



University of  
Zagreb



University of Zagreb  
FACULTY OF MINING,  
GEOLOGY AND PETROLEUM  
ENGINEERING



1. GENERAL INFORMATION			
1.1. Course teacher	Tenured Professor Katarina Simon, PhD		1.6. Year of the study
1.2. Name of the course	Natural Gas Processing		1.7. ECTS credits
1.3. Associate teachers	Teaching Assistant Katarina Perić, MSc		1.8. Type of instruction (number of hours L + E + S + e-learning)
1.4. Study programme (undergraduate, graduate, integrated)	graduate		1.9. Expected enrolment in the course
1.5. Status of the course	<input type="checkbox"/> mandatory	<input checked="" type="checkbox"/> elective	1.10. Level of application of e-learning (level 1, 2, 3), percentage of online instruction (max. 20%)
II.			
4			
30L+15E+10S+5e-učenje e-learning			
10			
level 2, 8,3% online			
2. COUSE DESCRIPTION			
2.1. Course objectives	Acquisition of knowledge and skills necessary for active role in any phase of natural gas processing (gas storage, vaporization/liquefaction, transportation).		
2.2. Enrolment requirements and/or entry competences required for the course	-		
2.3. Learning outcomes at the level of the programme to which the course contributes	Independently solve complex engineering problems in petroleum engineering and geoenery engineering; Design system for oil and gas processing, storage and transportation; Compare specific procedures and processes in petroleum engineering and geoenery engineering; Appraise the process and a facility's efficiency in petroleum engineering and geoenery engineering; Supervise projects in petroleum engineering and geoenery engineering.		
2.4. Expected learning outcomes at the level of the course (3 to 10 learning outcomes)	Estimate impurities content in the natural gas; Choose appropriate natural gas processing steps; Compare different processes for natural gas liquefaction; Modelling natural gas processing (liquefaction); Support interdisciplinary professional team included to gas processing and transportation tasks.		
2.5. Course content (syllabus)	Natural gas processing including phase separation; Natural gas sweetening; Sulphur recovery and handling; Helium, hydrogen and nitrogen recovery; Natural gas dehydration and natural liquids recovery; Natural gas liquefaction processes modelling; Liquefaction and receiving terminals; Liquefied gas transportation and storage; Case studies.		
2.6. Format of instruction:	<input checked="" type="checkbox"/> lectures	<input checked="" type="checkbox"/> independent assignments	2.7. Comments:
	<input checked="" type="checkbox"/> seminars and workshops	<input checked="" type="checkbox"/> multimedia and the internet	
	<input checked="" type="checkbox"/> exercises	<input type="checkbox"/> laboratory	-
	<input type="checkbox"/> online in entirety	<input checked="" type="checkbox"/> work with mentor	

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	<input checked="" type="checkbox"/> partial e-learning <input checked="" type="checkbox"/> field work		<input type="checkbox"/> (other)			
2.8. Student responsibilities	Active participation in lecture, exercises and seminars, preparation and presentation of the project in accordance with the given project task, taking final written exam					
2.9. Monitoring student work	Class attendance	YES	Research	YES	Oral exam	YES
	Experimental work		Report		NO	
	Essay		Seminar paper	YES		
	Preliminary exam		Practical work		NO	
	Project	YES	Written exam		NO	ECTS credits (total)
2.10. Required literature (available in the library and/or via other media)	<b>Title</b>				<b>Number of copies in the library</b>	<b>Availability via other media</b>
	Mokhatab, S., Poe, A.W., Mak, Y.J. (2018.): <i>Handbook of Natural Gas Transmission and Processing, Principles and Practices</i> , Fourth Edition, Gulf Professional Publishing, Elsevier, Oxford, 2018.				NO	YES
	Bahadori, A. (2014.): <i>Natural Gas Processing Technology and Engineering Design</i> , Gulf Professional Publishing, Elsevier, Oxford, 2014.				NO	YES
	Mokhatab, S., Mak, Y.J., Valappil, V.J., Wood, A.D. (2014.): <i>Handbook of Liquefied Natural Gas</i> , Gulf Professional Publishing, Elsevier, Oxford, 2014.				NO	YES
2.11. Optional literature	OnePetro – online base of review, professional and scientific papers.					
2.12. Other (as the proposer wishes to add)	-					

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