## Forensics Pacing Guide 2016 – 2017

<table>
<thead>
<tr>
<th>Unit</th>
<th>Days</th>
<th>Chapter(s)</th>
<th>Topics</th>
<th>GPS</th>
</tr>
</thead>
</table>
| **1** History, Organization, Archaeology | 10 8/10 - 8/23 | 1 | Definition  
   History  
   Methodology  
   Types of Crimes  
   Laws – Criminal and Civil  
   Federal Rules of Evidence | 1A. Compare and contrast the history of scientific forensic techniques used in collecting and submitting evidence for admissibility in court (e.g. Locard’s Exchange Principle, Frye standard, Daubert ruling).  
1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins). |
| **2** Crime Scene Investigation | 14 8/24 - 9/13 | 2, 3 | Types of Evidence  
   Evaluating Crime Scenes  
   Tools and skills for evidence collection | 1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports. |
| **3** Impressions | 10 9/14 - 9/27 (Lip Prints) | 4 | Impressions  
   Fingerprints  
   Lip Prints  
   Footprints  
   Tire tracks | 1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).  
1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports.  
2A. Identify and utilize appropriate techniques used to lift and evaluate readable, latent, plastic and visible fingerprints.  
4C. Recognize the forensic significance of tool marks, footwear and tire impressions in an investigation. |
| **4** Hair | 7 9/28 - 10/6 | 5 | Anatomy of Hair  
   Differences in Hair structure for Humans and Animals | 1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).  
1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports.  
2B. Analyze the morphology and types of hair, fibers, soil and glass. |
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| 5 | Fibers | 8/10/11 – 11/10/20 | 6 | Examination of Fibers | 1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).  
1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports.  
| 6 | Drugs | 11/10/21 – 11/11/4 | 7 | Identification, Testing, Control | 1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).  
1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports.  
2E. Determine the appropriate uses of chromatography and spectroscopy in evidence analysis.  
3A. Classify toxins and their effects on the body.  
3B. Compare the effects of alcohol on blood alcohol levels with regard to gender, and according to the law.  
3C. Evaluate forensic techniques used to isolate toxins in the body.  
5A. Identify various causes of death (blunt force trauma, heart attack, bleeding, etc.). | 7 | Toxicology | 14/11/7 – 12/12/2 | 8 | Poisons, Alcohol | 1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).  
1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
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3B. Compare the effects of alcohol on blood alcohol levels with regard to gender, and according to the law.  
3C. Evaluate forensic techniques used to isolate toxins in the body.  
5A. Identify various causes of death (blunt force trauma, heart attack, bleeding, etc.). |
| 8 | Documents and Computer Crimes | 12 | 12/5 – 12/20 | 15 | Handwriting analysis, Erasures, Counterfeiting, Computer crimes | 1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports.  
2D. Identify methods used for the evaluation of handwriting and document evidence.  
2E. Determine the appropriate uses of chromatography and spectroscopy in evidence analysis. |
|---|---|---|---|---|---|---|
| 9 | Trace Evidence | 11 | 1/4 – 1/19 | 9 | Metals, Paints, Powders, Fire | 1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).  
1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports.  
2E. Determine the appropriate uses of chromatography and spectroscopy in evidence analysis. |
| 10 | Blood | 14 | 1/20 – 2/8 | 10 | Characteristics, Animal vs. Human, Typing, Blood Pattern Analysis | 1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).  
1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports.  
3d. Differentiate the forensic techniques used to distinguish human and animal blood  
3e. Analyze the physics of blood stain patterns. |
| 11 | DNA | 12 | 2/9 – 2/28 | 11 | Structure, Biological Aspects, Forensic Uses of DNA | 1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).  
1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.  
1D. Evaluate the relevance of possible evidence at the site of an investigation.  
1E. Organize relevant information to accurately develop and submit both scene and analysis reports.  
3F. Compare short tandem repeat patterns (STR) and relate to identifying the DNA of an individual.  
3G. Explain the use of the DNA database for DNA profiling. |
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<tr>
<th>Course Title</th>
<th>Start Date</th>
<th>End Date</th>
<th>Outside Sources</th>
<th>Course Description</th>
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<tbody>
<tr>
<td><strong>Ballistics</strong>&lt;br&gt;12</td>
<td>7&lt;br&gt;3/1&lt;br&gt;3/9</td>
<td>Characteristics of weapons&lt;br&gt;Projectile measurements&lt;br&gt;Wound characteristics</td>
<td>1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).&lt;br&gt;1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.&lt;br&gt;1D. Evaluate the relevance of possible evidence at the site of an investigation.&lt;br&gt;1E. Organize relevant information to accurately develop and submit both scene and analysis reports.&lt;br&gt;4A. Identify firearm lab tests used to distinguish the characteristics of ballistics and cartridge cases.&lt;br&gt;4B. Analyze the physics of ballistic trajectory to predict range of firing.</td>
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<td><strong>Human Remains and Anthropology</strong>&lt;br&gt;13</td>
<td>15&lt;br&gt;3/13&lt;br&gt;3/31</td>
<td>Forensic Odontology,&lt;br&gt;Forensic Entomology,&lt;br&gt;Skeletal characteristics – gender, age</td>
<td>1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).&lt;br&gt;1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.&lt;br&gt;1D. Evaluate the relevance of possible evidence at the site of an investigation.&lt;br&gt;1E. Organize relevant information to accurately develop and submit both scene and analysis reports.&lt;br&gt;2c. Evaluate how post mortem changes are used to determine probable time of death:&lt;br&gt;• Rigor mortis&lt;br&gt;• Livor mortis&lt;br&gt;• Algor mortis&lt;br&gt;• Gastric contents&lt;br&gt;5a. Identify various causes of death (blunt force trauma, heart attack, bleeding, etc.).&lt;br&gt;5b. Analyze evidence that pertains to the manner of death (natural, homicide, suicide, accidental, or undetermined).</td>
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<td><strong>Soil Analysis</strong>&lt;br&gt;14</td>
<td>10&lt;br&gt;4/10&lt;br&gt;4/21</td>
<td>Characteristics, Collection</td>
<td>1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).&lt;br&gt;1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.&lt;br&gt;1D. Evaluate the relevance of possible evidence at the site of an investigation.&lt;br&gt;1E. Organize relevant information to accurately develop and submit both scene and analysis reports.&lt;br&gt;2B. Analyze the morphology and types of hair, fibers, soil and glass.</td>
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<td><strong>Glass</strong>&lt;br&gt;15</td>
<td>10&lt;br&gt;4/24</td>
<td>Characteristics, Collection</td>
<td>1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins).&lt;br&gt;1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence.</td>
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### Arson Investigation

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<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Description</th>
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<tr>
<td>5/5</td>
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<td>Evidence. 1D. Evaluate the relevance of possible evidence at the site of an investigation. 1E. Organize relevant information to accurately develop and submit both scene and analysis reports.</td>
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<td>9-5/18</td>
<td>Outside Sources</td>
<td>1B. Distinguish and categorize physical and trace evidence (e.g. ballistics, drugs, fibers, fingerprints, glass, hair, metal, lip prints, soil, and toxins). 1C. Determine the proper techniques to search, isolate, collect, and record physical and trace evidence. 1D. Evaluate the relevance of possible evidence at the site of an investigation. 1E. Organize relevant information to accurately develop and submit both scene and analysis reports.</td>
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<tr>
<td>5/19</td>
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<td>Review for Final Exams</td>
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<td>5/22-5/24</td>
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<td>Final Exams</td>
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