



ECTS COURSE INFORMATION FORM

School/Faculty/Institute	Faculty of Arts, Design and Architecture	
Program	B.Sc. in Architecture	Elective

Course Code	ARC 464
Course Title in English	Urban Ecology
Course Title in Turkish	Kentsel Ekoloji
Language of Instruction	English
Type of Course	Flipped Learning
Level of Course	Undergraduate
Semester	Fall
Contact Hours per Week	Lecture: - Recitation: - Lab: - Studio: 3
Estimated Student Workload	125 hours per semester.
Number of Credits	5 ECTS
Grading Mode	Standard Letter Grade
Pre-requisites	None
Expected Prior Knowledge	None
Co-requisites	None
Registration Restrictions	Only Undergraduate Students
Overall Educational Objective	To connect with the environment on wider scales, with emphasis on ecological and ethical issues involved in design and practice
Course Description	This course focuses on the contemporary answers on urban ecology debate with examination of various contextual positions and related theoretical/practical perspectives in architecture, urbanism and landscape design. Search for the developing concept of nature throughout history and parallel answers in architecture and urbanism. Within the course we will try to increase both aware of latest trends related within urban ecology and critical thinking towards these trends. Thus, in this course multidisciplinary issues that inherent in urban ecology debate will be considered for improving architectural thinking.
Course Description in Turkish	Bu derste kentsel ekoloji tartışmasına farklı bağlamlarda verilen çağdaş cevaplara, bu cevapların mimarlık - şehircilik ve peyzaj tasarımındaki ilgili teorik\ pratik karşılığının incelenmesi yoluyla odaklanılacaktır. Tarih boyunca "doğa" düşüncesinin gelişimi ve mimarlık - şehircilik alanlarındaki paralel yansımaları aranacak. Ek olarak, ders bünyesinde, hem kentsel ekoloji alanındaki güncel eğilimler üzerinden farkındalığı arttırmayı, hem de bu eğilimlere yönelik eleştirel düşüncüyü geliştirmeyi deneyeceğiz. Böylece, bu ders ile kentsel ekolojiye ilişkin multidisipliner başlıklar yaratıcı mimari düşüncüyü geliştirmek amacıyla göz önüne alınacak.
Course Learning Outcomes and Competences	Upon successful completion of the course, the learner is expected to be able to: 1. understand urban environment throughout history related to ecology; 2. distinguish the responsibility of designers for their impact on urban ecology; 3. comprehend ecological design paradigms in natural sciences, social sciences and humanities; 4. interpret on the multidisciplinary issues and works.
Relation to Program Outcomes and Competences:	N=None S=Supportive H=Highly Related

