- 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 concepts and Econometric methods to various problems in energy demand and supply. Through these applications, the course will introduce students to how analytical and empirical models can be drawn from theory. An emphasis will be given to economic perspectives and theories that consider energy principles and biophysical aspects of economic systems. The course will also cover the economics of exhaustible resources and energy efficiency.

Contenu:

The course consists of a diverse range of topics revolving around the following lines:
- Energy and economic systems
- Energy innovations, history and policy challenges
- Economic models of energy demand
- Economics of energy efficiency
- Economics of exhaustible resources
- Empirical modeling of energy demand

Forme de l'évaluation:

Final grade is based on a 90 minute written midterm exam (50%) and a 90 minute written exam during the last lecture of the semester (50%). Both exams are open book with a personal computer with limited internet access. No other connected objects are allowed. Attendance and participation in class discussions are rewarded by a bonus of up to 20% of the final grade. Students who miss more than 4 hours lecture do not qualify for the bonus.
Retake: 2-hour written exam during the exam session (100%) without bonus. The retake exam is also an open book exam but without computer. No connected objects are allowed.
In case of violation of these rules, the students are in a situation of fraud and the unauthorized items will be removed. The exam could be deemed as failed.

Documentation:

There is no single required textbook. The course will draw on selected readings from the following books and a series of journal articles that will be made available during the semester.
- International Energy Markets: Understanding Pricing, Policies and Profits. Dahl, C.A. 2004.
- International Handbook on the Economics of Energy. Hunt, L. and Evans, J. (editors). 2008.
- Energy and the Wealth of Nations: Understanding the Biophysical Economy. Hall, C.A.S. and Klitgaard, K.A., 2012.
- Resource and Environmental Economics, Fisher, A.C., 1981.
- Energy Efficiency: Towards the End of Demand Growth, Sioshansi, F.P (editor). 2013.
- The Structure of World Energy Demand, Pindyck, R.S., 2003.
- Energy: Management, Supply and Conservation, Beggs, C., 2009. 2nd ed. Spon Press.

Forme de l'enseignement:

Lecture: 2 hours per week
Office hours: on request by e-mail

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