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|  | *Fairfield Ludlowe High School - Fairfield Warde High School* **BIOLOGY 21**  |
| Dr. Gloria | P31 |
| Full Year | 1 |
| cgloria@fairfieldschools.org |
| COURSE DESCRIPTION |
| This course will provide students with a comprehensive knowledge of biology and will prepare students for entry into the Advanced Placement program. The course uses a molecular biology approach. Topics will be illustrated through the following themes that will recur throughout the course: evolution; structure and function; energy relationships; reproduction and inheritance; unity and diversity; and stability and patterns of change. Students in this course are capable of handling primary source material for reference and are highly motivated, self-directed learners. This course requires excellent study skills including note taking, time management and organization. |
| COURSE OBJECTIVES |
| Students will understand that:* due to its unique chemical structure, carbon forms many organic and inorganic compounds.
* fundamental life processes depend on the physical structure and the chemical activities of the cell.
* similarities in the chemical and structural properties of DNA in all living organisms allow the transfer of genes from one organism to another.
* in sexually reproducing organisms, each offspring contains a mix of characteristics inherited from both parents.
* evolution and biodiversity are the result of genetic changes that occur over time in constantly changing environments.
* microorganisms have an essential role in life processes and cycles on Earth.
* living organisms have the capability of producing populations of unlimited size, but the environment can support only a limited number of individuals from each species.
* the use of resources by human populations may affect the quality of the environment.
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| UNITS OF STUDY |
| * Introduction
* Biochemistry
* Cell Structure and Function
* Cell Energetics
* Nucleic Acids and Molecular Genetics
* Cell Cycle and Meiosis
* Classical and Applied Genetics
* Classification
* Evolution and Population Genetics
* Microbiology
* Animal Evolution
* Plant Evolution
* Ecology
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| COURSE POLICIES AND REQUIREMENTS |
|  GRADING |
|  | Summative Assessments: | 90%Tests - 70% Labs and Projects - 20% |
|  | Formative Assessments: | 10%Quizzes - 5% Notebook with Homework - 5% |
|  | Behavioral Characteristics: | 0%N/A |
|  | Lab reports are due the week after they are assigned. See lab report format sheets for grading rationale. I will accept lab reports 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. Homework is given in the form of study guides for each section of the chapter. These SG’s will be checked the day they are due. There will be two points off the notebook grade for each missing SG and one point off for late or incomplete SG’s. Study guides are to be corrected in class and need to be complete and correct for full credit on the final notebook check.Text: Modern Biology. New York: Holt, Rinehart and Winston, 2006.On-line help: http://my.hrw.com/. Username: cdarwin55 password: n9x5v |
|  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 Infinite Campus for your review. Parents and students have access to these grades ONLY if they are signed up for the service. |