

Subject Code	AF5634
Subject Title	Economics of Sustainability
Credit Value	3
Level	5
Pre-requisite / Co-requisite/ Exclusion	None
Objectives	The subject is one on economics of the environment, with special attention on sustainability. This subject aims to provide an integrated overview of environmental economics and sustainable development from a global perspective. Students are introduced to the economic concepts and theories for analyzing sustainable development and practices. It also focuses on the policy instruments which have been suggested as a means of achieving sustainability (Outcome 2).
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. demonstrate deeper knowledge and understanding of mainstream economics and alternative economic paradigms of sustainability b. provide informed comment on the interconnections between the natural environment and the operations of our economic system c. understand the role of microeconomics and macroeconomics in sustainable development d. demonstrate in-depth knowledge of different economic tools for assessing environmental problems e. demonstrate in-depth knowledge of different strategies for reconciling environmental concerns with requirements of economic growth and development f. demonstrate awareness of the ethical implications and considerations involved in the economic approach to environmental problems
Subject Synopsis/ Indicative Syllabus	<p>Economic Theory and Sustainable Development Economics and the environment Fundamental concepts in environmental economics Identifying environmental objectives – Sustainable development Concepts of sustainability Trends and challenges of sustainability Environmental policy planning</p>

	<p>Measuring and Achieving Sustainable Development: Macroeconomic Approaches Defining conventional gross net product (GNP) Modifying GNP for missing (nonmarket) values – green GNP Genuine savings Critical capital concerns and strong sustainability Monetary and fiscal policies</p> <p>Modeling the Market Process: A Review of the Basics Market models: The Fundamentals The Model of Supply and Demand Economic criteria of efficiency Welfare measures</p> <p>Modeling Market Failure Environmental problems: A market failure Externalities Modeling environmental damage as negative externality The absence of property rights</p> <p>Conventional Solutions to Environmental Problems The Command-and-Control Strategies: The Case of Standards Incentive-Based Strategies: Emission Charges and Subsidies Incentive-Based Strategies: Transferable Discharge Permits</p> <p>Analytical Tools for Environmental Planning Concept of risk Risk assessment Risk management Assessing costs and benefits for environmental decision making Benefit-cost analysis in environmental decision making</p> <p>Ethics and Environmental Economics The ethical limits of environmental economics Ethical concerns of economic value-judgment</p>
<p>Teaching/Learning Methodology</p>	<p>The course is comprised of a seminar of three hours per week, students' presentations, and Individual assignments.</p> <p>The 3-hour seminar per week includes a 2-hour lecture and 1-hour tutorial. The lectures will be structured to help students to understand various topics relating to environment economics and sustainability. The tutorials will provide students with the opportunity to deepen their understanding of the concepts taught in lectures and to apply the theories and economic tools to the analysis of environmental problems. The activities in tutorials include presentation and discussion of tutorial questions and environmental case studies.</p> <p>Students are required to submit individual assignments of different topics and they are expected to interact with their lecturer and other classmates in preparing answers for the questions in the assignments.</p>

Assessment Methods in Alignment with Intended Learning Outcomes	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
			a	b	c	d	e	f
	1.Oral presentation	10%		✓		✓	✓	✓
	2.Individual assignment	20%	✓	✓	✓	✓	✓	✓
	3.Mid-term test	20%	✓	✓	✓		✓	✓
	4.Examination	50%	✓	✓	✓		✓	✓
	Total	100 %						
<p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Oral presentations are used to assess how well the students understand the content of materials and ability to organize and structure the materials.</p> <p>Individual assignments are used to test students' ability in understanding the materials and measure their evaluation abilities.</p> <p>Mid-term test and final examination are used to test students' overall ability in applying the knowledge learnt in the subject.</p> <p><i>To pass this subject, students are required to obtain Grade D or above in BOTH the Continuous Assessment and Examination component.</i></p>								
Student Study Effort Expected	Class contact:							
	▪ Lectures/Seminars		39 Hrs.					
	Other student study effort:							
	▪ Reading subject textbooks and materials		42 Hrs.					
	▪ Preparation for tutorial homework and presentation		27 Hrs.					
	Total student study effort		108 Hrs.					
Reading List and References	Thomas, J. M. and Callan, S. J. (2013). <i>Environmental Economics and Management: Theory, Policy, and Applications</i> , 6e. Mason, OH: South-Western, Cengage Learning.							

Field, B. C., and Field, M. K. (2012). *Environmental Economics: An Introduction*, 6e. New York: McGraw-Hill.

Booth, D.E. (1994). Ethics and the limits of environmental economics. *Ecological Economics* 9(3): 241-252.

Johansson-Stenman, O. (1998). The importance of ethics in environmental economics with a focus on existence values. *Environmental and Resource Economics* 11(3-4): 429-442.

Other academic journal articles.