

Course Title	Oil and Gas Management			
Course Code	ITSM 518			
Course Type	Elective			
Level	MSc (Level 2)			
Year / Semester	1st Year / 1st Semester			
Teacher's Name	Dr Nikos Droushiotis			
ECTS	6	Lectures / week	3	Laboratories / week None
Course Purpose	To provide the students an overall view of the modern upstream and downstream business of the Oil and Gas sector in combination with the global request for Energy Transition and Decarbonization. The course is provided in such a way to highlight how the environmental strategies and the ongoing war in Ukraine impact key areas of the shipping industry including the global LNG market, technology innovation and the efforts to identify the ideal marine fuels of the future.			
Learning Outcomes	<p>By the end of the course, the students should be able to:</p> <ul style="list-style-type: none"> • Understand the key energy drivers & facts and how the upstream and downstream industry is operating; • Review and engage in discussions about European Union policies and regulations on promoting sustainable strategies for energy production and net zero emissions; • Analyse and examine the transformation of the Oil & Gas sector to accommodate different areas of the greater Energy sector; • Apply knowledge and evaluate the role of the shipping industry to support the efforts for clean, affordable and reliable energy on local, regional and global scale; • Discover and to apply methods and concepts to decarbonize regional offshore gas activities and the development of the offshore renewable potential in the region. 			
Prerequisites	NONE	Corequisites	NONE	
Course Content	<p>Indicative Course Content</p> <ul style="list-style-type: none"> • Energy Facts and the Industry Response and Key Energy Production Sources; • Linear and Circular Economy; • Introduction to the Oil, Gas and the Energy Business; • Upstream Key Activities, Processes and Products; 			

	<ul style="list-style-type: none"> • Downstream Key Activities, Processes and Products; • Energy Transition and Decarbonization of the Upstream Developments; • Natural Gas Pipeline Supply Networks and marine CNG and LNG value chain; • Marine Fuels of the Future and Hydrogen Economy.
Teaching Methodology	<p>Power point presentations and material related to Oil and Gas and the Energy sector;</p> <p>Reports about the relation between the energy sector and shipping industry;</p> <p>Articles and Studies on EU environmental strategy and energy transition</p> <p>Visiting Websites and YouTube channels on energy facts;</p> <p>Engage in group exercises and analysis of real case studies;</p> <p>Learn more about Technology Events and Shows organised regionally.</p>
Bibliography	<p><u>Textbooks:</u></p> <p>Natural Gas and Decarbonization: Key Component and Enabler of the Lower Carbon, Reasonable Cost Energy Systems of the Future: Strategies for the 2020's and Beyond Paperback – March 25, 2022 by Kent C. Stewart.</p> <p><u>References:</u></p> <p>Gas Conditioning and Processing; the Equipment Modules, Series Volume 2 8th Edition (Campbell Petroleum Series, 2), 2004.</p> <p>Introducing a Circular Economy: New Thinking with New Managerial and Policy Implications, by Mark Esposito, Terence Tse, Khaled Soufani, 2018.</p> <p>Decarbonization pathways for Oil and Gas, Oxford Energy Forum, 2020.</p> <p>Mobilizing on Climate, by Andrew Winston, Andy Robinson, Gretchen Gavett, Laura Palmeiro, Delphine Gibassier, Laura Amico, Sheldon Whitehouse, 2020.</p> <p>Neste: Fueling the Future of Transportation, by Andrew Hoffman, 2020.</p> <p>Royal Dutch Shell and Beyond: Strategizing the Future of ESG Compliance, by Agnes Chong, 2021.</p> <p>Carbfix: Storing CO2 Forever, by Jordan Mitchell, Throstur Olaf Sigurjonsson, Ahmad Rahnema Alavi, 2021.</p> <p>The Green Deal, by IESE Insight, 2020.</p>

	<p>The Circular Business Model, by Atalay Atasu, Celine Dumas, Luk N. Van Wassenhove, 2021.</p> <p>Accounting for Climate Change, by Robert S. Kaplan, Karthik Ramanna, 2021.</p> <p>Achieving Net Zero Emissions: Are Banks Walking the Talk? by Frederick Esleib, Omar Soliman, 2022.</p> <p>Oil: History, Present and Future, by Jurgen Weiss, 2022.</p>
Assessment	<p>Assignments 40%</p> <p>Final Exam 60%</p>
Language	English