Syllabus Course Description

Professor:

Abbas Maleki

Energy in Central Asia and Caucasus

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Office Location

3rd floor, Energy Engineering Department, Sharif University of Technology. Semester and academic year: First Semester, 1396-97

Credits: 2

Total lecturing hours: 32

Class Hours: Saturday, 13:30 to 15:10

Attendance: Highly recommended, but not required to pass the course

Course Overview

This is an introductory course that caters to the energy overview in Central Asia and Caucasus ear for Master's degree in ECO College of Insurance (ECOI) affiliated to Allameh Tabataba'i University (ATU).

Oil and gas are proving as much a burden as a benefit to Central Asia and Caucasia. The six oil and gas producers in the region – Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan, Russia and Iran – are showing signs of the "resource curse" under which energy rich nations fail to thrive or develop distorted, unstable economies. Except Iran, geography and their history in the Soviet Union have bound them together and also to Russia, through which most of their energy exports must be transported. Moscow is proving to be an unreliable partner for foreign consumers as it has been willing to cut off pipelines to apply commercial or political pressure. Low investment, corruption and gross mismanagement in Uzbekistan and Turkmenistan may mean that their supplies run low before they can diversify their links to markets or their economies. Central Asia is likely to see energy create instability within the region; the chances are low that it will be a factor in improving European energy security any time soon.

Azerbaijan is a rich country on oil resources at the western coast of Caspian Sea. The country suffers from a long dispute over Nagorno Karabakh enclave with Armenia from 1994. The role of International Oil Companies (OICs) is vital in this part of

undeveloped region remained from former Soviet Union. Transportation of produced oil and gas are geopolitically also important. The major near markets to Central Asia and Caucasus are European Union thirsty countries and Asian giants like China and India. The course reviews energy related studies of Central Asia and the Caucasus as a new supply sector in the world. It is obvious the region also gains from demand side if economies of nations would be motivated.

Oral presentation

Each student requires to select and present one of the texts of the following case studies for his/her class presentation.

- 1. China and Central Asia
- 2. The Competitive Advantage of Russia
- 3. Caspian Oil: Tengiz
- 4. One Belt One Road: Chinese Strategy Investment
- 5. Chevron in Central Asia
- 6. The Kashagan Production Sharing Agreement
- 7. Journey to Sakhalin Shell in Russia
- 8. Kashegan
- 9. Energy Security in Europe: Southern Corridor
- 10. Energy Security in Europe: Nord Stream
- 11. Management Science in Energy Policy
- 12.Natural gas
- 13. Shaping the Future of Solar Power Climate Change, Industrial Policy and Free Trade
- 14. World Oil Market
- 15.Statoil in Iran

Policy Papers

Each student will also select one title at the beginning of class and write one policy papers till Week 15. The total number of the words should be around 3000 words. Titles must be approved by Professor. This list is intended as suggestions.

- 1. Cooperation with Central Asia to set up railroads and highways at East of Iran
- 2. Energy and environmental security in the Caspian basin

- 3. Status of railroads in Central Asia and the Caucasus, and its political impact on relations with other countries
- 4. Iran and Eurasian Economic Union
- 5. Energy transition among the neighboring countries of Iran
- 6. Energy situation in the Caspian Sea and definition of a model for optimizing Iranian interests
- 7. Strategic and geopolitical energy policy in the Caspian Sea
- 8. Energy swap between Iran and its neighbors, finding models for substitution commodities between crude oil and natural gas
- 9. Pipeline and its impact on regional geopolitics

Resources

- Sussex Matthew & Roger Kanet; *Russia, Eurasia and the New Geopolitics of Energy;* New York: Palgrave, 2015
- Akiner, Shirin (ed.); *The Caspian Politics, Energy, and Security;* New York: Routledge, 2004
- Maleki, Abbas; "Iran" in Starr, S. Frederick. *The New Silk Roads: Transport and Trade in Greater Central Asia*. Johns Hopkins University Press, 2007.
- Lewis, David; "High Times on the Silk Road: The Central Asian Paradox"; World Policy Journal, Spring 2010
- -, Central Asia's Energy Risks; International Crisis Group, May 2007
- Molchanov, Mikhail A.; "Trans-Eurasian Energy Transportation Networks and the Necessity of Regional Cooperation"; *Caucasus International;* Vol. 6, No. 1, Summer 2016
- Starr, Fredrick (ed.); *The New Silk Roads: Transport and Trade in Greater Central Asia;* New York: Central Asia-Caucasus Institute, 2007
- McKeown, Rosalyn; "Energy myth tow, the public is well informed about energy; in Sovacool, B. K.; Brown, M. A. (eds); *Energy and American Society: Thirteen Myths;* Berlin: Springer, 2007
- Blass, Javier & Jenny Wiggins; "Surge in biofuels pushes up food prices"; *Financial Times*; July 15, 2007.
- -, World LNG Market Forecast 2012-16; Douglas-Westwood, 2012.
- MohitPour, M; *Energy Supply and Pipeline Transportation: Challenges & Opportunities*; New York: ASME, 2008.

Supplementary Readings

The following Persian texts are suggested for better understanding the resources and case studies. Additional resources for study at home will be suggested upon request.

- منابع فارسى
- ملکی، عباس و مجید رئوفی؛ راه ابریشم جدید: برون رفت چین از محدودیت های استراتژیکی، تهران: ابرار معاصر، ۱۳۹۶
 - ملکی، عباس، *سیاست گذاری انرژی،* تهران: نشر نی، ۱۳۹۴

Course Schedule

Week	se Schedule		Subject
1	26.06.96	Central Asia	Introduction, Problem Statement, teaching methods, familiarity with students to determine student assignments, and grading practices + Overview of Geopolitical Aspect of Energy
2	02.07.96	Central Asia	Geopolitics of Central Asia
3	09.07.96	-	-
4	16.07.96	Central Asia	Environment and Sustainable Development
5	23.07.96	Central Asia	Common Electrical Grids and Power Plants
6	30.07.96	Central Asia	War of Water
7	07.08.96	Central Asia	Role of energy in Central Asia relations with the world
8	14.08.96	Central Asia and Caucasus	Eurasian Economic Union
9	21.08.96	Central Asia and Caucasus	Railroads and Energy Pipelines in Central Asia and Caucasus
10	28.08.96	-	-
11	05.09.96	_	Mid Term
12	12.09.96	Caucasus	Geopolitics of Caucasus + Territorial Disputes and Influence in Energy Exports and Imports
13	19.09.96	Caucasus	Role of energy in Caucasus relations with the world

14	26.09.96	Central Asia and Caucasus	Caspian Sea and the Economic Belt of the Silk Road (Iran; open sea bridge for Central Asia and the Caucasus)
15	03.10.96	Central Asia and Caucasus	Legal regime of the Caspian Sea and its impacts on regional geopolitics
16	10.10.96	Central Asia and Caucasus	Latest status of Energy relations between Iran and major powers aimed at countries in the region of Central Asia and the Caucasus + Summary, Conclusions and Recommendations
17			·
18	20.10.96	-	Final Exam

Evaluation Criteria and criteria to awarding marks

The students are expected for:

- 1. Pre-studying the assigned texts before each session,
- 2. One oral presentation during the semester (Presentation (15 min.)+ Discussion (15 min.))
- 3. Writing one policy paper
- 4. Participating in mid and final exams.

Assessment

Assessment will be based on

- 1- One written essays of written as homework assignments (20%),
- 2- Two-part written exam: midterm with emphasis on Central Asia (30%) + final exam with emphasis on Caucasus (30%) = (60%)
- 3- An oral presentation (20%).