



University of
Zagreb



University of Zagreb
FACULTY OF MINING,
GEOLOGY AND PETROLEUM
ENGINEERING



1. GENERAL INFORMATION				
1.1. Course teacher	Assistant Professor Nikola Vištica, PhD		1.6. Year of the study	II.
1.2. Name of the course	Regulation of Energy Activities		1.7. ECTS credits	4
1.3. Associate teachers	Teaching Assistant Ivan Smajla, PhD		1.8. Type of instruction (number of hours L + E + S + e-learning)	25L+0E+25S+10e-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 2, 16,67% online
2. COUSE DESCRIPTION				
2.1. Course objectives	Transfer of basic and applied knowledge in the field of regulation of energy activities to students. Explain the role of the national agency for the regulation of energy activities (NRA). Introduce students with the ways and differences of performing regulated and market energy activities. Provide basic knowledge of economic regulation of gas prices and basic components of tariff methodologies.			
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; 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 the regulatory agency for the regulation of energy activities; Explain the process of licensing of energy undertakings; Use the legislation of the Republic of Croatia and the EU, in the part related to the market of natural gas, oil and petroleum products; Compare regulations that explain the functioning of the wholesale and retail markets; Explain the role of monopoly activities (transport, distribution) in the conditions of an open natural gas market; Identify possible ways for regulation of monopoly activities; Summarize the methods of economic regulation of prices and the basic components of tariff methodologies; Explain the method of determining tariff items; Carry out a simplified calculation of tariff items.			
2.5. Course content (syllabus)	Overview of the current state of energy activities in the Republic of Croatia; Insight into public registers; Regulation of energy activities by licensing process; Licensing on a practical example; Legislation in the EU energy sector (regulations, directives); EU Network Codes, Application of Network Codes in the Republic of Croatia; The key determinants of energy laws and regulations Croatia; Gas market regulation; Regulated activities and market activities in the energy sector; Economic regulation of energy prices; Rate of Return (Cost			

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	Plus) regulation, incentive regulation, advanced regulation methods, approval of development plans, methods of determining tariffs, calculation of tariff items on the example of transport, storage, LNG and distribution; Regulation in field of energy trading - retail and wholesale market, trade products; The role of regulators in relationships with end customers; Supplier change; The contents of the gas bill; Complaints resolving; Quality of supply.							
2.6. Format of instruction:	<input checked="" type="checkbox"/> lectures <input checked="" type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> exercises <input type="checkbox"/> online in entirety <input checked="" type="checkbox"/> partial e-learning <input checked="" 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	Attending classes, attending exercises, writing a seminar paper, taking a written exam, taking an 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)	Title						Number of copies in the library	Availability via other media
	Rothwell, G., Gomez T. (2003.): <i>Electricity Economics, Regulation and Deregulation</i> , John Wiley & Sons.						NO	YES
	Glanchant, J-M, Hallack, M., Vazquez, M. (2013.): <i>Building Competitive Gas Markets in the EU</i> , Loyola de Palacio Series on European Energy Policy, Edward Elgar Publishing.						NO	YES
	Piebalgs, A., Jones, C., Carlo Dos Reis, P., Soroush, G., Glanchant, J-M. (2020.): <i>Cost-effective decarbonisation study</i> , European University Studies, Florence School of Regulation, doi:10.2870/593322, 2020.						NO	YES
2.11. Optional literature	Ascari, S.: <i>The Gas Target Model for the Vysehrad 4 region - conceptual analysis</i> , Working Paper, EUI RSCAS; 2013/78.							
	Glanchant, J-M., Hallack, M., Vazquesz, M.: <i>Gas network and market diversity in the US, the EU and Australia - a story of network access rights</i> , Working Paper, EUI RSCAS; 2014/33.							
	Legislation and bylaws of the Republic of Croatia in the field of gas, oil and petroleum products.							
	European Union directives and regulations in the field of gas, oil and petroleum products.							
2.12. Other (as the proposer wishes to add)	-							

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