Forensic Science (FORS)

FORS 120 Introduction to Forensic Science
Notes: Register for FORS 120L to go with FORS 120 as an optional one credit hour lab.
Description: The United States legal system, serology, DNA analysis, crime scene investigation, comparative analysis, digital forensics, and behavioral sciences.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC
Offered: FALL
Prerequisite for: FORS 200; FORS 300; FORS 302; FORS 306; FORS 400; FORS 401; FORS 411; FORS 803, FORS 403; FORS 804, FORS 404

FORS 120L Introduction to Forensic Science Laboratory
Prerequisites: Forensic Science major or by permission
Description: Practical aspects of forensic sciences. Forensic entomology, soil science, blood spatter, fingerprints, trace evidence, odontology, footprint analysis, palynology, and osteology.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB
Offered: FALL
Prerequisite for: FORS 200; FORS 300; FORS 302; FORS 306; FORS 400; FORS 401; FORS 411; FORS 803, FORS 403; FORS 804, FORS 404

FORS 200 Forensic Science Seminar
Prerequisites: FORS 120/L or instructor permission
Description: Current issues in research, ethics, and professional practice related to forensic science.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC
Offered: SPRING
Prerequisite for: FORS 400

FORS 300 Forensic Taphonomy
Prerequisites: LIFE 120/121, CHEM 109/110, and FORS 120/L or instructor permission
Description: Forensic application of processes associated with decomposition and preservation of organic materials.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: SPRING

FORS 302 Principles of Forensic Photography
Prerequisites: FORS 120/L or instructor permission
Description: Concepts, techniques, analysis and interpretation of photographic evidence.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC
Offered: FALL
Prerequisite for: FORS 803, FORS 403; FORS 804, FORS 404

FORS 306 Crime Scene Management
Prerequisites: FORS 120/L or instructor permission
Description: Critical thinking, reasoning, investigative failure, resource management, and supervision in criminal investigation.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC
Offered: SPRING

FORS 307 Forensic DNA for Crime Scene Investigators
Prerequisites: LIFE 120/L and LIFE 121/L
Description: Basic terminology, concepts, and techniques that are currently, or have been previously used in operational crime laboratories. The concepts of laboratory techniques, measurements, analysis of the various analytical methods, and quality assurance/quality control are also included.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: SUMMER

FORS 400 Crime Scene Investigation
Prerequisites: FORS 120/L, FORS 200 and FORS 411 or instructor permission
Description: Identification, collection, preservation, presentation of physical evidence. Ethics and chain of custody.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: SPRING
Prerequisite for: FORS 485

FORS 400L Crime Scene Investigation Laboratory
Prerequisites: Parallel FORS 400
Notes: FORS 400L is a lab for credit to go with FORS 400.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB
Offered: SPRING
Prerequisite for: FORS 485

FORS 401 Forensic Biology
Prerequisites: LIFE 120/L and LIFE 121/L, BIOS 205, BIOS 206, and FORS 120/L or instructor permission
Description: Ethics, quality assurance, quality control, analysis, and interpretation of biological evidence for the legal system.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: SPRING
Prerequisite for: FORS 410; FORS 485

FORS 403 Principles of Forensic Science
Prerequisites: FORS 120/L or instructor permission
Description: The United States legal system, serology, DNA analysis, crime scene investigation, comparative analysis, digital forensics, and behavioral sciences.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: FALL
Prerequisite for: FORS 803, FORS 403; FORS 804, FORS 404

FORS 404 Forensic Vertebrate Osteology
Prerequisites: FORS 120/L or instructor permission
Description: The United States legal system, serology, DNA analysis, crime scene investigation, comparative analysis, digital forensics, and behavioral sciences.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: SPRING
Prerequisite for: FORS 410; FORS 485
FORS 401L Forensic Biology Laboratory  
**Prerequisites:** Parallel FORS 401  
**Notes:** FORS 401L is a lab for credit to go with FORS 401.  
**Credit Hours:** 1  
**Max credits per semester:** 1  
**Max credits per degree:** 1  
**Format:** LAB  
**Offered:** SPRING  
**Prerequisite for:** FORS 410; FORS 485

FORS 403 Advanced Forensic Photography  
**Crosslisted with:** FORS 803  
**Prerequisites:** FORS 120/L or FORS 302/802 or instructor permission  
**Description:** Advanced concepts, techniques, analysis and interpretation of photographic evidence.  
**Credit Hours:** 1  
**Max credits per semester:** 1  
**Max credits per degree:** 1  
**Format:** LEC  
**Offered:** SPRING  
**Prerequisite for:** FORS 804, FORS 404

