

CONSERVATION BIOLOGY (Bio 375: undergraduate)
ADVANCED CONSERVATION BIOLOGY (Bio 380C: graduate)
Spring 2018

Bio 375, unique # 49500 (undergraduate)

Bio 380C, unique # 49530 (graduate)

Meeting time and place: TTh 9:30-11:00 am, BIO 301

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

phone: 471-1295

email: nfowler@austin.utexas.edu

office hours: TTh immediately after class; by appointment at other times and days, in BIO 108B. No single set of office hours seems to work for students in this course, so fixed office hours are limited to immediately after class. Please contact me, by phone or email, to make an appointment if you can't stay after class to do so. And please don't be put off if the door to BIO 108B is closed; just knock. (My office location seems to make people assume I am the receptionist for everything related to biological sciences!)

Course scope, 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. The primary goal of the course is to give biology students knowledge about some of the real-world applications of ecology. The course will be particularly useful for students considering careers and/or graduate school in conservation biology. The course will also help students develop general skills, especially finding, reading, evaluating, and synthesizing documents of many kinds (which you can put as a skill on your resume!).

This course carries an ethics flag for undergraduates. The ethics component of this course will focus on identifying stakeholders, different kinds of values, identifying your own values and the values of each stakeholder, and the roles of values in real-world conservation, especially in interactions among people with different values and in decision-making.

Texts:

H: Hunter, M. L. 2007. *Fundamentals of Conservation Biology*, 3rd edition. Blackwell.

R: the 'green book', a collection of readings available from the copy center in the Student Union.

Assigned readings must be completed before the class by which they are listed in the schedule. Some days have very heavy reading assignments; reading ahead is strongly recommended! To encourage preparation, you will usually have a quiz on the assigned reading(s) at the beginning of the class for which they are assigned. Bring the green book, but not Hunter, to class with you.

Calculation of course grade for undergraduate students:

50% exams: 25% for each of two 1.5 hr exams

15% quizzes, attendance, class participation

35% annotated bibliographies and short paper

Plus/minus grading will be used.

Calculation of course grade for graduate students

40% exams: 20% for each of two 1.5 hr exams

20% quizzes, attendance, class participation, class presentation

40% annotated bibliographies, short paper, term paper

Plus/minus grading will be used.

Quizzes: Short, 'spot-check' quizzes will be given at the beginning of some classes. These quizzes will include material from the readings assigned for that class and/or material from readings assigned for previous classes and/or material from previous lectures.

Drop dates (from the official 2016-2017 course schedule):

Jan19: 4th class day. Last day of the official add/drop period.

Jan 31: 12th class day. Last day to drop for possible refund.

Apr 2: Last day an undergraduate student may, with the dean's approval, withdraw from the University or drop a class except for urgent and substantiated, non-academic reasons.

Course policies

- 1. electronic devices.** All electronic devices, including cell phones, iPods, and computers, must be turned off and stowed away during class. (Human nature being what it is, it does not seem possible to have computers on in a classroom and not have people web-surfing, etc.) There are two exceptions to this policy. If you have a note from the Services for Students with Disabilities (SSD) office, I will work with you to make sure you have whatever arrangements they recommend, including whatever electronic devices they authorize. The second exception is that I don't mind if you make an audio recording of a lecture, as long as it is done without distracting or disrupting the class.
- 2. 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 the end. Doing so is part of your attendance grade (see above), in addition to whatever effects there may be via missed quizzes, missed announcements, etc. If you have some medical situation or other need to leave the room during class, please let me know at the beginning of class.
- 3. assignments due at 9:30 am.** Assignments are due at the beginning of class. Any assignment turned in after 9:30 will have points taken off for lateness. Because of this policy, there is never a reason to come late to class or to skip class to work on an assignment. Computer problems will not be accepted as an excuse for lateness of assignments.
- 4. 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, quiz, or paper is returned. If a key has been posted, any challenge of a test or quiz 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.

- 5. written assignments.** Follow ALL the directions provided on the 'written assignments' handout, which includes requirements for formatting, etc. Points will be deducted for failure to conform to these requirements - just as failure to meet similar workplace expectations will have serious consequences.
- 6. 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 pre-existing or foreseeable situations no later than the 12th day of the semester.
- 7. 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 students, and the integrity of the University, policies on academic dishonesty will be strictly enforced. For further information please visit the Student Judicial Services Web site:
<http://deanofstudents.utexas.edu/sjs>.

