University of Phoenix®

SYLLABUS

SCI/256 People, Science and the Environment

Course Description

This in-depth environmental science course examines how people use science to understand how they relate to the environment. The course explores relationships between people and ecosystems, and the science behind how ecosystems work. It reviews the historical development of the environmental movement, interactions between humans and natural ecosystems, and more specifically, the role of a growing population and associated pressures on natural resources. This course further examines how economics, natural systems, and conservation are interrelated. The many forms of pollution as well as types of energy resources are addressed. This course challenges students to consider the impact of lifestyle choices on environmental sustainability.

Course Dates

Jul 18, 2014 - Aug 21, 2014

Faculty Information

Name : JOHN ENSWORTH (PRIMARY)
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Alternate Email Address
Phone Number : (720) 378-2771

Policies

Faculty and students/learners will be held responsible for understanding and adhering to all policies contained within the following two documents (both located on your student website):

- Academic Policies

University policies are subject to change. Be sure to read the policies at the beginning of each class. Policies may be slightly different depending on the modality in which you attend class. If you have recently changed modalities, read the policies governing your current class modality.

Student Pre-class Tasks

- Familiarize yourself with the textbooks used in this course.

Course Materials

All electronic materials are available on your student website.

Week1 *Jul, 18 - Jul, 24*

Environmental Science and Human Population

Tasks

Faculty

- Review Week One Content Outline

Student

- Learning Team Charter
- Become familiar with WileyPlusâ¢

Objectives/Competencies

1.1 Describe the historical development of the environmental movement.

1.2 Determine the implications ofÂ the changingÂ human population.

1.3 Explain the concept of carrying capacity.Â

1.4 Explain how individual choices affect natural ecosystems.

Required Learning Activities

- Environmental Science: Earth as a Living Planet, Ch. 4
- Environmental Science: Toward a Sustainable Future, Ch. 1
- Environmental Science: Toward a Sustainable Future, Section 8.1 in Ch. 8

Environmental Science: Toward a Sustainable Future, Sections 9.1 & 9.3 in Ch. 9

- Environmental Science: Toward a Sustainable Future, Section 21.2 in Ch. 21

See the student website for additional recommended learning activities that may help you learn this week's concepts.

Assignments

Title	Type	Due	Points
Week One Participation **Participate** in class discussion.	Individual	Jul 24, 2014 05:59 PM	5
Environmental Science and Human Population Worksheet **Complete** the University of Phoenix Material: Environmental Science and Human Population Worksheet. **Click** the Assignment Files tab to submit your assignment.	Individual	Jul 24, 2014 05:59 PM	5

Week2 *Jul, 25 - Jul, 31*

Ecosystem Structure, Function, and Change

Tasks

Faculty

• Review Week Two Content Outline

Objectives/Competencies

2.1 Describe the structure and function of ecosystems.

2.2 Associate how humans affect the cycling of matter in ecosystems.

2.3 Examine the implication of species interactions on ecosystems.

Required Learning Activities

Environmental Science: Earth as a Living Planet, Sections 5.1, 5.2, & 5.5 in Ch. 5

Environmental Science: Toward a Sustainable Future, Sections 3.4 & 3.5 in Ch. 3

Environmental Science: Toward a Sustainable Future, Sections 4.3 & 4.5 in Ch. 4

• Environmental Science: Toward a Sustainable Future, Ch. 5

• Environmental Science: Toward a Sustainable Future, Ch. 6

Environmental Science: Toward a Sustainable Future, Sections 7.3 & 7.4 in Ch. 7

See the student website for additional recommended learning activities that may help you learn this week's concepts.

Assignments

Title	Type	Due	Points
Week Two Participation **Participate** in class discussion.	Individual	Jul 31, 2014 05:59 PM	5
Ecosystem Structure, Function, and Change Paper **Select** a representative natural ecosystem in your area or one in which you are interested—such as a lake, preserve, or park—that is managed for native species. **Write** a 700- to 1,050-word paper explaining the following: · The major structural and functional dynamics of your selected ecosystem · How humans may have affected the cycling of matter in ecosystems, including effects to the nitrogen, phosphorus, or carbon cycle · How knowledge about that ecosystem's structure and function can help or has helped to develop plans for its restoration or management · The implication of species interactions on your selected ecosystem **Include** two outside references. **Format** your paper consistent with APA guidelines. **Click** the Assignment Files tab to submit your assignment.	Individual	Jul 31, 2014 05:59 PM	10
Natural Resources and Energy Team Paper â Plan **Brainstorm** topics and who will cover what part of the Natural Resources and Energy Team Paper, due in Week Three. **Create** a written plan of no more than 350 words of how you will complete the paper. Include the resources you will use to complete the assignment. **Submit** your team's written plan to your instructor for approval.	Learning team	Jul 31, 2014 05:59 PM	5

Week3

Aug, 01 - Aug, 07

Natural Resources and Energy

Tasks

Faculty

- Review Week Three Content Outline

Objectives/Competencies

3.1 Examine how the human population affects natural resources.

3.2 Describe water supply, use, and management.

3.3 Describe how agricultural practices impact the environment.

3.4 Compare fossil fuels with alternative energy resources.

3.5 Examine sustainable practices for natural resource management and energy use.

Required Learning Activities

- Environmental Science: Earth as a Living Planet, Sections 11.6â11.8 in Ch. 11

Environmental Science: Earth as a Living Planet, Sections 15.1 & 15.2 in Ch. 15

- Environmental Science: Earth as a Living Planet, Ch. 16
- Environmental Science: Earth as a Living Planet, Sections 18.1â18.6 in Ch. 18

Environmental Science: Toward a Sustainable Future, Sections 2.2 & 2.3 in Ch. 2

- Environmental Science: Toward a Sustainable Future, Ch. 10
- Environmental Science: Toward a Sustainable Future, Ch. 12
- Environmental Science: Toward a Sustainable Future, Ch. 14

See the student website for additional recommended learning activities that may help you learn this week's concepts.

