Biology I Honors

Mr. Pola

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Course Description

Biology I Honors is designed to promote the development of scientific knowledge through, inquiry, discussion, collaboration, and lab experiences. Through regular investigations, projects, reading, research, simulations, and videos, Biology I Honors provides a detailed study of four major themes including:

Interdependence of Living Systems and the Environment– the connection and relations between living organisms and their physical environment
Organization and Development of Living Systems – the structure and function of cellular components and molecules allowing the maintenance of stable conditions required for life
Genetics – heredity and the basis of traits through protein production coded by DNA
Evolution and Biodiversity- the mechanisms for the change of life over time resulting in the diversity of life on Earth

Enduring Understandings

1. Matter and energy cycle through and ecosystem through interdependent relationships.
2. Living organisms are composed of cells with specialized structures to carry out specialized functions.
3. Genetic characteristics are maintained, modified, and expressed within populations through hereditary processes.
4. Life changes over time due to genetic differences coupled with a variable environment.

Thematic Outline	
Theme	Topics
• *Organization and Development of Living Systems*	• cell structure, function, and organization, cell specialization, biological molecules, anatomy and physiology
• *Interdependence of Living Systems and the Environment*	• ecosystem structure, and function, energy and matter flow, population dynamics, and human impact
• *Genetics*	• meiosis, mitosis, reproduction, structure and function of DNA, inheritance mechanisms and patterns
• *Evolution and Biodiversity*	• mechanisms and evidence of evolution, natural selection, sexual selection, genetic drift, adaptation, common ancestry, biodiversity

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Required Text and Materials

Campbell, Neil A. et al. *Biology: Concepts and Connections.* San Francisco, CA: Pearson Education, 2005. Print.

Required Materials for Class:

- 3-Ring Binder
- Writing Utensil
- Notebook Paper
- Dry Erase Markers

Classroom Norms

1. Participate
2. Be Polite
3. Be Prompt

Assessment

The course will include a variety of regular assessments including but not limited to the following: quizzes, unit test, final exams, lab reports, writing prompts, presentations, data analysis, and projects.

Grading Scale

A+ = 98% to 100%	C = 73% to 76%
A = 93% to 97%	C- = 70% to 72
A- = 90% to 92%	D+ = 67 to 69%
B+ = 87% to 89%	D = 63% to 66%
B = 83% to 86%	D- = 60% to 62%
B- = 80% to 82%	E < 60%
C+ = 77% to 79%	I = Incomplete

Grade Categories

Grades will be earned through a variety of experiences. Each assessment will be categorized in a group below:

Assignments	30%
Tests/Quizzes	50%
Midterm/Final	20%

Support & Remediation Opportunities

Supplemental study sessions are available upon request. Furthermore, remediation will be used to target conceptual gaps with data driven instruction. Upon proven completion of all class work and consistent effort during class, students may make arrangements to retake each quiz or test once. Before retaking a quiz or test the student must show written analysis and corrections of previous errors. Students may not retake the midterm, final exam, or semester binder tests.

Enrichment Opportunities

Enrichment opportunities will be built into the course using methods of differentiated instruction. In addition, you are encouraged to approach the instructor to discuss personalized ideas for enrichment.