

FORENSIC SCIENCE (FORS)

FORS 120 Introduction to Forensic Science

Notes: Register for FORS 120L 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

Grading Option: Graded with Option

Offered: FALL

Prerequisite for: FORS 200; FORS 215; FORS 300; FORS 302; FORS 306; FORS 350; FORS 400; FORS 401; FORS 411; FORS 445

FORS 120L Introduction to Forensic Science Laboratory

Prerequisites: Forensic Science major

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

Grading Option: Graded with Option

Offered: FALL

Prerequisite for: FORS 200; FORS 215; FORS 302; FORS 306; FORS 350; FORS 400; FORS 401; FORS 411

Course and Laboratory Fee: \$25

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

Grading Option: Graded with Option

Offered: SPRING

Prerequisite for: FORS 320; FORS 330; FORS 350; FORS 400; FORS 403

FORS 215 Laboratory Safety in Forensic Science

Prerequisites: FORS 120; FORS 120L

Description: Explores different types of laboratory designs, basic laboratory and chemical safety, biosafety, radiation safety, and large animal/agricultural safety. Topics will include worker/employer responsibilities, examples of laboratory accidents and preventative measures, and applicable regulatory authorities.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

Offered: SPRING

FORS 300 Forensic Taphonomy

Prerequisites: LIFE 120/121, CHEM 109A/109L and CHEM 110A/110L, and FORS 120/L

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

Grading Option: Graded with Option

Offered: FALL

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

Grading Option: Graded with Option

Offered: FALL

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

Grading Option: Graded with Option

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

Grading Option: Graded

Offered: SUMMER

FORS 320 Latent Print Analysis

Prerequisites: FORS 200

Description: An introduction to the history of latent print examination; physiology and biology of fingerprints; fingerprint pattern recognition; recording finger and palm prints; latent print analysis and comparison.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Offered: SPRING

FORS 330 Introduction to Firearms Examination

Prerequisites: FORS 200

Description: Introduction to the history of firearms examination, manufacturing methods for firearms and ammunition components, examination of cartridge cases and current legal issues firearms examiners encounter.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Offered: FALL

FORS 340 Forensic Chemistry

Prerequisites: Successful completion or parallel registration in CHEM 251 and CHEM 253.

Description: Introduction to theory and practice of Forensic Chemistry. Forms a foundation for more advanced studies in Forensic Chemistry. Study of current techniques used in operational crime laboratories in the United States. Also covers laboratory safety, QA/QC, data analysis, and statistical analysis.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

Offered: SPRING

FORS 350 Death Investigations

Prerequisites: FORS 120/L and FORS 200

Description: Reinforces knowledge regarding the role of the crime scene investigator as well as the others on scene and outside of the scene. Builds on the severity of the nature of the death scene from natural death to homicide. Covers equivocal deaths as well as the stress induced on the CSI and the potential effects of vicarious trauma. Exposure to real cases worked by local professionals, concluding in individual researched case presentations.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

Offered: SPRING

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

Grading Option: Graded

Offered: FALL

FORS 400L Crime Scene Investigation Laboratory

Prerequisites: Parallel FORS 400

Notes: A lab for credit to go with FORS 400.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded with Option

Offered: FALL

Course and Laboratory Fee: \$50

FORS 401 Forensic Biology

Prerequisites: LIFE 120/L and LIFE 121/L, BIOS 205, BIOS 201, 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

Grading Option: Graded

Offered: SPRING

Prerequisite for: FORS 410; FORS 485

FORS 401L Forensic Biology Laboratory

Prerequisites: Parallel FORS 401

Notes: A lab for credit to go with FORS 401.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

Offered: SPRING

Prerequisite for: FORS 410; FORS 485

Course and Laboratory Fee: \$50

FORS 403 Advanced Forensic Photography

Prerequisites: FORS 200.

Description: Advanced concepts, techniques, analysis, and interpretation of photographic evidence.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded with Option

Offered: SPRING

Prerequisite for: FORS 404; FORS 411

FORS 404 Bloodstains as Evidence

Prerequisites: FORS 403

Description: Documentation and interpretation of geometric bloodstains, calculating probable origins, and collecting blood as a source of DNA evidence.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded with Option

Offered: FALL

FORS 410 Advanced Forensic DNA Methods

Prerequisites: FORS 401/401L

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

Grading Option: Graded

Offered: FALL

Prerequisite for: FORS 485

FORS 411 Overview of Forensic Comparative Analysis

Prerequisites: FORS 120/L, STAT 218 and LIFE 121/L or CHEM 110/L or FORS 403

Description: Covers the main forensic science comparisons that are seen in most crime scene investigation units and forensic science labs. Provides a broad overview of the concepts and analytical techniques of forensic comparative science. Covers basic microscopic applications, photography, computer applications, courtroom testimony, ethics, cognitive bias, and the concepts of error and sufficiency in forensic science.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: SPRING

Prerequisite for: FORS 400

FORS 414 Forensic Entomology

Crosslisted with: ENTO 414, ENTO 814, FORS 814

Prerequisites: ENTO 115 or equivalent introductory course.

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

Grading Option: Graded with Option

FORS 415 Forensic Toxicology

Prerequisites: CHEM 252/254; BIOC 401 (concurrent).

Description: Provides a comprehensive understanding of the principles of toxicology, pharmacokinetics, metabolism, analytical methods and instrumentation relative to forensic science.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: FALL

Prerequisite for: FORS 485

FORS 445 Human Remains in Forensic Science

Prerequisites: LIFE 120/L and LIFE 121/L, CHEM 109A/L, CHEM 110A/L, and FORS 120/L.

Description: Forensic anthropology within the broader context of forensic sciences and biological anthropology. Estimation of biological profile and trauma assessment.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded with Option

Offered: FALL

Course and Laboratory Fee: \$90

FORS 446 Pollen Analysis for Behavioral, Biological and Forensic Science

Crosslisted with: FORS 846, NRES 446, NRES 846

Prerequisites: 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

Grading Option: Graded with Option

Offered: FALL

FORS 485 Forensic Science Capstone

Prerequisites: FORS 400/L or FORS 410 or FORS 415

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

Grading Option: Graded with Option

Offered: SPRING

ACE: ACE 10 Integrated Product

Course and Laboratory Fee: \$50

Experiential Learning: Case/Project-Based Learning

FORS 495 Internship in Forensic Science

Prerequisites: Sophomore standing and permission.

Notes: 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

Grading Option: Graded with Option

FORS 496 Independent Study in Forensic Science

Prerequisites: Sophomore standing and permission.

Notes: 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

Grading Option: Graded with Option

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

Grading Option: Graded with Option

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

Grading Option: Graded