



# FORENSIC SCIENCE (FORS)

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## 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 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

**Description:** Practical aspects of forensic sciences. Forensic entomology, soil science, blood spatter, fingerprints, trace evidence, odontology, footmark 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 302; FORS 306; 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 400

## 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

**Prerequisite for:** FORS 411; 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

**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:** FALL

## 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 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

**Prerequisite for:** FORS 485

**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

**Prerequisite for:** FORS 485

**Course and Laboratory Fee:** \$50

**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

**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**

**Crosslisted with:** FORS 803

**Prerequisites:** FORS 120/L or FORS 302.

**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 411; FORS 804, FORS 404

**FORS 404 Bloodstains as Evidence**

**Crosslisted with:** FORS 804

**Prerequisites:** FORS 120/L, FORS 302 or FORS 403/803.

**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

**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

**FORS 411 Overview of Forensic Comparative Analysis**

**Prerequisites:** FORS 120/L; LIFE 120/L; FORS 302 or FORS 403; CHEM 109A/L; and STAT 218.

**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**

**Crosslisted with:** FORS 815

**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

**FORS 445 Human Remains in Forensic Science**

**Crosslisted with:** FORS 845

**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 Current Issues in Forensic Science**

**Prerequisites:** FORS 400/L or FORS 401/L

**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