1. **COURSE TITLE:** **Crime Scene Investigation**

**COURSE NUMBER:** 2245 **COURSE PREFIX:** CJUS

**II. PREREQUISITE:** CJUS 2233

**III. CREDIT HOURS:** 3 **LECTURE HOURS:** 2

**LABORATORY HOURS: 1 (**2 contact) **OBSERVATION HOURS:**

**IV. COURSE DESCRIPTION:**

This course will introduce students to the role of the crime scene investigator in today’s criminal justice system. Major topics include the identification, collection and preservation of physical evidence at the crime scene.

**V. ADOPTED TEXT(S):**

*Forensic Science: From the Crime Scene to the Crime Lab, 4th ed.*

Richard Saferstein, Ph.D.

Pearson, 2019

ISBN-13: 978-0-13-480611-2

**VI. COURSE OBJECTIVES:**

At the completion of the course, students will:

1. Explain the interdisciplinary approach of crime scene investigation in the criminal justice system.

2. Discuss the emergence of the crime scene investigator and state the significance of understanding the function within forensic science.

3. Analyze the role of the crime scene investigator in a criminal investigation.

4. Discuss basic crime scene procedures and the fundamentals of forensic science techniques used in the crime lab.

**VII. CLASSROOM METHODOLOGY:**

The instructor will use lecture, PowerPoint, handouts, classroom exercises and student participation in the classroom.

**VIII. GRADING:**

The grading scale will follow the policy in the college catalog:

A =100-90

B = 80-89

C = 70-79

D = 60-69

F = 0-59 (Student must repeat the course)

**IX. COURSE OUTLINE:**

1. Introduction
   * 1. Definition and scope of forensic science
     2. History and development of forensic science
     3. Crime laboratories
     4. Functions of the forensic scientist
2. Searching and Securing the Crime Scene
   * 1. Securing the crime scene
     2. Surveying the crime scene
     3. Searching the crime scene
3. Recording the Crime Scene
   * 1. Notes
     2. Photography
     3. Crime scene photography
     4. Sketching the crime scene
4. Collection of Crime Scene Evidence
   * 1. Common types of physical evidence
     2. Evidence collection tools
     3. Procedures for collecting and packaging physical evidence
     4. Ensuring crime scene safety
     5. Legal considerations at the crime scene
5. Physical Evidence
   * 1. Examination of physical evidence
     2. Significance of physical evidence
     3. Murder scene: death and autopsies
6. Crime Scene Reconstruction
   * 1. Fundamentals of crime scene reconstruction
     2. Requirements for crime scene reconstruction
     3. Assessment of evidence and information to form theories
7. Fingerprints
   * 1. History
     2. Fundamental principles
     3. Classification
     4. Automated Fingerprint Identification System (AFIS)
     5. Methods of detecting fingerprints
     6. Preservation of developed prints
8. Firearms, Toolmarks, and Other Impressions
   * 1. Types of firearms
     2. Bullet and cartridge comparisons
     3. Gunpowder residue
     4. Primer residues on the hands
     5. Serial number restoration
     6. Collection and preservation of firearms evidence
     7. Toolmarks
9. Bloodstain Pattern Analysis
   * 1. Features of bloodstain formation
     2. Impact blood spatter patterns
     3. Documenting bloodstain pattern evidence
10. Drugs
    * 1. Types of drugs
      2. Drug control law
      3. Collection and preservation of drug evidence
      4. Drug analysis
11. Forensic Toxicology
    * 1. Role of forensic toxicology
      2. Testing for intoxication
      3. Alcohol and the law
12. Trace Evidence
    * 1. Hair and fibers
      2. Paint, glass, and soil
      3. Collection, preservation, analysis
13. DNA: Biological Stain Analysis
    * 1. Nature of blood
      2. Bloodstain characteristics
      3. Semen characteristics
      4. Collection of rape evidence
      5. Understanding DNA
      6. Mitochondrial DNA
      7. CODIS
      8. Collection and preservation of biological evidence for DNA analysis
14. Fire Investigations
    * 1. Investigation of arson
      2. Searching the fire scene
      3. Collection and preservation of arson evidence
15. Investigations of Explosions
    * 1. Explosions and explosives
      2. Collection and analysis of evidence of explosives
16. Document Examination
    * 1. Document examiner
      2. Handwriting and typescript comparisons
      3. Alterations, erasures, and obliterations
      4. Document problems
17. Computer Forensics & Internet
    * 1. How does the computer work
      2. Processing the electronic crime scene
      3. Analysis of electronic data
18. Forensic Science and the Internet
    * 1. What is the internet
      2. Forensic science and the world wide web
      3. Forensic analysis of internet data

**Sample Course Outline\***

**Crime Scene Investigation**

Week 1 Chapter 1: Introduction

Chapter 2: Securing and Searching the Crime Scene

Week 2 Chapter 3: Recording the Crime Scene

Chapter 4: Collection of Crime Scene Evidence

Week 3 Chapter 5: Physical Evidence

Chapter 6: Crime Scene Reconstruction

Week 4 Exam 1 on Chapters 1, 2, 3, 4, 5 and 6

Chapter 7: Fingerprints

Week 5 Chapter 8: Firearms, Toolmarks, and other Impressions

Week 6 Chapter 9: Bloodstain Pattern Analysis

Week 7 Chapter 10: Drugs

Chapter 11: Forensic Toxicology

Week 8 Chapter 12: Trace Evidence –Hairs and Fibers

Week 9 Chapter 13: Trace Evidence – Paint, Glass, and Soil

Week 10 Exam 2, Chapters 7, 8, 9, 10, 11, 12, 13

Chapter 14: Biological Stain Analysis: DNA

Week 11 Chapter 14: Biological Stain Analysis: DNA

Week 12 Chapter 15: Forensic Aspects of Fire Investigation

Chapter 16: Forensic Investigation of Explosions

Week 13 Chapter 17: Document Examinations

Week 14 Chapter 18: Computer Forensics

Chapter 19: Forensic Science and the Internet

Week 15 Exam 3, Chapters 14, 15, 16, 17, 18, 19

Mock Crime Scene Work Shop

Week 16 Mock Crime Scene Exam (Comprehensive)

**X. OTHER REQUIRED BOOKS, SOFTWARE AND MATERIALS:**

As assigned by the instructor.

**XI.** **EVALUATION: Subject to change.**

Three examinations and a mock crime-scene scenario exam will be administered. Each exam will represent 20% of the final grade. The mock crime scene exam will represent 30 % of the final grade. Class participation and attendance will account for 10% of the final grade.

**XII. SPECIFIC MANAGEMENT REQUIREMENTS:**

Student Responsibilities: To meet the objectives of this course, students are expected to attend all scheduled classes, study the text, complete assignments, contribute to class discussions, and act as responsible adults. Students are responsible for making up work missed due to absences as permitted by the instructor.

Instructor Responsibilities: The instructor will enhance and expand the meaning and application of the subject matter covered throughout the course. At the beginning of each quarter, the instructor will distribute syllabi listing all course requirements. The instructor will facilitate class discussion and be available for individual student conferences.

**XIII. OTHER INFORMATION:**

FERPA: Students need to understand that your work may be seen by others. Others may see your work when being distributed, during group project work, or if it is chosen for demonstration purposes.

Students also need to know that there is a strong possibility that your work may be submitted to other entities for the purpose of plagiarism checks.

DISABILITIES: Students with disabilities may contact the Disabilities Service Office, Central Campus, at 800-628-7722 or 937-393-3431.