Energy, Environment & Society

Summer Course arranged at Shanghai Jiaotong University, 24 June to 12 July, 2013

Course description and outcomes:

Energy is a matter of technology and science, but energy is also a matter of economics, politics and society. The overall objective of the course ‘Energy, Environment and Society’ is to give students insight into the political, economic, environmental and social aspects of energy production and consumption. Better understanding of these issues is important with regard to participate in technological, political and business development of the energy domain.

The course will provide students with a state-of-the-art introduction to issues relating to energy production and consumption in contemporary society, with a particular focus on the situation in China and Norway. We will look into the development, deployment and implementation of technologies and policies for a more sustainable society, and the drivers and barriers facing such a transition. Students will become familiar with main social science approaches to understand the social role of energy, and learn to analyse issues including green innovation and technological development, role of politics and frameworks, and public perception and user perspectives. In short, the course will give the student:

- Essential understanding of political, economic, environmental and social issues related to energy production and consumption in the contemporary world.
- Basic understanding of social scientific theories and methodologies relevant to assess the energy domain.
- Practical experience with both cross-disciplinary and cross-cultural cooperation.

Teaching:

The course is arranged as part of the Joint Research Centre on sustainable energy between Shanghai Jiaotong University (SJTU) and The Norwegian University of Science and Technology (NTNU), and lectures will be given by researchers and professors from both sides. The teaching will be process-oriented, with an emphasis on making the students familiar with relevant social science concepts and
how they may be applied to understand issues emerging in the area of energy and sustainability. In the first two weeks, there will be about four hours of teaching every day, which will be implemented as a combination of class lectures and project work in which students from SJTU and NTNU will work in teams to analyse a given topic. After two weeks the teams will present their findings and get feedback from teachers and fellow students, and the third week the teams will write up and submit a short report. Students are expected to get familiar with the curriculum ahead of the lectures and actively participate in discussions.

Course prerequisites:
The course is designed for both technology and social science students on master-level with expressed interest in questions related to the production and/or consumption of energy. The course will be taught in English and include students from both SJTU and NTNU. Genuine interest and willingness to engage in cross-disciplinary and cross-cultural cooperation is therefore mandatory.

Formalities:
The course formally belongs to SJTU and provides 3 credits at SJTU.\(^1\) It will be up to the individual candidate to have the credits converted and course approved as part of a degree at NTNU.

Application:
Write a short application including a few words about your academic background and motivation for participating on this course. Send application and CV by email to Gard H. Hansen by 11 May.

Financial support:
NTNU will provide a scholarship that should be enough to cover transport, and accommodation on campus.

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\(^1\) One credit at SJTU is equal to 16 teaching hours. This course is estimated to 50 teaching hours.