

BIOL/EVPP 318: CONSERVATION BIOLOGY
FALL 2025
Wednesdays 4:30-7:10 PM Horizon Hall 5018 3 credits

Instructor: Dr. Cindy Smith

Office: 3018 David King (on campus will be limited)

E-mail: csmitc@gmu.edu (note there is no "h" in smith)

Office hours: Wednesday 3-4:30pm, or by appointment at specified time.

(office hours by appointments preferred, so I can share campus location or Zoom link)

Course Description:

The loss of the biological diversity is now one of the most rapid forms of environmental change in the modern era. This course covers the causes and consequences of biodiversity loss, and discuss approaches for overcoming these threats in ways that balance the needs of people and nature. The class begins by defining biodiversity and exploring why biodiversity is so important. The class then focuses on the main causes of biodiversity loss, focusing on how practitioners mitigate these impacts. The final portion of the course will focus on the most common theories, models, tools, and techniques that are used to conserve biological diversity. . This interactive class emphasizes student involvement and participation. Although there will be regular lectures by the instructor and guest speakers, the focus of the course will be on student-led in-class discussions.

Course Goal:

Students will gain a greater understanding of the major principles and contemporary issues in Conservation Biology.

Learning Outcomes:

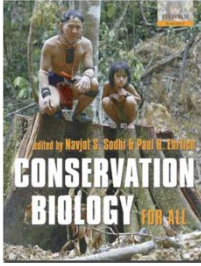
There are 5 learning outcomes that are designed to help students master the skills needed to obtain and be successful in a job working as a conservation biologist in a government agency, non-profit organization, or academia. Students will:

1. Explain and discuss common arguments used to justify conservation so that one can use those arguments in discussions with stake-holders who hold divergent world views.
2. Identify and compare the biological and social factors that control biodiversity, as well as the modern drivers of biodiversity change.
3. Differentiate between the theories, models, and tools that are used in various conservation disciplines
4. Assemble information and approaches from a variety of disciplines in the natural and social sciences to develop effective conservation planning.
5. Read, critically evaluate and lead discussion with classmates focused on peer-reviewed literature so that one can keep abreast of emerging problems, new techniques, and modern controversies that will form the foundation for extended learning throughout one's career.

Assigned Readings:

Course materials include our textbook, articles from the primary literature and occasionally from other media sources. All readings/viewings will be posted in Canvas.

Textbook (Free!):



Edited by Navjot S Sodhi and Paul Ehrlich. Conservation Biology for All. Open Source: <https://conbio.org/publications/free-textbook/>

This has great background content, and is helpful when you lead your discussion to build your confidence and competence.

Lectures:

Each Wednesday we will have live Lectures in class followed by peer-led discussions and activities

Discussions:

Each week we will have an in-person discussion focused on papers from the scientific literature. Typically, a team of 3-4 students will be assigned to lead each discussion section. The lead students for the week are expected their presentations to Canvas **before class starts on their Wednesday presentation date** and will submit responses to the Non-led Discussion Questions. Students not leading but 'participating' in the discussion must 1) attend each discussion section and 2) turn in short, concise answers to the posted questions before 4PM each Wednesday. At the start of the discussion, the lead students will provide a thorough yet concise (no more than 5 minutes!) overview of the paper(s). In the summary, you should: 1) review the major points of the paper, 2) highlight novel results and conclusions, 3) relate the paper to other readings or discussions in class or your own knowledge, and 4) raise questions or objections you have with the methods, results, and/or conclusions. Following the summary, the lead students should then be prepared to actively generate and facilitate discussion for the rest of the allocated time. 50% of your Discussion grade will be leading a discussion, and the other 50% will be attending and actively participating in the peer-led discussions. There are 13 discussions total. Therefore, you will be required to lead 1 and attend 11. You cannot miss the discussion that you lead as you will receive a zero. However, each discussion and quiz you actively 'participate' in is worth 6 points. You need 70 points to receive a perfect score for discussion 'participation' therefore there is flexibility to miss a discussion and two in-class quizzes. If you participate in all the discussions and quizzes, the extra points will be considered extra credit.

