Bemidji State University

CHEM 2210: Forensic Science

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 0
Lab Hours/Week: 0
OJT Hours/Week: *
Prerequisites: None
Corequisites: None

MnTC Goals: Goal 03 - Natural Science

Introduction to the theory and practice of crime scene evidence analysis. Topics include, but are not limited to: bloodstain analysis, toxicology, DNA evidence, forensic entomology, fingerprint analysis, biological evidence, arson, and explosives. [Core Curriculum Goal Area 3]

B. COURSE EFFECTIVE DATES: 08/02/2023 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Bloodstain Patterns
2. Medicolegal Investigation of Death
3. Postmortem Toxicology
4. Forensic Anthropology
5. Forensic Entomology
6. Biological Evidence
7. Drugs and Poisons
8. Arson and Fire Investigation
9. Explosive Investigation
10. Fingerprint Analysis

D. LEARNING OUTCOMES (General)

1. identify basic scientific principles.
2. apply scientific and legal ethics.
3. analyze bloodstain patterns, toxicology data, DNA and biological evidence interpretation, forensic entomology, fingerprint patterns, and burn patterns that are indicative of arson and explosive devices.
4. examine given evidence to determine the guilt or innocence of a suspect in a crime.
E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
2. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted