

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
SUSTAINABLE DESIGN	KTP2115852	Fall Semester	2+0	2	2
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	First Cycle (Bachelor's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Assist.Prof. Nevin Esin TEKİN BELLİBAŞ				
<b>Name of Lecturer(s)</b>	Assist.Prof. Bengi ATUN, Assoc.Prof. Bahar BAŞER KALYONCUOĞLU, Assist.Prof. Mustafa ERDEM, Assist.Prof. Fahrettin Ersin ALACA, Prof.Dr. Gülhan BENLİ, Assist.Prof. Gizem CAN, Lect. Zeynep YILMAZ, Assist.Prof. Nevin Esin TEKİN BELLİBAŞ, Prof.Dr. Ayşe Nilay EVCİL				
<b>Assistant(s)</b>					
<b>Aim</b>	To equip the students with necessary theoretical knowledge to allow for production of designs, applications and products that are compatible with sustainable development principles, and are sensitive to environmental problems and natural resource consumption				
<b>Course Content</b>	This course contains; Introduction: The introduction of the concept of sustainability, introduction of course content, modules and expected outcomes. Definitions of the pillars of sustainability (Economic, social and environmental), Definitions of the concept of sustainability: Why do we need it? - Problems of our planet, problems we are expected to face in the light of statistical information, Our environmental concerns, and the historical processes which have brought up the concept of sustainability, Ecology and Environment: Concepts of living environment and ecosystems /Environment, Humans and Technology, Sustainability and urban areas: The components of sustainability at the urban scale, theoretical framework, Sustainability, landscape and the relationship of natural processes with urban areas: Tactical urbanism principles and world examples, Sustainability and habitats: The concept of ecological architecture, green building and smart cities, Sustainability and vernacular architecture: Lessons to be learned from traditional construction technologies and materials, Sustainable systems: Circular economy in construction industry and waste management, Sustainability and governance: Environmental Protection Policies, Production and consumption cycle: Sustainability concern between the ranges of carbon footprint of production and procurement activities to personal consumption habits, Social pillar of sustainability: Reduction of inequalities and social inclusion, Sustainable Design Case Studies (Structure, landscape, product, system), Sustainable Design Case Studies (Structure, landscape, product, system).				
<b>Course Learning Outcomes</b>				<b>Teaching Methods</b>	<b>Assessment Methods</b>
1) Student defines the concept of sustainability in social, economical and environmental contexts, through examples of architecture, urban planning and consumer culture 2) Student analyses contemporary material and technologies through the guidance of the historical development of sustainability 3) Student ethically questions the relationship between design, production and consumption in the context of sustainability 4) Student utilizes the information they obtain through examples of interdisciplinary cooperation during the course to manage design processes in the future					
<b>Teaching Methods</b>					
<b>Assessment Methods</b>					
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Introduction: The introduction of the concept of sustainability, introduction of course content, modules and expected outcomes. Definitions of the pillars of sustainability (Economic, social and environmental)				
2	Definitions of the concept of sustainability: Why do we need it? - Problems of our planet, problems we are expected to face in the light of statistical information				
3	Our environmental concerns, and the historical processes which have brought up the concept of sustainability				
4	Ecology and Environment: Concepts of living environment and ecosystems /Environment, Humans and Technology				
5	Sustainability and urban areas: The components of sustainability at the urban scale, theoretical framework				
6	Sustainability, landscape and the relationship of natural processes with urban areas: Tactical urbanism principles and world examples				
7	Sustainability and habitats: The concept of ecological architecture, green building and smart cities				
8	Sustainability and vernacular architecture: Lessons to be learned from traditional construction technologies and materials				
9	Sustainable systems: Circular economy in construction industry and waste management				
10	Sustainability and governance: Environmental Protection Policies				
11	Production and consumption cycle: Sustainability concern between the ranges of carbon footprint of production and procurement activities to personal consumption habits				
12	Social pillar of sustainability: Reduction of inequalities and social inclusion				
13	Sustainable Design Case Studies (Structure, landscape, product, system)				
14	Sustainable Design Case Studies (Structure, landscape, product, system)				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		50			
General Exam		50			

**Resources**

- Ritchie, A., Thomas, R. (2009). Sustainable Urban Design: An Environmental Approach, Taylor & Francis Publ., London.
- Hough, M. (2004) Cities and Natural Process, Routledge, London
- Mollison, B. (2011) Permakültüre Giriş. Sinek Sekiz Yayınları, İstanbul
- Yalçiner Ercoşkun, Ö. (2018) Sürdürülebilir kentsel planlama ve tasarım: Dünya örnekleri. Gazi Kitapevi, Ankara
- Küçükali, U. F., Türkođdu, H. (2021) Sürdürülebilir kentsel tasarım kriterleri : İstanbul için öneriler. Nobel Akademik Yayıncılık, Ankara.
- Sachs, J. D. (2015) The Age of Sustainable Development. Columbia University Press, New York
- Halegoua, G. R. (2020). Smart Cities. The MIT Essential Knowledge Series, The MIT Press.
- Sergi, C. D. (2011) The Sourcebook of Contemporary Green Architecture. Collins Design, New York.