1. GENERAL INFORMATION				
1.1. Course teacher	Tenured Professor Katarina Simon, PhD		1.6. Year of the study	I.
1.2. Name of the course	Oil and gas transportation and storage		1.7. ECTS credits	6
1.3. Associate teachers	Teaching Assistant Katarina Žbulj, MSc		1.8. Type of instruction (number of hours L + E + S + e-learning)	30L+10E+15S+5e-learning
1.4. Study programme (undergraduate, graduate, integrated)	graduate		1.9. Expected enrolment in the course	30
1.5. Status of the course	☒ mandatory	☐elective	1.10. Level of application of e-learning (level 1, 2, 3), percentage of online instruction (max. 20%)	level 2, 8,3% online

2. COUSE DESCRIPTION			
2.1. Course objectives	Acquisition of knowledge and skills necessary for pipeline design, building and control as well as oil and gas storage. The aim is to prepare the students to plan the infrastructure for oil and gas processing and be able to conduct the whole operation – from design to transport.		
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 geoenergy engineering; Design system for oil and gas processing, storage and transport; Compare specific procedures and processes in petroleum engineering and geoenergy engineering; Appraise the process and a facility's efficiency in petroleum engineering and geoenergy engineering; Appraise projects in petroleum engineering and geoenergy engineering.		
2.4. Expected learning outcomes at the level of the course (3 to 10 learning outcomes)	Design pipeline system according to project details and transported fluid properties; Judge pipeline conditions and choose appropriate repairment method; Categorize oil and gas storage types; Plan natural gas processing steps and needed storage infrastructure; Compare different oil storage types; Choose appropriate oil storage tank.		
2.5. Course content (syllabus)	Oil and natural gas transportation (on and off-shore); Pipelines design, building and control; Oil and gases storage; LNG storage; Oil tanks; Case studies.		
2.6. Format of instruction:	☒ lectures	☒independent assignments	2.7. Comments:

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	☒ seminars and workshops ☒ exercises ☐ online in entirety ☒ partial e-learning ☒ field work		☐ multimedia and the internet ☐ laboratory ☒ work with mentor ☐ (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		NO	Report		NO	Homework	YES	
	Essay		NO	Seminar paper	YES				
	Preliminary exam		NO	Practical work		NO			
	Project		NO	Written exam	YES		ECTS credits (total)	6	

2.10. Required literature (available in the library and/or via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	Bahadori, A. (2017.): *Oil and Gas Pipelines and Piping Systems*, Gulf Professional Publishing, Elsevier, Oxford.	NO	YES
	Flanigan, O. (1995.): *Underground Gas Storage Facilities, Design and Implementation*, First Edition, Gulf Professional Publishing.	NO	YES
	Long, B., Garner, B (2003.): *Guide to Storage Tanks&Equipment*, Professional Engineering Publishing Ltd., London.	NO	YES

2.11. Optional literature	OnePetro – online base of review, professional and scientific papers
	Menon, S., Menon P. (2013.): *Liquid Pipeline Hydraulics*, Second Edition, Traford Publishing.
	Menon, S., Menon P. (2013.): *Gas Pipeline Hydraulics*, Second Edition, Traford Publishing.
2.12. Other (as the proposer wishes to add)	-

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