8. arrangements for special situations

- If you have special physical needs (including those arising from conditions such as dyslexia), it is your responsibility to register with the Services for Students with Disabilities (SSD) office and work with them 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 SSD office to make sure you get the accommodations you need - as long as I hear about it in time. At present, they do not have enough staff to administer tests to everyone who requests this service, so it is essential that if you are allowed special testing arrangements you schedule your tests with SSD immediately.

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

- There are some other situations that are not religious holidays and not part of the SSD office responsibilities, but should still be brought to my attention as soon as possible because they can affect attendance (e.g., pregnancy/ childbirth). Let me know and we will see what we can do.

- If you get sick for a day or two, get the notes from the lecture or discussion you missed from someone in the class. If you miss an exam due to illness, and provide documentation of your illness, you will be allowed to take a makeup. The makeup will be one or two long essay questions instead of the shorter questions of the original test.

- If you get sick or injured for longer than a day or two, 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 their biology 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 SSD office and/or the CNS Dean's office.

Schedule

Readings from the textbook are marked H. The full citations for the readings in the green book of reading (marked R) are in the Table of Contents of that book. Unless otherwise indicated, the handouts in the green book were written by Dr. Fowler.

Date	Lecture topics & assignment due dates	Reading assignment (H:Hunter, R:green book)
T Jan 16	Biodiversity and its loss	
Th Jan 18	Biodiversity and its loss	H: pp. 3-40, 65-70, & p. 113 R: (5) literature searches R: (6) acceptable documents
T Jan 23	Biodiversity and its loss	H: pp. 114-135, 150-174, 181-203 R: (4) reading documents critically choice of topic due
Th Jan 25	Population growth	H: pp. 135-149, 281-309 R: (7) citations and formats R: (8) common writing problems
T Jan 30	Density-dependence, age & size structure	R: (11) background - loggerhead R: (12) Crouse
Th Feb 1	Temporal variation; MVPs	R: (9) probability R: (10) extinction
T Feb 6	Spatial patterns.	R: (13) background - spotted owl R: (14) USFWS short annotated bibliography due
Th Feb 8	Case studies: single species	R: (15) Welch
T Feb 13	Case studies: single species	
Th Feb 15	Genetic issues	R: (16) genetic issues R: (17) Johnson R: (18a) Hedrick R: (18b) Johnson R: (19) Packer
T Feb 20	Non-native species	H: pp. 205-222 R: (20) background - Hawaii

Conservation Biology (Bio 375/380C). Syllabus, p. 5

Th Feb 22	Case study: Hawaii	R: (21) Carlquist R: (22) Cox
T Feb 27	Case study: Hawaii	R: (23) Vitousek R: (24) State of Hawaii
Th Mar 1	EXAM 1	
T Mar 6	Communities	H: pp. 77-85 & 174-180, review 65-70 long annotated bibliography due
Th Mar 8	Communities	R: (25) communities R: (26) community dynamics R: (27): federal land agencies
<i>March 12- Mar 16. Spring break.</i>		
T Mar 20	Conservation design & management	H: pp. 226-251
Th Mar 22	Conservation design & management	H: pp. 252-280
T Mar 27	Case study: Yellowstone	R: (28) background - Yellowstone R: (29) Baron 2002 R: (30) Elfring R: (31) Christensen R: (32) Baskin
Th Mar 29	Case study: Yellowstone	R: (33) Ripple R: (34) Creel
T Apr 3	Case study: Yellowstone	short essay due
Th Apr 5	Case study: New Mexico	R: (35) background - NM R: (6) Allen 2002
T Apr 10	Case study: New Mexico	R: (37) Derr R: (38) Dahms
Th Apr 12	Case study: New Mexico	R: (39) Sydoriak R: (40) Allen & Breshears
T Apr 17	Why preserve species & ecosystems?	H: pp. 40-64 & 70-77, review 10-13
Th Apr 19	Why preserve species & ecosystems?	R: (41) Leopold

Conservation Biology (Bio 375/380C). Syllabus, p. 6

T Apr 24	International conservation	
Th Apr 26	EXAM 2	
T May 1	grad student talks; Austin area conservation (if time allows)	R: (42) conservation in Austin area talk evaluations due (at end of class)
Th May 3	Austin area conservation; course evaluations	talk evaluations due (at end of class) grad student term papers due
<i>no final exam</i>		