



Course Syllabus

Course Code	Course Title	ECTS Credits
MBAN-765DE	LNG Systems & Markets	6
Prerequisites	Department	Semester
None	School of Business	Fall, Spring
Type of Course	Field	Language of Instruction
Concentration	Energy, Oil & Natural Gas	English
Level of Course	Lecturer(s)	Year of Study
2 nd Cycle	Dr Constantinos Hadjistassou	1 st /2 nd
Mode of Delivery	Work Placement	Prerequisites
Distance Learning	N/A	None

Course Objectives:

The main objectives of the course are to:

- Analytically present the principal LNG import, storage and export technologies
- Comparative evaluate onshore and offshore LNG economics and costs
- Appraise the importance of the various parts of the LNG value chain
- Highlight the differences between types of LNG contracts
- Evaluate the relative significance of the factors affecting LNG price formation
- Illustrate the importance of the environmental, safety and security considerations of LNG facilities

Learning Outcomes:

After and during the completion of the course students are expected to:

- Comprehend the relative costs of respective LNG storage, import and export technologies by week 2
- Assess the comparative importance of the various components in the LNG value chain by highlighting a profound understanding of LNG economics and costs by week 5
- Critically review the pros and cons of the alternative types of LNG export/import contracts by week 7
- Debate on the importance of the various factors that contribute to LNG price formation by week 9
- Reflect on the different aspects of environmental, safety and security considerations of LNG facilities by week 12

“Details on the contribution of the course’s learning outcomes towards the learning goals / competencies and learning objectives of the programme are included in the curriculum map of each programme”.

Course Content:

The Course outline is developed over 12 weeks by focusing each week on the following topics:

1. Alternative liquefaction and regasification technologies
2. Technological evolution in LNG storage and LNG shipping
3. The LNG value chain
4. Economics of the LNG industry
5. Principal methods of LNG Finance
6. Emergence and Evolution of LNG markets in comparative perspective: the case of importers
7. Emergence and Evolution of LNG markets in comparative perspective: the case of exporters
8. Research/Case Study Assignment Presentation
9. LNG contracts
10. LNG price formation
11. Environmental impact assessment studies, permitting challenges, pollution considerations;
12. Flaring, physical and cyber-security threats.

Learning Activities and Teaching Methods:

Online Lectures, case studies, in-forum examples, in forum discussion

Assessment Methods:

Assignment(s), in forum participation, final exam

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
LNG: Fuel For a Changing World – A Nontechnical Guide	Tusiani MD, Shearer G	PennWell	(2016)	9781593703691

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
The European Gas Markets: Challenges and Opportunities	Manfred Hafner, Simone Tagliapietra	Palgrave Macmillan	2017	9783319558011
Natural gas: fuel for the 21 st century	Smil V.	Wiley	2015	9781119012863