# Forensic Science II Course No. 44226 Credit: 1.0

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| **Student name:**  |  | **Graduation Date:** |  |

Pathways and CIP Codes:Corrections, Security, Law, & Law Enforcement Services (43.0199) – Law Enforcement Strand

Course Description: An **application level** course that expands upon skills learned in the technical level course and provides students with knowledge and skills needed to pursue postsecondary training in LPSCS careers requiring Forensic Science (i.e., Forensic Anthropology, Forensic Medicine, Medical Examiner). (Prerequisite: Forensic Science I.)

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Understand and Discuss Various Aspects of the Forensic Science Field

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Discuss forensic science as a multidiscipline science to solve crime. |  |
| 1.2 | Outline the steps of the judicial process. |  |
| 1.3 | Discuss education, training, and opportunities of career options. |  |
| 1.4 | Actively approach utilizing public awareness and preventive measures to reduce crime. |  |

## Benchmark 2: Identify and Explain Procedures and Techniques of Interrogation and Forensic Reporting

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Evaluate the importance of a code of ethics to professional organizations. |  |
| 2.2 | Differentiate between the five common models of interrogation. |  |
| 2.3 | Describe proper procedures for interrogation of children and adults. |  |
| 2.4 | Identify verbal and physical signs of deception. |  |
| 2.5 | Explain the importance of objectivity in report writing. |  |

## Benchmark 3: Describe, Compare and Contrast Forensic Laboratory Techniques

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Describe presumptive and confirmatory tests. |  |
| 3.2 |  Utilize advanced techniques to visualize fingerprints. |  |
| 3.3 | Compare and contrast trace evidence under different types of microscopes (i.e. spectroscopy, electromagnetic radiation). |  |

## Benchmark 4: Examine and Discuss Various Aspects and Evidence of Arson and Fire Investigation

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Explain the chemistry of fire. |  |
| 4.2 | Discuss the proper methods of detecting, collecting, and preserving arson evidence. |  |
| 4.3 | Describe laboratory procedures to analyze flammable residues. |  |
| 4.4 | Examine the psychology and motives of an arsonist. |  |

## Benchmark 5: Describe and Research Explosion Situations and Cases

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 5.1 | Differentiate between components of the various types of explosives. |  |
| 5.2 | Describe the methods of detecting, collecting, and processing explosion evidence. |  |
| 5.3 | Research and report a case of terrorist bombing. |  |

## Benchmark 6: Identify and Explain Body Systems and their Forensic Implications

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 6.1 | Describe the circulatory system and its forensic implications. |  |
| 6.2 | Explain the function of the respiratory system and its forensic implications. |  |
| 6.3 | Identify forensic evidence on the skeletal system. |  |
| 6.4 | Evaluate forensic evidence from the digestive system. |  |

## Benchmark 7: Differentiate and Discuss Physical Trauma Situations

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 7.1 | Discuss how investigators study the extent and degree of injuries. |  |
| 7.2 | Differentiate between the types of blunt-force and sharp-force trauma. |  |

## Benchmark 8: Describe, Compare and Contrast Various Aspects of Autopsy

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 8.1 | Describe the steps of a death investigation. |  |
| 8.2 | Compare and contrast collection of biological and non-biological evidence during an autopsy. |  |
| 8.3 | Describe the organization and structure of the autopsy report. |  |

## Benchmark 9: Analyze and Explain the Criminal Profiling Process

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 9.1 | Explain the stages of the criminal profiling process. |  |
| 9.2 | Assess the importance of victimology in the criminal profiling process. |  |
| 9.3 | Generate a criminal profile of a serial killer. |  |

## Benchmark 10: Describe and Evaluate Crime and Accident Reconstruction

### Competencies

| **#** | **Description** | **rating** |
| --- | --- | --- |
| 10.1 | Discuss the contributions of various forensic specialists to crime scene reconstruction. |  |
| 10.2 | Evaluate factors that can lead to incorrect reconstruction. |  |
| 10.3 | Describe the factors involved in a motor vehicle collision. |  |
| 10.4 | Explain the importance of the Law of Conservation of Momentum and Law of Conservation of Energy in accident reconstruction. |  |
| 10.5 |  |  |

## Benchmark 11: Explore and Discuss Cybercrime

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 11.1 | Differentiate between the three general categories of cybercrime (i.e. individual, property, government). |  |
| 11.2 | Discuss the importance of the various tools available to cybercrime investigators. |  |
| 11.3 | Explore concerns associated with the future of cybercrime. |  |

## Benchmark 12: Explain and Discuss Digital Responsibility and Social Networking

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 12.1 | Review how the Internet enabled the rapid growth of social media. |  |
| 12.2 | Discuss Internet safety and provide tools/methods for using the Internet safely. |  |
| 12.3 | Explain the forensic implications of digital evidence. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

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