

**BIO 3450-80 Conservation Biology Online
Winter Session 2021-22**

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Virtual Office: The best way to contact me will be through the BlackBoard course management system or by email. I will be available at intervals for consultation by telephone. If you would like to speak with me, email me with a day and time when you'd like for me to try to contact you by telephone.

Course Description:

An examination of the recent, unprecedented losses of global biological diversity, and analysis of conservation strategies designed to prevent, minimize, and/or repair ecological damage. Conservation of biodiversity is considered from an ecological perspective, then integrated with economical and political issues to explore the implications of national and international conservation efforts.

Course Objectives:

- a. Knowledge: Basic understanding of the principles of Conservation Biology, relevant ecological theory, and the concepts utilized in ecological restoration.
- b. Quantification: Mensurative and manipulative approaches that address endangered organisms and habitats at the population, community, and ecosystem levels.
- c. Application of Theory: Use of ecological theory in the development of conservation strategies.
- d. Synthesis of Information: Multidisciplinary approach to the conservation of biodiversity.
- e. Appreciation: Awareness of inherent life-support value of biosphere, the increasing anthropogenic impacts on ecosystem structure and function, and the difficulty in resolving conservation/preservation issues.

Student Learning Outcomes:

Students will be able to:

- a. Organize and synthesize biological information into a logical sequence.
- b. Communicate clearly, in writing, in an organized fashion the broad aspects of biology using specific examples.
- c. Use graphs, charts, tables and other visual media to summarize and clarify information.

- d. Use information systems to locate biological source material.
- e. Articulate the several types of values associated with biodiversity.
- f. Describe anthropogenic impacts to biodiversity and strategies to minimize the impacts.

Prerequisite: BIO 1620 or BIO 2490 or permission of the instructor.

Required Text: Essentials of Conservation Biology, 6th edition. Richard B. Primack. Sinauer. Available as hardcopy or e-book.

Content and Calendar [Exams open and close at 11:59 pm on the date indicated.]

			Chapter	Topic	
Mon	Jan	3	1, 2	Biodiversity & Conservation Biology	
Tue		4	3	Diversity Patterns,	
Wed		5	4	Valuing Biodiversity	
Thu		6	5, 6	Indirect Economic Values; Ethical Values	
Fri		7	7	Extinction	Exam 1 Opens
Sat		8	8	Vulnerability to Extinction.	
Sun		9	9	Habitat Destruction, Fragmentation, Climate	
Mon		10	10	Exploitation, Invasive Species, Disease.	Exam 1 Closes
Tue		11	11	Problems of Small Populations	
Wed		12	12	Applied Population Biology	
Thu		13	13	Establishing New Populations	
Fri		14	14	Ex-Situ Conservation Strategies	Exam 2 Opens
Sat		15	15	Establishing Protected Areas.	
Sun		16	16	Designing Networks of Preserves	Exam 2 Closes
Mon		17	17, 18	Managing Protected Areas; Outside Protected Areas	
Tue		18	19, 20	Restoration Ecology; Sustainable Development	
Wed		19	21	International Approach	Exam 3 Opens
Thu		20	22	An Agenda for the Future	
Fri		21		Course ends 11:59 pm Friday January 21	Exam 3 Closes

Assessments & Grading

Knowledge of facts, understanding of concepts, and the ability to apply these to the analysis of conservation problems will be assessed by online examinations. These examinations will usually include a multiple-choice component and require short explanations and longer essays in which students apply facts and concepts to the analysis of conservation problems. Examinations will constitute 75% of the final course grade. Quantity and quality of contributions to online activities (discussion and related assignments) will constitute the remaining 25% of the grade.

Teaching Methods

This is a fully online course. Instead of lectures in a classroom, students and instructor will interact entirely online by use of the Blackboard course management system (abbreviated as

“Bb”).) You should log on to Blackboard at least twice per day, early and late, to check postings and contribute to discussion and questions/answers. Examinations will be completed and submitted online. The learning process will depend, as always but more-so, on diligent independent study of the text and materials provided by the instructor. The textbook is comprehensive and of manageable length (about 20 pages of reading per day), but mastering it will require disciplined commitment to reading and study almost every day for three weeks. Mastering the material will also require that we take maximum advantage of opportunities for mutual aid thru online discussion, answering each others’ questions, sharing of ideas, etc. as if we were in a 24-hour classroom or study center. To keep everyone on schedule, I will require regular contributions to discussion, with allowance for occasional lapses.

Special Considerations

Schedule of Work: The schedule of work is intense and will require a high level of commitment throughout the session. We will cover a standard textbook of 22 chapters in about three weeks, requiring that students study (not skim) at least one chapter per day. Students should expect to read and participate every day, including weekends, with only occasional lapses. Any missed day should be considered a lapse requiring extra work to catch up.

Technical Difficulties: It is essential that students have high-speed internet access, a reliable computer, and the ability to use Blackboard and standard application software including an internet browser, email, and word processing software. You are responsible for all technical issues, including browser compatibility, and should read carefully the information posted by the Bb support staff. If you have technical difficulties, you are to contact the Bb support staff directly. Work ahead of schedule so that problems can be resolved in advance of any deadlines. You will not be excused from any requirements or deadlines because of technical difficulties.

Academic Integrity:

We all share a heightened responsibility for Academic Integrity in the online environment and I will expect the highest level of academic integrity from every individual. That means a clear understanding of the requirements, a clear understanding of how to comply with them, and a commitment to full compliance. There will be zero tolerance for any violations, which means an F for the course and a letter in your file at the Dean of Students Office. No excuses, no second chances. The WPUNJ policy on Academic Integrity is found in full in the undergraduate catalog, available online at <https://webapps.wpunj.edu/catalog/front.cfm?section=ARR>. Contact me immediately if you have any questions or concerns about academic integrity.

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Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jan 2	3 SESSION BEGINS CH1 Biodiversity CH2 Conservation Biology	4 CH3 Diversity Patterns	5 CH4 Valuing Biodiversity	6 CH5 Indirect Values CH6 Ethical Values	7 CH7 Extinction Exam 1 Opens	8 CH8 Vulnerability to Extinction
9 CH9 Habitat Destruction, Fragmentation, Climate	10 CH10 Exploitation, Invasives, Disease Exam 1 Closes	11 CH11 Problems of Small Populations	12 CH12 Applied Population Biology	13 CH13 Establishing New Populations	14 CH14 Ex-Situ Conserv. Strategies Exam 2 Opens	15 CH15 Establishing Protected Areas
16 CH16 Designing Networks of Reserves Exam 2 Closes	17 CH17 Managing Protected Areas CH18 Outside Protected Areas	18 CH19 Restoration Ecology CH20 Sustainable Development	19 CH21 International Approaches Exam 3 Opens	20 CH22 An Agenda for the Future	21 Exam 3 Closes SESSION ENDS	22

All deadlines are at 11:59 pm on the indicated date. No extensions or exceptions.