

Course Outline

2017

ECON 372: ENERGY AND RESOURCES (15 POINTS)

Semester 2 (1175)

Course Prescription

Examines the economics of resource use with a particular emphasis on world oil markets and issues surrounding energy security. Energy markets are analysed with an emphasis on the electricity market. Issues surrounding energy economics and climate change, energy efficiency and policy measures to promote renewable energy sources are also discussed.

Programme and Course Advice

Prerequisite: ECON 201 Microeconomics

Goals of the Course

This course provides students with a thorough grounding in the principles of energy and resource economics. After developing mathematical techniques to understand the dynamics of resource use, world oil markets are discussed and issues surrounding peak oil and energy security are analysed. The electricity market is discussed with an emphasis on the New Zealand system with its particular combination of thermal, hydro, geothermal and wind electricity generation. Green growth strategies are discussed with NZ case studies. Climate change and its implication for world energy use is discussed. Finally oil markets are analysed.

Learning Outcomes

By the end of this course it is expected that the student will:

1. be familiar with the basic concepts and theoretical methods of energy and resource economics;
2. able to apply these methods to analyse policy options.

Content Outline

- Week 1-3: Introduction and the economics of natural resources and energy supply.
- Weeks 4-6: Electricity markets.
- Week 7: The New Zealand electricity industry including hydro, wind and geothermal.
- Weeks 8: Green Growth with NZ case studies
- Weeks 9-11: Energy and climate change: CO₂ mitigation policies, Taxation and Cap and Trade Schemes.
- Week 12: World oil markets, energy security and peak oil production.

Learning and Teaching

This course will be taught in the second semester. There will be a total of four hours of lectures per week. There will also be a three hours of tutorial each week.

Teaching Staff

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Learning Resources

There is no prescribed text. Each week there will be readings prescribed from the coursebook and/or posted on Canvas.

The following book is available on Short Loan at the Kate Edgar Information Commons Building, Level 1.

Conrad, Jon, *Resource Economics*, Cambridge University Press.

There is no Coursebook. Lecture notes and readings will be posted on CANVAS.

Assessment

Assessment will be based on two components: *Coursework* worth 40% of the total mark, consisting of two Assignments worth 10% each and one Test worth 20%; and a *Final Examination* worth 60%.

Mid Semester Test Date	
Semester 2 - Week 8	Tuesday 26 Sep 4-6

More details will be provided at lectures and on CANVAS.

Plussage does **NOT** apply.

Learning Outcome	Assignments 1 and 2	Test	Final Examination
1	X	X	X
2	X	X	X