



University of
Zagreb



University of Zagreb
FACULTY OF MINING,
GEOLOGY AND PETROLEUM
ENGINEERING



1. GENERAL INFORMATION				
1.1. Course teacher	Full Professor Daria Karasalihović Sedlar, PhD		1.6. Year of the study	II.
1.2. Name of the course	Natural gas trade		1.7. ECTS credits	4
1.3. Associate teachers	Teaching Assistant Ivan Smajla, MSc		1.8. Type of instruction (number of hours L + E + S + e-learning)	28L+0V+28S+4e-learning
1.4. Study programme (undergraduate, graduate, integrated)	graduate		1.9. Expected enrolment in the course	10
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%)	level 3, 6, 67% online
2. COUSE DESCRIPTION				
2.1. Course objectives	Understanding the lectures, exercises, and knowledge from mandatory literature according to subject units, application of the acquired knowledge to problem solving in the area of natural gas trading.			
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	Appraise projects in petroleum engineering and geoenery engineering; Analyse energy markets.			
2.4. Expected learning outcomes at the level of the course (3 to 10 learning outcomes)	Explain the relations between supply and demand on regional natural gas markets; Compare the price of natural gas on European markets; Compare the characteristics of each natural gas trading platform; Suggest a natural gas supply route; Suggest the selection of storage and dynamics of natural gas storage; Calculate the overall costs of natural gas supply; Compare the costs of natural gas transport via different routes; Compare the costs of natural gas storage in different storage types; Estimate the optimal moment for natural gas trading; Create a plan for natural gas trading for a longer period.			
2.5. Course content (syllabus)	Introduction to natural gas trading; European natural gas markets; Natural gas trade platforms; Capacity reservation platforms; Platforms for examination of natural gas storage status in EU; ENTSOE Transparency platform; AGSI+ platform; Reservation of transport capacity; Reservation of storage capacity; Natural gas purchase on European markets; Natural gas transport via interconnections; Optimization of transport cost and storage for a temperature-dependent consumer; Storage and withdrawal			

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	of natural gas; Portfolio management – nominations and daily deviation; Balancing the transport system; End consumer natural gas price calculation; Virtual trading point trade in Croatia; LNG trade.								
2.6. Format of instruction:	<input checked="" type="checkbox"/> lectures <input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> exercises <input type="checkbox"/> online in entirety <input checked="" type="checkbox"/> partial e-learning <input checked="" type="checkbox"/> field work			<input checked="" type="checkbox"/> independent assignments <input checked="" type="checkbox"/> multimedia and the internet <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)			2.7. Comments:		
							-		
2.8. Student responsibilities	Class attendance, independent assignments, independent making and presentation of a project, oral exam								
2.9. Monitoring student work	Class attendance	YES		Research	YES		Oral exam	YES	
	Experimental work		NO	Report		NO			
	Essay		NO	Seminar paper		NO			
	Preliminary exam		NO	Practical work	YES				
	Project	YES		Written exam		NO	ECTS credits (total)	4	
2.10. Required literature (available in the library and/or via other media)	Title						Number of copies in the library	Availability via other media	
	Transparency Platform User Manual, ENTSG						NO	YES	
2.11. Optional literature									
2.12. Other (as the proposer wishes to add)	Internet sources: https://transparency.entsoe.eu/#/map , https://agsi.gie.eu/#/ , https://www.montelnews.com/de/ , https://platform.prisma-capacity.eu/#/start								

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