



FAK3102 Energy and Geopolitics 7.5 credits

Energi och geopolitik

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for FAK3102 valid from Autumn 2010

Grading scale

Education cycle

Third cycle

Specific prerequisites

Applicants with an equivalence of at least three years of academic studies (180 hp). The course welcomes PhD students with backgrounds in natural science and technology as well as those from social sciences and the humanities. Our target group is PhD students from KTH as well as from other institutions, such as the Swedish Institute of International Affairs and the Energy Systems Department at Linköping University.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the students should be able to:

- describe the complex relations between energy provision and politics in a global and historical perspective
- describe and use the different theoretical concepts presented in the course
- place recent events on the energy arena within a geopolitical and historical perspective
- analyse complex chains of events within the energy field over time
- adopt a critical attitude

Course contents

During the past years, questions about energy and energy policy have come to play an important role in global politics. Very few countries today have the means to secure their own energy need through national supplies, and instead long-going dependencies upon other countries have developed. A widespread international trade of crude energy material started already in the 19th century, but has increased exponentially during the second half of the 20th century. Energy trade has included everything from wooden chips, peat, and ethanol, to coal, oil, gas, and uranium. This international trade has developed as a parallel process to the growth of as well new, radical energy technologies (nuclear, large scale water-power, gas power plants, combined power and heating, etc.) and large systems for transport and distribution of energy (in the form of electricity, heat, gas and oil) through pipelines and lines. At the same time, energy politics has become more and more entangled with other political fields, such as environmental politics, research- and innovation politics and foreign politics, which makes it more difficult to understand the development within the energy field. This course aims to give a deeper understanding of energy provision from a geopolitical and historical perspective.

Some of the themes discussed during the course will include:

- International dependencies: gas, oil, uranium
- Transnational vulnerabilities
- Energy and national identity in a global perspective
- Energy and geopolitics during the cold war
- International energy crises – old and new
- The globalisation of energy politics and the EU as a new actor in energy politics
- Russia's role
- The cybernetisation of energy systems
- The deregulation of the energy sector

- From national to global innovation systems in the energy area.
- The nuclear fuel cycle as a critical infrastructure
- Energy and international terrorism

Disposition

The course consists of nine lectures and three seminars. As preparation for the course meetings the students will be asked to read literature consisting of articles representing nationally and internationally acknowledged work within the field, as well as new literature presenting the latest research developments. Altogether the reader will consist of approximately 800-1000 pages. The students will also be asked to write short assignments in connection to six of the lectures, and three slightly longer assignments in connection to the seminars. One of these texts will be written in groups.

Course literature

The literature consists mainly of articles gathered in a reader.

Examination

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

An 80 % attendance and approved written assignments (six shorter assignments and three longer ones, connected to the seminars, and one final essay to be written at the end of the course) are required to pass the course. The written assignments will be graded on the basis of the shown ability of the student to:

- describe the complex relations between energy provision and politics in a global and historical perspective
- describe and use the different theoretical concepts presented in the course
- place recent events on the energy arena within a geopolitical and historical perspective
- analyse complex chains of events within the energy field over time
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Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.