Course Name: Natural Resource and Environmental Economics

Course Code: Econ-M 2091

Prerequisite: Econ1022

Contents

week		Course contents	*References*
Chapter one: Introduction			
1 Week	**3hours**	1.1 Introduction to the subject matter 1.2 Interlinkage between the environment and the economy 1.3 The two views for the prospects in the environment	☞ *Prato T. (pp 55-65 and 73-79)* ☞ *Tietenberg T. (pp 1-20)*
Unit Two: some issues on the environment and development			
3 Weeks	9hours	2.1 The environment and emerging development issues 2.2 Population growth and the environment 2.3 Economic growth and the environment 2.4 Sustainability and economic policies	☞ *Prato T. (pp 80-87)* ☞ *Tietenberg T. (pp 102-125)*
Unit Three: Efficiency, property rights, market failure and the environment			
3 week	9 hours	3.1. Efficiency, discounting & intergenerational equity 3.2. Property rights 3.3. Externalities 3.4. Public goods 3.5. Common property resources 3.6. Correcting market failure	☞ *Tietenberg T. (pp 88-100)* ☞ *Prato T. (pp 91-108)* ☞ *Grafton et al. (pp 36-60)*
Unit Four: Natural resources			
3 Week	9 hours	4.1 Classification of natural resources 4.2 Non renewable resources 4.2-1 Theory of optimal depletion 4.2-2 Energy resources	☞ *Tietenberg T. (pp 127-150 and 281-305)* ☞ *Grafton et al. (pp 93-160 and 193-216)*

		4.2-3 Minerals 4.3 Renewable resources 4.3-1 Biological dimension of fisheries 4.3-2 Theory of optimal use 4.3-3 Forest resources	
Unit Five: Economics of pollution control and environmental policy			
2 Week	6 hours	5.1 Pollutant taxonomy 5.2 Efficient allocation of pollution 5.3 Environmental policy instruments 5.3-1 Command and control (emission standards) 5.3-2 Emission charges 5.3-3 Transferable emission permits 5.3-4 Liability rules	☞ *Tietenberg T. (pp 336-363)* ☞ *Grafton et al. (pp 61-88)*
Unit Six: Valuation and cost-benefit analysis of the environmental resources			
2Week	*6 hours*	*6.1 Valuation of the environment* *6.1-1 Welfare foundations* *6.1-2 Dimensions of value* *6.1-3 Valuation methods* *6.2 Environmental analysis*	☞ *Prato T. (pp 301-328) Grafton et al. (pp 219-273)*
Chapter Seven: International Environmental Issues And Economics Of Climate Changes			
2 week	*3 hours*	*7.1. International Environmental Externalities* *7.2. International Agreements* *7.3. Payments for Ecosystem services (PES)*	

****NB:** This course needs practical observation in a field so that the theoretical concepts verified through practical observation. The load for the course is indicated in the load distribution of the course.

Module Delivery Methods

The delivery method shall be student-centered. Students are highly expected to participate in class works at the middle and end of each session and in group discussions inside and outside of the class. Specifically the course will be delivered through the following methods:

- Lecture Method
- In-class problem solving
- Group Work
- Assignment

Assessment Methods

Student evaluation in this module consist both formative and summative assessments including quizzes, test and final exam. Marks will be allocated according to the following grading schedule.

Assessment method	Weight
Assignment (Indiv/group)	20%
Quizzes/Tests(**Max of 10 % each**)	30%
Final Exam	50 %
Total	100%

REFERENCES:

Grafton R.Q., Adamowicz W., Dupont D., Nelson H., Hill R.J., and Renzetti S., 2004: *Economics of the environment and natural resources*; Blackwell Publishing, United Kingdom.

Prato T., 1998: *Natural resource and environmental economics*, Iowa State University Press/Ames, United States of America

Tietenberg T., 1992: *Environmental and natural resource economics, 6th edition*; Harper Collins Publishers

Convery F.J, 1995: *Applying environmental economics in Africa*; World Bank Technical Paper, No 277, Africa technical series, World Bank , Washington DC.

Hanley N., and Clive L.S., 1993: *Cost-benefit analysis and the environment*, Edward Elgar.

Leser J.A., Daniel E.D., and Richard Z.J., 1997: *Environmental economics and policy*, New York, Addison-Wesley.