

APPLIED ECOLOGY – EVPP/BIOL 377

Instructor: Dr. Travis Gallo, E-mail: hgallo@gmu.edu

Office hours (by phone): Wednesday 11am-1pm, call or text 940-367-0741
(office hours appointments preferred)

Course objectives

- Students reinforce their understanding of ecology
- Students learn how human impact on the environment is studied, managed, and mitigated
- Students learn to think critically about the interpretation of ecological data
- Students practice their comprehensive reading skills of scientific literature and their ability to analyze the application of the scientific method in scientific literature

Textbook: recommended, but not required

Applied Ecology: monitoring, managing, and conserving. Goodenough and Hart. Oxford University Press

Blackboard: required

Recorded lectures, homework assignments, course documents, grades, etc. are all posted on Blackboard (mymason.gmu.edu).

Lectures

Most lectures are pre-recorded, provided on Blackboard and remain available throughout the semester. The first lecture (week 1) and the review lectures (weeks 1, 6, and 11) are held synchronous ('live') using Zoom. Synchronous lectures are on Monday from 12-1:15pm.

Exams

Students' understanding of the lecture material is tested in two midterm exams and one final exam. The lecture exams will be open book and consist of multiple assessment styles (e.g., multiple choice, fill-in-the-blank, true/false questions, essays). Make-up exams are not given unless arranged in advance. The final lecture exam is comprehensive (cover all the material from the entire semester). All the exam material is discussed during lecture. Midterm exam grades represent 15% of the final grade, final exam grades represent 20% of the final grade.

Quizzes

Three quizzes (open book and notes) are held during the semester that test students on previously covered course material. Quizzes represent 15% of the final grade. Quizzes have a 10-minute time limit.

Homework assignments

During the semester each student completes three homework assignments. For these assignments, students read a provided scientific paper in Applied Ecology and analyze how the authors applied the scientific method. Late submissions are accepted, but one letter grade is subtracted for each day late. Homework assignments represents 20% of the final grade. The class is divided in three sections. Each week, students in one section have homework due (see schedule below).

Forum participation

Each week students are provided with forum-style questions or thought experiments. Students provide one response to the forum and reply to responses from two other students. Students' initial responses and replies are evaluated on substance (not on opinion, amount of text, etc.) and are graded pass/fail. Total forum participation represents 15% of the final grade.

Grading Rubric

First mid-term exam	15 points
Second mid-term exam	15 points
Final lecture exam	20 points
Homework	20 points
Quizzes	15 points
Forum participation	15 points
TOTAL	100 points

100-97% A+; 96-93% A; 92-90% A-; 89-87% B+; 86-83% B; 82-80% B-; etc.

Lecture schedule – this schedule is tentative

Wk	Mon - Wed	Lecture	Topic	Chapter	Homework	Quiz/Exam
1	Jan 25 - Jan 27	12-1:15pm (1/25)	Introduction	1		
2	Feb 1 - Feb 3	Asynchronous	Monitoring	3		
3	Feb 8 - Feb 10	Asynchronous	Indicators	4	Section 1	Quiz 1
4	Feb 15 - Feb 17	Asynchronous	Landscape processes - I	7	Section 2	
5	Feb 22 - Feb 24	Asynchronous	Landscape processes - II	7	Section 3	
6	Mar 1 - Mar 3	12-1:15pm (3/1)	Review	1,3,4,7		Midterm Exam I
7	Mar 8 - Mar 10	Asynchronous	Invasive Species	8	Section 1	
8	Mar 15 - Mar 17	Asynchronous	Pest management	9	Section 2	
9	Mar 22 - Mar 24	Asynchronous	Impact assessment	5	Section 3	Quiz 2
10	Mar 29 - Mar 31	Asynchronous	Bioremediation	6	Section 1	
11	Apr 5 - Apr 7	12-1:15pm (4/5)	Review	5,6,8,9		Midterm Exam II
12	Apr 12 - Apr 14	Asynchronous	Conservation I	10-11	Section 2	
13	Apr 19 - Apr 21	Asynchronous	Conservation II	12	Section 3	Quiz 3
14	Apr 26 - Apr 28	Asynchronous	Re-introductions	13		
15	May 3 - May 5		Final Exam Week	All		Final Exam

The following and additional information is available under the ‘Policies & Expectations’ section on Blackboard.

