

CONSERVATION BIOLOGY (Bio 375: undergraduate)
ADVANCED CONSERVATION BIOLOGY (Bio 380C: graduate)
Spring 2024

Bio 375, unique # 49030 (undergraduate)

Bio 380C, unique # 49080 (graduate)

Meeting time: TTh 9:30-11:00 am

Room: BIO 301

Course scope and goals

One definition of conservation biology is the application of biological concepts, facts, methods, and questions to the preservation of biological diversity. In this course we will focus upon the applications of ecology (in the academic sense), and more specifically upon applications of population and community ecology, to the preservation of biodiversity. The primary goal of the course is to give biology students knowledge about these real-world applications of ecology. For example, we will explore the applications of population ecology to protecting species that are in danger of extinction, and the applications of community ecology to understanding the impacts of non-native invasive species.

This course is designed to be particularly useful to undergraduate students considering graduate school in ecology or conservation biology, to graduate students interested in research related to conservation biology, and to anyone considering a career in conservation biology outside of academia. The content and skills that this course stresses will help prepare you for these futures.

The course will also help you develop general skills, especially finding, reading, evaluating, and synthesizing documents of many kinds (which you can list as a skill on a resume!).

This course carries an ethics flag for undergraduates. The ethics component of this course will focus on identifying stakeholders, understanding different kinds of values, identifying your own values and the values of each stakeholder, and the roles of values in real-world conservation and decision-making in general, especially in interactions among people with different values. I also hope that this course will also help you develop your skills in “hearing” what other people have to say and understanding their underlying values and viewpoints, and in general in interacting with people with whom you may or may not agree. All of these ethics-related skills are very useful in almost any career.

Course format

This course has a ‘face-to-face’ format. Attendance is required. Attendance will be taken and will be part of your grade.

If you are ill, especially with a communicable respiratory disease, or your roommate has a communicable respiratory disease, I encourage you to ask for permission to miss class without penalty. The slides from each lecture will be posted. I am also considering making audio recordings, especially if too many people have to miss class due to illness and/or exposure. Masking is encouraged if you suspect you are getting ill or have been exposed.

Small group discussions during class will involve each group accessing and writing a Google Doc. Your UT-provided email (<[name](mailto:yourname@utexas.edu)>@utexas.edu) is a gmail account that insures that you can access Google Docs.

Canvas

Course materials, including this syllabus, will be posted on our course Canvas website. Assignments will be downloaded from the appropriate Canvas module and uploaded via Canvas Assignments. However, if for any reason you cannot get an assignment uploaded this way, send it to nfowler@austin.utexas.edu as an attachment.

Our Canvas website is organized via Modules. For example, one Module folder holds this syllabus and the schedule, a different Module folder has the assigned readings not in the textbook, a third Module folder holds pre-class assignments, and so on.

Microsoft Word

Written assignments (other than in-class Google Docs and graduate student powerpoint slides) must be submitted as Microsoft Word .doc or .docx files. No other formats will be accepted. If you have not done so already, download a free copy of Microsoft Office (<https://office365.austin.utexas.edu/>) for Windows or Mac. It will include Word, Excel, and Powerpoint. You can also access Word in the cloud for free via UT, but I don't recommend it. I strongly discourage doing your written assignments using Google Docs and then trying to convert them into Word files, because in my experience students who try this frequently submit assignments that - at best - do not meet the formatting requirements. Adobe .pdf files are not accepted.

Professor: Dr. Norma Fowler, Department of Integrative Biology.

email: nfowler@austin.utexas.edu. Please use this email address, not Canvas email, to communicate with me.

office hours: Sign up for an appointment at <https://docs.google.com/document/d/13vuimR6iI3UciRsAGWGrkb4IO0bKWVCHN7eg9H7uVp4/edit>. If none of the listed appointment times work for you, let me know after class or by email (nfowler@austin.utexas.edu) so we can jointly find a time that works for both of us. I may modify the listed appointment times during the semester so they work better for more students, but in my experience no single set of pre-set office hours has worked for all the students in this

course.

Required readings

- Hunter, M. L., J. P. Gibbs, and V. D. Popescu. 2021. *Fundamentals of Conservation Biology*, 4th edition. Blackwell. An electronic version is available through the Longhorn Textbook Access program. There are probably also used copies available on the internet.
- A large number of handouts, scientific papers, government documents, book chapters, and other documents available as pdf files in a course Canvas Module folder.

Assigned readings (see Schedule) must be completed before the class by which they are listed in the schedule. Some days have very heavy reading assignments, so reading ahead is strongly recommended! Pre-class worksheets may include questions on these assigned readings.

