

General Course Information

Course Name: Forensics	
Department: Science	Grade Level(s): 11-12
Duration/Credits: 1 semester/0.5 credits	Prerequisites: Successful completion of Biology and Chemistry
BOE Approval Date: December 2022	Course Code: H3220
Course Description:	
Forensics is an upper-level science course that gives the interested student an opportunity to apply the scientific knowledge learned in Chemistry, Biology, and Physics to real life, crime-solving applications. The student will use the inquiry method and knowledge from previous science courses to investigate the role and application of science in both civil and criminal laws that are enforced by the criminal justice system. Each lesson will use case studies to analyze real life applications of crime solving. Guest speakers are brought in to connect the lessons to real life careers.	
Course Rationale:	
In a world filled with the products of scientific inquiry, scientific literacy is a necessity of everyone in order to use scientific information to make wise choices. Today, the job market demands advanced skills, requiring people to be able to learn, reason, think creatively, make decisions, and solve problems. An understanding of science and the processes of science contributes in an essential way to these skills.	
Course Objectives:	
1. The students will use their observation, hypothesis and conclusion skills derived from raw data to complete crime scene note taking, sketches, and reports of their findings at a level to be used in a court of law. (A+: Writing) 2. The student is required to research in great detail a notorious case study to determine the criminal's actions/mindset AND the forensic process that brought the case to an end. Emphasis will be placed on how forensics was used in court, the law's changed and/or the case study legacy. (A+ Research) 4. The student will verbally present analysis and results of forensic evidence (fingerprinting, hair and fiber, serology, anthropology/pathology, toxicology, etc.) to support the outcome of an investigation. (A+ Speaking)	

5. The student will read many articles and forensic reports to analyze the data that brought a case to conclusion. (A+ Reading)

Standards Alignment:

List standard set(s) to which course has been aligned to:

[Science Standards](#)

9-12 PS1.A.3 Plan and conduct an investigation to gather evidence to compare physical and chemical properties of substances such as melting point, boiling point, vapor pressure, surface tension, and chemical reactivity to infer the relative strength of attractive forces between particles.

9-12 PS2.A.3 Apply scientific principles of motion and momentum to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.

9-12 PS4.B.1 Communicate technical information about how electromagnetic radiation interacts with matter.

9-12 LS1.A.1 Construct a model of how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.

9-12 LS1.A.2 Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

9-12 LS2.B.1 Construct and revise an explanation based on evidence that the processes of photosynthesis, chemosynthesis, and aerobic and anaerobic respiration are responsible for the cycling of matter and flow of energy through ecosystems and that environmental conditions restrict which reactions can occur.

9-12 LS3.A.1 Develop and use models to clarify relationships about how DNA in the form of chromosomes is passed from parents to offspring through the processes of meiosis and fertilization in sexual reproduction.

9-12 LS3.B.4 Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.