Program Outcomes and Competences		Level N/S/H	Assessed by
			Exam, Project, HW, Lab, Presentation, etc.
1. Ability to read, write and speak effectively in Turkish and English, equivalent to a B2 European Language Passport Level in English.		S	Assignments, HW, Presentations
2. Ability to question and interpret ideas considering diverse points of view; gather and use data, develop concepts related to people, places and the environment, and make individual decisions.		S	Assignments, HW, Presentations
3. Ability to use appropriate graphical methods including freehand and digital drawing techniques, (ECDL advanced) in order to develop ideas in addition to communicate the process of design.		S	HW, Presentations
4. Ability to use fundamental principles of architectural design considering the place, climate, people, society as factors, and simultaneously express present principles in relevant precedents.		S	
5. Understanding of architectural principles belonging to global and local cultures shaped by the climatic, technological, socioeconomic, cultural factors, in addition to principles of historic preservation while developing architectural and urban design projects.		S	
6. Understanding the theories and methods used to describe the relationship between human behavior and physical environment; and concurrently understanding different needs, values, behavioral norms, social and spatial patterns of different cultures.		H	
7. Ability to apply various stages of design processes considering the client and user needs, which include space and equipment requirements besides site conditions and relevant laws and standards.		H	
8. Understanding the role of applied research in determining function, form and systems and their impact on human conditions and behavior.		S	
9. Understanding of the basic principles of static and dynamic structural behavior that withstand gravity and lateral forces, in addition to the evolution and applications of structural systems.		N	
10. Ability to apply the principles of sustainability in architectural and urban design projects that aim to preserve the natural and historic resources and provide healthful environments.		H	
11. Understanding the basic principles in the selection of materials, products, components and assemblies, based on their characteristics together with their performance, including their environmental impact and reuse possibilities.		S	
12. Understanding the principles of environmental systems such as energy preservation, active and passive heating and cooling systems, air quality, solar orientation, day lighting and artificial illumination, and acoustics; in addition to the use of appropriate performance assessment tools.		S	
13. Ability to choose appropriate materials, products and components in the implementation of design building envelope systems.		N	
14. Ability to understand the principles and concepts of different fields in multidisciplinary design processes and the ability to work in collaboration with others as a member of the design team.		S	
15. Understanding the responsibility of the architect to organize and lead design and construction processes considering the environmental, social and aesthetic issues of the society.		S	
16. Ability to understand the ethical issues involved in the design and construction of buildings and provide services for the benefit of the society. In addition to the ability to act with social responsibility in global and local scales that contribute to the well- being of the society.		H	
Prepared by and Date		İrem Korkmaz 09.03.2020	
Semester		Fall 2019-2020	
Name of Instructor		Esra Sert	
Course Contents	Week	Topic	

	1.	Introduction
	2.	Ecological Design
	3.	Ecological Urbanism
	4.	Urban Metabolism
	5.	Student Presentations on the Selected Topics & Discussion
	6.	Scientific Understanding of Nature
	7.	Poetic & Romantic Understanding of Nature
	8.	Transcending Boundaries: Historical and Dialectical Understanding of Nature
	9.	Student Presentations on the Selected Topics & Discussion
	10.	Space-Nature Debate in 19.th century
	11.	Space-Nature Debate in 20.th century
	12.	Space-Nature Debate in 21.th century
	13.	Student Presentations on the Selected Topics & Discussion
	14.	Discussion and Final Submission: We will discuss urban ecology concept in the age of "ecological rift".
	15.	Final Evaluation
	16.	Final Evaluation
Required/Recommended Readings	<p><u>Required Readings:</u></p> <p>Asafu-Adjaye, John et al. (2015). "An Ecomodernist Manifesto." Dinep, C. and Schwab, K. (2010). Sustainable Site Design- Criteria, Process, and Case Studies for Integrating Site and Region in Landscape Design. John Wiley & Sons, Inc., ISBN: 978-0-470-18783-8. Gandy, M. (2004). Rethinking urban metabolism: water, space and the modern city, City: Analysis of Urban Trend, Culture, Theory, Policy and Action, 8: 3, pp. 363-379. Madge, P. (1997). Ecological Design: A New Critique. Design Issues, Vol. 13, No. 2, MIT Press. A Critical Condition: Design and Its Criticism (Summer, 1997), pp. 44-54. Swyngedouw, E. (2009). The city as a hybrid: On nature, society and cyborg urbanization. Capitalism, Nature, Socialism. Routledge, 7:2, pp.65-80. Spirn, A. W. (2013) "Ecological Urbanism: A Framework for the Design of Resilient Cities." a chapter in Resilience in Ecology and Urban Design, edited by Steward Pickett, Mary Cadenasso, and Brian McGrath (Springer, 2013) Smith, N. (2008). Chapter 1: Ideology of Nature in the Uneven Development: Nature, Capital, and the Production of Space. 3rd edition. University of Georgie Press, pp. 10-38, ISBN: 9780820330990. Steele, J. (2005). "Ecological Architecture: A Critical History", Thames and Hudson, Los Angeles. Wheeler, M (1995). Ruskin and environment: the storm-cloud of the nineteenth century. Manchester University Press, ISBN:10-0719043778</p> <p><u>Recommended Readings:</u></p> <p>Carson, R. (1962). Silent Spring. Dunnet, N. and Clayden A. (2007). Rain Gardens: Managing Water Sustainably in The Garden and Designed Landscape. Timber Press, ISBN: 978-0-88192-826-6. Engels, F. (1973). The Condition of the Working Class in England. Guattari, Felix. (2000). The Three Ecologies. Athione Press, pp. 23–70, ISBN: 9780485006087. Howard, E. (1898) Garden Cities of Tomorrow. Mcharg, I, L. (1969). Design with Nature. Mollison, B. (2002). Permaculture: A Designers Manual. Second Edition. Tagari Publications, ISBN: 0908228015 Mostafavi, M., and G. Doherty (2010). Ecological Urbanism. Lars Muller Publishers, ISBN: 9783037781890. Spirn, A. W. (1985). The Granite Garden: Urban Nature and Human Design. Basic Books, ISBN: 9780465026982. Short, L. B., Short, J. R. (2008). Cities and Nature: Critical Introductions to Urbanism and The City. Routledge Taylor& Francis Group, ISBN: 978-0-415-35589-6. Swyngedouw, E. and Heynen, N. C. (2003). Urban political ecology, justice and the politics of scale. Antipode a Radical Journal of Geography Special Issue, ISI Journal Citation Reports, Sf. 898-918. Yeang, K. (2006). Ecodesign, A Manual for Ecological Design. John Wiley & Sons, Inc., ISBN: 983-2726-40-9.</p>	

