

Capital Community College
Course Outline
Forensic Science

SECTION I:

SUBJECT AREA and COURSE NUMBER: SCI 200 and CJS 225

COURSE TITLE: Forensic Science

COURSE CATALOG DESCRIPTION: This course introduces a student to methods and techniques for the evaluation of physical evidence. Topics that will be surveyed include the recognition, identification, individualization, and evaluation of physical evidence such as hairs, fibers, DNA, blood, semen, glass, soil, fingerprints, documents, firearms, arson, tool marks, and toxicology. 3 credit hours

LECTURE HOURS PER WEEK: 3 hours

CREDIT HOURS: 3

LAB HOURS PER WEEK: N/A

PRE-REQUISITES: MAT 094 or MAT 095

SECTION II:

A. SCOPE: This course is a comprehensive survey of forensic evidence as it relates to recognition, identification, and individualization with a focus on crime laboratory theory and methods of analysis. Emphasis is placed on the role of the laboratory in criminal investigations. Firearms identification, questioned document examination, DNA, fingerprints, and trace evidence will be among the topics. Embedded lecture activities will be constructed to facilitate the application of forensic analysis theory.

B. REQUIRED WORK: Will vary by instructor.

C. ATTENDANCE AND PARTICIPATION: Regular attendance is expected.

D. METHODS OF INSTRUCTION: The methods of instruction are determined by each instructor and may include but are not limited to lecture, discussion, small group, collaborative learning, experimental/exploration, distance learning, student presentations, or use of technologies such as audio-visual materials, computer, language laboratory, and calculator.

E. OBJECTIVES, OUTCOMES, and ASSESSMENT

Learning Objectives	Outcomes	Assessment
To demonstrate and understanding of	Student will:	As measured by:
Value of Physical Evidence	<ol style="list-style-type: none"> 1. Describe the major events in the history of forensic science and relate them to modern day practices 2. Determine the purpose physical evidence plays in reconstructing the events surrounding the commission of a crime 3. Compare and contrast the differences between qualitative and quantitative analysis, and differentiate individual and class characteristics 	Written in class examinations or quizzes, presentations, and out of class projects
Methods and Techniques	<ol style="list-style-type: none"> 4. Describe the methods and techniques employed to recognize, collect, identify, and analyze various types of physical evidence 5. Identify and describe the testing procedures used for the forensic identification of various substances 6. Describe the concept and purpose of the various databases that exist to aid investigators in the individualization of evidence samples 	Written in class examinations or quizzes, presentations, and out of class projects
Relationship between theoretical concepts and practical problems	<ol style="list-style-type: none"> 7. Apply theoretical information to solve practical problems 8. Measure, collect and evaluate data to make generalizations using the scientific method 9. Justify evidentiary conclusions with support 	Critical thinking lessons designed to reinforce skills of observation, experimentation, and logical thinking which may include written reports, class participation, and homework assignments

F. TEXT AND MATERIALS:

To be determined by instructor

G. INFORMATION TECHNOLOGY:

To be determined by instructor