Calculation of course grade for undergraduate students

50% exams: 25% for each of two exams

35% individual project assignments, divided among 2 project worksheets, a short bibliography, a long bibliography, and a short essay. The approximate split among these assignments is 2.5% - each worksheet; 5% - short bibliography; 15% - long bibliography; 10% - essay, which sums to 35% of your grade.

15% for non-project pre-class worksheets, in-class discussions, and general attendance and participation.

Plus/minus grading will be used.

Calculation of course grade for graduate students

40% exams: 20% for each of two exams

45% individual project assignments, divided among 2 project worksheets, a short bibliography, a long bibliography, a short essay, a short oral presentation, and a term paper.

15% for non-project pre-class worksheets, in-class discussions, and general attendance and participation.

Plus/minus grading will be used.

Exams

Two take-home exams, each a mix of long essays, short essays, and shorter questions. Although they are written to be completed within the class period, you will have 24 hours to complete each of them.

Pre-class assignments

Two of these will be worksheets on your individual project. Most of the others will be worksheets on material from the assigned readings and/or material covered in previous lectures. Pre-class assignments should be downloaded from the Canvas Module folder, completed, and uploaded via Canvas. They are due at the beginning of class and so the Canvas assignment will close then.

In-class worksheets

These will usually be completed in small groups, on Google Docs.

Schedule: posted separately, in the Syllabus folder in Canvas Modules.

Important dates 2024

Jan 19: 4th class day. Last day to add a class without permission.

Jan 31: 12th class day. Last day to drop a class without permission.

Mar 11-16: Spring Break.

Mar 26: Last day an undergraduate may Q-drop a class or change a class to pass/fail.

Apr 29: Last class day. Also, last day an undergraduate student may request, with required approvals, a non-academic Q-drop (from the Dean's office, not the instructor of the class).

Course policies

- 1. coming late, leaving early.** I will make every effort to begin and end class on time. I expect you to be ready to begin class at 9:30 and to stay engaged until 10:45. Doing so is part of your attendance grade, in addition to whatever effects there may be via missed lecture material, missed announcements, etc. If you have some medical situation or other need to leave during class, please let me know at the beginning of class, and try to sit near the door if you can.
- 3. assignments due at 9:30 am.** All assignments are due at the beginning of class, except worksheets done in class and exams due at 9:30 the following day. If you can't get it uploaded on time due to problems with Canvas, send it to me directly (nfowler@austin.utexas.edu) as an email attachment; the time stamp on the incoming email will serve to show it was completed on time. Computer problems will not be accepted as an excuse for lateness of assignments. Because of this policy, there is never a reason to come late to class or to skip class to work on an assignment.
- 4. late assignments.** Regular (that is, non-project) pre-class assignments cannot be turned in late, because I go over them at the beginning of class. Any other written assignment turned in late will have points taken off for lateness, even if it is only a few minutes late. In general, late is always better than never: better to receive a lower grade than a zero. However, the absolute cutoff for submitting late assignments is 9:30 am on April 25, that is, at the beginning of the last meeting of this class - assignments turned in after that will not be accepted (but see 'special situations' below).
- 5. challenges to grades.** Any challenge of any grade must be made in writing, including an explanation of why you think your grade is in error, within one week of the day that the test, assignment, or paper is returned. If a key has been posted, any challenge of a test or assignment grade, except for addition errors, must include a written explanation of why your answer is the same as the answer in the key or why your answer is correct despite being different from the answer in the key. Please note that the graders and I grade the paper, not

the student, and we do not attempt to guess what may be in your mind.

6. **written assignments.** See the relevant handouts for details. Follow ALL the directions provided on these handouts, including formatting requirements. Points will be deducted for failure to conform to these requirements. I consider these expectations part of preparing you for jobs and grad school, since failures to meet similar expectations in a workplace, grant proposal, etc. have serious consequences.
7. **timely notification about special needs, religious holidays, etc.** University policy, with which I concur, is to work with students to address their special circumstances. Students are expected to take quite a bit of responsibility for this. Timely notification of your professors is essential and is primarily your responsibility. I expect notification of all relevant pre-existing or foreseeable situations no later than the 12th day of the semester.
8. **academic integrity.** Students who violate University rules on academic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all other students, and the integrity of the University, policies on academic dishonesty will be strictly enforced. For further information please see <https://catalog.utexas.edu/general-information/appendices/appendix-c/student-conduct-and-academic-integrity/>. Briefly, academic dishonesty involves actions like getting outside input on an assignment (unless specifically permitted) and plagiarism.
9. **use of AI and other non-permitted software.** In this course, use of ChatGPT or one of the AI so-called essay-writing tools or other AI software is not permitted. There are several reasons for this. (1) Content produced by such a tool does not represent your own, individual, unaided work, and is therefore not allowed, by course policy and our honor code. Submitting it is academic dishonesty in this course, regardless of what other courses are doing. (2) These tools generally do not provide sources, so their use constitutes plagiarism. (3) Uploading material from another document to these tools to ‘prime’ them puts uncredited material from another author into uncredited, unapproved public use, breaking various copyright laws. (4) These tools pull material from all sorts of sources, including those that do not meet this course’s standards of acceptability, and they also do not have your level of understanding of the concepts, terminology, etc of the material. Therefore the result is likely to be ‘science-y’ sounding text that is factually incorrect, inconsistent, and/or incomplete.

