

Course unit title:	LNG Production, Storage, Transport and Use		
Course unit code:	OG401		
Type of course unit:	Compulsory		
Level of course unit:	BSc		
Year of study:	4 <sup>th</sup>		
Semester when the unit is delivered:	7 <sup>th</sup>		
Number of ECTS credits allocated :	5		
Name of tentative lecturer(s):	Dr. Richard Barnes, Eftymia Dimou		
Learning outcomes of the course unit:	<ol style="list-style-type: none"> <li>1. Understand the main LNG liquefaction process, AP-C3MR.</li> <li>2. Know the methods of storing and transporting LNG.</li> <li>3. Understand the main type of regasification terminals and method of LNG regasification.</li> <li>4. Understand the recent market trends in LNG shipment and the future potential.</li> </ol>		
Mode of delivery:	Face-to-face		
Prerequisites:		Co-requisites:	None
Recommended optional program components:	None		
Course contents:	<ul style="list-style-type: none"> <li>• Natural Gas Composition.</li> <li>• Natural Gas Processing/Purification (Gas/Oil separation, Gas sweetening/dehydration)</li> <li>• Natural Gas Storage (Compressed Natural Gas (CNG), Liquid Natural Gas (LNG)).</li> <li>• Natural Gas Terminal (Mainland, island, Platform terminals)</li> <li>• LNG production by Natural Gas Liquefaction (refrigerants, heat-exchangers, compressors, refrigeration process)</li> <li>• LNG Storage (above-ground, in-ground, under-ground storage).</li> <li>• LNG Transport (LNG pipe transfer, sea-transport)</li> <li>• LNG Re-gasification to Natural Gas (heat-exchangers for LNG).</li> <li>• LNG Markets (Producers, Consumers, Market Trends)</li> </ul>		
Recommended and/or required reading:	Oilfield Processing of Petroleum, Volume 1: Natural Gas		
Textbooks:	LNG: Basics of Liquefied Natural Gas		
References:	BP Statistical Review of World Energy.		
Planned learning activities and teaching methods:	The taught part of course is delivered to the students by means of lectures, conducted with the help of computer presentations. Lecture notes and presentations are available through the web for students to use in combination with the textbooks.		
Assessment methods and criteria:	<ul style="list-style-type: none"> <li>• Assignments 20%</li> <li>• Mid-Term Exam: 20%</li> <li>• Final Exam 60%</li> </ul>		
Language of instruction:	English		
Work placement(s):	No		