

BIO 145: Introduction to Forensic Science

Forensic Science is the application of science to the law and encompasses various scientific disciplines. This course is designed to give students a basic overview of the crime scene investigation process, with a specific focus on the biological tests used when preparing forensic evidence for processing and presentation in court. Topics discussed include organic and inorganic chemical analyses of physical evidence, principles of serology and DNA analysis, arson, fingerprint analysis, drug analysis, and document examination. Three lecture hours and three laboratory hours per week. Instructional Support Fee applies.

Course Student Learning Outcomes

After successful completion of this course, students should be able to: 1. Develop an understanding for theories and principles associated with the science of forensics and how it applies to law enforcement. 2. Illustrate the role and importance of the crime laboratory. 3. Identify the differences between qualitative and quantitative analysis. 4. Demonstrate an understanding for DNA collection and handling at the crime scene for analysis in the crime lab. 5. Identify, collect, and understand the importance of the various types of physical and trace evidence at the crime scene. 6. Describe the proper procedures for documenting a crime scene through photography, videotape and crime scene diagramming. 7. Discuss the various methods for analyzing physical evidence. 8. Demonstrate an understanding for fingerprint composition and comparison. 9. Employ the various techniques in the development and collection of latent fingerprints at the crime scene and in the crime lab. 10. Appraise the physiological changes and postmortem artifacts from the body at the crime scene. 11. Organize the preparation and presentation of the forensic evidence in the courtroom. 12. Define and understand the concept of chain of custody. 13. List the schedules of the Controlled Substances Act. 14. Understand the basics of explosives, trace evidence, firearms, handwriting, and computer analysis.

Credits: 4

Program: Biology