

Global Petroleum and Gas market Outlook

Module 2, 2017

Visiting Professor Alexander Malanichev, Ph.D.

NES, Rosneft

e-mail: a_malanichev@list.ru

Course information

Course Website: <https://my.nes.ru/>

Instructor's Office Hours:

Class Time:

Room Number:

TAs: -

Course description

The objective of the course is to provide the student with the fundamental knowledge and applied skills necessary to develop of economic rationales for making informed operation and strategic decisions in global Fossil Fuel markets. The students will:

- get acquainted with historic background and modern fundamentals of global oil, oil service industry, gas and coal markets development, its basic notions, definitions and theories;
- comprehend the different types of tax systems and peculiarities of Oil & Gas industry regulation in Russia
- develop the solid competence of working in team and excellent command of their business-communication abilities;
- practice to solve the most actual tasks of Research, Strategy and Planning Departments at Investment Banks (IB) and Oil & Gas industry.

Course requirements, grading, and attendance policies

Prerequisites: Micro- and macroeconomics, Statistics, Econometrics

Teaching and Work Forms: 2 lectures or 1 lecture + 1 workshop every week. Workshops will be devoted to the individual or group presentation of the student's independent researches.

Grading policy: the Grade will come via following criteria:

- Attendance
- Group and individual presentations and analytical notes
- Economic models developed in Excel

Global Petroleum and Gas market Outlook

1. Introduction:
 - Course overview, grading, sources of information, basic definitions
 - Energy and its role in the modern economy, units of measurement
 - Global primary energy balance (Oil, Gas, Coal, Nuclear, Renewables)
 - Energy Return On Investment Concept
2. Oil exploration:
 - What is oil?
 - Hypothesis of hydrocarbon's origin
 - Oil geology overview
 - Resources and reserves classification (global and Russian)
 - Conventional vs. non-conventional resources
3. Oil production:
 - Oil value chain
 - Technological aspects of oil production
 - Decision making under uncertain conditions
 - Shale gas & oil revolution
 - Peak oil concept and Hubbert curve
4. Oil service industry:
 - Oil service industry structure and majors
 - History of oil prices
 - Oil vs. other commodities performance
 - Workshop on oil exploration and production
5. Global gas market:
 - Resources, supply, demand and trade
 - LNG market and pipeline transportation
 - Gas price formation
 - Russian gas industry overview
6. Global coal market:
 - Resources, supply, demand and trade
 - Coal for energy and steel production
 - Coal price formation
 - Global and Russian coal industry overview
7. Oil tax system:
 - Different types of tax systems
 - Tax calculation for Russian oil and gas industry
 - Workshop on the global coal and gas industries
8. Final exam

Description of course methodology

The course will mix conventional lecturing with more interactive techniques, such as class discussions, discussions of cases, student presentations, research papers, etc.

Course materials

Required textbooks and materials

There will be no base textbook. The course will be predominantly based on papers, presentations, data tables, provided before and during the course. Basic sources of information on international oil and gas markets are the following:

[International Energy Agency \(IEA\)](#)

[U.S. Energy Information Administration \(EIA\)](#)

[Organization of the Petroleum Exporting Countries \(OPEC\)](#)

[Joint Organisations Data Initiative \(JODI\)](#)

[BP Energy Economics](#)

[Shell: Future of Energy](#)

[IMF Primary Commodity Prices](#)

[IHS](#)

[Wood Mackenzie](#)

[Rystad Energy](#)

[Energy Strategy of Russia for the period up to 2030](#)

Additional materials

[Daniel Yergin, The Prize: The Epic Quest for Oil, Money, and Power, Dec 2008, 928 p.](#)

[ARGUS](#)

[Oil on the Bloomberg](#)

[Platts](#)

[Baker Hughes Drilling Rigs monitoring](#)

[Intercontinental Exchange](#)

[ЦДУ ТЭК](#)

IB reports: GS, Citi, MS, ML, DB, Barclays, UBS, etc.

Academic integrity policy

Cheating, plagiarism, and any other violations of academic ethics at NES are not tolerated.