UNIVERSITY of NICOSIA

Course Syllabus

Course Code	Course Title	ECTS Credits
OGAS-430	Energy Safety and Risk Management	6
Prerequisites	**Department**	**Semester**
None	Management	Fall
Type of Course	**Field**	**Language of Instruction**
Required	Hydrocarbons & Energy Management	English
Level of Course	**Lecturer(s)**	**Year of Study**
1st Cycle	Dr. Andreas Sousanis	4th
Mode of Delivery	**Work Placement**	**Core-requisites**
Face-to-Face	N/A	None

Course Objectives:

The main objectives of the course are to:

● Explore the growing concern with energy security in an increasingly global energy market, in which the concept of sustainability has developed together with a higher awareness of environmental supply disruptions, price fluctuation, and threads to infrastructure safety
● Provide the students with a detailed understanding of measures the energy industry adopts by knowing what do before, during, and after an event in order to mitigate the damage and harm.
● Critically assess potential hazards and risks and make it part of the day to day business that is important.
● Provide the students with a detailed understanding that safety should be the first priority as every business must face the reality of risks and hazards, in particular the energy industry.
● Gain a good understanding of energy safety and risks associated, technologies and applications, policies/regulations and planning, environmental and social impact, and measures the energy industry applies for a sustainable energy development.

Learning Outcomes:

On completion of this module, students are expected to be able to:

1. Examine energy security in a privatized, liberalized, and increasingly global market
2. Investigate the key aspects of energy security and safety
3. Explore energy security in its international and regional context
4. Examine energy security concerns of various countries
5. Analyze how particular nations provide an economic and historical context for their energy security concerns
6. Explore legal provisions relating to each of main energy sectors (oil, gas, coal, electricity, nuclear, and renewable energies).
7. Explain the way in which regulation, organization, and planning for energy security shapes legislation and how the latter shapes other factors such as market liberalization, environmental protection, and competition policy
8. Understand hazards and risk in the workplace.
9. Identify hazards through proper procedures providing students the ability to prevent accident before it occurs.

Course Content:

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

1: The Global Oil and Gas Industry
2: The Oil and Gas Production Process
3: The Oil and Gas technological challenges
4: Incident Investigation
5: The Piper Alpha Accident
6: The Deep Water Horizon Accident
7: The Environmental Aspect of Offshore Hydrocarbon Exploration
8: Risk Management Techniques in the Oil and Gas Industry
9: EU policy on safety of offshore oil and gas prospection, exploration and production activities
10: Impact assessment on safety of offshore oil and gas prospection, exploration and production activities
11: Contingency Planning for major oil spills
12: Safety and Health Awareness for Oil Spill Cleanup Workers

Learning Activities and Teaching Methods:

Module is delivered by lectures and seminars, case studies, interactive multimedia resources, innovative group work, in-class exercises and in-class discussions

Assessment Methods:

Assignments, mid-term exam, final exam

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Risk Management in the Oil and Gas Industry Offshore and Onshore Concepts and Case Studies	Gerardo Portela Da Ponte Jr	Elsevier Science	2021	9780128235331

Recommended Textbooks / Readings:

● A. P. Vavilov, "Global Energy Security and International financial mechanisms of Risk Management", Institute for Financial Studies, 2008.

● D. Fisk, Transport Energy Security - the Unseen Risk? CEPS 2004

● Woodside *NEBOSH International Certificate in Oil and Gas Safety,* 2010, [Chapters 2,3, 4,9]

● World Bank Group, *Environmental, Health and Safety Guidelines for Offshore Oil and Gas Development* (2007)

● "Oil spill response field guide" by Oil Spill Response Ltd, UK