#### Fairfield Ludlowe High School - Fairfield Warde High School



# CRIME LAB FORENSICS

Insert Teacher Name

Insert Room Number

Semester

Insert Period

Insert Email Address

#### COURSE DESCRIPTION

Crime Lab Forensics will take a case study approach to present applications of forensics. Hands-on laboratory exercises with many techniques associated with analyzing DNA will involve students in the scientific process. Topics covered will include: DNA extraction and purification, DNA fingerprinting by gel electrophoresis, drug and toxicology testing, handwriting and document analysis, arson investigation, death and decomposition, and forensic anthropology. This 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:

- the genetic composition of cells can be altered by incorporation of exogenous DNA into the cells.
- microorganisms have an essential role in life processes and cycles on Earth.
- stability in an ecosystem is a balance between competing effects.
- chemical technologies present both risks and benefits to the health and well-being of humans, plants and animals.
- as a result of the coordinated structures and functions of organ systems, the internal environment of the human body remains relatively stable (homeostatic) despite changes in the outside environment.
- the periodic table displays the elements in increasing atomic number and shows how periodicity of the physical and chemical properties of the elements relates to atomic structure.
- scientific inquiry progresses through a continuous process of questioning, data collection, analysis and interpretation.

#### UNITS OF STUDY

- DNA Evidence
- Forensic Pathology
- Toxicology
- Arson and Explosives Investigation
- Handwriting and Document Analysis

### COURSE POLICIES AND REQUIREMENTS

#### **GRADING**

Summative Assessments:

Insert Categories/Weighting (ie. Papers – 30%)

10%

Formative Assessments:

Insert Categories/Weighting (ie. Quizzes – 50%)

0%

Behavioral Characteristics:

Insert Categories/Weighting (ie. Particip. - 90%)

# Insert Additional Grading Information Here

# MATERIALS

Insert Course Materials Here (ie. Textbook, Binder, Calculator, Highlighters)

# EXPECTATIONS OF STUDENTS

Insert Course Expectations Here

### EXTRA HELP

Insert Course Expectations Here

Insert Additional Information Here