College of Europe
Collège d'Europe

Brugge | Natolin

ECTS CARD

STUDY PROGRAMME	YEAR
European Interdisciplinary Studies, Natolin campus (Advanced Academic Master)	2022-2023

COURSE TITLE	SEMESTER
International Energy Fundamentals	1

COURSE PROFESSOR(S)	ACADEMIC ASSISTANT(S)
BONZANNI Andrea	HERRMANN E. Katja-Elisabeth

COURSE TYPE	MAJOR(S)	ECTS CREDITS
Preparatory Course	Not applicable	no ECTS

CONTACT HOURS	INDIVIDUAL STUDY TIME	TUTORIAL(S)	COEFFICIENT	LANGUAGE(S)
10			not applicable	EN

COURSE OBJECTIVE

This course will provide the basic tools to understand and analyse international developments in the energy sector.

- Key facts and trends will be critically reviewed to appreciate the impact of economic, technological, and socio-political events on the energy sector. A particular focus will be held on the study of how policy, politics, and businesses interact and shape outcomes in European and global energy markets.
- Insights from economics, political science, organizational studies, and history will be drawn upon to critically analyse energy markets with an eye to practical policy and business applications.

COURSE LEARNING OUTCOMES

- Students become acquainted with the fundamentals of energy studies, how global and European energy markets work, and how policy shapes them.
- Students develop a critical understanding of how the global energy industry operates and how it interacts with EU policymakers.
- Students acquire knowledge of global energy governance and the EU multi-level energy regulatory framework.
- Students are able to independently assess how current and future trends may impact the energy sector.

RECOMMENDED PREPARATION

General knowledge of energy economics and energy policy is recommended, but not essential.

TEACHING METHOD(S)

This course will be made up of a dynamic mixture of lecturing, case studies, and discussions on current energy affairs. Each two-hour session will kick off with a critical review of a brief article made available ahead of the session. Students are highly encouraged to participate in sharing their questions, reflections, and experiences with the rest of the class.

ASSESSMENT METHOD AND CRITERIA

The preparatory course will be assessed on a 'pass/fail' basis through:

- an online multiple-choice test (80% of the mark) at the end of the final course session - 15 minutes to answer 7 questions, and
- overall attendance (20% of the mark).

The weighted average of both assessment elements needs is equal or greater than 50% for a student to pass the course.

Each student is entitled to re-taking the test once. The retake test would account for 80% of the mark whilst overall attendance would account for the remaining 20%.

Since preparatory courses carry no ECTS credits, the final result will be present on the transcript but will have no impact on the student's final average, nor overall grade, or on attaining the diploma.

COURSE CONTENTS

- Energy and the global economy: facts, myths, trends, and scenarios
- The global oil market in a decarbonizing world
- The European gas market(s): import dependency and stranded assets
- The European electricity market(s): sparking change
- The future of energy: decarbonization, digitalization and decentralization

COURSE MATERIALS (readings and other learning resources/tools)

Recommended materials

- International Energy Agency, World Energy Outlook 2021 (published in October 2021)
  - Executive summary: https://www.iea.org/reports/world-energy-outlook-2021
  - Launch event (video): https://www.iea.org/events/world-energy-outlook-2021-launch-event
- World Energy Council, Global Energy Scenarios Comparison Review, Technical Annex. World Energy Insight Brief, 2019. https://www.worldenergy.org/assets/downloads/WEInsights-Brief-Global-Energy-Scenarios-Comparison-Review-R02.pdf
- Jonathan Stern and David Ledesma, The Future of Gas in the climate journey. Oxford Institute for Energy Studies, audio podcast, July 2021. https://www.oxfordenergy.org/publications/oxford-energy-podcast-the-future-of-gas-in-the-climate-journey-developments-over-the-last-four-and-a-half-years-and-what-next/
- Michael G. Pollitt, In search of 'good' energy policy: the social limits to technological solutions to energy and climate problems. Cambridge Electricity Policy Research Group (EPRG) Working Paper 1520, November 2015. https://www.repository.cam.ac.uk/handle/1810/255329
- David Turk (IEA), Digitalization and energy, audio podcast, April 2018. https://www.energypolicy.columbia.edu/digital-disruption-energy-sector

Epistemological addendum

- Anthony Giddens, Between Immortality and Armageddon: Living in a High Opportunity, High Risk Society, Durham Castle Lecture Series, October 2014. https://www.youtube.com/watch?v=2Dk7lYx4x-s

Additional resources

In addition to the recommended readings above, you are invited to explore further resources and dive deeper into specific topics. Below are some suggestions.

- Manfred Hafner & Giacomo Luciani (ed.), The Palgrave Handbook of International Energy Economics, Palgrave Macmillan, 2022. Available in open access: https://link.springer.com/book/10.1007/978-3-030-86884-0
- ACER-CEER Market Monitoring Reports (wholesale gas wholesale electricity and retail volumes, published every year in Q4): https://www.acer.europa.eu/electricity/market-monitoring-report
- Academic journals (The Energy Journal, Economics of Energy and Environmental Policy, Energy Policy)
- Think tanks and research centres (Oxford Institute of Energy Studies (OIES): https://www.oxfordenergy.org/, University of Cambridge Energy Policy Research Group (EPRG): https://www.eprg.group.cam.ac.uk/, Columbia University Center on Global Energy Policy (GCEP): https://energypolicy.columbia.edu/, Centre for European Policy Studies (CEPS): https://www.ceps.eu/ceps-topic/energy-climate-change-environment/)