Fairfield Ludlowe High School - Fairfield Warde High School

Forensics I: Never Gone Without a Trace

2020-2021

COURSE DESCRIPTION

Forensics I: Never Gone Without a Trace is a laboratory-based course for grades eleven and twelve that will promote and cultivate the development of student's scientific inquiry and scientific method skills, which are important critical thinking skills. Forensics I applies concepts and skills acquired in grades nine and ten to look at the criminal justice area. This course focuses on problem solving, with an emphasis on writing, using experimentation and evidence based conclusions. Students will write reports that record their results, conclusions and analyses of case studies and investigations. Students will participate in hands-on laboratory exercises that require lengthy laboratory procedures with many recently developed techniques for analyzing evidence, crime scenes, blood/body fluids, trace evidence. The course is laboratory driven and requires students to use advanced tools and equipment in addition to excellent observation skills.

COURSE OBJECTIVES

Students will understand that:

- Forensic science requires the interaction of concepts and applications from all areas of science, with emphasis on life science, to analyze and investigate evidence that may be discovered in a criminal investigation.
- Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristics traits for matching to potential suspects and paternity.
- Applying concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.
- Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
- Criteria may need to be broken down into simpler ones that can be approached systematically, and decisions about the priority of certain criteria over others (trade-offs) may be needed in processing a crime scene.
- Evaluate a solution to a complex real- world problem based on prioritized criteria and trade-offs that account for a range of constraints, including costs, safety, reliability, and aesthetics, as well as possible social, cultural and environmental impacts.

UNITS OF STUDY

- Introduction to Forensics:
    - Introduction to Forensics Unit
    - Evidence Unit
- Trace Evidence:
    - Crime Scene Unit
    - Hair & Fiber Unit
    - Blood Unit

COURSE POLICIES AND REQUIREMENTS

GRADING

Cumulative/In-Progress Grade:

- 90% will reflect the student's mastery of course content and skills on summative assessments including tests, labs, and projects.
- 10% will reflect the student's progress on formative assessments and homework.

End-of-the-Course Grade:

- 90% of the overall course grade will reflect the student's mastery of course content and skills on summative assessments. This in-progress grade is displayed throughout the school year.
- 10% of the overall course grade will reflect the student's performance on the final assessment

MATERIALS

*Forensic Science for High School 2nd Edition by Barbara Deslich and John Funkhouser