MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN

SULEYMAN DEMIREL UNIVERSITY

FACULTY OF ECONOMICS

"CONFIRM"
Vice-rector on Academic Affairs

_____Mr. Halit Yilmaz
"____"_____ 2009

Educational Program: Master of Business Administration and Master of Arts
Specialty: 6M0507 and 6M0506
Form of education: evening

SYLLABUS

On the course **NATURAL RESOURCE ECONOMICS**

Year: 1
Semester: 1
Number of credits: 3 (lectures – 2 hours, practical – 1 hour)
Instructor: Dr. Ken Szulczyk
Tel.: 229-7190
Office: #B126

ALMATY
2009

Completed by: Instructor Dr. Szulczyk

The syllabus has been developed on the basis of the Typical and Working Programs of the course for students of Specialty 6M0507 and 6M0506

Agreed at the meeting of the Faculty of “Economics”

Minutes № __ of _____ 200____ .

Head of the Department _____ Dr. Mesut Yilmaz.

Approved by the Educational Methodical Committee of the Masters of Business Administration
Minutes № __ of _____ 200____ .

Dean of the Faculty _____ Dr. Mesut Yilmaz.

Course: Natural Resource Economics
Code: ECO 516
Number of credits: 3

Instructor's name	**Time and location**		**Contact**
	Lectures	Practical	
Dr. Kenneth Szulczyk	Tuesday 6:00-8:00	Wednesday 6:00-7:00	Tel: 229-7190 Cell: 8 7027238077

I. COURSE DESCRIPTION

The course is split into two sections. The first section lays the foundation of population and economic growth that lead to resource depletion and pollution. Resource depletion and pollution are forms of market failures. Students learn the common types of market failure and how to correct them. Then students learn the pollution types, like point source, nonpoint source, and transboundary pollution. Moreover, global warming is examined and the challenges of addressing it. The second section focuses on natural resources. The economics of petroleum, fisheries, waste disposal, and recycling are examined and how they change the economic analysis. Students are also exposed to energy economics and the common forms of alternative energy and green technologies. Then the course finishes with sustainability economics and how to ensure future generations are not harmed by resource depletion or pollution.

II .COURSE OBJECTIVES:

Upon successful completion of this course students will be able to:

1. Describe how pollution and resource depletion are forms of market failures and the common techniques to correct them.
2. Provide numerous examples of market failure.
3. Applying cost-benefits analysis to pollution and its abatement. The common techniques are Pigouvian tax, cap and trade permit system, and Coase's theorem.
4. Understand global warming and the challenges of correcting it.

5. Describe the economics of nonrenewable resources like petroleum and coal, and how it differs from standard supply and demand analysis.
6. Analyze the economics of recycling and common methods how government encourages recycling.
7. Understand the cost and benefits of alternative energy and green technologies.
8. Understand the economics of renewable resources, like forests and fisheries.
9. Describe the issues and economics of one of the most important resources to man, which is water.
10. Describe and understand the ideas of sustainability and how future generations are impacted by today's choices.

III. LEARNING OBJECTIVES:

Students will learn the following topics:

1. Malthusian economics
2. Kuznet's Curve
3. Positive Externality
4. Negative Externality
5. Public Goods Asymmetric Information
6. Pigouvian tax
7. Cap and trade permit system
8. Point source pollution
9. Nonpoint source pollution
10. Transboundary pollution
11. Hotelling's Rule
12. Hubbert's Peak Oil Hypothesis
13. Recycling and waste disposal
14. Energy economics – a derived demand
15. Alternative energy and green technologies
16. Brownfields and Superfund sites
17. Economics of fisheries
18. Economics of water scarcity and pollution
19. Sustainability and the impact of future generations

IV. PRE-REQUISITS
None

V.TEXTBOOKS

Required Text:

1. Callan, Scott J. and Janet M. Thomas. 2007. *Environmental Economics & Management, Theory, Policy, and Applications*.

2. McKitrick, Ross. 2009. *Economic Analysis of Environmental Policy*.

3. Harris, Jonathan. 2006. *Environmental and Natural Resource Economics: A Contemporary Approach*, 2nd edition.

Required Reading: Students are encouraged to surf the Internet for information relevant to classroom topics of discussion. These sites are particularly helpful:

1. http://econpapers.repec.org/
2. http://www.oswego.edu/~economic/newbooks.htm
3. http://economics.about.com/
4. www.wikipedia.org

VI. PROCEDURES AND REQUIREMENTS:

1. **Class Participation** -- Students should come to class well prepared, having read the material assigned. They are encouraged to ask their questions, make comments, and participate in class discussions. Students who are late or absent are not properly participating in our class, regardless of how involved they may be when present.

2. **Attendance and Dishonesty** -- Students are required to attend classes on a regular basis. University policy will be followed when students miss their class appointments, or engage in any form of academic dishonesty. In both cases, students may be awarded a failing grade for their actions.

3. **Examinations** – There will be 2 mid term exam and 1 final exam during the semester also periodic tests will be administered during the academic term. The tests will consist of a mix of objective questions. Information regarding mid term and final exams will be provided at the appropriate time.

4. **Late assignments** -- Late assignments will not be accepted. A zero will be recorded when cases, assignments, presentations, projects, or examinations are not completed at the regularly scheduled time.

VII EVALUATION

The course grade will be based upon the following criteria:

Assignment type	Week	Marks
Participation: [Participation = Attendance + Questions + Comments + Suggestions + Etc] **Home work/ Quizzes etc…**	**1-7**	**15 %**
Mid Term 1	**7th week**	**15%**
Participation: [Participation = Attendance + Questions + Comments + Suggestions + Etc] **Home work/ Quizzes etc…**	**8-14**	**15%**
Mid term 2	**14th week**	**15%**
Final	**16th week**	**40%**
TOTAL		**100%**

Note: Students who fail to submit the course work on time will receive 'F' grade in the ECO course.

VIII COURSE SCHEDULE AND READING ASSIGNMENTS:

The course schedule and assignments are listed below. This is your road map to the course, so please read it carefully.

Weeks	Topics of Lectures (2 hours per week)	Self study/ (3 hours per week)	Form of Control	Text:
1	Introduction to Environmental and Natural Resource Economics	Exercise 2, pg. 15		Harris – Chapter 1
2	Growing Population and Economic Growth	Exercise 2, pg 34		Harris – Chapter 2
3	Property Rights and Market Failure – Part 1	Exercise 3, pg 67		Callan – Chapter 3
4	Property Rights and Market Failure – Part 2	Exercise 2, pg. 23	Quiz –5 points	Harris – Chapter 19
5	Pollution	Exercise. Pg 109 and 121		McKitrick – Chapter 1
6	Global Warming	Exercise 1, pg. 41	Homework – 10 points	Harris – Chapter 18
7	Midterm Examination I		15 points	
8	Non-Renewable Resources	Handout Exercise		Handout
9	Waste Disposal and Recycling	Exercise 2		Callan – Chapter 18
10	Energy Economics	Handout Exercise	Quiz –5 points	Harris – Handout

11	Alternative Energy and Green Technologies		Handout Exercise	Homework – 10 points	Handout
12	Renewable Resources – Forests and Fisheries		Handout Exercise		Handout
13	Water Scarcity and Water Pollution		Exercise 3		Callan – Chapter 15
14	Sustainability and the Future		Exercise 2		Callan – Chapter 21
15	Midterm Examination II			15 Points	
	Final Exam			40 Points	
Total				**100 points**	

IX. References:

1) Tietenberg, Tom. 2005. Environmental and Natural Resource Economics 7th ed. Addison Wesley.