



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
1.2. Name of the course	Energy geopolitics and energy security		1.7. ECTS credits
1.3. Associate teachers	Teaching Assistant Ivan Smajla, 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			
28L+0E+28S+4e-learning			
10			
level 3, 6,67% online			
2. COUSE DESCRIPTION			
2.1. Course objectives	Understanding of lectures and exercises according to the units from the course content, as well as knowledge from the required literature, application of the acquired knowledge in solving problems in the field of energy geopolitics and energy security.		
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 geoenergy engineering; Appraise energy company's business; Analyse energy markets.		
2.4. Expected learning outcomes at the level of the course (3 to 10 learning outcomes)	Explain the role of energy in economy; Compare the relations in energy consumption, and relations in the distribution of energy sources; Establish the relations in supply and energy sources supply systems on the national market; Discuss the fundamentals of energy policy and influence of energy policy on energy distribution and usage; Interpret energy sources security of supply in economy; Explain special methods of energy analysis and application to energy distribution and usage; Link the relations in energy distribution and usage; Create an energy policy on the national economy level and application of energy policy to energy distribution and usage systems; Create energy strategies with the purpose of assuring security of supply.		
2.5. Course content (syllabus)	Fundamental terms in geopolitics of energy and energy security; Global geopolitics relations and changes; Strategic role of energy sources, analysis of correlations between energy consumption and economy growth, globalisation; Energy sources and their global distribution, energy resources and reserves, characteristics of balancing each primary energy sources (coal, oil, natural gas, LNG,		

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	<p>electricity); Examples of analysis and evolution of global energy consumption according to different sources; Energy markets and fundamental geopolitics relations on energy markets; Strategic management of energy systems          Analysis of regulations for energy security assurance; Examples of regulation with the purpose of security of supply assurance and regulation of the prices; Energy sources storage for security of supply assurance, mandatory and strategic reserves of energy sources; Analysis of energy sources storage on regional and national markets (EU, Croatia); Examples of authorities and influence of national regulatory bodies and market operators in energy sources security of supply assurance; Examples of systems and measures for incentivizing energy efficiency (EU, Croatia); Particularities of energy sources markets (occurrence of monopolies, market globalization, policy influence, especially on resources and main (fossil) energy sources pathways); Examples of analysis of each particularity of energy markets (natural monopoly, market monopoly, domination of energy companies group, geopolitical influence on energy markets).</p>								
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 type="checkbox"/> field work		<input 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, seminar paper, written and oral exam.								
2.9. Monitoring student work	Class attendance	YES		Research	YES		Oral exam	YES	
	Experimental work		NO	Report		NO			
	Essay		NO	Seminar paper	YES				
	Preliminary exam		NO	Practical work		NO			
	Project		NO	Written exam	YES		ECTS credits (total)		4
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>	
	Dekanić, I., Karasalihović Sedlar, D. (2016.): <i>Ekonomika energije</i> , Golden Marketing						YES	NO	
	Dekanić, I. (2011.): <i>Geopolitika energije</i> , Golden Marketing.						YES	NO	
	Dekanić, I., Kolundžić, S., Karasalihović, D. (2005.): <i>A Century of Oil: the Nexus of Oil, Money and Power that has Changed the World</i> , Naklada Zadro.						YES	NO	
2.11. Optional literature	Engdahl, F.W.: A century of war.								
	Yergin, D. (2008.): The Prize, Free Press.								
2.12. Other (as the proposer wishes to add)	Legislation regarding energy sources security of supply currently in effect.								

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