**Course Summary**

**Course**: EVSP416  **Title**: General Ecology  
**Length of Course**: 8  
**Prerequisites**: N/A  
**Credit Hours**: 3

**Description**

**Course Description**: This course provides an intensive treatment of the field of ecology. Ecology is the scientific study of the interactions among organisms and their environment, which explains the distribution and dynamics of organisms, their traits, and the effects that they have on the natural world. Students will learn that ecology is an integrative discipline that draws from various fields of biology (physiology, morphology, behavior, evolution) and natural sciences (e.g., geology and chemistry), as well as other disciplines (e.g., economics and social sciences). The focus of the course will be on identifying and recommending solutions to ecological problems, e.g., habitat destruction and fragmentation, biodiversity, global environmental change, desertification, acidification of the oceans, and others.

**Course Scope:**

This course seeks to introduce students to the study of ecology based on historical research and contemporary issues. There are no science pre-requisites; however, an understanding of basic principles of biology, chemistry, mathematics, and physics will be helpful in understanding general ecology concepts. Students will learn core concepts in ecology based on readings, audio/video components, independent homework assignments, and a microcosm project.

**Objectives**

After successfully completing this course, you will be able to

- LO-1 Summarize the conceptual foundations of the field of ecology.
- LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.
- LO-3 Explain the term conservation biology and the impact of humans on the landscape.
- LO-4 Demonstrate how mathematical models are used to inform decision making in the field of ecology.
- LO-5 Evaluate literature that examines ecological theories and practices.
- LO-6 Analyze scientific data in terms of its real world application.
Outline

Week 1: Introduction to Ecology - Climate

Course Learning Objectives

LO-1 Summarize the conceptual foundations of the field of ecology.

LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.

Required Readings and Resources
Assignments
Forum 1
Homework A

Week 2: Terrestrial Ecosystems - Tundra - Boreal Forests

Course Learning Outcomes

LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.

LO-3 Explain the term conservation biology and the impact of humans on the landscape.

Required Readings and Resources
Assignments
Forum 2
Homework B

Week 3: Adaptations to the Environment - Eastern Deciduous Forests - Urban Environments

Course Learning Outcomes

LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.

LO-4 Demonstrate how mathematical models are used to inform decision making in the field of ecology.

LO-5 Evaluate literature that examines ecological theories and practices.

Required Readings and Resources
Assignments
Forum 3

Week 4: Populations - Grasslands and Related Ecosystems

Course Learning Outcomes

LO-1 Summarize the conceptual foundations of the field of ecology.

LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.
LO-4 Demonstrate how mathematical models are used to inform decision making in the field of ecology.

Required Readings and Resources
Assignments
Forum 4
Midterm Assessment

**Week 5: Species Interactions - Deserts - Chapparal - Woodlands**

Course Learning Outcomes

- LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.
- LO-4 Demonstrate how mathematical models are used to inform decision making in the field of ecology.
- LO-6 Analyze scientific data in terms of its real world application.

Required Readings and Resources
Assignments
Forum 5
Homework C

**Week 6: Community Ecology - Montane Forests - Temperate Rain Forest**

Course Learning Outcomes

- LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.
- LO-5 Evaluate literature that examines ecological theories and practices.

Required Readings and Resources
Assignments
Forum 6
Homework D

**Week 7: Ecosystem Ecology - Coastal Environments - Wetlands**

Course Learning Outcomes

- LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.
- LO-6 Analyze scientific data in terms of its real world application.

Required Readings and Resources
Assignments
Forum 7
Microcosm Log
Microcosm Presentation
Week 8: Human Ecology - Special Case Studies

Course Learning Outcomes

LO-1 Summarize the conceptual foundations of the field of ecology.

LO-2 Assess the issues facing ecological systems in the U.S. and on the global scale.

LO-5 Evaluate literature that examines ecological theories and practices.

LO-6 Analyze scientific data in terms of its real world application.

Required Readings and Resources
Assignments
Forum 8
Final Assessment

Evaluation

Grading:

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Materials

Book Title: Various resources from the APUS Library & the Open Web are used. Links provided inside the classroom in the Lessons section.

Author:

Publication Info:

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](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](http://www.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.
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