**ETM 520**

**Spring 2021-2022**

**SYLLABUS**

**COURSE OUTLINE**

**LESSON 1 – 14 May 2022**

**09:00-11:45**

* Understanding the Concept of “Energy Balances”

* Turkey Energy Sector : Major Characteristics
* “Turkey Energy Outlook” Highlights
* TEO: Power, Natural Gas and Oil/Transport Focus
* TEVO: Power, Transport and E-mobility Focus
* Discussion around TEO Recommendations

reading materials:

“Understanding and Using the Energy Balance”

<https://www.iea.org/commentaries/understanding-and-using-the-energy-balance>

World Energy Balances

<https://www.iea.org/data-and-statistics/data-tables/?country=WORLD&energy=Balances>

IICEC Turkey Energy Outlook Executive Summary

<https://iicec.sabanciuniv.edu/sites/iicec.sabanciuniv.edu/files/inline-files/4-teo_executive_summary-unprotected_v.pdf>

**LESSON 2 – 16 May 2022**

**19:00-21:45**

* TEO: Energy Efficiency, Fuel Shifts and Energy Technologies focus
* Fuel shifts from Fossil Fuels to Electrification and Direct use of Renewable Energy
* Discussion around TEO Recommendations

reading material: IICEC Turkey Energy Outlook Executive Summary

<https://iicec.sabanciuniv.edu/sites/iicec.sabanciuniv.edu/files/inline-files/4-teo_executive_summary-unprotected_v.pdf>

**LESSON 3 – 27 May 2022**

**19:00-21:45**

* Strategic Orientations Towards a More Secure and Clean Energy Future
* Twin Objectives: Energy Security & Clean Energy Growth
* Renewable Energy Growth for Serving to Twin Objectives : Trends, Drivers and Expectations

reading materials:

IEA Net Zero by 2050 Launch Presentation

<https://iea.blob.core.windows.net/assets/84c1a929-670a-4321-b7fd-a681f60ebe8e/NZE2050_launch_slides.pdf>

IEA Renewable Energy Market Update -May 2022 Report

<https://www.iea.org/reports/renewable-energy-market-update-may-2022>

**LESSON 4 - 3 June 2022**

**19:00-21:45**

- Introduction to Competitive Strategy and Strategic Analysis

- Key Factors in Investment Decisions

- Foreign Direct Investment (FDI) and its dynamics

- Turkey’s competitive position in international investments

**LESSON 5 – 4 June 2022**

**09:00-11:45**

- Turkey’s Energy Sector Highlights

- General take on Global Energy Investments

- International Investments in Renewables - Wind

- Case Study – Five Forces Model of Wind Turbine Business (document to be shared before class)

**LESSON 6 – 10 June 2022**

**19:00-21:45**

- International Investments in Renewables – Solar

- Case Study – What should REC Solar do? (document to be shared before class)

**LESSON 7 – 11 June 2022**

**09:00-11:45**

- International Investments in Renewables – Geothermal

- International Investments in Renewables – Hydro

- International Investments in Conventional Energy – Hydrogen

- Case Study – Turkey’s Value Proposition in battery manufacturing (document to be shared before class)

**GRADING POLICY**

* 7 Quizzes, each having 10% weight
* 1 assignment, having 30% weight