PART I (Senate Approval)

Offering School	Antalya Bilim University-Faculty of Fine Arts and Architecture					
Offering Department	Architecture					
Program(s) Offered to	Architecture					Must
Course Code	ARC 2006					
Course Name	Sustainable Design in Architecture					
Language of Instruction	English					
Type of Course	Theory/Practice					
Level of Course	Undergraduate					
Hours per Week	Lecture: 2	Laboratory:	Recitation:	Practical: 2	Studio:	Other:
ECTS Credit	4					
Grading Mode	Letter Grade					
Pre-requisites	None					
Co-requisites	None					
Registration Restriction	None					
Educational Objective	The course design to approach from a sustainable design perspective and it draws attention to the need for a basic conceptual change from existing paradigms to a more sustainable system based on harmless and efficient use of materials and energy. Through assignments, classroom work and team projects, students will be able to move to the level where they cannot make mistakes in our current production and consumption systems and offer suggestions to solve problems.					
Course Description	It examines issues that highlight energy-efficient design approaches and strategies based on economic, social and environmental benefits. It teaches sustainable principles based on passive and active green design. Green design evaluation tools are also introduced.					

Learning Outcomes	**LO1**	To understand their role in sustainability from various (as designer or a user) perspectives.
	LO2	To become familiar with the current frameworks for green design and articulate the pros and cons of these strategies.
	LO3	To understand various tradeoffs to maximize sustainable potential in a building, system or situation.
	LO4	To practice and demonstrate efficient way of utilizing natural resources.

PART II (Faculty Board Approval)

		Program Outcomes	LO1	LO2	LO3	LO4
Basic Outcomes (University-wide)	**PO1**	**Ability** to communicate effectively and write and present a report in Turkish and English.		X	X	X
	PO2	**Ability** to work individually, and in intra-disciplinary and multi-disciplinary teams.	X			
	PO3	**Recognition** of the need for life-long learning and **ability** to access information , follow developments in science and technology, and continually reinvent oneself.	X	X	X	X
	PO4	**Knowledge** of project management, risk management, innovation and change management, entrepreneurship, and sustainable development.	X	X	X	X
	PO5	**Awareness** of sectors and **ability** to prepare a business plan.				
	PO6	**Understanding** of professional and ethical responsibility and **demonstrating** ethical behavior.	X			
Faculty Specific Outcomes	**PO7**	Gain the ability of conceptualizing, applying, analyzing, synthesizing and evaluating information effectively (Critical Thinking)	X	X	X	X
	PO8	Produce innovative ideas and products with creativity (Creativeness).			X	
	PO9	Gain the ability of leadership, entrepreneurship and self-leadership skills (Leadership and Entrepreneurship)			X	
	PO10	The graduated students care about the ethical values and principles; behave in accordance with these in professional and social life (Ethical Behavior).				X
	PO11	Understand, define and reach the information that they need; use information effectively and share it with others (Information Literacy).	X	X	X	X
	PO12	Use information effectively and communication technologies while learning, and can share their knowledge and experience with others using technology and visual means (Information and Communication Technology Literacy).				
	PO13	Learns the concepts of architectural design and theories of architecture as well as the intellectual, historical and cultural background to evaluate them from a critical perspective and use them in developing design solutions. One can express one's solutions verbally and in written form. (Knowledge and Ability)		X		X

Discipline Specific Outcomes (program)	**PO14**	Knows to express each stage of the design process formally by using hand drawings together with the European Computer Driving Licence and other software technologies. (Knowledge and Communication Competence)				
	PO15	Designing space (environment, construction, building) on different scales that are sensitive to the natural and built environment within the framework of basic design and architectural principles. One also knows research methods. (Knowledge and Ability)	X	X	X	X
	PO16	Speak at least one foreign language at B1 General Level of European Language Portfolio to express oneself and to follow developments in the field of architecture. (Knowledge and Communication Competence)				
	PO17	Executes an independent project or to take responsibility in multidisciplinary studies, to communicate effectively and share knowledge and competency during the design process. (Competency to work independently and take responsibility)				
	PO18	To knowledge and understanding to analyze building design and systems regarding architectural practice (from prehistoric times to the present). (Knowledge)				
	PO19	Develops a design that respectable to cultural heritage and sustainable by recognizing historical and cultural assets and understanding the importance of these values. (Knowledge and Ability)				
	PO20	The necessary knowledge and ability about contemporary restoration theories and preparation of restoration project by using research, documentation and different measurement methods in the process of documenting the current state of historic buildings and environments. (Knowledge and Ability)				
	PO21	Produces sustainable solutions to current problems by following the developments and technologies in the field of production. (Ability)				
	PO22	Knows to develop designs about environmental and social sustainability principles, the issues related to disasters and accessible designs that meet community needs. (Knowledge and Ability)		X		
	PO23	Gains the ability to use modern technologies in building and environmental design, to develop and produce innovative solutions; learns necessary information about building materials, techniques and structural behaviors, the laws, regulations and standards and includes them in the design process. (Knowledge and Ability)				
	PO24	To gain the basic knowledge of lighting, acoustics, air conditioning and energy use in the design of environmental systems. (Knowledge)	X	X		X
	PO25	Knows the historical development of structural systems, types of structural elements such as foundation, wall, flooring, stairs, roof, design, and construction techniques of these elements and applies this information in the projects. (Knowledge and Ability)				