Assignments

Title	Type	Due	Points
Week Three Participation **Participate** in class discussion.	Individual	Aug 07, 2014 05:59 PM	5
Fossil Fuels and Alternative Energy Resource Worksheet **Complete** the University of Phoenix Material: Fossil Fuels and Alternative Energy Resource Worksheet. **Click** the Assignment Files tab to submit your assignment.	Individual	Aug 07, 2014 05:59 PM	5

Natural Resources and Energy Paper **Write** a 1,400- to 1,750-word paper on natural resources and energy. Include the following: · Choose a specific ecosystem, such as a forest, grassland, or a marine or freshwater aquatic ecosystem. · Identify associated with agriculture. · Identify and discuss the effects a growing human population may have on that ecosystem's resources, including loss or harm to populations of wild species. · Discuss one management practice for sustainability and conservation of natural resources in that ecosystem. · Identify the risks and benefits of extracting or using one type of nonrenewable and one type of renewable energy resource from that ecosystem, or in areas near that ecosystem. · Assess management practices for sustainability and conservation of natural resources and energy. **Include** two outside references. **Format** your paper consistent with APA guidelines. **Click** the Assignment Files tab to submit your assignment.	Learning team	Aug 07, 2014 05:59 PM	10

Week4 *Aug, 08 - Aug, 14*

Environmental Pollution

Tasks

Faculty

• Review Week Four Content Outline

Objectives/Competencies

4.1 Examine the various types and sources of environmental pollution.

4.2 Determine the effects of environmental pollution on human and ecosystem health.

4.3 Analyze the science of climate change and its effects.

4.4 Identify treatments and preventative measures for environmental pollution.

Required Learning Activities

• Environmental Science: Earth as a Living Planet, Sections 20.9â20.14 in Ch. 20

• Environmental Science: Toward a Sustainable Future, Ch. 17

• Environmental Science: Toward a Sustainable Future, Sections 19.1â19.4 in Ch. 19

• Environmental Science: Toward a Sustainable Future, Sections 20.1â20.3 in Ch. 20

• Environmental Science: Toward a Sustainable Future, Sections 21.1â21.3 in Ch. 21

• Environmental Science: Toward a Sustainable Future, Section 22.3 in Ch. 22

See the student website for additional recommended learning activities that may help you learn this week's concepts.

Assignments

Title	Type	Due	Points
Week Four Participation **Participate** in class discussion.	Individual	Aug 14, 2014 05:59 PM	5

Environmental Pollution **Read** the instructions in the University of Phoenix Material: Environmental Pollution and select one option to complete the assignment. You can choose from the following options: · Option 1: Environmental Pollution Scenario Review and Summary · Option 2: Environmental Pollution Argument	Individual	Aug 14, 2014 05:59 PM	10
Environmental Analysis Topic Selection and Outline **Select** a topic for the team's Environmental Analysis Presentation, due in Week Five. **Create** a brief outline indicating how you will complete the presentation. Include the resources you will use to complete the assignment. **Submit** your outline to your instructor.	Learning team	Aug 14, 2014 05:59 PM	5

Week5 *Aug, 15 - Aug, 21*

Environmental Choices and Policies

Tasks

Faculty

• Review Week Five Content Outline

Student

• Learning Team Evaluation

Objectives/Competencies

5.1 Perform an analysis of an environmentalÂ issue.

5.2 Analyze the role of local, regional, national, or global policies on the environment.

5.3 Describe the effect of lifestyle choice on natural resource sustainability.

Required Learning Activities

• Environmental Science: Toward a Sustainable Future, Ch. 2

• Environmental Science: Toward a Sustainable Future, Section 4.4 in Ch. 4

• Environmental Science: Toward a Sustainable Future, Ch. 23

See the student website for additional recommended learning activities that may help you learn this week's concepts.

Assignments

Title	Type	Due	Points
Week Five Participation **Participate** in class discussion.	Individual	Aug 21, 2014 05:59 PM	5
Final Examination **Prepare** to take the final examination. *Note.* The Final Examination will be written and distributed by the instructor.	Individual	Aug 21, 2014 05:59 PM	15

Environmental Analysis Presentation **Perform** an analysis of an environmental issue. **Prepare** a 10- to 15-slide Microsoft® PowerPoint® presentation with detailed speaker notes. Include the following: · Select an environmental issue from any issues discussed in this class. · Describe the issue. · Identify the relative local, regional, national, or global policies addressing your issue. · Describe how the policies intend to address the issue. · Discuss the effectiveness, positive and negative, of any policies concerning the issue to include the following: · Challenges to policy implementation · Public opinion · Effects on individuals **Include** no less than one outside resource per team member. **Format** your presentation consistent with APA guidelines. · For Local Campus students, these are 15- to 20-minute oral presentations accompanied by Microsoft® PowerPoint® presentations. · For Online and Directed Study students, these are Microsoft® PowerPoint® presentations with notes. **Click** the Assignment Files tab to submit your assignment.	Learning team	Aug 21, 2014 05:59 PM	10

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