

Study program: Bachelor academic studies: ECOLOGICAL ECONOMICS (BASEEC)				
Type and level of studies: Bachelor academic studies, I level				
Subject name: Ecology and Energetics			Subject code	6E4EIE
Professor: dr Sunčica Vještica, assistant professor				
Subject status: Elective				
Number of ECTS: 5				
Condition: none				
Subject goal Studying the basis of the process of acquisition, transfer and transformation of energy in terms of their impact on the environment Valorization of energy and environmental importance of energy efficiency and introduction to the principles of sustainable energy.				
Subject outcome Acquired knowledge about the impact of energy technologies on the quality of the environment, the importance of efficient energy use and management of energy production and consumption on the principles of sustainable development.				
Subject content <i>Theoretical classes</i> Familiarizing with the influence of the acquisition process, transfer and transformation of the energy on the environment. Energy, economic and technological indicators of energy system. The concept of sustainability in the energy sector. The impact of traditional energy technologies on the environment. The state of reserves of fossil fuels and trends in energy production / consumption at the global, regional and local level. The importance of energy efficiency for the overall sustainability of the energy system. The use of energy from renewable sources - the possibility of meeting the energy needs and substitution of traditional sources, sustainability, economic feasibility, tendencies and perspectives. <i>Practical classes</i> Calculation of fuel consumption and emissions of combustion products / pollutants at thermal power plants using fossil fuels. Analysis of possibilities to increase energy efficiency in the examples of some thermal power plants. Visits thermal power plants and introduction to applied methods of environmental protection.				
Literature 1. D. Marković: <i>Procesna i energetska efikasnost</i> , Univerzitet Singidunum, Beograd, 2010. 2. D. Antonijević: <i>Ekosistemske tehnologije</i> , Autorizovana skripta, Fakultet za primenjenu ekologiju Futura, Beograd, 2009. 3. M. Ristić, <i>Opšta energetika</i> , Mašinski fakultet, Beograd, 1981.				
Number of active teaching classes				Other classes
Lectures:2(30)	Practices: 1(15)	Other class forms:	Study research paper:	
Teaching methods Theoretical and practical classes, audiovisual practices, seminar paper, colloquiums and written and oral exam and consultations. Study tours to thermal power plants and getting to know applicable environmental measures.				
Knowledge evaluation (maximum number of points is 100)				
Pre-exam obligations	points	Final exam		points
Activity during classes and practices	10	Written exam		20
Practical classes and seminar paper	20	Oral exam		20
Colloquium	30			