B.S. Forensic Science, Concentration in Digital Evidence

Major shifts in the information technology landscape over the past two decades have greatly increased the importance of proper collection and analysis of digital evidence. Through a lab-based, applied, and investigative approach, the San José State University Forensic Science Program has taken up the challenge to train the next generation of qualified experts in this emerging field by offering a new major concentration in Digital Evidence.

Students will have well-rounded base knowledge in forensic science and computer science, supplemented with relevant courses in justice studies and technology. They will then take specialized digital forensics courses that provide background in the subject matter along with practical experience through mock investigations.

The concentration conforms to the American Academy of Forensic Sciences Education Program standards, working towards national accreditation. It will apply the most relevant techniques used today, taught by professors and experts currently working within the field, and provide students with the opportunity to apply their skills through internships and research opportunities.

While this may appear similar to the concentration in Cybersecurity, cybersecurity and computer (digital) forensics are quite different fields. Although both protect digital assets and gather intelligence, cybersecurity concentrates on the prevention of cybercrimes within an organization, while digital forensics focuses on the aftermath of a cyber attack/crime.

A range of career opportunities are available in digital evidence. Given the cyber-industry influence in the Bay Area, along with the growing role of digital environments in society, SJSU is uniquely positioned to broaden professional opportunities in cyber-related fields. Possible careers in digital evidence include:

- Private companies (e.g. Visa, Google, Target)
- Law enforcement (e.g. District/US attorney, State/Local Police, Interpol)
- Counter-intelligence (e.g. CIA, FBI, USSS)
- Military and defense

Benefits of a Digital Evidence degree from SJSU

- Median annual salary of $99,730 for information security analysts*
- 32% projected job growth for digital evidence examiners through 2028*
- Master industry-standard skills for programming languages, data structure development, forensic analysis software, investigative procedures, forensic report writing, and evidentiary best practices.
- Internships and career opportunities in the Silicon Valley.
- Take advantage of the newly built SJSU Cybersecurity Center for hands-on experience and training.

Upon earning your Digital Evidence degree, you’ll be able to:

- Conduct a digital forensic investigation from beginning (evidence acquisition) to conclusion (forensic reporting).
- Develop specialized digital evidence-gathering for mobile, remote, cloud, servers, computers, and embedded systems.
- Conduct incident response investigations, leveraging network and memory analysis to track advanced persistent threat teams.
- Use industry tools to gather, analyze, and interpret digital evidence.
- Provide expert testimony on forensic cases.
- Develop analytical requirements and communicate findings to technical and non-technical audiences.
- Understand the application of science to criminal and civil laws
- Collaborate with private sector companies and government agencies.

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Upper-Division Course Requirements

- FS 100W: Forensic Science Writing Workshop
- FS 130: Introduction to Digital Forensics
- FS 131: Digital Forensic Analysis
- FS 161: Crime Scene Investigation
- FS 162: Forensic Science Applications
- FS 169: FS Senior Seminar
- JS 114: Research Methods in Justice Studies
- JS 181: Internship: Justice Studies
- CS 146: Data Structures and Algorithms

Computer Systems Courses (3 of the Following)

- CS 147: Computer Architecture
- CS 149: Operating Systems
- CS 157A: Introduction to Database Management Systems
- CS 157B: Database Management Systems II
- CS 158A: Computer Networks
- CS 158B: Computer Network Management
- CS 166: Information Security
- CS 175: Mobile Device Development

Forensic Science Upper-Division Electives

- FS 106: Forensic Entomology (ENT 106)
- FS 160: Special Topics in Forensic Science
- FS 163: Fingerprint Science
- FS 164: Crime Scene and Evidence Photography
- FS 165: Forensic Biometrics
- FS 166: Forensic Chemistry
- FS 167: Forensic Molecular Biology
- FS 168: Fluorescent Applications in Molecular Biology
- FS 169: Forensic Science Senior Seminar
- FS 170: Human Rights Investigations
- FS 171: Forensic Criminology

Highlights

- Forensic Science Educators Conference (AAFS FSEC)
- Annual CSI Summer Camp
- Forensic Science Speaker Series
- Themis: Research Journal of Justice Studies and Forensic Science

Scholarships

- California Association of Criminalists A. Reed and V. McLaughlin Endowment Scholarships
- J. Edgar Hoover Foundation Leadership Scholarship
- Additional Justice Studies Department scholarships, also available to forensic science students

Student Organizations

- Forensic Science Student Club (FSS)
- Students for Firearm Safety

For more information, please visit the Forensic Science program website at:
https://www.sjsu.edu/justicestudies/degrees/forensic_science/