

SOUTHEAST COMMUNITY COLLEGE
COMMUNITY SERVICES DIVISION
Criminal Justice Program
Revision Date: 08-19-24

I. CATALOG DESCRIPTION

Course Number: CRIM1280
Course Title: Forensic Science & Laboratory Techniques
Prerequisite(s): None

Catalog Description: This course will provide an overview of several different disciplines that constitute forensic science. The topics covered will include safety, basic chemical principles, photography, and the collection of evidence. This course will utilize techniques in recovering, preserving and processing evidence using laboratory techniques.

Credit Hours: 3.5
Class Hours: 45
Lab Hours: 30
Total Contact Hours: 75

II. COURSE OBJECTIVES: *Course will:*

- A. Examine the historical development of forensic science in the criminal justice system.
- B. Explain the physical evidence process from creation to admissibility in court.
- C. Differentiate between crime scene processing and analysis.
- D. Diagram the evidence reconstruction process.
- E. Explain the classification of physical pattern evidence.
- F. Examine personal identification patterns.
- G. Examine the different forms of document evidence.
- H. Determine the importance of toolmarks and firearms in modern forensic science.
- I. Examine the impact of DNA typing in forensic science.
- J. Explain the role of combustion and explosives in forensic science.
- K. Examine the role of drug analysis and toxicology in forensic science.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

- A. Student Learning Outcomes: *Student will be able to:*
 - 1. Define forensic science.
 - 2. Identify basic concepts of forensic science.
 - 3. Describe the impact of the evolution of technology on forensic science.
 - 4. Discuss the main specialty areas of forensic science.
 - 5. Identify evidence classification systems.
 - 6. Discuss basic practices of evidence labeling, packaging, and preservation.
 - 7. Explain the purpose of establishing crime scene security.
 - 8. Identify the steps in crime scene processing.
 - 9. Identify the ten main patterns for reconstruction.
 - 10. Define AFIS.
 - 11. Discuss various methods used for identifying human remains.
 - 12. Identify different classifications of document evidence.
 - 13. Describe techniques used to examine altered or damaged documents.
 - 14. Define toolmark.
 - 15. Identify different types of toolmarks.
 - 16. Discuss the proper procedure for collecting and preserving toolmark/firearm evidence.

17. Define DNA.
 18. Identify different types of physiological fluids.
 19. Discuss the basic process of gathering, preserving, and analyzing biological evidence.
 20. Define CODIS.
 21. Describe the strengths and limitations of DNA technology.
- B.** General Education Learning Outcomes (GELOs):
1. GELO 3: Critical Thinking & Problem Solving
 - Outcome 1: Collect, identify, interpret and analyze data.
 - Outcome 2: Synthesis information to arrive at reasoned solutions to problems.
 - Outcome 3: Evaluate ideas presented in writing, media, speech, or artistic presentations.
 - Outcome 4: Evaluate the validity of arguments, alternatives, data, outcomes, and/or impact of actions

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information*)

- A.** Introduction to Physical Evidence
- B.** Crime Scene Search Principles
- C.** Crime Scene Photography
- D.** Crime Scene Sketches
- E.** Latent Fingerprint Evidence
- F.** Trace Evidence: Hair, Fiber, Glass, Paint, Soil, Arson Accelerant
- G.** Biological Fluid Stain: Blood, Semen, Saliva
- H.** Firearms Evidence
- I.** Impression Evidence
- J.** Drug and Alcohol Evidence
- K.** Document Evidence
- L.** Vehicle Investigations
- M.** Sexual Assault Investigations
- N.** Homicide Crime Scene Investigations
- O.** Crime Scene Reconstruction
- P.** Entomological Evidence

V. INSTRUCTIONAL MATERIALS

- A.** Required Text(s): Ogle, Robert R. Jr, Sharon, *Crime Scene Reconstruction and Investigation*, Current Edition., Pearson.
- B.** Other Resources: Protective Eyewear

VI. METHODS OF PRESENTATION/INSTRUCTION

- A.** Methods of presentation typically include a combination of the following: Lecture, Electronic Presentation, Demonstrations, Video/Audio Presentations, Case Studies, Field Trips, Website(s), Course books, Articles, Collaborative Discussion, Group Projects, Other resources.

VII. METHODS OF EVALUATION

- A.** Methods of evaluation typically include a combination of the following: Practical Application, Homework Assignments, Quizzes, Exams, Papers and Presentations, Discussion, Other Projects.
- B.** SCC STANDARD GRADING SCALE POLICY:

A+	95-100	C+	75-79
A	90-94	C	70-74
B+	85-89	D+	65-69
B	80-84	D	60-64
		F	Below 60

VIII. SPECIFIC COURSE REQUIREMENTS:

- A.** See individual instructor's course outline.