



National Taiwan University of Science and Technology

2021 Winter Program

ECON 335 Environmental Economics

Course Outline

Course Code: ECON 335

Instructor: George Sarraf

Home Institution: University of California, Irvine

Office Hours: By appointment

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Credit: 4

Course Description:

The goal of this class is to give students the ability to evaluate environmental issues through the lens of an economist. After completing this course, students should be able to apply economic theory to identify, understand and analyze environmental and natural resources issues, and propose efficient solutions to those problems.

Required Textbooks:

Textbook: S.J. Callan et al, Environmental Economics & Management, Theory, Policy and applications, 6th ed., Cengage. Isbn: 9781111826673.

Lectures:

Lectures are designed to clearly explain the concepts covered in the handouts and how they apply to real world situations. Lectures will be asynchronous and pre-recorded and posted online (LMS) or emailed to the class. Outlines of the lecture notes will be made available to students online or via emails.

Homework:

Homework assignments will be posted online or emailed to students. Homework assignments are meant to help you prepare (along with other materials) for the exams.

Exams:

There will be one midterm, and a final. Exams will be open book. Students can also use their own notes to answer the exam questions. Practice exam questions will be posted online or emailed to



students.

Activities:

There will be some activities to substitute for attending lectures. Short videos explaining important concepts covered in the class, will be posted online. Students to leave brief comments after watching those videos.

Grading Breakdown:

Homework: 20%
Activities: 20%
Midterm: 30%
Final: 30%

Grading & Evaluation:

A+:4.3	95-100	A:4.0	87-94	A-:3.7	82-86
B+:3.3	78-81	B:3.0	75-77	B-:2.7	71-74
C+:2.3	68-70	C:2.0	65-67	C-:1.7	61-64
D:1.0	55-60	E:0.0	49-54	X:0.0	0-48

Course Schedule:

Week	Topic	Chapters
Week 1	<ul style="list-style-type: none"> Syllabus and introduction How economists see the environment Understanding environmental damage & objectives 	
	<ul style="list-style-type: none"> Modeling market demand and supply Market failure and externalities Conventional solutions: command/control approach Economic solutions: the market approach 	Ch. 2 Ch. 3 Ch. 4 Ch. 5
Week 2	<ul style="list-style-type: none"> Risk analysis: environmental perspective Environmental cost/benefit analysis: Environmental benefit analysis 	Ch. 6 Ch. 7
	<ul style="list-style-type: none"> Environmental cost analysis Cost/benefit analysis: decision making perspective 	Ch. 8 Ch. 9



Week 3	Midterm Exam	2-7
	<ul style="list-style-type: none">• Air quality• Global air quality	Ch. 10 Ch. 13
	<u>PCA review is due</u>	
Week 4	<ul style="list-style-type: none">• Solid waste and toxic substances• Global environmental issues: sustainable development	Ch. 17 Ch. 20
	Final Exam	(Chs. 8-10,13,17 & 20)

