SPRING 2017: COURSE SYLLABUS
WILD 4600: Conservation Biology
TTh 10:30-11:45 am, BNR 314 (USU Logan Campus)
3 CREDITS, REQ: Wildlife Science, CREC Majors

Instructor: Karen Beard, Professor
Office: NR 132, 7-8220 Email: karen.beard@usu.edu
Office hours: Tuesday, Thursday, 12 - 1 pm. Because these office hours may not fit into every
student's schedule, or I may be busy with another student when you come by, you are
couraged to contact me by email to make alternative arrangements or you can also just stop
by another time.

TA: Shane Hill
Office: NR 323 Email: shanehill.usu@gmail.com

Canvas web support: Lecture slides, handouts, readings and updated syllabi, etc. will be
available on Canvas (https://learn-usu.uen.org/login). Readings, etc. will be placed on the
website a few days before they are required. Lectures will be placed on the website the evening
before the lecture, but will also likely be updated the same day as the lecture if required.

Course Description: For most of the course, we will delve into principles and theories relating to
the conservation of biological diversity. The course will focus on the following topics: patterns
and processes creating biological diversity; estimates of extinction rates; consequences of
diversity losses; approaches to conserving diversity, including large-scale conservation planning;
conservation biology tools, such as population viability analyses and conservation triage; and
causes of diversity loss including habitat loss, invasive species, and climate change. Prerequisites:
NR/Biol 2220 (3 cr) (Sp)

Pre-requisites: This course is designed to build on basic ecological knowledge developed in
“General Ecology” (NR/Biol 2220) and to complement the more applied knowledge obtained in
“Plant and Animal Populations” (WILD 3810) and “Genetics in Conservation and Management”
(WILD 4880).

Readings: There is no required textbook. There will be readings from scientific journal articles
and other documents that will be available on the course website at least one class period prior
to their discussion. Students are expected to read assigned material before class and to
contribute during class. Some class periods will be heavily devoted to discussion. If you want
background reading, Richard Primack’s Essential of Conservation Biology and Peter Kareiva’s
Conservation Science are excellent choices.

Course Projects: This semester everyone will participate in two group projects. One project will
be a research project on a hot topic in conservation. For this project, your group will do a 5-minute presentation (speed talk) for the rest of the class at some point during the semester, depending on your assigned topic. The second course project will be a group project focused on evaluating critically a state conservation or management plan.

**Speed Talk:** Everyone will be assigned a speed talk (2-3 individuals) group. A speed talk is a 5-minute oral presentation in the style of a scientific conference. Students will submit PowerPoint presentations (due the day before the presentation), deliver a 5-minute presentation summarizing the key ideas and results of their review, followed by 2 minutes of questions from the rest of the class. The material presented is fair game for exams.

**Conservation Plans:** Everyone will be assigned to a team (4-5 individuals) who will do a critical evaluation of a state conservation or management plan. The point of these assignments is to delve more deeply into some conservation issue with a species of concern in or around Utah. Further, I’d like you to evaluate critically the plans for species and provide valuable advice on how we should proceed if we want to conserve them into the future.

**Homework/In-Class Exercises:** Over the course of the semester, we will do several exercises. Some of them will be calculations we start in-class. Some of them will involve developing ideas in class with a small group. Some will involve completing more in-depth exercises or investigating topics outside of class. We will go over these in class, and typically start them in class. They will usually be due before the following class period. I will often post exercises the day before we do them in class. If you miss a class and therefore an exercise, it will be posted on the course website. If you have a problem completing the assignment before the next class period, come see me.

*It will be useful if you bring computers and/or calculators with you to class for many of these exercises. Much appreciated!*

**Honors:** This class is offered as an Honors Class on a contract basis. Students wishing to take this class for Honors should contact me during the FIRST week of class.

**Course objectives:**

1) To gain factual knowledge (terminology, classifications, methods, trends) and learn fundamental principles, generalizations, and theories relevant to the conservation of biological diversity.

2) To learn to analyze and critically evaluate ideas, arguments, and points of view related to the field of conservation biology, and to learn to apply course material (to improve thinking, problem solving, and decisions).

3) To learn how to find and use resources for answering questions or solving problems, and to develop skills in expressing oneself orally and/or in writing as well as acquiring skills in working with others as a member of a team.
Objectives from IDEA:
1) Learning fundamental principles, generalizations, or theories.
2) Learning to apply course material (to improve thinking, problem solving, and decisions).
3) Learning how to find and use resources for answering questions or solving problems.

Required as part of the course:
1) Critical thinking
2) Oral communication
3) Writing
4) Mathematical/quantitative work
5) Group work

Upon successful completion of this course students will be able to demonstrate:
1) An understanding of basic conservation biology issues, including where the field has been and where it is going;
2) An understanding of the ecological principles upon which conservation decisions are made, and be able to cite examples of their use; and
3) Demonstrate an appreciation for, and some understanding of, the social, political, and economic factors that affect conservation.

Student Evaluation: Assessment of student performance will be based on three exams, successful completion of homework/in-class assignments, participation in one speed talk and participation in one species conservation plan project.

Break-down:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework/In-Class Exercises (15 exercises)</td>
<td>45%</td>
</tr>
<tr>
<td>In-Class Quizzes (10 quizzes)</td>
<td>20%</td>
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<tr>
<td>Evaluation of Conservation Plans:</td>
<td>35%</td>
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<tr>
<td>10 references: 5%</td>
<td></td>
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<tr>
<td>Paper outline: 5%</td>
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<tr>
<td>Graded draft: 5%</td>
<td></td>
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<tr>
<td>10-minute presentation: 10%</td>
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<tr>
<td>Final write-up: 10%</td>
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<tr>
<td>TOTAL</td>
<td>100%</td>
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- In-class quizzes. These quizzes will be from the reading assigned for that day. If you do the reading, the quizzes should be straightforward. There will be about 10 quizzes over the semester worth ~2% each. There will likely be 1 extra quiz so that 1 can be dropped.
- Speed talks, discussions, some exercises and evaluations of conservation plans will require out-of-class research and preparation. We may discuss assignments **the class period they are due**. So, it is important that assignments are turned in on time.
**Important, Please Note:** Assignments are due IN CLASS on the assigned due date. Points will be taken off for late submissions (5% for EACH DAY that the assignment is late **INCLUDING** the day it is due). Unless your assignment is 20 days late it is worth turning it in to get SOME points.

**Students who are unable to attend an exam must contact me prior to the exam.** Arrangements for make-up exams will only be made for justifiable reasons. If you are looking for a returned assignment, exam, or anything else given out in class, it will likely be in my office (NR 132).

End of semester averages are translated to letter grades as follows: 93-100%: A; 92-90%: A-; 89-88%: B+; 87-83%: B; 82-80%: B-; 79-78%: C+; 77-73%: C; 72-70%: C-; 69-68%: D+; 67-63%: D; <63%: F.

**Academic integrity:**
Each student has the right and duty to pursue his or her academic experience free of dishonesty. The Honor System is designed to establish the higher level of conduct expected and required of all USU students. Infractions (cheating, falsification, and plagiarism) and their associated penalties are described in the USU Academic Policies and Procedures Manual (www.usu.edu/policies). If you have questions about what may be plagiarism, please discuss with me.

**Accommodations for disabilities:**
Students with physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. All accommodations are coordinated through the Disabilities Resource Center (DRC) in Room 101 of the University Inn, 797-2444 voice, 797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.

*This syllabus is issued for the convenience of the students; it does not constitute a contract and may be changed by the instructor at any time. Updates will be uploaded to Canvas.*