

DEREE COLLEGE SYLLABUS FOR: EC 3134 ENVIRONMENTAL AND RESOURCE ECONOMICS

(Previously EC 3334 Environmental and Resource Economics)

(Updated Fall 2021)

UK LEVEL: 5
UK CREDITS: 15
US CREDITS: 3/0/3**PREREQUISITES:**

EC 1000 Principles of Microeconomics

CATALOG DESCRIPTION:

Market activity and the environment. Pollution as an externality. Environmental regulatory approaches: theory and practice. Benefit estimation procedures. Resource management.

RATIONALE:

This course introduces the student to the consequences of the interaction of market activity to the environment. It enables the student to understand how environmental problems are the outcome of market failure and, consequently, the role of governments in addressing such problems. It introduces the student to theory and practice of alternative environmental regulatory policies and natural resource management policies at the national and international levels. It complements economic theory courses by illustrating how abstract economic models are actually used at the national and international levels to address issues related to environmental problems.

LEARNING OUTCOMES:

As a result of taking this course, the student should be able to:

1. Demonstrate knowledge of the alternative ways of modeling the interaction of the economy and the environment.
2. Analyze how and why environmental problems can be modeled as cases of market failure/externalities.
3. Evaluate the advantages and disadvantages of various environmental policies.
4. Critically discuss the characteristics and properties of measures of benefits and benefit estimation procedures and their applicability to specific situations.
5. Define the basic conditions of the optimal use of renewable and exhaustible resources.
6. Evaluate cost-benefit analysis procedures intended to address issues related to preservation and conservation.

METHOD OF TEACHING AND LEARNING:

In congruence with the learning and teaching strategy of the college, the following tools are used:

- Classes consist of lectures, case presentations, and class discussions of recent articles in economic journals assigned by the instructor.
- Guest lectures from visiting scholars and professionals.
- Office hours: students are encouraged to make full use of the office hours of their instructor, where they can ask questions and go over lecture material.

➤ Use of Blackboard platform, where instructors post lecture notes, assignment instructions, timely announcements, as well as additional resources.

ASSESSMENT:	Summative:	
	1 st assessment: In-class written examination (1-hour, closed book)	40%
	Final assessment: In-class written examination (2-hour, closed book, comprehensive)	60%
	Formative:	
	Problem sets and questions	0%
	<p>The formative assessment prepares students for the examinations and ensures that students are actively engaged during the term.</p> <p>The 1st assessment tests Learning Outcomes 1, 2, 3. The final assessment tests Learning Outcomes 1, 2, 3, 4, 5, 6, with emphasis on 3, 4, 5 and 6.</p> <p>The final grade for this module will be determined by averaging all summative assessment grades, based on the predetermined weights for each assessment. If students pass the comprehensive assessment that tests all Learning Outcomes for this module and the average grade for the module is 40 or higher, students are not required to resit any failed assessments.</p>	

INDICATIVE READING:	<p>REQUIRED READING:</p> <p>Perman, R., Ma, Y., Common, M., Maddison, D. and McGilvray, J., Natural Resource and Environmental Economics, Pearson Higher Education.</p> <p>Journal articles, accessible through the Library, as assigned by the instructor.</p> <p>RECOMMENDED READING:</p> <p>Field, B. and Field, M. Environmental Economics. McGraw Hill, latest edition.</p> <p>Goodstein, E., Economics and the Environment. Prentice Hall, latest edition.</p> <p>The Economist (weekly)</p>
----------------------------	--

<p>INDICATIVE MATERIAL: (e.g. audiovisual, digital material, etc.)</p>	<p>REQUIRED MATERIAL: N/A</p> <p>RECOMMENDED MATERIAL: N/A</p>
---	--

COMMUNICATION REQUIREMENTS:	Use of appropriate academic conventions as applicable in oral and written communication.
SOFTWARE REQUIREMENTS:	Word, Excel
WWW RESOURCES:	www.env-econ.net www.epa.gov www.teebweb.org www.nature.com www.ethree.com
INDICATIVE CONTENT:	<ol style="list-style-type: none"> 1. Economy and the Environment <ol style="list-style-type: none"> 1.1. Introduction 1.2. Circular flow model 1.3. Materials balance model 1.4. Sustainable economy 2. Environmental Problems as Externalities <ol style="list-style-type: none"> 2.1. Pollution as an externality 2.2. Pollution as a market failure 2.3. Property rights 3. Environmental Policies <ol style="list-style-type: none"> 3.1. Introduction 3.2. Pollution charges 3.3. Standards 3.4. Subsidies 3.5. Permit trading systems 3.6. Clean technologies 4. Measures of Benefits <ol style="list-style-type: none"> 4.1. Introduction 4.2. Consumer surplus, compensating variation, equivalent variation 4.3. Willingness to pay, willingness to accept 4.4. Total economic value 5. Benefit Estimation Procedures <ol style="list-style-type: none"> 5.1. Hedonic-price approach 5.2. Contingent valuation methods 5.3. Dose-response methods 5.4. Travel - cost approaches 6. Resource Management <ol style="list-style-type: none"> 6.1. Discounting the future 6.2. Renewable resources 6.3. Exhaustible resources 7. Preservation and Conservation

	<ul style="list-style-type: none">7.1. Development and total economic value7.2. Irreversibility7.3. Safe minimum standards
--	--