	PO26	Has competence in project management, organization, planning, and leadership for the realization of professional practice and informs individuals and institutions on issues related to a field and shares one's suggestions for solutions to the experts or non-experts in verbally and written form. To produce collaborations and projects with the awareness of social responsibility (Competence to take responsibility and social and Ability)	X			
	PO27	Aware of lifelong learning and identifying the necessary needs for professional development and self-development. (Learning Competence)	X			
	PO28	Has an awareness of professional and ethical behavior; collects data considering social, environmental, and ethical results. One is responsible for the environment, the professional problems and provides professional services like occupational health and safety within the legal frameworks. (Field Specific Competence)				

PART III (Department Board Approval)

	Subject	**Week**	**Subject Explanation**	**LO1**	**LO2**	**LO3**	**LO4**
Course Subjects, Contribution of Course Subjects to Learning Outcomes, and Methods for Assessing Learning of Course Subjects	**S1**	1	Syllabus review Briefing on Sustainable Design				
	S2	2	Group Discussion on Sustainable Design, Green Design, and Eco-Design		X		
	S3	3	Discussion on Sustainable Design, Green Design, and Eco-Design will continue with visual documentation.		X		
	S4	4	Session 1: Passive Design Principles: Site Analyses & Synthesis, Site Plan	X	X	X	
	S5	5	Site analyses & synthesis, Site Plan Review	X	X	X	
	S6	6	Choosing Site Site Analyses Practice	X	X	X	X
	S7	7	Passive Heating, Passive Cooling	X	X	X	
	S8	8	Midterm Exam	X	X	X	X
	S9	9	Passive Heating, Passive Cooling	X	X	X	
	S10	10	Thermal Mass, Insulation	X	X	X	
	S11	11	Window Design: Natural Daylight Window Design: Shadings	X	X	X	
	S12	12	Window Design: Natural Ventilation Active systems	X	X	X	
	S13	13	Project Review	X	X	X	X
	S14	14	Project Review	X	X	X	X

	No	**Type**	**Weight**	**Implementation Rule**	**Make-Up Rule**
	A1	**Exam**			

Assessment Methods, Weight in Course Grade, Implementation and Make-Up Rules	**A2**	**Quiz**	10%	Ther is no participation points. During class time Quizes will be hand out to promote participation	no make-up exam
	A3	**Homework**	15%	Homework will be given during the class time; also, students will be responsible to kept note and draw during lecture to get points.	no make up
	A4	**Project**	75%	It is conducted as an exam that shows that the topics covered in the course have been reduced to the project/space/structure scale. Midterm (25%) and Final (50%) are given in 2 semesters.	A make-up exam will be provided if the student provides an acceptable legitimate document, according to the school regulation
	A5	**Report**			
	A6	**Presentation**		-	
	A7	**Attendence/Interaction**			
	A8	**Class/Lab./Field Work**			
	A9	**Others**			
	TOTAL		100%		

Evidence of Achievement of Learning Outcomes	Students will demonstrate learning outcomes through weekly homework, in-class assignments, Midterm exams and Final project.

Method for Determining Letter Grade

Upon successful completion of all assessment methods, the total scores will be averaged and converted into a final letter grade using the following percentages and grading criteria.

ASSESSMENT METHOD	EFFECT ON GRADING	GRADE	MARKS	VALUE	GRADE	MARKS	VALUE
Participation	25%	A+	-		C+	60-64	2,4
Midterm	25%	A	95-100	4.00	C	55-59	2,2
Final	50%	A-	85-94	3,7	C-	50-54	2
		B+	80-84	3,3	D+	45-49	1,7
		B	75-79	3.00	D	40-44	1,5
		B-	65-74	2,7	F	0-39	0.00

Teaching Methods, Estimated Student Load

No	Method	Explanation	Hours
Time expected to be allocated by instructor			
1	**Lecture**	The course will be explained by slide presentations.	12*2=24
2	**Interactive Lecture**	The examples given during the lesson will be drawn and practiced by the student in order to comprehend the given information.	12*2=24
3	**Recitation**		
4	**Laboratory**		
5	**Practical**		
6	**Field Work**		
Time expected to be allocated by student			
7	**Project**	Small-scale projects will be given as an exam to question whether the course content is learned through practice.	1*18=18
8	**Homework**		
9	**Pre-class Learning of Course Material**	Reading the discussion topics given during the lecture phase	6*3=18
10	**Prepare Final Project Poster**	Repeating the case samples drawn in the course at home.	1*16=16
11	**Studio**		
12	**Office Hour**		
TOTAL			**100 saat**

IV. PART

Instructor

Name	
E-mail	
Phone Number	
Office Number	
Office Hours	6 hours (according to semestre)

Course Materials	**Mandatory**	The book prepared for the course is arranged by the instructor and there are blank boxes along with the information. These empty boxes will be filled with drawings and assignments to be shown during the course time. This book will be evaluated at the end of the semester and given back to the students for the future reference .
	Recommended	Mechanical and Electrical Eqipment for Buildings. Walter T. Grondzik, Alison G. Kwok, Benjamin Stein and John S. Reynolds. https://www.usgbc.org/resources/leed-v4-building-design-and-construction-current-version
Other	**Scholastic Honesty**	Violations of scholastic honesty include, but are not limited to cheating, plagiarizing, fabricating information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Any for of scholastic dishonesty is a serious academic violation and will result in a disciplinary action.
	Students with Disabilities	Reasonable accommodations will be made for students with verifiable disabilities.
	Safety Issues	
	Flexibility	Circumstances may arise during the course that prevents the instructor from fulfilling each and every component of this syllabus; therefore, the syllabus is subject to change. Students will be notified prior to any changes.