



APPLIES TO ACADEMIC YEAR 2012/2013

GRA 8181 Energy Economics and Geopolitics

Programme

Executive Master of Management in Energy (EMME)

Responsible for the course

Ole Gunnar Austvik

Department

Department of Innovation and Economic Organisation

Term

According to study plan

ECTS Credits

6

Language of instruction

English

Introduction

This course is part of the Executive Master of Management in Energy in cooperation with BI Norwegian Business School and IFP School.

Learning outcome

The objective of this course is to give a general introduction to energy economics and the geopolitics of energy. The course provides insight and overview of the particularities of oil and gas industry, demand, supply and market restructuring and the formation of energy prices and distribution of resource rent, energy policy and international energy affairs. Resource management in major producing countries is outlined. Energy economics and regulation is discussed both for renewable and non-renewable resources, for the environment and the prospects for a greener economy.

This course serves as a basis and overview for what shall be learned in the EMME program. Later modules will go deeper into the specifics of most issues.

Acquired knowledge:

Participants will acquire an understanding of economic, political and industrial conditions applicable to the energy industry, with an emphasis on the following :

- Major challenges to energy markets, companies and policies
- Drivers in markets for non-renewable and renewable energy sources
- Energy economics, restructuring and regulation
- Energy policy and energy geopolitics
- Environmental and climate challenges to the energy industry
- The international energy business
- Resource management

Acquired skills:

- Overview of the energy sector on a global level
- Formation of international energy prices
- Energy economics and regulation,
- Market restructuring
- Distribution of resource rent,
- Energy policies of consuming countries,
- International energy affairs and geopolitics.
- Resource management in petroleum producing countries
- Electricity regulation and markets
- Renewable energy sources
- Environmental economics and policy

Reflection:

The participants will get insight and overview of the particularities of energy sector, drivers of demand and supply, international political and economic implications, as well as environmental and climate issues.

Prerequisites

Granted admission to the Executive Master of Management in Energy Management programme.

Compulsory reading**Books:**

Dahl, Carol. 2004. International energy markets: understanding pricing, policies, and profits. Pennwell. pp.1-277, 313-338, 371-412
Inkoen, Andrew Inkpen and Michael H. Moffet. 2011. The Global Oil and Gas Industry. Tulsa, Okla. pp. 2-36
Klare, Michael T. 2008. Rising Powers, Shrinking Planet: The New Geopolitics of Energy. New York: Metropolitan Books
Maugeri, Leonardo. 2010. Beyond the Age of Oil. London, Praeger. 218 p
Noreng, Øystein. 2005. Crude Power. London, I.B. Tauris. pp.1-51, 103-186
Smil, Vaclav. 2008. Energy in Nature and Society. pp. 273-364
Smil, Vaclav. 2010. Energy Myths and Realities. Washington, D.C., The AEI Press. 163 p
Van Vactor, Samuel A. 2010. Introduction to the Global Oil and Gas Business. Tulsa, Okla., PennWell

Articles:

2012. Outlook on the Global Agenda. World Economic Forum (WEF), Geneva: WEF
2013. Global Economic Prospects: Assuring Growth Over the Medium Term. World Bank (WB). Washington
2013. World Economic Outlook; Hopes, Realities and Risk. Washington
Bloomberg. 2013. Global Renewable Energy Market Outlook. New York

Journals:

2012. Energy Information Administration (EIA). International Energy Outlook. Washington.
2012. Organization of petroleum Exporting Countries (OPEC). World Oil Outlook. Vienna
2013. International energy Agency (IEA). World Energy Outlook. Paris

Other:

2012. Environmental Outlook to 2050: The Consequences of Inaction. Paris. Organization for Economic Cooperation and Developments (OECD)
2012. European Union (EU) Energy Policy: From the ECSC to the Energy Roadmap 2050. Green European Foundation. Luxembourg: Heinrich Böll Stiftung

Recommended reading**Books:**

2012. Federal Energy Regulatory Commission (FERC).: Energy Primer: A Handbook of Energy Markets. pp. 37-63 (Wholesale Electricity)
Al- Kasim, Farouk. 2006. Managing Petroleum Resources - The Norwegian Model in a Broad Perspective. Oxford: Oxford Institute for Energy Studies
Austvik, Ole Gunnar. 2009. The Norwegian State as Oil and Gas Entrepreneur. The Impact of the EEA Agreement and EU Gas Market Liberalization. Saarbrücken: VDM Verlag. pp. 191-248. (Chapter on Liberalization of the European gas market)
Bo Kong. 2010. China's International Petroleum Policy. Oxford, ABC Clío. pp. 1-94
Bridge, Gavin and Philippe Le Billon. 2012. Oil. Cambridge, Polity Press. pp. 5-34, 93-124
Bryce, Robert. 2010. Power Hungry. New York, Public Affairs. pp. 83-206
Care, Keith et al. 2009. Imported Oil and U.S. National Security. Santa Monica, Ca., Rand. 92 p
Ebel, Robert E. 2005. China's Energy Future. Washington, D.C., The CSIS Press. 86 p
El-Gamal, Mahmoud A. and Amy Myers Jaffe. 2010. Oil, Dollars, Debt and Crises. Cambridge University Press. pp. 1-24, 97-142
Goldemberg, José. 2012. Energy. Energy Oxford, Oxford University Press
Gorelick, Steven M. 2010. Oil Panic and Global Crisis. London, Wiley-Blackwell. pp. 1-13, 195-221
Griffin & Teece. 1982. Elements of the Crude Oil Production Decision: Implication from Economic Theory" and "Models of OPEC behavior". I: Griffin, James M. and David J. Teece. OPEC behavior and world oil prices. Allen & Unwin. pp. 13-35 (1078)
Gustafsson, Thans. Wheel of Fortune. 2012. Cambridge, Mass., Harvard University Press. pp. 1-97
Hunt, Sall. 2002. Making competition work in electricity. Wiley. New York. Selection 1-4
Kane, Gareth. 2011. The Green Executive, Corporate leadership in a low carbon economy.
Mills, Robin M. 2008. The Myth of the Oil Crisis. Westport, Conn Praeger. pp. 1-20, 189-240
Randers, Jorgen. 2012. 2052 – A Global Forecast for the Next Forty Years. Chelsea Green Publishing House, Vermont. Part of 250 p

