



UNITED STATES INTERNATIONAL UNIVERSITY

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE: ENVIRONMENTAL ECONOMICS

1. DESCRIPTION

Economics and the environment. Topics include basic economic concepts, basic ecological concepts, method of valuing environmental resources, natural resources accounting and economic instruments for environmental management

1.1 Prerequisite:

None

2. LINK TO UNIVERSITY MISSION OUTCOMES & TO PROGRAM LEARNING OUTCOMES

The content of this course ENV 4000, Environmental economics, directly contributes to the attainment of Higher order thinking, Global understanding and Literacy

3. EXPECTED COURSE LEARNING OUTCOMES

At the end of the course the student will be able to

- Display a general understanding of some basic economic and ecological concepts
- Understand the available methods of attaching monetary value to environmental resources
- Review relevant literature and information related to the course and derive convincing conclusions
- Prepare and present oral presentations on topics relevant to the course

4. CONTENT & CLASS SCHEDULE:

4.1 Week One

a) Learning Outcome:

To understand the basic concepts of economics

b) Topic/ sub-topic:

Basic Concepts of economics

The economic problem

Price determination

Economics and development

Environment as a source of resources and services

Trends in environmental change awareness

c) Readings (from the course text and reference texts):

4.2 Week Two

a) Learning Outcome:

To have a general understanding of the relationship between economic development and environmental resources

b) Topic/ sub-topic:

Environmental resources and development

Factors affecting economic development

Resources, energy, technology, human population,

c) Readings (course text Pages 3-8):

4.3 Week Three

a) Learning Outcome:

To understand the general concepts in ecology

b) Topic/ sub-topic:

The living earth

The earth as a living entity,

Interdependence, Reversible and irreversible processes,

Life support function

The concept of GAIA

c). Readings (Extra notes provided as handouts):

4.4 Week Four

a) Learning Outcome:

To understand the environmental costs

b) Topic/ sub-topic:

Private cost

External costs

Accounting for environmental costs

Internalizing environmental costs

Positive externalities

Internalizing environmental benefits

c) Readings (course text Pages 68-78):

d) Quiz 1

4.5 Week Five

a) Learning Outcome:

To understand the effects of property right on the environment

b) Topic/ sub-topic:

Common property rights and resources

Common property

Public good, environment as a public good,

Open access resources

Non-rival consumption and excludability, free-riding, the tragedy of commons

Market and government failure

c) Readings (course text pgs68-78):

4.6 Week Six

a) Learning Outcome:

To understand the different environmental values

b) Topic/ sub-topic:

Cost benefit analysis and the environment

Classification of environmental values

c) Readings (course text pgs 33-60):

4.7 Week Seven

a) Learning Outcome:

To understand the common methods of valuing the environment

b) Topic/ sub-topic:

Techniques of valuing the environment

Travel cost

Readings (course text pgs 33-60):

Mid Quarter exams

4.8 Week Eight

a) Learning Outcome:

To understand the common methods of valuing the environment

b) Topic/ sub-topic:

Techniques of valuing the environment

Contingent valuation

Hedonic pricing

Group Project: Use one of the methods of valuing the environment to estimate the monetary value of an identified environmental resource

4.9 Week Nine

a) Learning Outcome:

To understand the general importance of valuing the environment

b) Topic/ sub-topic:

Natural resources accounting

Accounting for changes in natural capital

Dynamics of natural capital

Greening the national income accounts or environmental issues

c) Readings (Hand out provided):

4.10 Week Ten

a) Learning Outcome:

b) Topic/ sub-topic:

Economic instruments for managing the environment

Government regulations

Command and control

Market instrument

User charges, emission charges, product charges, marketable permits

c) Readings (course text Pages 585-590,374-375):

Quiz 2

4.11 Week Eleven

a) Learning Outcome:

b) Topic/ sub-topic:

Economic instruments for managing the environment

Market instrument Market instrument

Product charges, marketable permits

c) Readings (course text Pages 585-590,374-375):

4.12 Week Twelve

a) Learning Outcome:

To have a general understanding of the common environmental problems caused by failure to attach a monetary value to the environment

b) Topic/ sub-topic:

Global warming causes and management

Air pollution cause and management

Loss of biodiversity, cause and losses

c) Readings (handout provided):

4.13 Week Thirteen

a) Learning Outcome:

To have a general understanding of the common environmental problems caused by failure to attach a monetary value to the environment

b) Topic/ sub-topic:

Water pollution, causes and management

Loss of biodiversity, causes and management

c) Readings (handout provided):

4.14 Week Fourteen – Final Examination

5. TEACHING APPROACHES

- ◆ Lectures
- ◆ Class discussions
- ◆ Seminar presentations and/or debates by the students
- ◆ Videos and DVDs

6. KEY INSTITUTIONAL ACADEMIC POLICIES

Plagiarism and cheating

- ◆ Plagiarism and cheating are considered to be acts of misconduct as per the university's academic code of conduct and ethics. (see student handbook 2.9.4 and catalogue). Any student who commits plagiarism or cheats in the examination will be subjected to sanctions up to and including dismissal from university

Absenteeism

- ◆ Students are expected to attend **ALL** classes. Upon being absent from seven classes in a unit course, the instructor may give a student an **F** grade for the course. If you have to be absent, please contact your instructor in **ADVANCE**

7. COURSE TEXT & OTHER READINGS

- Tietenberg, T. H. and H. Thomas. 2009. Environmental and natural resource economics 8th edition. Pearson Addison-Wesley
- Harris, J. M. 2006. **Environmental and natural resource economics: a contemporary approach**, Houghton Mifflin
- Hussein Ahmed M. 2004. Principles of Environmental Economics. 2nd Edition. Routledge 29 West Street, New York.

8. COURSE EVALUATION

Attendance and participation	10%
Assignments & Quizzes	20%
Group project	20%
Mid-Semester Exam	20%
Final Exam	30%
Total	100%

9. USIU GRADING SYSTEM

A	90 – 100	C	70 – 73
A-	87 - 89	C-	67 – 69
B+	84 - 86	D+	64 - 66
B	80 - 83	D	62 - 63
B-	77 - 79	D-	60 - 61
C+	74 - 76	F	0 – 59