Teaching Methods	<p>Selected topics are going to be studied, researched and discussed in the studio. Students are expected to read, make research about the topics for each lecture. And prepare one paragraph for an each lecture: brief commentaries on selected topics in the assigned readings of each lecture or prepare visual material for each lecture like collage, table, photo shopped images or a game (to be ready the day of the course meeting stated in syllabus and submitted as one single file at the end of the term).</p> <p>The texts written by Neil Smith, Eric Swyngedouw, James Steele, Pauline Madge, Ken Yeang, Bill Mollison, Matthew Gandy, Anne Whiston Spirn, Michael Wheeler, Friedrich Engels, Rachel Carson, Ian L. McHarg, John Ruskin and Ebenezer Howard prepare the base of the discussions. Short videos about the topics will be showed in lectures.</p> <p>Final submission will be a power point presentation or a poster presentation. Detailed research on the selected context (permaculture, sustainable food, walkable city, environmental artists, science fiction and nature, rain gardens, xeriscaping, guerilla gardening, garden cities, bio-politics etc.)</p>
Homework and Projects	9 Assignments and 1 Power Point Presentation \ Poster Presentation
Laboratory Work	-
Computer Use	Yes
Other Activities	Watching Short Videos
Assessment Methods	<ol style="list-style-type: none"> 1. Performance in studio: 40 points 2. Submissions: 30 points 3. Final Submission and presentation: 30 points (stands for final examination)
Course Administration	<p>Office: Esra Sert Email: serte@mef.edu.tr</p> <p>Student participation will be essential for the studio. Attending both submissions including the Final Submission and Presentation are crucial elements in the final grade. Late submissions will not be accepted.</p> <p>80% attendance is compulsory for a successful outcome. Academic Dishonesty and Plagiarism: YÖK Disciplinary Regulation.</p>

Activity	Weeks per Semester (A)	Hours			Calculation	Explanation
		Allocated for the Activity (B)	Spent on the Activity Itself (C)	Remaining for the Activity (D)		
Lecture	14	1	2		42	A*(B+C+D)
Lab etc.					0	
Midterm(s)					0	A*(B+C+D)
Project, Presentation	9	5	1	2	72	A*(B+C+D)
Final Assignment	1	8	3		11	A*(B+C+D)
Total Workload					125	
Workload/25					5	
ECTS					5	