

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Electrical Power Engineering		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Power Plants		
Lecturer (for lectures)		Korunović M. Lidija		
Lecturer/associate (for exercises)		Anastasijević B. Ivan		
Lecturer/associate (for OFE)				
Number of ECTS		5	Course status (obligatory/elective)	Obligatory
Prerequisites				
Course objectives		Introducing the ways of electric power energy generation, to the students. Introducing different types of electric power plants and their elements.		
Course outcomes		The students are familiar with operation modes of electric power plants and understand the role of these plants in electric power systems.		
Course outline				
Theoretical teaching		Sources of energy and energy division. Energy resources in the World and in Serbia. Hydro power plants. Hydraulic energy and power of the water. Hydraulic turbines. Types of hydro power plants. Elements of hydro power plants. Thermal power plants. Basic terms of thermodynamics. Elements of thermal power plants. Steam turbines. Nuclear power plants. Thermal power plants with gas turbines. Economic indicators of electric power plants. Solar electric power sources. Photovoltaic systems. Wind generators. Connecting wind farms to the power grid, and their integration into electric power system.		
Practical teaching (exercises, OFE, study and research)		Practice lectures includes solution of computational tasks in the areas of theoretical teaching.		
Textbooks/references				
1	M. B. Đurić, A. R. Čukarić, Ž. Đurišić, Electric Power Plants (in Serbian), second edition, KIZ center, Belgrade, 2014.			
2	A. P. Чукарић, Electric Power Plants - Workbook (in Serbian), High Technical School of Vocational Studies - Zvečan and Faculty of Technical Sciences - Kosovska Mitrovica, Kvark, Kraljevo, 2010.			
3	S. Armenski, Renewable - Sustainable Energy Sources, second modified and extended edition, Student word, Skopje, 2008.			
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	2	0	0	0
Teaching methods		Theoretical teaching includes classic lectures and lectures in electronic form. Practice teaching includes solution of computational tasks.		
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	Points
Activity during lectures			Written exam	25
Exercises			Oral exam	25
Colloquia		50		
Projects				