

(FS) FORENSIC SCIENCE

Courses

FS 190. The Science of Fingerprints. 3 Hours.

This course allows students to examine every facet of the discipline, from the history of friction ridge identification and its earliest pioneers and researchers, skin growth in the embryo, structure of skin, scarring and histology, the chemistry of sweat and other secretions, to the scientific basis and the various steps of the identification process.

FS 240. Forensic Photography. 3 Hours.

This course centers on the use of numerous photography skills to document items of evidence for comparison purposes and to aid the trier of fact in a court of law. Through theory and practical application inside and outside of the classroom students obtain a basic understanding of how to operate a still single-lens reflex digital camera. Students also learn a range of techniques to enhance their photograph through the use of levels, curves and exposure of the image. Other learning includes lens selection, lighting, color temperature, and alternative light sources. Students come to understand that application of their photography skills to simulated crime scenes and evidence requires flexibility and creativity. The course concludes with an introduction to image processing in Adobe Photoshop.

FS 491. Forensic Science I: Introduction to Crime Analysis. 3 Hours.

This introductory course explores the most effective tools of research, statistics, analysis, and mapping, integrating them with the realities of policing, and applying them directly to street-level operations and problem-solving. Students come to understand that a crime analyst encompasses being a researcher, statistician, journalist, detective, planner, computer specialist, and problem-solver. The course offers essentially the same material that is taught to crime analysts when they begin their careers. Prerequisite(s): CJ 101 and CJ 341.

FS 492. Forensic Science II: Introduction to Crime Mapping. 3 Hours.

This special section of FS492 teaches students how to use a geographic information system (GIS) to analyze crime which may include national trends as well as individual crime scenes. The lessons include the basic terms and principles of GIS, creation and management of GIS data, geocoding and plotting data based on coordinates, performing spatial queries, identifying hot spots, analyzing patterns of movement, and creating high-definition maps for strategic and tactical planning and prosecutorial exhibition. Prerequisite(s): CJ 101 and CJ 341 and FS 491.

FS 493. Forensic Seminar. 4 Hours.

This course is the capstone of the bachelor's degree in forensic science. The course draws on the knowledge acquired throughout the previous seven semesters. It also guides students through correct processing and sequencing of processing of evidence at the crime scene and in the laboratory. Particular attention is placed on understanding the pros and cons, false negatives and false positives, cross-reactions, and potential for cross-contamination in analyzing and testing evidence items. Students learn various techniques for describing scientific principles in layman's terms. The course finishes with a mock trial at the end of the semester, giving the student the chance to experience direct and cross-examination. Prerequisite(s): CJ 221 and CJ 341.