You will be required to sign statements affirming that all the work you submit is your own, completed without any help or input from anyone else and without using text-producing AI, unless such input is specifically permitted (such as group in-class worksheets, or help from UT librarians in locating documents).
10. **Permitted software.** You must use Microsoft Office (see above). You are encouraged to use Google Scholar, Web of Science, TreeSearch, and other document search software to identify and locate documents - but you have to evaluate the quality and suitability of what the search

software finds. Using software like Medley and EndNote for storing, organizing, and formatting references is acceptable. Publically-available highly-reliable data bases like USDA PLANTS and GoogleEarth are acceptable. Using an online dictionary is strongly encouraged! When in doubt about whether a piece of software is permitted, ask.

11. general classroom behavior. This has not been a problem in this course in the past, but we are encouraged to include it in syllabi anyway. Courtesy to others is expected and required. This includes, for example, turning off cell phone rings, not having private conversations during class, and sitting near the door if you need to leave early. You may bring food and drink to class, but please consume it in a way that does not distract others. Questions during lectures are always welcome, but the answers may be postponed to let me finish a thought. Since we do not have a TA, student help in arranging the chairs, window blinds, etc. before and after class is much appreciated, but please don't let it make you late to your next class.

12. civil discourse. This is another issue that has not been a problem in the past, but needs mention. Civil discourse requires being respectful of other people, putting communication over scoring points, really listening as well as talking, and so on. It seems to be becoming more and more a challenge in our society. Nevertheless it is required in our classroom. Civil discourse does not eliminate disagreements. On the contrary, disagreements about conservation-related policy are encouraged in this class. For example, should we "shoot Bambi" to preserve endangered wildflowers? This is a values-based question that science does not answer; opinions on both sides are welcome. However, hurtful or disrespectful personal comments are not allowed. To continue the example, you are welcome to say that you think shooting deer should not be done because it is unethical or cruel, but you may not say that your classmate who is in favor of lethal control of the deer population is an unethical or cruel person.

13. arrangements for special situations

- If you have special physical needs or any other disability, it is your responsibility to register with the Disability and Access office (formerly known as the Services for Students with Disabilities office) and work with me to develop an appropriate plan for this course as soon as possible. They will give you a letter for me, and I will do everything I can to work with you and the Disability and Access office to make sure you get the accommodations you need - as long as I hear about it in time to do so.

Your medical history and situation are confidential. Your medical information has to be shared with the Disability and Access office to get accommodations, but not with professors or fellow students. The Disability and Access office will only share information about accommodations, not about causes.

- If you have religious holiday(s) that will cause you to miss class, let me know as soon as possible. We will work together on an appropriate accommodation.

- If you will be attending a scientific meeting, or have other time-restricted research-related obligations that prevent you from attending class, let me know as soon as possible and we will work together on an appropriate accommodation.

- Try to schedule graduate school interviews outside of class meeting times. If this is not

possible, let me know and we will see what we can work out to minimize any potential negative impacts on your learning in this course.

- In general, career-related absences whose scheduling you do not control will be excused. This does not include, however, training or other obligations for non-career-related employment (e.g., the store manager is pressuring you to work extra shifts).

- If you get sick for a day or two, do the readings, view the slides, view the GoogleDocs if there was an in-class discussion, and get notes from a classmate. There may be an audio recording - I'm not sure about this yet. There are no makeups for regular pre-class assignments, but the lowest pre-class assignment grade (excluding those related to your project) will be dropped. With appropriate documentation and approval, late penalties for project assignments may be waived, but all of those assignments are still required. If you miss an exam due to illness or injury, and provide appropriate documentation of this, you will be allowed to take a makeup, albeit in a different format (a few long essays).

- If you get sick or injured for longer than a day or two, please concentrate on getting well, and we will deal with the situation when you are better. I don't want anyone in the emergency room worrying about this course! If you find that you have special physical needs that develop during the semester (broken wrist?), let me know as soon as you reasonably can (again, it is not necessary to call from the emergency room!) and we will deal with them, perhaps by involving the Disability and Access office and/or the CNS Dean's office.

- There are other special circumstances not covered by this list that sometimes arise. Examples could include pregnancy or sick kids or an apartment building fire. In other words, life happens. I am happy to consider accommodations if you let me know about the situation as soon as reasonably possible.