

# COURSE OUTLINE

**Course:** 54321 FORENSIC SCIENCE

**Total Course Hours:** 180.00

**CBEDS Title:** FORENSIC SCIENCE

**CBEDS #:** 4321

**Job Title(s):**

Forensic Specialist, Crime Scene Investigator, Evidence/Property Technician, Crime Scene Technician, Latent Print Examine

**Prerequisites:**

Law Enforcement or Criminal Justice Courses and/or Careers in Administration of Justice

**Course Description:**

This course is designed to give students both theory and hands-on experience in the skills and knowledge in the field of forensic science, including an introduction to crime scene investigation, crime scene photography, and diagrams as they are used in a criminal investigation. Students will learn the importance of physical evidence in solving crimes, dusting and lifting fingerprints, rolling a 10-point fingerprint card, how to perform a gunshot residue test, evidence collecting and processing methods, and the use of forensic light source technology. Integrated throughout the course are Academic and CTE standards, which include safety, communication, technology, ethics, career planning and other employability skills.

Hours	
Class	OJT

## Occupational Competencies

1-7 on the Course Outline are generic to all BVROP courses and include the BVROP Student Outcomes

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| 3.00  |  | <b>1 <u>ORIENTATION</u></b>  |
|       |  | A Identifies and discusses course objectives and competencies.   |
|       |  | B Discusses ROP Student Outcomes.  |
|       |  | C Explains class attendance and behavior objectives.   |
| 3.00  |  | <b>2 <u>HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT</u></b>  |
|       |  | A Describes accident procedure.  |
|       |  | B Demonstrates appropriate safety practices (e.g. bending, lifting, etc.).   |
|       |  | C Demonstrates knowledge of classroom procedures and drills (e.g. earthquake, fire and emergency).                                       |
| 3.00  |  | <b>3 <u>ETHICS AND LEGAL RESPONSIBILITIES</u></b>  |
|       |  | A Defines sexual harassment and discusses tactics for handling harassment situations.  |
|       |  | B Applies appropriate workplace behavior and standards.  |
| 3.00  |  | <b>4 <u>LEADERSHIP AND TEAMWORK</u></b>  |
|       |  | A Describes the characteristics and benefits of teamwork and leadership.   |
|       |  | B Demonstrates ability to make appropriate decisions.  |
|       |  | C Works well with others and gives/takes constructive criticism.   |
| 15.00 |  | <b>5 <u>CAREER PLANNING</u></b>  |
|       |  | A Prepares a finished, professional portfolio showing the best work that has been completed during the class.                            |
|       |  | B Locates job opportunities through the use of want-ads and placement agencies.  |
|       |  | C Visits at least one facility related to area of training and observes jobs performed.  |
|       |  | D Completes a job application correctly.   |
|       |  | E Prepares for and critiques a simulated employment interview.   |
|       |  | F Discusses employee benefits and rights as related to the specific occupational job area including gender equity and equal opportunity. |
|       |  | G Identifies acceptable procedures to leave a job.   |
|       |  | H Applies for a scholarship.   |
|       |  | I Completes a professional resume.   |
|       |  | J Demonstrates appropriate personal grooming and dress.  |

