



Online Courses for High School Students  
1-888-972-6237

## Forensic Science I: Secrets of the Dead

Fingerprints. Blood spatters. Gunshot residue. If these things intrigue you rather than scare you, Forensic Science I: Secrets of the Dead may be for you. This course offers you the chance to dive into the riveting job of crime scene analysis. Learn the techniques and practices applied during a crime scene investigation and how clues and data are recorded and preserved. You will better understand how forensic science applies technology to make discoveries and bring criminals to justice as you follow the entire forensic process – from pursuing the evidence trail to taking the findings to trial. By careful examination of the crime scene elements, even the most heinous crimes can be solved.

### Course Highlights

- Investigate how forensic scientists analyze evidence for information about crimes.
- Learn more about what information can be gained from human remains, physical evidence, and burned materials.
- Examine how forensic scientists recognize and preserve physical evidence.
- Explore how forensic scientists investigate crime scenes.

**Prerequisite:** None

**Course Length:** One Semester

**Required Text:** There are no required textbook for this course.

**Materials List:** There are no required materials for this course.

### Course Outline

#### Unit 1: Introduction to Forensic Science

Blood, fingerprints, tire tracks, and trace evidence are used to catch the criminals in TV, but how do real life forensic scientists help identify suspects? In this unit, you will be introduced to forensic science. We will discuss what forensic science consists of and how the field developed through history. You will learn about some of the responsibilities of forensic scientists and about some of the specialty areas that forensic scientists may work in.

## **Unit 2: The Crime Scene**

Once a crime has been committed, one of the first steps for the forensic scientist is the identification and collection of evidence. In this unit, you will discover some of the techniques and practices that forensic scientists and law enforcement officials use to identify evidence and collect that evidence in a way that maintains the integrity of the evidence. You will also learn about some of the different types of evidence that might be found at a crime scene and how the different types of evidence may best be handled.

## **Unit 3: Physical Evidence**

In this unit, we will discuss the physical evidence found at crime scenes. In doing so, we will examine the different types of evidence that are used in a crime investigation and in court trials. We will also discuss how forensic scientists and investigators identify and collect evidence. Finally, we will look at some specific examples of physical evidence, including glass, soil, and impressions, to see how forensic scientists identify and analyze these types of evidence.

## **Unit 4: Hair, Blood, and Fingerprints**

In this unit, we will examine three potentially important types of physical evidence: hair, blood, and fingerprints. For each of these types of evidence, we will look at how the evidence may be collected and how the evidence might be tested. We will also discuss some of the challenges in examining these types of evidence and what we might learn from them.

## **Unit 5: Firearms and Tool Marks**

In this unit, we will discuss the collection and analysis of firearm and tool evidence. We will learn some of the considerations in collecting this type of evidence. We will also examine what information forensic scientists can learn from evidence like firearms, bullets, gunpowder residue, and tool marks that are left at a crime scene. Finally, we will discuss under what conditions individual characteristics might be found on these types of evidence.

## **Unit 6: Human Remains**

In this unit, you will learn more about how forensic scientists examine human remains and gain information from these remains. We will discuss some of the ways that forensic scientists try to determine the time of death for recovered human remains. We will also discuss how forensic scientists make use of the forensic autopsy to gain more information about a probable cause of death and mechanism of death. Finally, we will discuss what scientists can learn about the condition of bones found at a crime scene and some of the ongoing research by forensic scientists to learn more about rates of decomposition.

### **Unit 7: DNA Evidence**

In this unit, we will discuss what DNA is and how it is used as evidence in crime investigations. We will examine the basic components of DNA and learn what makes the DNA of each person unique. The unit will also discuss how biological evidence, like blood or hair samples, is preserved for DNA testing. Finally, we will examine the use of DNA evidence in court cases and some of the considerations that occur in these cases.

### **Unit 8: Arson and Explosion Evidence**

In this unit, we will discuss how forensic science approaches crime scenes in which fire or explosions have occurred. In doing so, we will learn about the challenges that these crime scenes present in the collection of evidence, the methods used to determine the point of ignition, and how evidence is collected and preserved at arson scenes. We will also examine some of the different types of explosives and how explosive materials are collected and preserved.