

Study program: Environmental Protection			
Course title: Construction and Environment			
Professor/assistant: Aleksandra D. Boričić			
Type of course: compulsory			
ECTS credits: 5			
Pre-requisites: -			
Aims of the course: Prepare students to: acquire basics of the quality of interior air, be acquainted with parameters of thermal comfort, understand the energy balance of a building, correctly use and monitor all policies and standards in this field, be acquainted with the documentation necessary for making studies on energy efficiency of a building.			
Learning outcomes: Student will be able to: design energy efficient buildings in team or individually, calculate energy balance of a building, define primary energy consumption, use thermographic methods for control of envelope of a building, make study of the energy efficiency of a building, make a proposal for measures to improve the energy efficiency of a building.			
Syllabus			
<u>Theoretical part</u> Legislation in the area of energy efficiency of buildings: Law on Planning and Construction and Regulation on Energy Efficiency, EU Directive 2010/31. Thermal comfort. Thermal properties of a building. Own and solar gain. Diffusion of water vapor through the bulkheads. Energy passport. Energy efficient buildings and passive buildings. Methods for determining the required amount of air.			
<u>Practical part</u> Practice, Other forms of teaching, Study research work			
Literature			
<ol style="list-style-type: none"> 1. D. Gvozdenovac i dr., <i>Energetska efikasnost - industrija i zgradarstvo</i>, Fakultet tehničkih nauka Novi Sad, 2012. 2. S. Kosanović, <i>Ekološki ispravne zgrade - uvod u planiranje i projektovanje</i> 3. S. Krnjetin, <i>Ekološki ispravne zgrade - uvod u planiranje i projektovanje</i>, Prometej, 2001. 4. M. Jovanović -Popović i dr., <i>Nacionalna tipologija stambenih zgrada Srbije</i>, Arhitektonski fakultet, 2013. 			
Number of active classes			Other forms of teaching:
Lectures: 2	Practical classes: 2	Research work:	
Teaching methods Teaching is conducted interactively in the form of lectures, auditory, laboratory and computer exercises. In lectures, theoretical part of the material is presented, accompanied by characteristic examples for easier understanding of the material. Computer exercises comprise the use of information and communication technologies in mastering the knowledge from the observed area. A compulsory part of practical instruction implies field work. In addition to lectures and exercises, consultations are also held regularly.			
Grading system (maximum 100 points), grading scale from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.			
Pre-exam obligations	points	Final exam	points
activity during theoretical lectures	10	written exam	-
practical training	-	oral exam	30
colloquium(s)/seminar papers	40/20		
Sum	70	Sum	30