CRJU 113 Criminalistics Lab

1 Credit (2 Laboratory hours per week)

Community College of Baltimore County Common Course Outline

Description

CRJU 113 – Criminalistics Lab: provides students with hands-on experience in crime scene management and the processing and analyses of crime scene evidence. CRJU 113 is a laboratory course to accompany CRJU 112.

Co-requisites: CRJU 112

Overall Course Objectives

Upon completion of this course, students will be able to:

- 1. demonstrate the various methods for analyzing forensic evidence, including analysis of DNA, physical evidence, fingerprints, body fluids, trace evidence, impression evidence, questioned documents, arson, toxicology, etc.;
- 2. recognize the fundamental principles of biology, especially as applied to the legal and scientific implications of criminal investigations;
- 3. articulate logically reasoned positions on legal issues that typify those commonly faced by forensic analysts;
- 4. describe the methods for collecting evidence at crimes scenes, including documenting, recording, searching, preserving, and packaging;
- 5. distinguish the characteristics of various types of physical evidence as related to comparison and identification;
- 6. categorize trace evidence including blood, bodily fluids, hair, fiber, paint, glass, and soil; and
- **7.** describe forensic toxicology and processes used for detecting the presence of alcohol and drugs.

Major Topics

I. Crime scene investigation

- a. Integrity protection
- b. Recordation
- c. Searching
- d. Releasing the crime scene
- II. Physical evidence
 - a. Identification
 - b. Recordation
 - c. Collection, preserving, packaging

The Common Course Outline (CCO) determines the essential nature of each course. For more information, see your professor's syllabus

- d. Chain of Custody
- III. Glass evidence
 - a. Determining direction of impact
 - b. Determining sequence of impacts
 - c. High velocity impacts
 - d. Low velocity impacts
- IV. Fingerprint evidence
 - a. Rolling Inked fingerprints
 - i. Patterns, determinations
 - ii. Classification
 - b. Latent print development
 - i. Powder processing
 - ii. Chemical processing
 - c. Examining and comparing fingerprints
 - i. Identification
 - ii. Chart presentation
- V. Trace evidence
 - a. Blood evidence
 - i. Blood spatter recognition
 - ii. Special handling of biological evidence
 - iii. Collection and preservation of blood evidence
 - iv. DNA tests and analyses
 - b. Hair evidence
 - i. Microscopic examination
 - ii. Human hair vs. animal hair
 - c. Fiber evidence
 - i. Microscopic examination
 - ii. Fiber comparison
- VI. Impression evidence
 - a. Firearm evidence
 - i. Projectile examination
 - ii. Cartridge case examination
 - b. Tool marks
 - c. Shoe and tire impressions
 - i. Casting shoe impression
 - ii. Casting tire impressions
 - iii. Comparing cast evidence
- VII. Questioned document examination
 - a. Handwriting analysis
 - b. Obtaining handwriting exemplars
 - c. Alterations, erasures, obliterations
 - d. Comparing handwriting
- VIII. Crime scene management
 - a. Mock crime scene investigation
 - b. Disposition of evidence

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Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- one writing assignment
- three quizzes
- one cumulative project
- successful completion of twelve lab activities

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

Date Revised: 10/17/2023