- Faculté des sciences économiques
- www.unine.ch/seco

Energy Economics (5ER2032)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en sciences économiques, orientation politique économique	**Cours: 2 ph**	**écrit: 2 h**	3

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Printemps

Equipe enseignante:

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Objectifs:

This course provides students with an introduction to the principles of energy economics and related policy applications. The main objective is to learn how to apply microeconomic theories and econometric methods to various energy issues. Emphasis will be given to empirical applications. Conceptual frameworks in energy demand and supply as well as the environmental implications of energy use will be covered. The rationales and instruments for policy intervention in energy markets and the role of economic analysis in designing energy policies will be explored. An ancillary objective of the course is to introduce students to the use of analytical tools and empirical models drawn on microeconomic theory.

Contenu:

The course consists of a diverse range of topics and applications that revolve around the following main lines:
• Energy analysis, history and policy challenges
• Economic models of energy demand and supply
• Economics of exhaustible resources
• Markets for oil, natural gas and electricity
• Economics of energy efficiency
• Energy innovations and renewable energy technologies
• Energy externalities and environmental policies

Forme de l'évaluation:

2-hour written exam.
Retake: 2-hour written exam.

Documentation:

There is no single required textbook. The course material draws on a series of journal articles as well as extracts from technical reports. These materials will be made available to students prior to corresponding lectures. The following books are strongly recommended:
• International Energy Markets: Understanding Pricing, Policies and Profits. Dahl, C.A. 2004.
• International Handbook on the Economics of Energy. Hunt, Lester and Evans, Joanne (editors). 2008.
• Microeconomics. 8th ed., R. Pindyck & D. Rubinfeld, 2012.
• Natural Resource and Environmental Economics. 4th ed., Perman, D.R. et al. 2011.
• The Structure of World Energy Demand, Pindyck, R.S., 2003.

Forme de l'enseignement:

2-hour weekly lectures.