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|  | *Fairfield Ludlowe High School - Fairfield Warde High School* **CRIME LAB FORENSICS**  |
|  Dr. Gloria  | P31 |
| Semester 2 | Insert Period |
|  cgloria@fairfieldschools.org  |
| COURSE DESCRIPTION |
|  Crime Lab Forensics, which is a laboratory-based course, will promote and cultivate the development of student’s scientific inquiry and scientific method skills, which are important critical thinking skills. Crime Lab Forensics 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 DNA extraction, DNA fingerprinting by gel electrophoresis, molecular DNA probes, protein analysis, PCR, sequencing, bioinformatics, drug and toxicology testing, handwriting and document analysis, arson investigation and ethics. 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:* 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.
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| UNITS OF STUDY |
| * DNA Evidence
* Forensic Pathology
* Toxicology
* Arson and Explosives Investigation
* Handwriting and Document Analysis
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| COURSE POLICIES AND REQUIREMENTS |
|  GRADING |
|  | Summative Assessments: |  Tests/Projects - 40% Labs - 30% Quizzes 10% Insert Categories/Weighting (ie. Papers – 30%) |
|  | Formative Assessments: |  Homework - 10% Insert Categories/Weighting (ie. Quizzes – 50%) |
|  | Behavioral Characteristics: |  Notebook - 10% Insert Categories/Weighting (ie. Particip. - 90%) |
|  |  Lab reports are due the week after they are assigned. I will accept lab reports and HW one day late with a 10% reduction on the grade. I will not accept work more than one day late.  |
|  MATERIALS |
|  | Notebook: A three-ring binder with the following sections is required: (1) classwork, (2) homework and (3) Tests, labs and quizzes. The notebook will be collected and corrected once per marking period.Text: Forensic Science for High School by Barbara Deslich and John Funkhouser |
|  EXPECTATIONS OF STUDENTS |
|  | Attendance Policy: It is understood that to succeed in class, you must be present and attentive in class. The student is responsible for getting all missed notes and assignments. If a student is absent the day of a test, the student will take the test in class on the first day back.Cell phones and other electronic devices are not permitted in class. Students using these devices will be sent to their dean. |
|  EXTRA HELP |
|  |  I am available after-school, activity period and during free periods for extra help. Please try to request a meeting 24 hours in advance if possible.  |
|  Grades are posted on IC for your review. Parents and students have access to these grades ONLY if they are signed up for the service.  |