



Course Syllabus

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|-------------------------|------------------------------------|------------------------------------|
| Course Code | Course Title | ECTS Credits |
| MBAN-772 | Oil & Gas Economics and Accounting | 7.5 |
| Prerequisites | Department | Semester |
| None | School of Business | Fall, Spring, Summer |
| Type of Course | Field | Language of Instruction |
| Elective | Energy Management | English |
| Level of Course | Lecturer(s) | Year of Study |
| 2 nd Cycle | Dr. Theodoros Tsakiris | 1 st or 2 nd |
| Mode of Delivery | Work Placement | Core-requisites |
| Face to Face | N/A | None |

Course Objectives:

The main objectives of the course are to provide the students with a detailed understanding of the economic parameters affecting the “life cycle” of oil & gas investment while illustrating the importance of taxation, financing, accounting and regulation in the oil and gas industry and its decision-making process.

Learning Outcomes:

After completion of the course students are expected to be able to:

1. To provide the students with a comprehensive understanding of the economic, geological, technological, environmental and regulatory/political factors shaping the exploration, exploitation, production, refining, transportation and consumption of oil, natural gas and electricity
2. To analyze the cartelization dynamics of the global energy industry and the economic and political drivers of such a process in the global economy
3. To critically assess the political and economic parameters of oil, gas and electricity price formation
4. To understand the basic principles of oil & gas accounting

Course Content:

The Course first analyzes the different types of hydrocarbon resources and reserves, their classification and the way such classifications affect the financing of their prospective development. It then details the economic costs, investment needs, and permitting/regulatory processes followed in each phase of the upstream, midstream and downstream sectors of the oil and gas industry. It continues by evaluating the different contractual methods utilized by the industry in the development of those resources and the relationship between private oil/gas companies and host governments. The Course then analyzes the structure of the oil & gas markets, the various pricing mechanisms and the trading contracts used in selling hydrocarbons. Finally the Course concludes by an analysis of the causes and impact of an oil or gas crisis critically assessing the effectiveness of existing state and private sector mitigation mechanisms.

Learning Activities and Teaching Methods:

Module is delivered by lectures and seminars, case studies, interactive multimedia resources, innovative group work and directed self-study.

Assessment Methods:

Participation, Midterm Exam, In class Critical Thinking Essay, Finals

Required Textbooks / Readings:

| Title | Author(s) | Publisher | Year | ISBN |
|---|--|--|-------------|-------------|
| Hydrocarbon exploration and production | Jahn F, Cook M & Graham M | Elsevier ebook, 2d edition | 2008 | |
| The future of Natural Gas: Market & Geopolitics | Colombo, S., el Harrak, M. & Sartori, N. | Instituto Affari Internazionali & Lenthe Press | 2016 | |

Recommended Textbooks / Readings:

Recommended Textbooks:

International Energy Agency (IEA), *Resources to Reserves: Oil, Gas and Coal Technologies for the Energy Markets of the Future*, Paris, (OECD: 2013)

R. Hanneson, *Petroleum Economics: Issues and Strategies for Oil and Natural Gas Production*, (Quorum Books: 1998)

B. Fatouh & A. Sen, *Saudi Arabia's Vision 2030, Oil Policy and the Evolution of the Energy Sector*, (Oxford Institute for Energy Studies: 2016)

IEA, *World Energy Outlook Special Report on Unconventional Gas*, Paris, (OCED: 2012)

B. Fattouh, H. Rogers, & P. Stewart, *The US shale gas revolution and its impact on Qatar's position in gas markets*, Center on Global Energy Policy, (Columbia University Press: 2015)

A. Turner, J. Farrimond, & J. Hill, *Oil Trading Markets 2003-2010: Analysis of Market Behavior and possible policy responses*, (Oxford Institute for Energy Studies: 2011)

J. Stern & H. Rogers, *The Dynamics of a Liberalized European Gas Market: Key determinants of hub prices, and roles and risks of major players*, (Oxford Institute for Energy Studies: 2014)

IEA, *Energy Supply Security: Emergency Response of IEA Countries*, OECD, 2014

Journals:

Energy Journal, Oil & Gas Journal, Economics of Energy & Environmental Policy, Energy Strategy Reviews, Journal of Energy Security

Databases of International Energy Organizations:

- OPEC: Organization of the Petroleum Exporting Countries, http://www.opec.org/opec_web/en/
- GECF: Gas Exporting Countries Forum organization_ <https://www.gecf.org/about/overview.aspx>
- US Department of Energy, Energy Information Administration, <http://www.eia.doe.gov/international>
- IEA (International Energy Agency): <http://www.iea.org/>
- European Commission_Eurostat Energy data_ <http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy>
- European Commission_Directorate General for Energy_ <https://ec.europa.eu/energy/en/home>