COVID-19:

The COVID-19 pandemic has changed all of our lives. Many of us are balancing multiple responsibilities, like school work, child/family care, and jobs. These stacked responsibilities can create scheduling difficulties. Some of us don't have an ideal space to take online courses or do our work. And the heightened vigilance surrounding not getting sick creates an emotional and physical burden on our everyday lives. These additional stresses can make us prone to getting sick or making a 'mistake' in our social distancing practices. I understand, and I want to whole heartedly stress that self-care and your health should be your top priority. Therefore, I will try to build flexibility in the class.

- 1) All lectures will be recorded. If you can't make it for any reason. You can watch the lecture later.
- 2) Attendance is not required (**applies only to Lecture**). I want you to come to class and sit in on the live lectures. But I understand how fluid this all is for everyone.
- 3) While attendance at Discussion is required, I will work with you if you are having difficulty attending. Please stay in communication with me.

With that said, the class will build on itself, and it will be easy to get behind. If you fall behind, stay in communication with me and work with me and I will help you catch up. The only thing I ask of you is to not abuse this sympathy for our collective shared circumstance. I too am dealing with two children at home, home schooling, a working partner, and a fear of myself or family member getting sick. Let's work together and support each other so that we can learn as much as possible given the current circumstances.

Mental Health:

Diminished mental health, including significant stress, mood changes, excessive worry, or problems with eating and/or sleeping can interfere with optimal academic performance. The source of symptoms might be strictly related to your course work; if so, please speak with me. However, problems with relationships, family worries, loss, or a personal struggle or crisis can also contribute to decreased academic performance and I recognize that.

Counseling and Physiological Services (CAPS) <http://caps.gmu.edu> provides mental health services to support the academic success of students. Their free and confidential psychological services include group counseling, skills-based workshops, case management, crisis consultations, time-limited individual counseling as well as faculty and staff consultation. They also have great online resources under the Well-Being tab. CAPS is operating during the COVID-19 pandemic and providing confidential resources and online telehealth meetings.

In the event I suspect you need additional support, I will express my concerns and the reasons for them, and remind you of these resources that might be helpful to you. It is not my intention to know the details of what might be bothering you, but simply to let you know I am concerned and that help, if needed, is available.

Getting help is a smart and courageous thing to do -- for yourself *and* for those who care about you.

Disability Accommodations

If you have a documented learning disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with Disability Services (SUB I, Rm. 4205; 993-2474; <http://ds.gmu.edu>) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.

Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:

As a faculty member, I am designated as a "Responsible Employee," and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu. George Mason University is committed to providing a learning, living and working environment that is free from discrimination and a campus that is free of sexual misconduct and other acts of interpersonal violence in order to promote

community well-being and student success. We encourage students who believe that they have been sexually harassed, assaulted or subjected to sexual misconduct to seek assistance and support. University Policy 1202: Sexual Harassment and Misconduct speaks to the specifics of Mason's process, the resources, and the options available to students.

Academic Integrity:

What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification. It is expected that students adhere to the George Mason University Honor Code as it relates to integrity regarding coursework and grades. The Honor Code reads as follows: "To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this: Student members of the George Mason University community pledge not to cheat, plagiarize, steal and/or lie in matters related to academic work." More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at <http://oai.gmu.edu>.

Privacy

The use of Blackboard is *required* for this class. You can log in using your GMU username and password at <http://mymason.gmu.edu>. I use Blackboard to post lecture slides, grades, homework assignments, etc. Please use your MasonLive email account to receive communications related to this class. I will not respond to messages sent from or send messages to a non-Mason email address.