demand it, the University may require that all members of our campus community wear face masks indoors.

**Therefore, any time a University-level face mask requirement is in effect, face masks will be required in this class.** This expectation will apply to all students and instructors, unless a medical condition warrants an exemption from the face mask requirement (see below).

**When a University-wide face mask requirement is in effect**, the following will apply:

- Students who attempt to enter a classroom without wearing masks will be asked by the instructor to put on their masks prior to entry. Students who remove their masks during a class session will be asked by the instructor to resume wearing their masks.
- Students and instructors may remove their masks briefly to take a sip of water but should replace masks immediately. The consumption of food will not be permitted.
- Students who do not comply with the expectation that they wear a mask in accordance with the University-wide face mask requirement may be subject to disciplinary actions per the rules, regulations, and policies of Saint Louis University, including but not limited to those outlined in the *Student Handbook*. Non-compliance with this policy may result in disciplinary action, up to and including any of the following:
  - dismissal from the course(s)
  - removal from campus housing (if applicable)
  - dismissal from the University
- To immediately protect the health and well-being of all students, instructors, and staff, instructors reserve the right to cancel or terminate any class session at which any student fails to comply with a University-wide face mask requirement.

**When a University-wide face mask requirement is not in effect**, students and instructors may choose to wear a face mask or not, as they prefer for their own individual comfort level.

### **ADA Accommodations for Face Mask Requirements**

Saint Louis University is committed to maintaining an inclusive and accessible environment. Individuals who are unable to wear a face mask due to medical reasons should contact the Office of Disability Services (students) or Human Resources (instructors) to initiate the accommodation process identified in the University's [ADA](#)

[Policy](#). Inquiries or concerns may also be directed to the [Office of Institutional Equity and Diversity](#). Notification to instructors of SLU-approved ADA accommodations should be made in writing prior to the first class session in any term (or as soon thereafter as possible).

**Mandatory Syllabus Statement on In-Person Class Attendance and Participation (until further notice)**

The health and well-being of SLU's students, staff, and faculty are critical concerns, as is the quality of our learning environments. Accordingly, the following University policy statements on in-person class attendance are designed to preserve and advance the collective health and well-being of our institutional constituencies and to create the conditions in which all students have the opportunity to learn and successfully complete their courses.

1. Students who exhibit any [potential COVID-19 symptoms](#) (those that cannot be attributed to some other medical condition the students are known to have, such as allergies, asthma, etc.) shall absent themselves from any in-person class attendance or in-person participation in any class-related activity until they have been evaluated by a qualified medical official. Students should contact the [University Student Health Center](#) for immediate assistance.
2. Students (whether exhibiting any of potential COVID-19 symptoms or not, and regardless of how they feel) who are under either an isolation or quarantine directive issued by a qualified health official must absent themselves from all in-person course activities per the stipulations of the isolation or quarantine directive.
3. Students are responsible for notifying their instructor of an absence as far in advance as possible; when advance notification is not possible, students are responsible for notifying each instructor as soon after the absence as possible. Consistent with the [University Attendance Policy](#), students also are responsible for all material covered in class and must work with the instructor to complete any required work. In situations where students must be absent for an extended period of time due to COVID-19 isolation or quarantine, they also must work with the instructor to determine the best way to maintain progress in the course as they are able based on their health situation.
4. Consistent with the [University Attendance Policy](#), students may be asked to provide medical documentation when a medical condition impacts a student's ability to attend and/or participate in class for an extended period of time.
5. As a temporary amendment to the current [University Attendance Policy](#), all absences due to illness or an isolation/quarantine directive issued by a qualified

health official, or due to an adverse reaction to a COVID-19 vaccine, shall be considered "Authorized" absences

## ASSIGNMENTS

### Engagement and Reflection Journal

As indicated in "Class Structure" above, student preparation and participation in class discussions are an integral part of this course. As such, meaningful participation and contribution, as documented in a reflection journal and student self-assessment of meeting self-determined engagement goals, will factor into final course grades.

### Student-Led Discussions (SLD)

Students will be required to present (alone and/or in groups) and lead class discussions that revolve around the assigned discussion topics. The order of the student/group presenters will be determined during the first weeks of the semester; either randomly and/or on a volunteer basis. The student presenter/group must provide the following:

- Review of relevant resources ( $\approx$ 25-30 minutes) or other relevant reference(s)
- Promote class discussion ( $\approx$ 10-20 minutes)

Each student must identify at least one additional, relevant reference for presentation and discussion. This additional reference or subject may be a journal article, newspaper or periodical article, news story, or any other publication that can be presented for discussion.

### Assignments

You will complete a series of oral and written assignments that will delve deeper into various topical areas discussed in this course. For the oral presentations, you may work in a small group (2 or 3). The written assignments are individual assignments.

An assignment is considered late, if it is not submitted by the announced due date and time. Assignments that are not turned in on time will be penalized one letter grade for each day they are late. After 5 days, no credit will be given for that assignment.