Rutledge, Ian. 2006. Addicted to Oil. London, I.B. Tauris. pp. 1-20, 37-68, 120-157
Stevens, Paul. 2010. The Shale Gas Revolution. London, Royal Institute of International Affairs
Zolotukhin, Anatoly. 2011. Arctic Petroleum Resources: Opportunities and Challenges. Cappelen Damm Akademisk Publ. House. pp. 65-77. Part 1 in the book "Perspectives on Norwegian-Russian Energy Cooperation"/Edited by Anatoli Bourmistrov, Frode Mellemvik and Sergey Vasiliev

Articles:

2009. 'Exaggerating climate change'. European energy review July/August. 4 p
Al-Kasim Farouk, Tina Søreide, Aled Williams. Shrinking oil. Does weak governance and corruption reduce volumes of oil produced? by, Anti-Corruption Resource Centre www.U4.no. (Copy can be provided)
Austvik, Ole Gunnar. 2012. "Landlord and entrepreneur. The shifting roles of the state in Norwegian oil and gas policy". Governance. An International Journal of Policy, Administration, and Institutions. Vol 25, issue 2. pp. 315-334
McKinsey & Co. 2009. Pathways to a Low Carbon Economy. Executive Summary 17 p
Noreng, Øystein. 2011. "Exploring the Barents Sea after the Norwegian-Russian border treaty". World Oil. 25 p
UNEP. 2011. Green Economy Report: Renewable Energy. Ch 6, 30 p

Journals:

Fouquet, Roger and Peter J.G. Pearson. "Seven Centuries of Energy Services: The Price and Use of Light in the United Kingdom 1300-2000". Energy Journal. pp. 139-175 (1114)
Gordon, Richard L. 2009. "Hicks, Hayek, Hotelling, Hubbert and Hysteria, or Energy, Exhaustion, Environmentalism and Etatism in the 21st Century". The Energy Journal. Vol 30, no 2. pp. 1-16 (1056)
Noreng, Øystein. 2011. "Norway and Russia – from Cold War to Warm Peace". OGEL Journal. Vol 9, issue 6. 23 p

Other:

Austvik, Ole Gunnar. 2007. "The Geopolitics of Barents Sea Oil and Gas; the Mouse and the Bear. IAEE Newsletter 3Q. International Association for Energy Economics (IAEE), Cleveland, Ohio, U.S.
EU. 2012. Energy Markets in the European Union in 2011. pp. 1-20, 37-53
Lerøen, Vidar. 200x. Troll for Generations. Published by the Troll licensees
Lynch, Michael. 1992. The Fog of Commerce. The Failure of Long-Term Oil Market Forecasting. Center for International Studies, Massachusetts Institute of Technology. Working Paper C92/5
Norwegian Ministry of Petroleum and Energy (MPE). 2012. Fact Sheet
Zolotukhin, Anatoly. 2011. "The potential in Russia's new energy frontiers". pp. 106-108. Paper in the official proceedings of the 20th WPC, Doha
Zolotukhin, Anatoly. "Regional & Global Solutions for Sustainable Gas Supply: Russia Perspective". Presentation at the 10th Plenary session of the 25th International gas conference, Kuala Lumpur, Malaysia, 4-9 June 2012.
Zolotukhin, V. Gavrilov. 2011. "Russian Arctic Petroleum Resources". Oil & Gas Science and Technology – Rev. IFP Energies nouvelles. DOI: 10.2516/ogst/2011141

Course outline

Computer-based tools

It's Learning

Learning process and workload

1 ECTS credit corresponds to a workload of 26-30 hours.

Attendance to all sessions in the course is compulsory. If you have to miss part(s) of the course you must ask in advance for leave of absence. More than 20% absence in a course will require retaking the entire course. It's the student's own responsibility to obtain any information provided in class that is not included on the course homepage/ It's learning or other course materials.

Sessions include lectures, seminars and group work.

Examination

The course evaluation will be based on a group case study assignment. The case study must

be written in groups of 1-3 participants.

Specific information regarding student evaluation beyond the information given in the course description will be provided in class. This information may be relevant for requirements for term papers or other hand-ins, and/or where class participation can be one of several elements of the overall evaluation

Examination code(s)

GRA 81811 - Term paper; accounts for 100 % to pass the program GRA 8181, 6 ECTS credits

The course is a part of the Executive Master of Management in Energy (EMME) and all evaluations must be passed to obtain a certificate in the degree.

Examination support materials

Exam aids at examinations are explained under exam information in our web-based Student handbook. Please note use of calculator and dictionary.

<http://www.bi.edu/studenthandbook/examaids>

Re-sit examination

Re-takes are only possible at the next time a course will be held. When course evaluation consists of class participation or continuous assessment, the whole course must be re-evaluated when a student wants to retake a exam. Retake examinations entail an extra examination fee.

Additional information

Students should be familiar with information provided on web-pages concerning energy and the environment, economic and political developments, and organizations providing them. Such information will be used by different lecturers throughout the program, and should be known on an overview level during the first module. Later modules will use more detailed information from such sources. Some reports are listed below as examples of general reports which the students should be familiarized with during the first module. Most material can be downloaded from the internet for free,