

CJ388 Bloodstain Pattern Analysis

Credit hours: 3

Scheduled hours per week

Lecture: 2.5

Lab: 0

Other: 0

Catalog course description:

Examines the techniques and methods of identifying and interpreting blood spatter evidence. Topics include fundamentals of bloodstain evidence, bloodstains of differing velocity, significance of partially dried, clotted, aged, physically altered bloodstains, and others.

Pre-requisites: CJ355 with a “C” or better. Admission to the BASCJ program or signature of CJ program coordinator.

Co-requisites: None

Course learning outcomes:

Identify suspected bloodstained items of evidence at the crime scene or suspected bloodstained items of evidence that were submitted to his or her Agency for analysis by presumptive blood testing.

Properly locate, identify, enhance and document with photographs any bloodstained pattern evidence at the scene or on items submitted to his or her Agency.

Properly document with photographs, notes, and rough sketches with measurements, collect and preserve any bloodstained pattern evidence at the scene.

Identify low velocity bloodstained patterns and determine the direction of travel and the relative speed of the individual who issued the blood.

Isolate and identify the different types of impact blood spatter patterns at the scene or on items of evidence submitted to his or her agency.

Isolate bloodspots in an impact spatter pattern, measure their widths and lengths and then determine their impact angles using the two different methods.

Use these impact angles to determine the point(s) or area(s) of convergence and origin, or to reconstruct the location(s) where the bloodstained patterns originated using several different methods.

Differentiate the differences between Arterial Bleeding and Impact Blood Spatter from a forceful impact such as a beating and or a gunshot wound.

Apply the above methods of reconstruction to any properly documented crime scene that was submitted to his or her agency.

Differentiate the differences between satellite or radial blood spatter from pooled or splashed blood and impact blood spatter caused by a forceful impact such as a beating or gunshot wound.

Interpret other bloodstained patterns.

Reconstruct bloodstained patterns at the scene, from properly documented crime scenes and bloodstained items of evidence that were submitted to his or her Agency, generate written bloodstained pattern analysis reports and render his or her opinion concerning those interpretations.

Topics to be studied:

- Presumptive testing for blood
- Effect of the delivery mechanism on the volume of the dropped blood
- Effect of the delivery mechanism on the diameter of the blood spot
- Effect of the height fallen on the diameter of the blood spot
- Effect of the surface on the spatter pattern on the dropped blood
- Effect of the angular surfaces on the shapes of the blood spots
- Effect of the horizontal motion on the shapes of the blood spots
- Cast-off bloodstain patterns
- Splashed blood v. distance fallen
- Projected blood v. the heights fallen and the horizontal distances
- Impact blood spatter patterns
- Contact or transfer bloodstained patterns
- Effect of the spot diameter on the drying time of blood
- Effect of the temperature on the drying rates of larger volumes of blood
- Analysis of bloodstained patterns

Relationship of course to program or discipline learning outcomes:

Demonstrate proficiency in the vocabulary pertaining to the Criminal Justice field.	
Explain the history and evolution of the CJ system in the US.	
Explain the investigative process and applicable laws.	X
Demonstrate a basic understanding of the law and the legal system in the US.	
Examine the history and theories of and current practices within the corrections system.	
Explain ethics and how it applies to the CJ system and various CJ professionals.	
Recognize the root causes of crime and criminal behavior and the role criminological theory plays in the study of CJ.	
Display decision making and critical thinking skills as they relate to CJ.	X
Apply learned concepts by bridging the gap between theories and practice.	X
Display an advanced level of understanding of CJ theories and concepts.	X
Demonstrate a proficiency in writing, research, and critical thinking pertaining to the CJ field.	
Recognize the underlying societal problems that lead to crime and victimization.	
Utilize CJ theories and concepts to combat social problems and distribute resources effectively.	

Relationship of course to general education learning outcomes:

Composition and Rhetoric: Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	
Science and Technology: Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	X
Mathematics and Quantitative Skills: Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	X
Society, Diversity, and Connections: Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
Human Inquiry and the Past: Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	
The Arts and Creativity: Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
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Special requirements of the course:

None

Additional information:

None

Prepared by:

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