

Forensic Science 202-351

Mark Desire
mdesire@rci.rutgers.edu

Introduction

Forensic science has been a popular college major in the United States for the past 10 years due to the prominence of the career and portrayal in the media. Educating the entry level forensic scientist is often left to forensic programs or general science academics. The optimal forensic scientist will have a strong background in biology and chemistry with knowledge of the criminal justice system. If a college graduate possesses an education in forensic laboratory methods, general science and criminal justice, they would be highly marketable for employment by crime labs in the United States. Employers often find that applicants lack either a strong traditional science background or the ability to apply this traditional science to matters of the law.

Course Purpose

To provide both lecture and laboratory training to general science majors who wish to pursue a career in forensic science. To provide criminal justice majors with an education that applies forensic science to the criminal investigation.

Course Design

The course is designed to include all disciplines of forensic science while making use of already existing laboratory equipment. The course would consist of a full year of lectures, with a lab each week. Students will get hands-on training in most of the procedures used by modern crime labs as well as learn about the history of how these techniques came into use. Each laboratory is designed to handle 15 students. Part of the forensic education will include field trips to a county medical examiner to view an autopsy and tour of the New Jersey State Police crime lab to view the trace, anthropology, ballistics, computer crimes and DNA facilities.

Grading

Quizzes	20%
Midterm Exam	30%
Final Exam	30%
Lab Reports	20%

Syllabus

- September
- 5 Labor Day
 - 7 Course Introduction
 - 12 History of Forensic Science
 - 14 Legal Aspects of Forensic Science
 - Lab -Microscopic analysis
 - 19 Forensic Disciplines and Criminalistics
 - 21 Trace Evidence - Paint Analysis/Soil/Glass/Wood
 - Lab - Trace collection
 - 26 Collection of Evidence
 - 28 Trace Evidence - Fibers
 - Lab - Analysis of hairs/fibers
- October
- 3 Evidence Examination
 - 5 Pattern Identification - Fingerprints
 - Lab - Fingerprinting
 - 10 Applying Multiple Discipline
 - 12 Pattern Identification Footprints
 - Lab – Footprint Analysis
 - 17 Pattern Identification - Toolmarks
 - 19 Firearms
 - Lab - Ballistics
 - 24 Identification of Gun Shot Residue
 - 26 Pattern Identification: Glass
 - Lab – Glass Analysis
 - 31 History of Forensic Serology
- November
- 2 Serological Analysis
 - Lab - Serology Lab
 - 7 Entomology
 - 9 Entomology
 - Lab – Insect analysis
 - 14 Odontology
 - 16 Anthropology
 - Lab - Sex, race, age determination of skeletal remains
 - 21 Human Remain Identification
 - 23 Thanksgiving Break
 - 28 Crime Scene management
 - 30 Crime Scene evidence, notes, presumptive testing, collection
 - Lab - mock crime scene
- December
- 5 Challenging Crime Scenes
 - 7 Photography
 - Lab - Report Writing
 - 12 Final Exam Review