FORS 404 Bloodstains as Evidence  
**Crosslisted with:** FORS 804  
**Prerequisites:** FORS 120/L, FORS 302/802 or FORS 403/803 and FORS 411 or instructor permission  
**Description:** Documentation and interpretation of geometric bloodstains, calculating probable origins, and collecting blood as a source of DNA evidence.  
**Credit Hours:** 1  
**Max credits per semester:** 1  
**Max credits per degree:** 1  
**Format:** LEC  
**Offered:** FALL

FORS 410 Advanced Forensic DNA Methods  
**Prerequisites:** FORS401/401L  
**Description:** Provides a comprehensive description of forensic DNA analysis and includes a complete discussion of the process of forensic DNA analysis, from evidence collection to statistical analysis of DNA profiles, including the subjects of DNA extraction, quantitation, PCR amplification, allele detection, PCR artifact identification, and DNA profile interpretation. Particular attention will be given to the areas of mixed profile interpretation and statistical methods.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC  
**Offered:** FALL

FORS 411 Overview of Forensic Comparative Analysis Lab  
**Prerequisites:** FORS 120/L or equivalent, FORS 302 or FORS 303, LIFE 120/L and LIFE 121/L or equivalent, CHEM 109 or equivalent, ENTO 115/116, STAT 218, and MATH 104 or 106 or instructor permission  
**Notes:** This course is offered online the first 8-week session each year. Students will need access to a computer, six-inch metric scale marked in millimeters, a digital camera and an inexpensive Vanier caliper.  
**Description:** An overview of the basic forensic comparative sciences; fingerprints; questioned document and linguistics; firearms and toolmark; footwear and tire tracks; hairs, fibers, and trace evidence; pattern injuries; and biological evidence. This is a lab course and students will be asked to do comparisons and submit them to the instructor. Ethics, error, sufficiency, reliability, validity, and other concepts relating to forensic comparative science will be discussed in the course.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LAB  
**Offered:** SPRING  
**Prerequisite for:** FORS 400; FORS 804, FORS 404

FORS 414 Forensic Entomology  
**Crosslisted with:** ENTO 414, ENTO 814, FORS 814  
**Prerequisites:** Introductory course in entomology  
**Description:** Application of entomology to legal issues. Criminal investigations, insects of forensic importance, insect succession on carrion, and case studies.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

FORS 445 Human Remains in Forensic Science  
**Crosslisted with:** FORS 845, NRES 445, NRES 845  
**Prerequisites:** LIFE 120/L and LIFE 121/L, CHEM 109, CHEM 110, and FORS 120/L or instructor permission.  
**Description:** Forensic anthropology within the broader context of forensic sciences and physical anthropology. Decomposition and bone modification through artificial means. Determination of individual identity, diet, chronic pathology and cause of death from human remains.  
**Credit Hours:** 4  
**Max credits per semester:** 4  
**Max credits per degree:** 4  
**Format:** LEC  
**Offered:** FALL

FORS 446 Pollen Analysis for Behavioral, Biological and Forensic Science  
**Crosslisted with:** FORS 846, NRES 446, NRES 846  
**Prerequisites:** BIOS 109 and FORS 120.  
**Description:** Collection, processing, identification of common North American pollen types. Pollination ecology relating to scene reconstruction. Fundamental statistics and presentation requirements for a legal and scientific audience.  
**Credit Hours:** 4  
**Max credits per semester:** 4  
**Max credits per degree:** 4  
**Format:** LEC  
**Offered:** FALL
FORS 485 Current Issues in Forensic Science
Prerequisites: FORS 400/L or FORS 401/L and FORS 408, or instructor permission.
Description: Application and integration of principles to address emerging issues involving forensic science.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Offered: SPRING
ACE: ACE 10 Integrated Product

FORS 495 Internship in Forensic Science
Prerequisites: Sophomore standing and permission.
Notes: FORS 495 requires a structured practical experience under the supervision of a forensic science professional.
Credit Hours: 1-4
Min credits per semester: 1
Max credits per semester: 4
Max credits per degree: 4
Format: FLD

FORS 496 Independent Study in Forensic Science
Prerequisites: Sophomore standing and permission.
Notes: FORS 496 requires an individual or group project in research or literature review, or extension of course work.
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 6
Format: IND

FORS 498 Special Topics in Forensic Science
Crosslisted with: FORS 898
Prerequisites: 3 hrs FORS or equivalent.
Description: Current issues in forensic science.
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 12
Format: LEC

FORS 499H Honors Thesis
Prerequisites: Good standing in the University Honors Program and permission. AGRI 299H recommended.
Description: Conduct a research project and write a University Honors Program or undergraduate thesis.
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 6
Format: IND