

CONSERVATION SCIENCE

WILD 230

3 Units

Instructor: Dr. John Maron

102 Natural Science Annex

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Instructor office hours: By appointment via ZOOM. Feel free to schedule appointments with me anytime you feel it would be helpful to you. Please use e-mail to schedule a ZOOM meeting time. Please do not use email to ask specific questions about lectures, exams, grades or readings unless it is a very simple question. I want to talk with you over ZOOM rather than “teach” via email!

Course prerequisites: Any ONE of the following courses: B100105, B100101N, B100160, B100170, or B100172 or consent of instructor

Lecture times and location: Monday, Friday 10:00-11:50 pm, in UC 311

Discussion time and location: Wednesday 11:00-11:50 am, in UC 311

Final Exam Time: Nov. 20, 8:00-10:00 am

Overall course structure: This course consists of two 50-minute lectures per week and a 50-minute discussion section weekly. You will be evaluated on the basis of performance on exams, participation in discussion section, written assignments and overall participation in the course (lecture and discussion).

Course objectives: This course is designed to give you a broad understanding of current threats to biodiversity and the role of science, particularly ecology, in both quantifying the impacts of human activities on biodiversity and providing solutions for conserving biodiversity. Lectures will illustrate how human activities have impacted populations, communities, ecosystems, and climate, and explore how science can be used to help devise solutions to conserve diversity in the face of manifold threats. In discussion section, we will discuss papers from the primary literature that cover relevant topics that are covered in lecture.

Your mastery of material presented in the lecture portion of the course will be assessed by two mid-term exams and a final exam.

General structure of the discussion section: The objective of the discussion section is to explore topics covered in lecture in more detail, to learn how to think critically about scientific research and to gain familiarity with how ecological research is conducted. **Discussion section attendance is mandatory.** Discussions will involve critical analyses of papers from the

90-100%	A/A-
80-89%	B+/B/B-
70-79%	C+/C/C-
60-69%	D+/D
Below 60	F

Students failing to obtain 60% of the allotted total points for the course will fail the course. If you sign up to take the course on a P/NP basis, credit and a “P” grade will only be given for work at A, B, and C levels. A “NP” grade will be given for “D” or “F” work.

A note on changing scores on specific exam questions: If you think you have had a question on an exam incorrectly graded, I will be happy to review your exam. To request regrading of a specific test question, however, you must submit, **in writing**, a cogent explanation of why you believe your answer was correct.

Students with disabilities: The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). If you think you may have a disability adversely affecting your academic performance, and you have not already registered with DSS, please contact DSS in Lommasson 154 (406-243-2243). I will work with you and DSS to provide an appropriate accommodation.

Student conduct: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the [Student Conduct Code](#).

COVID related safety: Mask use is required within the classroom

- You should clean your personal work space when you arrive for class, and before you leave the classroom
- Please do not congregate outside the classroom before and after class
- Specific seating arrangements will be used to ensure social distancing and support contact tracing efforts
- Class attendance will be recorded to support contact tracing efforts
- Please to not drink liquids or eat food while in the classroom (which requires mask removal)
- If the class is being recorded, students must be notified of the recording
- Stay home if you feel sick and/or if exhibiting COVID-19 symptoms. Contact Curry Health Center at (406) 243-4330
- Up-to-Date COVID-19 Information from the University of Montana can be found at: <https://www.umt.edu/coronavirus>
- UM COVID-19 Fall 2020 website: <https://www.umt.edu/coronavirus/fall2020.php>

CONSERVATION SCIENCE, WILD 230, FALL 2020

Lecture Syllabus

I. <u>INTRODUCTION</u>	READINGS
Aug. 21 What is Conservation Science?	P1, 6
Aug 24 What is biodiversity?	P2
Aug. 28 Global patterns of biodiversity	P3; K8
Aug. 31 Human population growth and resource consumption	P9 (175-179)
Sept. 4 More human population growth/Extinction	
Sept. 7 Labor day holiday	P7; K1-4
II. <u>PROXIMATE CAUSES OF BIODIVERSITY DECLINE</u>	
Sept. 11 Rarity and vulnerability to extinction	P8, 11
Sept. 14 Habitat destruction	P9 (179-197); K9
Sept. 18 Habitat fragmentation	
Sept. 21 Overgrazing	P10 (217-227)
Sept. 25 FIRST EXAM	
Sept. 28 Overexploitation of ocean resources	K7
Oct. 2 Anthropogenic N fixation, N deposition and acid rain	
Oct. 5 Global climate change: CO ₂ and temperature increases	K6
Oct. 9 More global climate change	
Oct. 12 Invasive species, introduced diseases	P10 (227-245); K10
III. <u>SOLUTIONS AT THE POULATION LEVEL</u>	
Oct. 16 History of conservation, major legislation dealing with conservation	
Oct. 19 The value of biodiversity	P5
Oct. 23 Estimating population size and trends	P12
Oct. 26 Translocations and reintroductions	P13, K11
Oct. 30 SECOND EXAM	
Nov. 2 Reintroductions	P17
Nov. 6 Biological control	K12, 13
IV. <u>SOLUTIONS AT THE COMMUNITY AND ECOSYSTEM LEVEL</u>	

Nov. 9 Reserve design
Nov. 13 Mini lectures

Nov. 16 Overview
Nov. 20 **FINAL EXAM**

P15, 16