

UNIVERSITY "DŽEMAL BIJEDIĆ" IN MOSTAR UNIVERSITY STUDY OF INTERIOR DESIGN			
Course name:	ENERGY EFFICACY		Course code: 0000
Cycle level, year of study, semester	Ciklus I		Year of study III / Semester V
Head of course:	Maja Roso Popovac		
Contact details:	E-mail: maja.popovac@unmo.ba		
Total number of course hours:	Lecture hours per week: 2	Hours of exercises and seminars per week: 1	Total number of hours for taking the exam: 115
ECTS point value:	4 ECTS		
Matric qualification:	Bachelor's degree in interior design		
Course status:	Mandatory		
Prerequisites for passing the course:	None		
Subject access restrictions:	None		
Explanation of the point value:	The number of ECTS credits corresponds to the number of hours required for the implementation of teaching duties and exam preparation.		
	Contact hours: 45	Practical work:10	Written papers:15
	Literature/reading: 10	Seminar/case study:25	Exam preparation:10
	Other:	Total: 115	
Course objective:	The subject aims to illuminate those ecological aspects that belong planning and construction of space. The basic idea is the affirmation of building principles, criteria and models that are harmonized with the local conditions of the natural and built environment. It is also expected to master and understand the necessary postulates in the field of building physics, and the goal is that this knowledge can be used functionally in the assignments on the courses in architectural design and Reconstruction of historical buildings.		
Description of general and specific competences (knowledge and skills) /learning outcome:	Students will acquire modern theoretical knowledge in the field of energy efficiency in construction, alternative energy sources, traditional and new building materials in the service of reducing CO2 emissions. They will be able to/develop the skills of applying this knowledge in conceptual solutions - projects and execution of interior design.		
Outline course content:	1. Origins and development of ecological construction (construction and ecology, energy awareness and bioclimatic design). 2. Traditional (vernacular) construction as a result of adaptation to the natural environment (in BiH, in the world). 3. Data for bioclimatic planning and design - climatic influences and aspects of thermal response. 4. Concepts and design in architecture: development and tendencies. 5. Control of heat losses and gains: shape, surface of the envelope, arrangement and size of openings, orientation. 6. Building materials and ecological standards: natural degradability, neutralization of pathogenic radiation. 7. Passive use of solar energy for space heating and cooling. 8. Solarization and protection from the sun: solar path and shadows, control of incident sunlight and energy. 9. Natural ventilation: concepts, systems and technical solutions for control natural ventilation. 10. Design methods and software for thermal analysis, natural lighting and natural ventilation.		
Forms of teaching/learning methods:	Lectures, auditory exercises, consultations.		
Other student obligations (if any):	Independent student work (students are required to attend classes, do and submit all homework, and take both tests).		
Method of knowledge assessment/method of taking the exam and % weighting factor of	1. Attendance 10%, 2. Tests 40% 3. Final Exam 50%.		

knowledge assessment:	
List of basic literature and Internet web references:	1. Martina Zbašnik Senegačnik – Pasivna kuća, Sun Arh d.o.o. Zagreb, 2009 1. Pucar, M., Pajević, M.M., Jovanović-Popović, M. (1994) Bioklimatsko planiranje i projektovanje - urbanistički parametri. Beograd: Zavet 2. Popović-Jovanović M.: "Zdravo stanovanje" 3. Bijedić, Dž. (2012). Arhitektura, Holizam umjesto optimalizacije, Integralni pristup u arhitektonskom stvaralaštvu. Sarajevo: Univerzitet u Sarajevu 4. Majdandžić M.: „Obnovljivi izvori energije“
List of additional literature:	
Method of monitoring the quality and success of course performance:	Anonymous survey among students on the success of classes; surveying subject holders; periodic reports of the teaching staff on the lessons held and all forms of knowledge testing with suggestions for improvement.