Remarque
Special schedule. See the MTE website: http://cdm.epfl.ch/mte/study-plan

Summary
This course explores the theoretical and empirical perspectives on individual and industrial demand, supply, public policies including (de)regulation and management, in the energy sectors (oil, natural gas and electricity).

Content
1. Market equilibrium and market failure
2. Economic characteristics of energy, sustainability
3. Regulation in the energy sectors
4. Geopolitical and environmental aspects
5. Market structure and management in the energy sectors
6. Innovation opportunities & incentives

Remark: the course will be taught the first 7 weeks of the semester

Keywords

Learning Outcomes
By the end of the course, the student must be able to:

• Explain the main economic and political forces behind energy demand and supply as well as the rationales for economic policy in the energy sectors
• Use economic tools and principles to analyze energy issues
• Formulate energy policy instruments

Transversal skills
• Communicate effectively with professionals from other disciplines.
• Use a work methodology appropriate to the task.
• Demonstrate the capacity for critical thinking

Teaching methods
• Lectures by the course instructor
• Seminars by experts from the energy sectors
• Projects by participating students

**Expected student activities**

• Attendance at lectures
• Doing a short project in groups

**Assessment methods**

• 40%: Project carried out during the course: oral presentation and slides
• 60%: Written test

**Supervision**

Office hours: No
Assistants: Yes
Forum: No
Others: Contact by email: christian.jaag@epfl.ch

**Resources**

Virtual desktop infrastructure (VDI)
No

**Bibliography**

*Relevant journals:*
• Energy policy: http://www.journals.elsevier.com/energy-policy
• Review of Network Economics: http://www.degruyter.com/view/j/rne
• Competition and Regulation in Network Industries: http://www.crinet.com
• NBER Papers in Environmental and Energy Economics: http://www.nber.org/papersbyprog/EEE.html

*Relevant links:*
• International Energy Agency: http://www.iea.org/aboutus/
• World Energy Council: http://www.worldenergy.org/

**Ressources en bibliothèque**

• Journal of Regulatory Economics
• Swiss Federal Office of Energy
• International Energy Agency
• Review of Network Economics
• Energy policy
• Competition and Regulation in Network Industries
• NBER Papers in Environmental and Energy Economics
• Energy Strategy for Europe
• World Energy Council