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***Ms. C. Dracy-Biology 1 Pre-AP***

**Room: #234**

**Email:** **cdracy@sharylandisd.org**

**Telephone: 956-584-6467 Ext. 4413**

**Conference: Block 2 (9:44-11:14)**

**Tutoring: Monday and Wednesday (4:15-5:15 p.m.)**

**Course Description:**

Biology is the study of living things and their processes. Students will explore these processes through four big ideas:

Big Idea 1: The process of evolution drives the diversity and unity of life.

Big Idea 2: Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain homeostasis.

Big Idea 3: Living systems store, retrieve, transmit, and respond to information essential to life processes.

Big Idea 4: Biological systems interact, and these systems and their interactions possess complex properties.

This course will provide the skills needed to conduct inquiry based lab investigations while allowing students to explore their natural world in order to gain a deeper understanding of the Texas Essential Knowledge and Standards (TEKS). An emphasis will be placed on science practices that enable students to develop and refine testable predictions and explanations. An end of course (EOC) state test will be administered at the completion of each term (December/May.)

**Social and Ethical Concerns:**

To help students apply scientific, biological knowledge and critical thinking skills to major or social issues, the course will allow students to learn and discuss these issues in a variety of ways. Issues will be discussed in class settings, and utilization of technology/BYOD will be incorporated into research and reporting on a current topic that addresses social or ethical issues. By doing these activities the students will see that biology is relevant in their everyday lives.

**Forms of Assessment/Weighting:**

\*All assignments are expected to be completed and turned in on time! Late/incomplete work will be addressed pursuant to Board Policy as stated in the Student Handbook. ***(No late work accepted if it is a minor assessment. No re-tests will be given for major assessments.)***

\*If you are absent you will be given an opportunity to make up missed work pursuant to Board Policy as stated in the student handbook. It is your responsibility to find out what work you need to make up.

\* \*You will be given reading assignments and pre-lab activities ahead of time and will be expected to have read and studied the topics before coming to class.

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| **Types of Assessments and Grading Factors** |
| **Major Assessments** | Exam, Test, Project, Presentation, Portfolio, Benchmark, Lab Report | **60%** |
| **Minor Assessments** | Quiz, Journal, Lab Questions, Homework, Class Work, Lab Participation | **40%** |

**Course Outline**

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| **Semester I** | **Semester II** |
| **Week 1:** | **Week 10:** |
| What is Biology?Graphing/Measurement/Scientific Method | Ecology Continued |
| **Week2:** | **Week 11:** |
| BiochemistryCell Structure and Function | Classification: Viruses & Bacteria; Protists |
| **Week 3:** | **Week 12:** |
| Enzymes/Cellular Processes | Classification: Fungi/Plants |
| **Week 4:** | **Week 13:** |
| Cellular Processes Continued | Classification: Animals/Organ Systems |
| **Week 5:** | **Week 14:** |
| Genetics-Patterns of Inheritance | Human Systems |
| **Week 6:** | **Week 15:** |
| Genetics-Patterns of Inheritance ContinuedMolecular Genetics-DNA | EOC Exams |
| **Week 7:** | **Week 16:** |
| Molecular Genetics-DNA Continued/ Semester Exam Review | Dissection of the Fetal Pig/Semester Exam Review |
| **Week 8:** | **Week 17:** |
| Semester Exams | Semester Exams |
| **Week 9:** | **Week 18:** |
| Evolution |  |

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| **Online Supplemental Materials** | Bozeman Biology, Cells Alive, Lab Bench, Crash Course Biology  |
| **Tentative Projects** | Bottle Ecology, Genetics Brochure, Classification Project, Body System Web quest |
| **Textbook/Suggested Readings** | Texas Biology, Science Daily |

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| **Required Materials:** | **Lab Supplies**  |
| Textbook (To be kept at home for reference)100 Page Spiral Notebook (College Ruled)1” Binder with Dividers and Pocket FoldersPen (blue/black) or pencilHighlighters (multi-colors)Glue stick or clear tapeMetric RulerGraph paperColored pencils | \*The teacher will provide most lab supplies. \*\*The student will be expected to bring in needed materials for special projects (Ex.-Ozarka water bottle, poster board, craft materials) |