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Course Syllabi

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BIOB 291.01: Special Topics - Conservation Ecology

John L. Maron
University of Montana - Missoula, john.maron@mso.umt.edu

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CONSERVATION ECOLOGY
BIOLOGY 291
2 Units

Instructor: Dr. John Maron
102 Natural Science Annex
Tel: 243-6202
Email: john.maron@mso.umt.edu

Instructor office hours: Wednesday 1:10-2:00 pm and by appointment. Feel free to schedule appointments with me outside of office hours via email if your schedule conflicts with office hours. Please do not use e-mail to ask specific questions about lectures, exams, grades or readings. I want to talk with you in person!

Course prerequisites: Any ONE of the following courses: BIOO105, BIOO101N, BIOB160, BIOB170, or BIOE172 or consent of instructor

Lecture times and location: Tuesday, Thursday, 12:10-13:00, Forestry 305

Final Exam Time: December 8, 10:10-12:10

Overall course structure: This course consists of two 1-hour lectures. You will be evaluated on the basis of performance on exams, written assignments and overall participation in the course.

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.

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

Required reading: Information from the text will supplement lecture material and will be of great assistance in helping you understand key concepts. The required text is quite thorough and clear. You will definitely perform better on exams if you carefully read the assigned material. Honest. The course syllabus shows the text pages that should be read *prior to each lecture*.

Texts: Essentials of Conservation Biology by Richard Primack, Sinauer.
        The Sixth Extinction by Elizabeth Kolbert, Henry Holt and Company.

Course attendance: You should attend all lectures; it will be extremely difficult to successfully complete the course without attending lectures. Assignments not turned in on time will be penalized each day they are late. All exams must be taken at their scheduled times. There are no exceptions to this except in the case of emergencies or extreme need that is cleared by the instructor well ahead of time. Students requesting disability accommodations must follow the DSS handbook.

Grading: This course will be will be conducted with strict adherence to University of Montana policy on grading. You cannot change from a "grade" to "audit" basis past the 15th day of instruction. Past the 30th day of instruction, students must petition in order to formally drop the course or change their grading option. This petition must be signed by the instructor. I will not sign petitions unless there is an overwhelmingly compelling reason to do so, and this reason is in accordance with University policy. What this means is that if you sign up for the course for graded credit, you should plan on getting a grade regardless of your performance. Your final grade will be based on points received from exams, discussion section assignments, and participation in discussion section. Missed exams will be counted as a "0" except under exceptional circumstances, such as death in the family. No make-up exams or papers will be allowed except under exceptional circumstances. The point breakdown is as follows:

	Points	Percent of total
First Examination	100 points	25%
Second Examination	100 points	25%
Written Assignment	50 points	12.5%
Final Examination	150 points	37.5%
TOTAL POINTS	**400 points**	

This course will not be graded on a curve. Your final grade for the course will be based on the percentage of total points that you obtain, as outlined below:

Percent of total points	Grade
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. If you are taking Biology 448 because it is a required course for your major or minor, you cannot take the course on a P/NP basis.

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:

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. I will work with you and DSS to provide an appropriate accommodation. Students with disabilities may request reasonable modifications by contacting me.

CONSERVATION ECOLOGY, BIOB 291, FALL 2014
Lecture Syllabus

		READINGS
I.	**INTRODUCTION**	
Aug 26	What is Conservation Ecology?	**P1, 6**
Aug 28	What is biodiversity?	**P2**
Sept. 2	Global patterns of biodiversity	**P3**; K8
Sept. 4	Human population growth and resource consumption	**P9 (175-179)**
Sept. 9	Extinction	**P7**; K1-4
Sept. 11	Rarity and vulnerability to extinction	**P8, 11**
II.	**PROXIMATE CAUSES OF BIODIVERSITY DECLINE**	
Sept. 16	Habitat destruction and fragmentation	**P9 (179-197)**; K9
Sept. 18	Overgrazing	
Sept. 23	Global climate change: CO_2 and temperature increases	K6
Sept. 25	Anthropogenic N fixation, N deposition and acid rain	
Sept. 30	Invasive species, introduced diseases	**P10 (227-245); K10**
Oct. 2	**FIRST EXAM**	
Oct. 7	The demise of coral reefs	K7
Oct. 9	Overexploitation of the ocean: fisheries management	**P10 (217-227)**
Oct. 14	Overexploitation of tropical wildlife: bushmeat hunting	
III.	**SOLUTIONS AT THE POULATION LEVEL**	
Oct. 16	History of conservation, major legislation dealing with conservation	
Oct. 21	The value of biodiversity	**P5**
Oct. 23	Estimating population size and trends	**P12**
Oct. 28	Migratory populations: Monarchs as a case study	
Oct. 30	Reintroducions: Wolves as a case study	**P13,** K11
Nov. 4	HOLIDAY-Election Day	
Nov. 6	**SECOND EXAM**	
Nov. 11	HOLIDAY-Veteran's Day	
Nov. 13	Eradication of invasive plants: Biological control	**P17**
IV.	**SOLUTIONS AT THE COMMUNITY AND ECOSYSTEM LEVEL**	
Nov. 18	Eradication of invasive mammals	K12, 13

Nov. 20	Reserve design	**P15, 16**
Nov. 20	**PAPER DUE**	
Nov. 25	Fire and fire management: Guest Lecture	
Nov. 27	HOLIDAY-Thanksgiving	
Dec. 2	Managing outside of protected areas: Guest Lecture	**P18**
Dec. 4	Overview	
Dec. 8	FINAL EXAM-10:10-12:10	