

COURSE DESCRIPTION

Code:	AU5002	semester V
Field of study	Architecture and Urban Planning	
Type of study:	1st degree (BSc)	
Course name:	Energy efficient architecture	
Details:	Mandatory	
Category:	Project of energy efficient detached house	
ECTS point:	4	
Unit/Department running the course:	Architectural Design Department	
Prerequisites:	ergonomics, statics, civil engineering	
Number of hours in semester:	L –	A –
	Lb –	Ws – 45
	D –	S –
<p>Methodology assumptions:</p> <p>Learning by designing</p> <p>Learning outcomes:</p> <p>Introducing general methods and rules of energy efficient architecture</p> <p>Frame programme:</p> <p>Traditional solutions, idea of energy efficient architecture, climate conditions, interior comfort, environmental relations, temperature zoning, energy gains and losses balance of the building.</p> <p>Energy efficient technologies: transparent insulations, solar collectors, photovoltaic panels, wind turbines, heat pumps, recuperators, modern lighting systems, heliostats, doubled elevations, energy accumulators, controlling devices.</p> <p>Basic economy of energy efficient technologies.</p> <p>Subject:</p> <p>Project of energy efficient detached house.</p> <p style="text-align: right;">The content was worked out by: Adam Turecki Ph D</p>		
<p>Form of assessment:</p> <p>1. Project of energy efficient detached house: plot plan, plans of the building, elevations, sections, perspective, model.</p> <p>2. Control review.</p>		
<p>References:</p> <ol style="list-style-type: none"> 1. Neufert E., Podręcznik projektowania architektonicznego. W-wa: „Arkady”, 1980; 2. Górniak A., Klimat województwa podlaskiego, Białystok, ImiGW, 2000; 3. Ciechowicz W., Energia środowisko i ekonomia, Wa-Wa, PAN,1995: 4. Smolec W., Fototermiczna konwersja energii słonecznej, Wa-wa, PWN, 2000; 5. Reknagel , Poradnik ogrzewanie i klimatyzacja, Gdańsk, EWFE, 1994; 6. Rubik M., Pompy ciepła, poradnik, Wa-wa, 1999; 7. Dybczyński W. (redakcja), Technika świetlna 98, poradnik, Wa-wa, SEP, 1998; 8. Pawlik M, Wiatraki północno-wschodniej Polski, Białystok, UW, 1984; 		

