

EVPP210



Environmental Biology: Molecules and Cells

Department of Environmental Science & Policy

Lecture: EVPP210-001, CRN: 76136

Fall 2019, MW 10:30 am-11:45 am

Enterprise Hall, Room 276



Lecture Instructor:

Name: Dr. Scott Glaberman

Email: sglaberm@gmu.edu

Office Hours: MW 9:00-10:30pm *please make appointment*

Office: DKH Room 3024 (Note: I am only in Fairfax on Mondays and Wednesdays)

Learning Assistant:

Name: Charlotte Joannidis

Email: cjoannid@masonlive.gmu.edu

Office: TBD

Office Hours: TBD

Weekly Review Sessions: TBD

Exam Review Sessions: TBD

Lab Instructors/Location:

Dr. Scott Glaberman (EVPP210-204; W 01:30 pm-04:10 pm)

Eric Mazur (EVPP210-201; T 10:30 am-01:10 pm)

Samantha Mohny (EVPP210-202; M 04:30 pm-07:10 pm)

DKH 3021

Required Materials:

Textbook: Life: The Science of Biology, by Sadava et al., 11th edition. Sinauer/MacMillan.

Laboratory Manual: Introductory Cell Biology Laboratory Manual 2nd Edition

Access to course material on Blackboard at <https://mymasonportal.gmu.edu>

Course Description:

The goal of this course is to give students core knowledge of molecular and cellular biology that is critical for understanding the relationship between living organisms and their environment. Much of the biology encountered in upper level environmental science courses at GMU will be based on information from this class. The basic principles will be taught by lectures listed below and will be based on material in the textbook. Lecture material will be presented with PowerPoint and may contain some material not found in the textbook. The lecture schedule is subject to change based on progress. Questions or comments to the instructor are encouraged in class but I may communicate with students by email so every student must have an active GMU email account. Please note that lecture and laboratory are linked (grade is based on performance in both), so they must be taken concurrently and require similar levels of understanding about the key concepts of environmental biology. The lecture section will highlight each week's reading and study assignments; the laboratory section will provide further explanation and experimental investigations of key concepts.

EVPP210

Course Organization:

Four lecture exams covering specific sections of the material will be administered during the semester and a cumulative final exam will be administered during the scheduled final examination period. All exams are multiple choice worth 100 points each. One lowest exam score will be dropped (does not include final). No make-up exams are allowed except for students involved in university sponsored activities (athletics, student council, etc.) with appropriate documentation. Students missing an exam because of illness or any other reason will have that particular exam score automatically dropped. *The purpose of the dropped exam is to offset bad days, flat tires, illness, or other unexpected absences.*

Five case studies will be completed in groups during class time. Each case study will count for 10 pts. The lowest case study grade will be dropped. This is to account for unforeseen absences. There are no makeups. Information from these case studies could show up on the exam.

Course Policies:

All students are expected to maintain the GMU honor code by practicing ethical behavior and submitting original work. To assist with another student's unethical behavior is also a violation of the honor code. Remember, the honor code protects your hard work and the value of your degree from GMU. Please turn off cell phones or pagers before class begins. If using electronic devices (such as phones, laptops, tablets), please be respectful of your peers and your instructor and do not engage in activities that are unrelated to class. Such disruptions can affect your grade. Unless otherwise noted by the instructor prior to the exam, these assessments will be taken without the use of study aids, memoranda, textbooks, other books, data, or other information available. The purpose of these assessments is to evaluate the student's progress in understanding the material. There should be nothing on your desk except a pencil and a bottle of water when taking exams.

Attendance policy: Attendance is mandatory and will count toward your grade. I am allowing three absences due to unforeseen or unavoidable circumstances. Beyond three absences, each absence will result in loss of 0.5 pts from your attendance grade up to a maximum of 10 pts total. Attendance is critical, especially since most of you are freshman and showing up is an important part of your career.

E-mail policy: I do not respond to emails in the evenings (after 5 pm) or during the weekends, nor do I expect you to. Also, please allow at least 48 hours for a response. Therefore, please be proactive in figuring out what questions you have and do not leave things until the day before an exam or assignment.

If you are a student with a disability and you need academic accommodations, please see Dr. Glaberman and contact the Office of Disability Services (ODS) at 993-2474. All academic accommodations must be arranged through the ODS.

Disclaimer: The instructor reserves the right to make modifications to this information throughout the semester.

EVPP210

Course Grading:

Three lecture exams	+100 points each
Cumulative final	+100 points
Case Studies	+40 points
Attendance	+10 points
Lecture total	450 points
Laboratory total	+150 points
Course total	600 points

Number Grade	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
70-76	C
60-70	D
<60	F
<i>A CURVE WILL NOT BE APPLIED</i>	

Schedule of Lectures:

Week	Days	Topic	Chapter
1	Aug 26	Introduction, Scientific Method	1
	Aug 28	Small molecules	2
2	Sep 2	Labor Day: No Class	2
	Sep 4	Small molecules	2
3	Sep 9	Proteins, Carbohydrates, and Lipids	3
	Sep 11	Proteins, Carbohydrates, and Lipids	3
4	Sep 16	Nucleic acids and Origin of Life	4
	Sep 18	Cells	5
5	Sep 23	Cells	5
	Sep 25	Exam 1	1-5
6	Sep 30	Cell Membranes	6
	Oct 2	Cell Signaling	7
7	Oct 7	Cell Signaling	7
	Oct 9	Energy, Enzymes, and Metabolism	8
8	Oct 14	Fall Break: Class Rescheduled Tomorrow	
	Oct 15	Energy, Enzymes, and Metabolism	8
	Oct 16	Pathways that Harvest Energy	9
9	Oct 21	Pathways that Harvest Energy	9
	Oct 23	Photosynthesis	10
10	Oct 28	Photosynthesis	10
	Oct 30	Exam 2	6-10
11	Nov 4	The Cell Cycle	11
	Nov 6	The Cell Cycle	11
12	Nov 11	DNA and Heredity	13
	Nov 13	DNA and Heredity	13
13	Nov 18	From DNA to Protein	14
	Nov 20	From DNA to Protein	14
14	Nov 25	Exam 3	11,13,14
	Nov 27	Thanksgiving: No Class	
15	Dec 2	DNA Technology	18
	Dec 4	DNA Technology (Last Class)	18
	Dec 6	LA Final Exam Review (TBD)	
16	Dec 9	LA Final Exam Review (TBD)	
	Dec 11	Final Exam (10:30-1:15)	Cumulative