### Midterm and Final Examination

There will be one midterm examination. The tentative date is noted on the syllabus; any change will be announced in class. The final examination will be held during the regularly schedule time block during finals week. Make-up examinations will be given only in the case of excused absences.

Additional guidelines for all graded activities will be announced and distributed at appropriate times throughout the semester.

## METHODS OF EVALUATION

Assignment:		% of Grade	Grading Scale:	
Engagement (e.g., meaningful discussion contribution)		7.5%	<b>90-100%</b>	<b>A</b>
Reflection Journal		7.5%	<b>80-89%</b>	<b>B</b>
Student Led Discussion		15%	<b>70-79%</b>	<b>C</b>
Op Ed		5%	<b>60-69%</b>	<b>D</b>
Ethical Issues and Mountebanks Paper		10%	<b>≤59%</b>	<b>F</b>
Courtroom Visit		10%		
Future of Forensic Science Podcast		10%		
Midterm Exam		15%		
Final Exam		20%		
	Total:	100%		

**Grading**  
Obtaining a percentage in the below range ensures that letter grade. Any adjustments will be made at the end of the course. Instructor will determine the + and – grades.

## COURSE SCHEDULE

This represents a tentative course schedule. Modifications are likely and will be announced in class. We will accommodate guest speaker schedules, discussions of current events, additional topics and other relevant topical additions and/or elaborations as deemed necessary.

<u>Day</u>	<u>Date</u>	<u>Topic; In-class Assessment</u>	<u>Reading</u>
<b>Week One</b>			
W	Aug 24	Course Introduction; Planning; Establishing class communication norms and personal goals	
<b>Week Two</b>			
<b>The Demand for Forensic Services</b>			
M	Aug 29	Historical Review of the Demand for Forensic Evidence	S&H 1
W	Aug 31	Societal Views of Forensic Science; Social Media Collective; Forensic Science Crime Dramas; Personal experience with the "CSI Effect"	
<b>Week Three</b>			
M	Sept 5	<i>No Classes – Labor Day</i>	
W	Sept 7	Is there Evidence of a "CSI Effect"?	S&H 2
<b>Week Four</b>			
M	Sept 12	Evidence Backlogs; Sexual Assault Kits	S&H 3

<b>Day</b>	<b>Date</b>	<b>Topic; In-class Assessment</b>	<b>Reading</b>
<b>Quality of Forensic Services</b>			
W	Sept 14	Quality of Forensic Professionals: Desirable Qualifications; Training to Competence; Certification; Continuing Professional Development	Houck, p191-200, 227-36
<b>Week Five</b>			
M	Sept 19	Professional Organizations; Educational Perspectives: Internships and Graduate School	Houck, p313-48, 209-12, 223-6
W	Sept 21	Research Culture	S&H 4
<b>Week Six</b>			
M	Sept 26	Quality Assurance Systems – Accreditation; Standard Operating Procedures (SOPs), Protocols and Standards	Houck, p 77-82 p185-189, p201-207
W	Sept 28	<i>No Classes</i>	
<b>Week Seven</b>			
M	Oct 3	Errors, Bias and Minimizing Bias	S&H 5
W	Oct 5	Dror Research	
<b>Week Eight</b>			
M	Oct 10	Introduction to Ethics in Forensic Science	
W	Oct 12	Codes of Ethics in Forensic Science Societies and Other Organizations	S&H 6
<b>Week Nine</b>			
M	Oct 17	Wrap-up and Review	
W	Oct 19	<b>Midterm Exam</b>	
<b>Week Ten</b>			
<b>The Utility of Forensic Services and Legal Issues</b>			
M	Oct 24	Qualifications and the Role of the Expert	Houck, p281-4
W	Oct 26	Communicating Results – Report Writing	Siegel article
<b>Week Eleven</b>			
M	Oct 31	Uniform Language in Testimony and Reports	DOJ documentation
W	Nov 2	Expert Witness Testimony	
<b>Week Twelve</b>			
M	Nov 7	Expert Witness Testimony Practical	
W	Nov 9	Impact of Forensic Evidence on Criminal Justice	S&H 7
<b>Week Thirteen</b>			
M	Nov 14	Utility of DNA Evidence	S&H 8
W	Nov 16	The Prosecutor's Role	S&H 9
<b>Week Fourteen</b>			
<b>Post-Conviction Issues</b>			
M	Nov 21	Evidence Retention	S&H 10
W	Nov 23	<i>No Classes – Thanksgiving</i>	

<u>Day</u>	<u>Date</u>	<u>Topic; In-class Assessment</u>	<u>Reading</u>
<b>Week Fifteen</b>			
M	Nov 28	Forensic DNA Testing and Exonerations	S&H 11
<b>The Future Role of Forensic Science in the Administration of Justice</b>			
W	Nov 30	New Business Models	S&H 12
<b>Week Sixteen</b>			
M	Dec 5	Rethinking the Role of the Crime Laboratory	S&H 13
W	Dec 7	The Future of Forensic Science	S&H 14
W	Dec 14	<b>Final Cumulative Exam 8:00 – 9:50am</b>	