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3.00		<p><b>6 <u>COMMUNICATION</u></b></p> <p><b>A</b> Uses effective workplace conversation.</p> <p><b>B</b> Reads and interprets written information and directions.</p> <p><b>C</b> Practices various forms of written communication appropriate to the occupation.</p>
5.00		<p><b>7 <u>STUDENT OUTCOMES</u></b></p> <p><b>A</b> Demonstrates Occupational Specific, Communication and Critical Thinking Skills</p> <p><b>B</b> Demonstrates Responsible Work Ethics</p> <p><b>C</b> Demonstrates Career/Employment Literacy</p> <p><b>D</b> Demonstrates Effective Use of Technology</p>
5.00		<p><b>8 <u>HISTORY OF FORENSIC SCIENCE</u></b></p> <p><b>A</b> Discusses origin and growth of forensic science.</p> <p><b>B</b> Discusses goals of forensic science.</p> <p><b>C</b> Discusses the advantages of forensic science to the criminal justice system.</p> <p><b>D</b> Discusses origin of crime labs and their role in the criminal justice system.</p>
5.00		<p><b>9 <u>CAREERS IN FORENSIC SCIENCE</u></b></p> <p><b>A</b> Examines development of forensic science through the ages.</p> <p><b>B</b> Analyzes role/duties of personnel involved in forensic science.</p> <p><b>C</b> Discusses careers and opportunities in forensic science.</p> <p><b>D</b> Explains testing procedures for forensic science candidate.</p> <p><b>E</b> Examines federal, military state, county and local law enforcement agencies.</p> <p><b>F</b> Identifies in-service field training.</p>
10.00		<p><b>10 <u>RULES OF EVIDENCE</u></b></p> <p><b>A</b> Identifies the types of evidence.</p> <p><b>B</b> Explains the value of evidence.</p> <p><b>C</b> Describes the physical evidence linkage triangle.</p> <p><b>D</b> Identifies major categories of physical evidence.</p> <p><b>E</b> Discusses legal and scientific requirements for evidence collection.</p>
20.00		<p><b>11 <u>CRIME SCENE INVESTIGATION</u></b></p> <p><b>A</b> Describes crime scene investigation steps.</p> <p><b>B</b> Describes the role of criminal justice personnel at the crime scene investigations.</p> <p><b>C</b> Describes the crime scene search principles.</p> <p><b>D</b> Performs the crime scene search.</p> <p><b>E</b> Identifies and discusses types of systematic search methods.</p> <p><b>F</b> Lists level of crime scene search kit need and items to be included.</p> <p><b>G</b> Identifies and evaluates impression evidence.</p> <p><b>H</b> Identifies and discusses biological evidence.</p> <p><b>I</b> Identifies and discusses firearm evidence.</p>
5.00		<p><b>12 <u>CHAIN OF CUSTODY</u></b></p> <p><b>A</b> Discusses the rules of chain of custody.</p> <p><b>B</b> Differentiates the roles various criminal justice agencies play in the chain of custody.</p> <p><b>C</b> Recognizes laws governing arrests, searches and seizures.</p> <p><b>D</b> Recognizes principles of court decisions regarding arrests, searches and seizures of evidence.</p>

Hours	
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| 10.00 |  | <b>13 <u>INVESTIGATIVE REPORT WRITING</u></b> |
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- A Identifies and discusses investigation basics.
  - B Identifies the types of investigations.
  - C Identifies the steps in initiating an investigation.
  - D Discusses the who, what, where, when, why, and how of investigations.
  - E Demonstrates the art of note taking.
  - F Explains and demonstrates the rules of narrative writing.
  - G Describes persons and property in a written report.
  - H Prepares crime and arrest reports.
  - I Defines what is a search warrant.
  - J Defines what is probable cause.

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| 10.00 |  | <b>14 <u>EVIDENCE COLLECTION, PRESERVATION, AND PROCESSING</u></b> |
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- A Describes procedures for discovery, recognition and examination of evidence.
  - B Demonstrates proper procedures for collecting, marking, packaging, labeling processing and identifying evidence.
  - C Describes proper procedures for transporting evidence.
  - D Describes proper procedures for storing evidence.
  - E Describes how contraband and/or nuisance evidence is handled.

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| 10.00 |  | <b>15 <u>CRIME SCENE PHOTOGRAPHY</u></b> |
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- A Identifies steps in photographing the crime scene.
  - B Identifies camera and lighting techniques.
  - C Explains techniques for photographing specific types of crime scenes.
  - D Identifies and discusses procedures for photographing specific types of evidence.
  - E Demonstrates use of camera and takes crime scene photos.
  - F Prepares a photo log.

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| 5.00 |  | <b>16 <u>CRIME SCENE SKETCHES</u></b> |
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- A Explain the role of the crime scene sketch/diagram to the investigation and future court proceedings.
  - B Describes the procedures for sketching the crime scene.
  - C Draws a rough sketch/diagram of a crime scene.
  - D Discusses the importance of orienting the drawing to the north and identifying stationary objects to reference measurements to evidence.