Industry Awareness Activities

To help familiarize you with plans, programs and trainings used by various agencies, you will be reviewing and commenting on various types of conservation plans and trainings. 70 Points.

One-pager Policy Handout:

Each student will be required to write a 1-page policy brief on the topic of your term paper. More details on this assignment will follow.

Midterms and Final Exam:

We will have one midterm and a final exam. The midterm will cover all material up to the previous class period. The final exam will be designed to encourage students to review and synthesize all course material. Exam questions will be taken from lectures, readings, and discussions. Everything discussed in

class is fair game. An alternative exam date will only be approved if you speak with me at least several weeks in advance with a valid reason.

Grading

Point allocation for evaluation of students (**all late assignments will incur a 10% drop in grade per day**):

TOTAL POINTS

Discussions Leaders	60 points (1 x 60 points each)
Group Discussion Facilitation	60 points
Non-led Discussion Participation	70 points
Answers to Discussion questions submitted before class	12 x 4pts = 48 (13 total)
Active in-class participation quizzes	11 x 2pts = 22 (13 total)
	Bonus points for submitting all 13
Industry Awareness Activities	70 Points
1-page Policy Brief	50 points
Outline posted to DB = 10pts	
Policy Brief = 40 pts	
Exam I	50 points
Final	100 points
TOTAL	400 points

Grades will be based on the following percentages: 100-98 = A+; 98-93 = A; 92-90 = A-; 89-88 = B+; 86-83 = B; 82-80 = B-; 79-78 = C+; 77-72 = C; 71-70 = C-, 69-60 = D; ≤ 59 = F.

Extra Credit: As hands-on learning is essential to build skills in conservation, students can obtain extra credit for attending hands-on conservation programs during the semester, such as an organization's stream monitoring/clean-ups, bird walks/tallies, small mammal/fish identification, volunteering as a research assistant, etc.. Extra Credit **MUST** be well-documented with photo evidence as detailed in course website.

Lecture Slides:

I will do my best to the lecture slides by 3pm the day of class.

The class will build on itself, and it will be easy to get behind. If you fall behind, stay in communication with your peers and me. **Always read/watch the content, review the slides and connect with peers before you reach out to your instructor about what you missed.**

Rules and Expectations:

In correspondence/communication students will be expected to:

- Be professional and respectful in correspondence
- Make reasonable requests of the instructor. We will be happy to clarify course material and answer legitimate questions; however, please exhaust other information sources (e.g., syllabus, Canvas, peers) for answering your question before contacting us and remember,

“Poor planning on your part does not constitute an emergency on my part”

In regard to honesty in work students will be expected to:

- a) Review the University integrity and honesty policies in the student handbook for guidelines regarding plagiarism and cheating (summarized below). I will gladly clarify my stance on any questionable or “grey area” issues you may have.
- b) Refrain from dishonest work as it will receive a minimum penalty of zero on the assignment and a maximum penalty of a zero for the course with a report to the Honor committee. The GMU Honor Code requires that faculty submit any suspected Honor Code violations to the Honor Committee. Therefore, any suspected offense will be submitted for adjudication.
- c) **USE of Generative AI tools:** When explicitly stated by the instructor, Generative AI tools are allowed on the named assignment. Use of these tools on any assignment not specified will be considered a violation of the academic integrity policy. **Students must cite the use of generative AI on any assignment where it has been used.** Errors from inappropriate use and lack of review for accuracy on your part will be penalized. See Mason guidelines: <https://www.gmu.edu/ai-guidelines/ai-guidelines-students>

Mason Honor Code

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 honor code:
Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

Mason is an Honor Code university; please see the [Office for Academic Integrity](#) for a full description of the code and the honor committee process. Three fundamental principles to follow at all times are that: (1) all work submitted be your own, as defined by the assignment; (2) when you use the work, the words, or the ideas of others, including fellow students or online sites, you give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment or exam, ask for clarification. No grade is important enough to justify academic misconduct.

