

Course Syllabus

SCED 203: Matter and Energy in Life Systems

SCED 203: Flow of Matter and Energy in Life Systems

Required Text: Life Science and Everyday Thinking, available at the bookstore. Please bring the manual to class each day. Extra copies will NOT be available if you forget to bring yours.

This course is part of a three-course series. You will receive a firm base in the scientific study of life through inquiry-based instruction and the conduction of scientific activities. The course covers basic biology, with emphasis on diversity and evolution of life, interactions between living organisms and their environment, energy transformations, genetics, and cellular biology.

Learning Outcomes: At the end of this course, you will:

1. Describe how energy and matter are acquired by and transferred through animals and cells.
2. Describe how traits are passed from parent to offspring.
3. Understand how the flow of energy and matter influences the evolution of living organisms.
4. Understand that science and common sense use similar thought processes (logic).
5. Make detailed observations and descriptions of patterns.
6. Formulate hypotheses and predictions.
7. Identify and control variables.
8. Conduct precise and accurate measurements.
9. Read and interpret scientific data presented graphically.
10. Learn about your own and your peers' science learning.

Daily Attendance and Participation: You should attend class every day since you will be part of a group and will learn the material from the daily activities. More than three absences will result in the loss of attendance points. If you know in advance you are going to be absent, you should contact an instructor AND a member of your group.

Late arrivals: Class starts on time. Late arrivals are greatly discouraged and will negatively impact your achievement in the course.

Academic Integrity: Cheating, plagiarism, etc. is a violation of the Student Code of Conduct and will not be tolerated. All work you submit for the course should be your own. Students who cheat or plagiarize, or who knowingly help another to cheat will receive a zero on that assignment and/or will be expelled from the class. Violations of academic integrity will be reported to the Director of Student Life. Please note: *Even one sentence copied from another person's work without acknowledging the real author is plagiarism.*

Participation: You will develop your own understanding of the material through lab experiments and discussion activities. You must be engaged and respectful, questioning and contributing to the group's success. Participation is a key element in this course; you will be evaluating your group and yourself periodically.

Homework: Homework will be assigned throughout each Chapter and may require conducting experiments, visiting websites, etc. Homework should be completed individually and must be your own work.

Late work: Due dates for assigned work will be announced in class and *it is due at the beginning of class* (or it is late). Work will not be accepted more than one day late unless there are extenuating circumstances and you have discussed them with your instructor.

Exams: All exams will be closed book. Attendance on exam dates is required unless you have a valid medical or family emergency excuse AND have previously communicated with an instructor via phone or email.

Grades:

Chapter 1-2 Exam	15%
Chapter 5-6.3 Exam	15%
Final exam (cumulative)	25%
Homework	25%
Participation (evaluation by your peers and the instructors)	10%
Attendance	10%

Your class grade is determined using the following scale:

$100\% \geq A > 94\%$	$84\% \geq B^- > 80\%$	$70\% \geq D^+ > 67\%$
$94\% \geq A^- > 90\%$	$80\% \geq C^+ > 77\%$	$67\% \geq D > 64\%$
$90\% \geq B^+ > 87\%$	$77\% \geq C > 74\%$	$63\% \geq D^- > 60\%$
$87\% \geq B > 84\%$	$74\% \geq C^- > 70\%$	$60\% \geq F > 0\%$