

		UNIVERSITY OF EAST SARAJEVO					
		Faculty of Technology Zvornik					
		Study program: <i>Chemical Engineering and Technology</i>					
		CYCLE I		YEAR IV			
Course title		ENERGY IN INDUSTRIAL PROCESSES					
Department		Department for Process Engineering-Faculty of Technology Zvornik					
Course code		Course status		Semester		ECTS	
		Elective		VII		3	
Teacher		Mitar Perusic, PhD, full professor					
Teaching assistant		Dusko Kostic, MSc, teaching assistant					
Teaching workload/Number of hours (weekly)			Individual work (hours per semester)			Student's work coefficient, S ₀	
Lectures	Auditory exercises	Laboratory Exercises	Lectures	Auditory exercises	Laboratory Exercises	S ₀	
2	1	0	30	15	0	1,00	
2*15 + 1*15 + 0*15 =45 h			2*15 + 1*15 + 0*15 =45 h				
Total course workload (hours per semester, teacher + student): 45+ 45 = 90							
Learning outcomes		After finishing the course, students will be able to: <ol style="list-style-type: none"> find and use literature data on energy, energy and power plants demonstrate and utilize the knowledge of the concept and forms of energy demonstrate and utilize the knowledge of the types of fuel and its characteristics demonstrate and utilize the knowledge of the specifics of industrial plants in energy requirements and types of power plants plan energy needs of industrial plants. 					
Prerequisites		None.					
Teaching methods		Lectures, class exercises and individual work					
Syllabus outline per week		<ol style="list-style-type: none"> Introduction. Basic concepts of energy. Sources of energy. The concept of fuel and energy, characteristics. Fuel and heat power. The need for energy in the industry. Combustion. Combustion products and clean technology. Basic energy in the industry. Mid-term test/Colloquium 1. Storage of energy. Boiler plants. Energy exchange and use in industry. Cogeneration. Modern power plants and equipment. Management of industrial energy systems. Audit and efficiency of power plants. Mid-term test/Colloquium 2. 					
Obligatory literature							
Author/s		Title, publisher			Year	Page	
M. Ristić		General Energy, Faculty of Mechanical Engineering, Belgrade			1981	1-196	
Additional reading							
Author/s		Title, publisher			Year	Page	
M. Lambić		Energetics, University of Novi Sad, TF, Zrenjanin			2003	1-270	
S. Djukanovic		Ecological Energetics AGM Book, Zemun			2014	1-283	
W.C. Turner, S. Doty		Energy Management Handbook, 6th edition, The Fairmont Press Inc.			2006	1-218	
Obligations, assessment methods and grading system		Type of student evaluation			Grade points	Percentage	
		Pre-exam obligation					
		Attendance			6	6 %	
Mid-term test I			25	25 %			

	Mid-term test II	25	25 %
	Seminar paper	14	14 %
	Final exam		
	Final exam	30	30 %
	TOTAL	100	100 %
Web page	www.tfzv.ues.rs.ba		
Date	2023		