Cheating

Any form of cheating on an activity, project, or exam will result in zero points earned and you may be referred to the Office of Academic Integrity. “Cheating” includes, but is not limited to, the following: reviewing others’ exams, having extra devices open during online exams, reviewing online question sources and/or having ANY resources utilized when not allowed, collaborating with another student during an individual assignment, or exam as well as using online sites such as Chegg, Course Hero, Quizlet, ChatGPT, Grok other AI uncited sources, when researching, submitting assignments and taking exams. Your instructor may question you on your work, and depending on your verbal response, you may be cited for cheating. These violations are taken seriously and will be addressed in accordance with university policies. If you have questions about when the contributions of others to your work must be acknowledged and appropriate ways to cite those contributions, please talk with the professor or utilize the GMU writing center.

Use of Generative AI

When explicitly stated by the instructor, Generative AI tools are allowed on the named assignment. Students will be directed if citations or statement-of-usage direction is required. Use of these tools on any assignment not specified will be considered a violation of the academic standards policy. All

academic standards violations will be reported using the Academic Standards Referral Form.

Copyright rules also apply to users of the Internet who cite from Internet sources. Information and graphics accessed electronically must also be cited, giving credit to the sources.

<https://writingcenter.gmu.edu/writing-resources/citing-sources/plagiarism>

This material includes but is not limited to e-mail (don't cite or forward someone else's e-mail without permission), newsgroup material, information from Web sites, including graphics, AI generated resources, etc... Even if you give credit, you must get permission from the original source to put any graphic that you did not create in your presentations. Shareware graphics are not free. Using someone else's Internet material in your assignment is stealing intellectual property. Review the [Mason Honor Code Violation site](#).

Individuals with Disabilities

Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit <http://ds.gmu.edu/> for detailed information about the Disability Services registration process. Then please share your approved accommodations with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu | Phone: (703) 993-2474

Academic Integrity and Inclusivity

This course acknowledges that we all have differing perspectives and ideas and we each deserve the opportunity to share our thoughts. Therefore, we will conduct our discussions with respect for those differences. That means, we each have the freedom to express our ideas, but we should also do so keeping in mind that our colleagues deserve to hear differing thoughts in a respectful manner, i.e. we may disagree without being disagreeable. <http://oai.gmu.edu/>

We are an intentionally inclusive community, promotes and maintains an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability.

Name and pronoun use: If you wish, please share your name and gender pronouns with me and indicate how best to address you in class and via email. I use she/her for myself and you may address me as Dr. or Professor Smith, in email and verbally.

Student Privacy Policy:

George Mason University strives to fully comply with [FERPA](#) by protecting the privacy of student records and judiciously evaluating requests for release of information from those records. Please see George Mason University's student privacy policy <https://registrar.gmu.edu/students/privacy/>

Student Support Resources: Please check: <https://stearnscenter.gmu.edu/knowledge-center/knowning-mason-students/student-support-resources-on-campus/>

Please review Mason's Common Course Policies regarding Academic Standards, FERPA and Use of GMU Email Addresses for Course Communication, and Title IX Resources and Required Reporting here: <https://stearnscenter.gmu.edu/home/gmu-common-course-policies/>

E-Mail Policy: When corresponding with your instructors, please be professional. Address your professor as Dr. Smith or Professor Smith. Next, state your question or comment and indicate what you understand after reading the instructions and checking in with peers. Sign your full name and even better if, add a signature describing yourself (e.g. Junior, Environmental Science and Policy). Emails are typically answered within 24 hours during the week, M – F from 9-5pm.

Students must use their Mason email account to receive important University information, including communications related to this class. I will not respond to messages sent from or send messages to a non-Mason email address. Mason uses electronic mail to provide official information to students. Students are responsible for the content of university communication sent to their Mason e-mail account and are required to activate that account and check it regularly.

Student opportunity: If you prefer to speak to someone confidentially, please contact one of Mason's confidential employees in Student Support and Advocacy (SSAC), Counseling and Psychological Services (CAPS), Student Health Services (SHS), and/or the Office of the University Ombudsperson. All students have a Success Coach at Mason, and you are encouraged to meet with them when experiencing challenges, or just to check in. Find your coach: <https://coaching.gmu.edu/findyourcoach/>