

Course Code			
Course Title	Environmental and Natural Resource Economics		
Credits	3 CH , 12 CP, 6 ECTS		
Pre-requisite	CAMS 2003		
Co-requisite	N/A		
Equivalent			
Course Category	University Requirement	University Elective	
	College Requirement	College Elective	
	🛛 Department Requirement	Department Elective	
	Specialization Requirement	Specialization Elective	
	Other (specify):		
Course Owner	College:	Department:	
Course Type	🖂 Lecture	🗌 Lecture/Lab	
	Lecture/Seminar	🗌 Lecture/Studio	
	Lecture/Tutorial	Lecture/Lab/Seminar	
	🗌 Tutorial	🗌 Lab or Practical	
	🗌 Field Work	🗌 Field Placement	
	🗌 Studio	🗌 Seminar	
	🗌 Internship	Workshop	
	🖂 English Language Skill	Project	
Language of	English		

Course Description

This course reviews some basic issues relating to natural resource use and the environment and applies economic reasoning and principles to analyze various policy alternatives for these issues. There is a strong focus through the course on global and environmental policy issues and interactions between human and natural environmental systems. The course addresses the sustainability concept from an economic perspective at global level then focuses on sustainability in relation to oil dependent economies. Concepts of externalities, market failure and property rights are addressed through the course and are linked to the chapters on pollution control, fisheries and groundwater management as open access goods. The management, use and recycling of non- renewable resources is looked at through oil and minerals. Students are also exposed to the environment's limited capacity of waste assimilation and policies that address waste reduction, re-use and recycling.

Teaching/Learning Strategies

Evaluation Methods

The course assessment is based on a midterm, a final exam, pop quizzes and an oral presentation to the class. Each group of 2 students will present an Action Plan to the class for a total of 25% of the course grade. Students can choose any non covered chapter from the text book and agree with the faculty for a topic. Alternatively, students can also read and summarize two scientific journal papers covering a natural resource economics or environmental economics problem. In all cases the faculty's approval of the topic is a must. The presentation should focus on Economics of Resources or Economics of the Environment avoiding generalities and technical issues. One student is selected randomly from the team during the day of the presentation. He/she will be given 20 minutes for presentation followed by 10 minutes discussion. A digital copy of the PowerPoint presentation should be submitted to the instructor for grading purposes. The grading will be based on the ability to deliver and communicate the oral presentation, the way the problem is presented and economic solutions are analyzed and policies are discussed. Students will also be evaluated on the ability to answer the questions and interact with the audience.

For this course the marking scheme is based on a series of short quizzes, assignments and 2 examinations:

- 1 Quizzes 5%
- 2 Topic presentation 30%
- 3 Midterm exam 30%
- 4 Final Exam 35%
- Total 100%

Required Course Core Material

Tietenberg, T. 2011. Environmental and Natural Resource Economics. 9th edition. E-Book.

Other miscellaneous readings Lecture Notes Lecture notes are available and distributed through Email at the beginning of each chapter.

Supplementary material mostly from YouTube, local or international newspapers, general websites such as World Bank and other international organizations will be used.Tietenberg,T. 2011. Environmental and Natural Resource Economics. 9th edition. E-Book.

Matching Course Objectives with Program Outcomes and SQU Graduate Attributes SQU Graduate Attributes

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SQU graduates should be able to:	SQU graduates possess	SQU graduates should
apply the knowledge and skills	interpersonal communication skills	relish good citizenship
relevant to the specialization	and alignment with culture of	qualities, conscious of
communicate effectively and use	international labour market to	their national identity
information and communication	assist them in practical life and in	and socially responsible,
technologies	living successfully	engage in community
critically analyze complex	skills and motivation for	affairs and mindful of
information and present it in	independent learning and	contemporary issues.
simple legible manner	engagement in lifelong learning	
	and research	
	work ethics and positive values,	
	and intellectual independence and	
	autonomy	
	teamwork skills and display	
	potential leadership qualities	

