

Forensic Science 12

Learning Outcomes

Curriculum Organizers/Topics

Unit 1 – Drug Evidence

Learning outcomes

At the end of the unit, the students will be able to:

- Learn about some of the different types of drugs and their effects.
- Examine some of the common ways that samples can be taken from humans to test for drugs.
- Consider some of the issues in collecting and preserving drug evidence.
- Investigate screening tests and their uses in criminal investigations.
- Discuss confirmatory tests and their uses in criminal investigations.

Unit 2: Forgeries and Document Examination

Learning outcomes

At the end of the unit, the students will be able to:

- Learn about questioned documents and exemplars.
- Examine some of the aspects that document examiners use to compare handwriting.
- Investigate some of the aspects that document examiners use to compare typescript.
- Discuss some of the ways that document alterations can be found.
- Learn more about how document examiners find forgeries and counterfeit materials.

Unit 3: Forensic Toxicology

Learning outcomes

At the end of the unit, the students will be able to:

- Learn what poisonous substances have been used in history.
- Understand how poisons are absorbed and transmitted through the body.
- Discuss techniques used by forensic scientists to identify poisons and other toxins.
Examine the collection and preservation of blood evidence.
- Consider the role of toxicologists in criminal investigations.

Unit 4: Physical Evidence : Hair, Blood and Fingerprints

Learning outcomes

At the end of the unit, the students will be able to:

- Learn how protons, neutrons, electrons, and other aspects are used by forensic scientists to study trace evidence.
- Learn about the nature of matter and its relationship to elements and compounds.
- Consider the usefulness of various forms of trace evidence in investigating crimes.
- Learn about different types of microscopes and how they work.
- Examine some of the tests used to identify and compare trace evidence.

Mid-term Exam

Learning Outcomes

At the end of the unit, the students will be able to:

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first four units in this course (Note: You will be able to open this exam only one time.)

Unit 5: Forensic Entomology

Learning outcomes

At the end of the unit, the students will be able to:

- Define forensic entomology and its uses.
- Learn about the history of forensic entomology.
- Examine what insects and arthropods are common pieces of evidence in criminal investigations.
- Investigate some of the tests used in forensic entomology.
- Learn about studies into insect activity as they related to forensic science.

Unit 6: Forensic Anthropology

Learning outcomes

At the end of the unit, the students will be able to:

- Learn about the areas of forensic anthropology and forensic odontology.
- Discuss the history of forensic anthropology and odontology.
- Consider some of the characteristics of bones and teeth that provide forensic scientists with information about the person.
- Examine some of the tests used in the area of forensic anthropology.
- Investigate the use of forensic anthropology in the criminal justice system.

Unit 7: Digital Evidence

Learning outcomes

At the end of the unit, the students will be able to:

- Understand the different parts of computers.
- Discuss the areas of a computer where information can be retrieved.
- Examine how internet activity can be traced.
- Investigate how emails and other aspects can be traced and examined.
- Consider how computer evidence can be collected and preserved.

Unit 8: The Future of Forensic Science

Learning outcomes

At the end of the unit, the students will be able to:

- Consider how computers are being used in forensic science.
- Discuss some of the recent advances in forensic techniques and testing.
- Learn about how advances in other disciplines impact forensic science.
- Examine some of current limitations of forensic science investigations.
- Investigate some of the possible future changes in forensic science.

Final Exam Learning outcomes

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from units five to eight in this course – the last four units: (Note: You will be able to open this exam only one time.)