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| 10.00 |  | <b>17 <u>TRACE EVIDENCE (HAIR AND FIBER)</u></b> |
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- A Identifies and collects hair and fiber at the crime scene.
  - B Describes the nature of hair and fiber evidence.
  - C Describes the significant features of hair.
  - D Describes the procedures for collecting hair and fiber evidence.
  - E Describes the procedures for packaging hair and fiber evidence.
  - F Collects hair and fiber trace evidence.

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| 10.00 |  | <b>18 <u>TRACE EVIDENCE (GLASS, PAINT AND SOIL)</u></b> |
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- A Identifies and collects glass, paint and soil evidence at the crime scene.
  - B Describes the nature of glass, paint, and soil evidence.
  - C Discusses laboratory examination of glass, paint, and soil evidence.
  - D Describes the procedures for collecting glass, paint, and soil evidence.
  - E Describes the procedures for packaging glass, paint and soil evidence.
  - F Collects glass, paint, and soil trace evidence.

Hours	
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| 10.00 |  | <p><b>19 <u>FINGERPRINT CLASSIFICATION AND IDENTIFICATION</u></b></p> <ul style="list-style-type: none"> <li>A Relates the history of the science of human identification.</li> <li>B Describes the formation and identification of fingerprints and other significant markings on human fingers.</li> <li>C Defines fingerprint classifications, subclassifications and sub-secondary classifications.</li> <li>D Takes, records, and files fingerprints under normal and unusual circumstances.</li> <li>E Differentiates ridge characteristics in finger, palm and foot prints.</li> <li>F Matches and interprets fingerprints using the Henry Classification System.</li> <li>G Describes crime scene procedures, including developing latent prints.</li> <li>H Prepares court exhibits and presents evidence in court.</li> <li>I Discusses the F.B.I. extensions to the Henry Classification System.</li> <li>J Conducts post-mortem fingerprint identification.</li> <li>K Classifies fingerprints under the National Crime Information Center Classification System.</li> <li>L technology, including laser and the Automated Fingerprint Identification System (AFIS).</li> </ul> |
| 5.00  |  | <p><b>20 <u>BLOODSTAIN PATTERN ANALYSIS</u></b></p> <ul style="list-style-type: none"> <li>A Discusses the nature of bloodstain evidence.</li> <li>B Explains ABO blood type.</li> <li>C Describes the procedures for crime scene documentation of bloodstains.</li> <li>D Describes the procedures for collection of bloodstain evidence.</li> <li>E Analyze bloodstain pattern evidence.</li> </ul>   |
| 10.00 |  | <p><b>21 <u>FIREARMS EVIDENCE</u></b></p> <ul style="list-style-type: none"> <li>A Examines weapons for trace evidence.</li> <li>B Identifies procedures for recovery of fired ammunition components.</li> <li>C Describes the procedures for collection of gunshot residues.</li> <li>D Describes the characteristics of various firearms and firearm cartridges.</li> <li>E Demonstrates proper handling and shooting of weapons safety and range procedures.</li> </ul>  |
| 10.00 |  | <p><b>22 <u>IMPRESSION EVIDENCE</u></b></p> <ul style="list-style-type: none"> <li>A Identifies and collects footwear, tire tread and toolmark impressions at the crime scene.</li> <li>B Describes the nature of impression evidence.</li> <li>C Discusses laboratory examination of footwear and tire tread evidence.</li> <li>D Describes the procedures for casting and lifting of impression evidence.</li> <li>E Describes the procedures for casting and lifting of impression evidence.</li> </ul>  |
| 10.00 |  | <p><b>23 <u>COURTROOM TESTIMONY</u></b></p> <ul style="list-style-type: none"> <li>A Identify steps in trial preparation.</li> <li>B Demonstrates strategies for being an effective witness.</li> <li>C Demonstrates appropriate courtroom dress and demeanor.</li> <li>D Identifies courtroom testimony DO'S and DONT'S.</li> </ul>  |

**TOTAL HOURS**

Class	OJT	Course
<b>180.00</b>	<b>0.00</b>	<b>180.00</b>