#	Course Learning Objective	Relevant Program Outcome(s)	Applicable Attribute(s)
	The course introduces the student to economic concepts and analytic techniques, which can be used in understanding resource management and environmental economics problems. Provide an understanding of the economics of resource management within an environmentally sound framework showing the interaction between environmental resources and humans. The following are specific objectives of the course: 1. Introduce students to the concept of sustainability and its implications for oil dependent economies	1. an ability to apply knowledge of economics, science, and mathematics Students are expected to show the ability to analyze problems related to the economics of renewable and non- renewable resources using micro-economic models and mathematical models taking into account the knowledge of natural systems and private and public goals	
	2. Examining sources of inefficiency in the exploration of natural resources	2. identify, formulate and solve problems Solve numerical and analytical problems of natural resource economics using Excel, simulation models and optimization techniques for oil, fisheries and water.	
	3. Introduce students to the linkages between population growth, affluence, and environmental sink capacity and pollution.	3. an ability to communicate effectively Students are encouraged to participate in the discussions raised during	

	the class to develop critical thinking. They will have to demonstrate an ability to organize, communicate and discuss natural resource economics key issues by working as individually and in a team on a mini project.	
4. Introduce students to the economics of non- renewable resources with implications for Oman.	4. a knowledge of contemporary issues Attention is given on contemporary issues such as energy prices evolution and non- renewable resource extraction, the search of renewable energies, population growth control and its social impacts, environmental degradation and loss of biodiversity, management of open access goods such as fisheries and groundwater. Students are engaged during the lecture time and homework in discussing and evaluating these issues.	
5. Allow students to analyze the different options of fisheries management as a renewable resource.		
6. Introduces the students to the water allocation problem and water quality management options with implications for water in arid countries and especially for Oman.		
7. Introduce students to the control of pollution by comparing the different policy instruments.		

Student Responsibilities

It is the student's responsibility to know and comply with all University Academic Regulations relevant to participation in this course. These regulations specifically include attendance requirement and students` academic code of conduct.

For attendance, it is the student's responsibility to be punctual and to attend all classes. Students are expected to perform their work with honesty and avoid any academic misconduct, which is defined as the use of any dishonest or deceitful means to gain some academic advantage or benefit. This can take many forms, including but not limited to, the following: copying, plagiarism, collusion and forging documents. For full details please refer to the Undergraduate Academic Regulations and to the Student Academic Misconduct Policy. Additionally, this course requires that you:

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Course INFORMATION

Course Code	NREC3300	Course Title	Environmental and Natural Resource	
			Economics	
Year/Semester	Spring 2017	Section	10	
Day, Time, and	Monday 10:00-11:20			
Place	Room # A04 Wednesday 10:00-11:20 Room # A04			

Course Coordinator			
Office Location	Room 229 Anx, NRE, CAMS	Office Hours	Generally any time or by appointment
Office Tel. Ext.	24141243	Email	slim@squ.edu.om

Tentative Schedule

Wee k	Lecture/Topic	Material to be covered	Assignme nt/Exam	Weigh t (%)
1	1 Introduction, definitions, models of development			
2	2-3 Sustainable development			
3	2-3 Sustainable development			
4	4-5 Economics of pollution			
4	control			
5	4-5 Economics of pollution			
5	control			
6	6-7 Recyclable Resources			
	6-7 Recyclable Resources			
	7 Midterm exam: March 8th			
	2017			
7	7-8 Non-renewable resources,			
	energy, scarcity (oil): Dynamic			
	optimization, transition to renewable			
	resources			
	7-8 Non-renewable resources,			
8	energy, scarcity (oil): Dynamic			
_	optimization, transition to renewable			
	resources			
9	9 Fisheries as renewable			
	resource: The steady-state model			
10	10-11 Water as a renewable			
	resource			
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14	12 15 Topics prosentations			
14	12-13 Topics presentations			

	Exam week Examination		
15	12-15 Topics presentations		
15	Exam week Examination		

appendix A: Instructors of multiple sections

Section	Instructor	Day, Time, and Location	Office Location and Extension	Email	Office Hours

appendix B: ADDITIONAL INFORMATION