

FORENSIC SCIENCE LABS

Wednesdays, January 28-April 29 (No class Feb 18, Apr 8; 12 weeks)

11:15am-12:45pm

Ages 14+

In this course, students learn how to apply various fields of science (biology, chemistry and physics) to a law enforcement context as they properly handle, collect and transfer evidence as well as document their observations. All lab costs are included in registration fee.

Instructor: Ashley Blocker, BSc

Location: STEM Lab (suite 21)

Course fee: \$275 OR \$25/lab

10% off sibling discount

Register for full semester or individual labs.

LAB SCHEDULE:

FORENSIC SCIENCE & EVIDENCE GATHERING - Wednesday, January 28

Students are introduced to the science of forensics, learn about proper data gathering, evidence collection, and chain of custody in crime scene investigations.

CRIME SCENE PHOTOGRAPHY - Wednesday, February 4

Students learn the importance of standardized staging in crime scene photography as well as how to photograph their own evidence.

DNA - Wednesday, February 11

Students review the structure and function of DNA, learn how scientists collect and extract DNA, and investigate different DNA technologies used for analysis.

FINGERPRINTING - Wednesday, February 25

This week we learn the identifying characteristics of fingerprints, the history of fingerprint analysis, how to use fingerprint data, and how to recover fingerprints from a crime scene.

BLOOD SPATTER - Wednesday, March 4

We focus on the biology, chemistry, and physics of blood this week. Students will learn the components of blood, the chemistry of detecting blood at a crime scene, and the physics of spatter.

FORENSIC ANTHROPOLOGY – Wednesday, March 11

This week, we learn about the science of bones, including how they are formed and grow, what they can tell us about an individual, and how they can reveal information from a crime scene.

FORENSIC ENTOMOLOGY - Wednesday, March 18

In this lab, we study insect life cycles and how they can assist in determining the location and chronology of a crime, as well as the stages of decomposition and how they are influenced by environment.

TRACE EVIDENCE & FIBER ANALYSIS - Wednesday, March 25

Students learn the proper microscopic techniques required to differentiate different types of hair and other trace evidence materials that can be left behind at a crime scene.

OUTDATED SCIENCE - Wednesday, April 1

This week, we focus on types of science that have historically been used in law enforcement, but which are being brought into question by the scientific community for their validity, such as forensic odontology, hair analysis, and lie detectors.

WEAPON ANALYSIS - Wednesday, April 15

Students study ballistic and kerf markings to differentiate weapons used in a crime, as well as learning why those markings are left behind.

POWDER ANALYSIS - Wednesday, April 22

Using chemical analysis and observation, we identify unknown powders to model the analysis of poisons or drugs that may be found at a crime scene.

CRIME SCENE INVESTIGATION - Wednesday, April 29

In a culmination of the skills and techniques learned over the course of this semester, students work together to solve a crime and present their evidence. Once the case is solved, students work together to create their own crime scene scenario.