EVSP417

Course Summary

Course : EVSP417 **Title :** Conservation Biology
Length of Course : 8
Prerequisites : BIOL133, SCIN131 **Credit Hours :** 3

Description

Course Description: This course examines the fundamental biological and ecological principles of conservation biology. Instruction covers measures of biological diversity, species concepts, genetics of small population viability analysis, and metapopulation dynamics; habitat fragmentation including edge effects, corridors and patch dynamics; reserve design principles; setting biodiversity priorities; and monitoring indices. Changes in land use patterns and the science of Landscape Ecology are also investigated. Current conservation techniques are reviewed through the use of case studies and computer exercises. (Prerequisite: BIOL133 OR SCIN130)

Course Scope:

As an advanced general survey course, "Conservation Biology" introduces the student to the major concepts, programs, and problems in the preservation and restoration of species. The focus of the course project will be to write a draft species habitat conservation plan.

Objectives

The successful student will fulfill the following learning objectives:

1. Explain the principles of conservation biology.
2. Explain the concepts of extinction, species conservation, and biodiversity.
3. Assess the role of conservation genetics theory in the preservation of biodiversity.
4. Apply at least three quantitative methods used to assess the status of populations.
5. Explain how the human dimension (human behavior, economics, land use, and others) effects the conservation of species.
6. Evaluate strategies and tools used to conserve species or habitat at risk of extinction or destruction.

Outline

Week 1: Introduction to Conservation Biology What is Biodiversity?

Learning Objectives

Explain the principles of conservation biology.

Readings

Primack Chapters 1, 2 & 3

Assignments

Forum 1

Week 2: Valuing Biodiversity CASE STUDY: The American Bison

Learning Objectives

Explain the principles of conservation biology.

Explain the concepts of extinction, species conservation, and biodiversity.

Readings

Primack Chapters 4, 5 & 6

Assignments

Forum 2

Assignment 1

Week 3: Threats to Biodiversity CASE STUDY: The Sixth Extinction

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Learning Objectives

Explain the principles of conservation biology.

Explain the concepts of extinction, species conservation, and biodiversity.

Assess the role of conservation genetics theory in the preservation of biodiversity.

Readings

Primack Chapters 7, 8, 9 & 10

Assignments

Forum 3

Assignment 2

Week 4: Conserving Populations and Species CASE STUDY: The Endangered Species Act

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Learning Objectives

Assess the role of conservation genetics theory in the preservation of biodiversity.

Explain how the human dimension (human behavior, economics, land use, and others) effects the conservation of species.

Readings

Primack Chapters 11, 12, 13 & 14

Assignments

Forum 4

Assignment 3

Week 5: Practical Applications Establishing Protected Lands CASE STUDY: Population Vulnerability Analyses (PVAs)

Learning Objectives

Apply at least three quantitative methods used to assess the status of populations.

Explain how the human dimension (human behavior, economics, land use, and others) effects the conservation of species.

Evaluate strategies and tools used to conserve species or habitat at risk of extinction or destruction.

Readings

Primack Chapters 15 & 16

Assignments

Forum 5

Assignment 4

Week 6: Practical Applications Managing Protected Lands CASE STUDY: Conservation Biology on Federal Lands

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Learning Objectives

Apply at least three quantitative methods used to assess the status of populations.

Explain how the human dimension (human behavior, economics, land use, and others) effects the conservation of species.

Evaluate strategies and tools used to conserve species or habitat at risk of extinction or destruction.

Readings

Primack Chapters 17 & 18

Assignments

Forum 6

Assignment 5

Week 7: Restoration Ecology CASE STUDY: Restoration Ecology

Learning Objectives

Explain how the human dimension (human behavior, economics, land use, and others) effects the conservation of species.

Evaluate strategies and tools used to conserve species or habitat at risk of extinction or destruction.

Readings

Primack Chapter 19

Assignments

Forum 7

Assignment 6

Week 8: Conservation and Human Societies REVIEW

Learning Objectives

Explain the principles of conservation biology.

Explain the concepts of extinction, species conservation, and biodiversity.

Assess the role of conservation genetics theory in the preservation of biodiversity.

Apply at least three quantitative methods used to assess the status of populations.

Explain how the human dimension (human behavior, economics, land use, and others) effects the conservation of species.

Evaluate strategies and tools used to conserve species or habitat at risk of extinction or destruction.

Readings

Primack Chapter 20, 21 & 22

Assignments

Forum 8

Final Project

Evaluation

Grading:

Name	Grade %
Forums	24.00 %
Forum 1	3.00 %
Forum 2	3.00 %
Forum 3	3.00 %
Forum 4	3.00 %
Forum 5	3.00 %
Forum 6	3.00 %
Forum 7	3.00 %
Forum 8	3.00 %

Assignments	60.00 %
Case Study 1 (Wk 2)	10.00 %
Case Study 2 (Wk 3)	10.00 %
Case Study 3 (Wk 4)	10.00 %
Case Study 4 (Wk 5)	10.00 %
Case Study 5 (Wk 6)	10.00 %
Case Study 6 (Wk 7)	10.00 %
Final Project	16.00 %
Final Project (Wk 8)	16.00 %

Materials

Book Title: Essentials of Conservation Biology, 6th ed - the VitalSource e-book is provided via the APUS Bookstore

Author: Primack

Publication Info: Sinauer Associates, Inc.

ISBN: 9781605352893

Book Title: You must validate your cart to get access to your VitalSource e-book(s). If needed, instructions are available here - http://apus.libguides.com/bookstore/undergraduate

Author: N/A

Publication Info: N/A

ISBN: N/A

Required Readings

See the Lessons section of the classroom for additional readings and weekly lecture notes

Additional Resources: Please go to the program guides in the APUS Library for additional resources:

- Environmental Science: http://apus.libguides.com/environmental_science

Software Requirements

- Microsoft Office (MS Word, MS Excel, MS PowerPoint) - American Public University System provides Microsoft Office 365 to AMU/APU students and faculty at no cost
- Adobe Acrobat Reader

Course Guidelines

Citation and Reference Style

- Attention Please: Students will follow the APA Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA Format.

Tutoring

- Tutor.com offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours* of tutoring provided by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for 'Tutor' to create an account.

Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 15% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

Turn It In

- Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

Academic Dishonesty

- Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation. Academic dishonesty includes any use of content purchased or retrieved from web services such as CourseHero.com. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

Submission Guidelines

- Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc) See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.

Disclaimer Statement

- Course content may vary from the outline to meet the needs of this particular group.

Communicating on the Forum

- Forums are the heart of the interaction in this course. The more engaged and lively the exchanges, the more interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final posting time after which the instructor will grade comments, it is not sufficient to wait until the last day to contribute your comments/questions on the forum. The purpose of the forums is to actively participate in an on-going discussion about the assigned content.
- “Substantive” means comments that contribute something new and hopefully important to the discussion. Thus a message that simply says “I agree” is not substantive. A substantive comment contributes a new idea or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an argument, etc.
- As a class, if we run into conflicting view points, we must respect each individual's own opinion. Hateful

and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.

University Policies

Student Handbook

- Drop/Withdrawal policy
- Extension Requests
- Academic Probation
- Appeals
- Disability Accommodations

The mission of American Public University System is to provide high quality higher education with emphasis on educating the nation's military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.