



Cellular & Environmental Biology

Course #: SC2113

2012-2013

Credit: 1.0 Science

Teachers: Mr. Jason Loughman
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Room #: 2115
Science Help: By Appointment

I. Course Description, Aims and Objectives:

Course Description/Aims/Purpose of Course

This course is required for all grade 10 students (with the exception of those who achieved this earlier). This course includes ecology and biology components required by the State of Ohio to prepare for the grade 10 Ohio Graduation Test. Engaging in applied learning, students will be introduced to fundamental concepts in cytology, DNA, genetics, biochemistry, cell processes, biotechnology, and scientific issues. Students will be also be introduced to fundamental concepts in ecosystems, energy transfer, natural resources, climatology, origins and diversity of life, adaptation, predation, competition, classification, biotechnology, and scientific issues.

Major Units of Study:

- * Biochemistry
- * Cell Membranes & Transport
- * Cell Growth & Reproduction
- * Classification
- * Population Interactions
- * Human Impacts on Biotic Cycles
- * Large-Scale Human Impacts on the Biosphere
- * Cell Theory & Structure
- * Cellular Energy Processes
- * Genetics
- * Adaptations
- * Matter and Energy Cycles in Biotic Systems
- * Matter and Energy Cycles in Abiotic Systems
- * Natural Selection and Evolution

Academic Content Standards:

To view the standards for which this course was designed go to; www.ode.state.oh.us

II. Format and Procedures:

This course is designed to be an active, hands-on course that engages students in learning science through discussion, investigation, and experimentation. Students are expected to show up to class on time, prepared, and ready to participate in the days' lesson. Students are also expected to be mannerly, courteous, and respectful towards others. If students disobey any school policies, then consequences will be issued accordingly.

III. Course Requirements:

All students are required to have the following items:

1. Biology Textbook - *Prentice Hall Biology iText*, (hard copy available upon request)

2. Colored pencils and highlighters
3. A pencil and pen everyday
4. Student planner and calendar
5. Composition Notebook
6. USB thumb drive to save projects (optional but would be extremely useful)

IV. Grading:

Grading for this class will use a weighted point scale along with Westerville's grading scale. Below is the breakdown where points can be earned each quarter. Check PowerSchool for grade updates and try your best to stay on top of your work!

Assessments (~ 3-4)	50%
Projects, Labs, & Activities	30%
Daily Assignments / Homework	20%

Weighting of Semester Grades

1 st Nine Weeks	= 40%
2 nd Nine Weeks	= 40%
Semester Exam	= <u>20%</u>
Semester Grade	= 100%

V. Late Work:

Students are expected to turn work in on time. I understand that there may be times when you are unable to get the work completed due to special circumstances. Therefore, late work is accepted UNTIL it is graded and returned to the class (**after assignments are graded and returned, they will no longer be accepted for points!**). For excused absences, unexcused absences, and suspensions, school grading policies will be used.

VI. Final Word:

I am anticipating a fun and exciting class! The best advice I can give is to come to class prepared, ready to learn, and with a positive attitude. My goal is to make this course as active as possible...but I need your help and cooperation to make this happen! Get organized, get involved, and help make Central the best high school it can be!



Relationships, Relevance, & Rigor

