

Course Outline

Course Code : RE3905
Course Title : Economics of Sustainability
Semester : Semester 1, Academic Year 2026/27
Faculty : Asst Prof Fan Mingxuan
Department : Real Estate
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Overview

This course explores the economic aspects of environmental issues and policies. Students will learn how economic principles apply to environmental problems and how to analyze and design effective environmental policies. The course will cover topics such as market failure, externalities, property rights, environmental regulations, and the economics of natural resources and sustainability.

Learning Outcomes

Through this course, students will acquire knowledge, enabling them to:

- Understand the economic causes of environmental problems.
- Analyse the effectiveness of various environmental policies.
- Apply economic theory to contemporary environmental issues.
- Develop skills in quantitative and qualitative economic analysis.
- Critically evaluate environmental policy proposals.

Course Prerequisite(s)

BSP1703 Managerial Economics **or** EC1101E Introduction to Economic Analysis **or** RE1704 Principles of Real Estate Economics

Course Preclusion(s)

EC2383 Environmental Economics **or** EC4383 Environmental Economics and Policy **or** YSS3307 Environmental Economics

General Guide & Reading

Nil

Tentative Schedule & Outline

Week	Date	Topic	Activity
0	3 – 8 Aug <i>National Day – 9 Aug</i>	Orientation Week	-
1	14 Aug	Introduction & Economics review	
2	21 Aug	The market model and its failure	
3	28 Aug	Economics of pollution control I	
4	4 Sep	Economics of pollution control II	
5	11 Sep	Cost-benefit analysis for the environment	

6	18 Sep	Quiz I	
	19 – 27 Sep	RECESS WEEK	
7	2 Oct	Non-market valuation for environmental goods and services I	
8	9 Oct <i>NUS Well-being Day – 9 Oct</i>	No class	
9	16 Oct	Non-market valuation for environmental goods and services II	
10	23 Oct	Sustainability of Resources I: Non-renewable Resources	
11	30 Oct	Sustainability of Resources II: Renewable Resources	
12	6 Nov <i>Deepavali – 8 Nov</i>	Project	
13	13 Nov <i>In-lieu PH – 9 Nov</i>	Quiz II	
	14 – 20 Nov	READING WEEK	
	21 Nov – 5 Dec	EXAMINATION (2 WEEKS)	

Assessment

Assessment Components	Weightage (%)
• Class Participation	10
• Group Project	30
• Two quizzes (week 6 & week 12)	60
Total	100

Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is “the practice of taking someone else’s work or ideas and passing them off as one’s own” (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubt, you should consult your instructor.

Additional guidance is available at:

- <http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct>
- <http://nus.edu.sg/osa/resources/code-of-student-conduct>

About me

Mingxuan Fan is an assistant professor in the Department of Real Estate (RE) at the National University of Singapore (NUS) Business School.

Her research interest lies in the field of environmental and urban economics. Her current research focuses on (1) the effectiveness of environmental and urban policies and regulations; (2) the effect of environmental factors on human capital and economic outcomes. Her research on the effectiveness of urban water conservation measures in Singapore has been published in Nature Human Behaviour and Nature Water.

She holds a Ph.D. in Applied Economics from the University of Wisconsin-Madison.