

ENERGY EFFICIENT AND ECOLOGICAL ARCHITECTURE

2023/2024. 2. SEMESTER

BASIC INFORMATION		
COURSE NAME	Energiahatékony és ökológiai építészet	Energy Efficient and Ecological Architecture
COURSE CODE(S)	YAWEEEAMNF	
DEPARTMENT	Óbuda University, Ybl Miklós Faculty of Architecture, Institute of Architecture	
PROGRAMME, TRAINING	Architect MSc	full time
COURSE INSTRUCTOR (Instructor managing the course)	Dr. Sugár Viktória PhD	sugar.viktoria@ybl.uni-obuda.hu
INSTRUCTORS, LECTURERS	Ian Chaplin, practicing expert	chaplin.ian@ybl.uni-obuda.hu
PRE-REQUIREMENT	none	
HOURS OF LECTURES (WEEKLY)	2 hours	
HOURS OF CLASSROOM TRAINING/ LABORATORY TRAINING (WEEKLY)	none	
FIELD WORK AND TRAINING (WEEKLY)	none	
ASSIGNMENT	Midterm presentation, Final Presentation, Final document and Exam.	
CREDITS	2 credits (ECTS)	
AIM OF THE COURSE, BRIEF DESCRIPTION	The aim of the course is to introduce students to academic, cultural and practical understandings on how sustainability relates to forms of habitation, society and the architectural practice. This approach provides a broad spectrum of perspectives with which the students can familiarize themselves with the idea of ecology and energy in order to develop a personal position in the discourse.	
RECOMMENDED LITERATURE AND OTHER RESOURCES	<p> https://www.climatewatchdata.org/ https://sdgs.un.org/goals Living planet report https://www.stockholmresilience.org/ https://www.globalforestwatch.org/ https://www.wri.org/ https://inequalitylab.world/en/ https://freedomhouse.org/ </p> <p> Olgyay, V. and Olgyay, A. (2015) <i>Design with climate: Bioclimatic approach to architectural regionalism</i>. Princeton: Princeton University Press. Reinhart, C.F. (2020) <i>Daylighting handbook</i>. Cambridge, MA: Building Technology Press. Lengen, J.van (2011) <i>The barefoot architect: A handbook for green building</i>. Bolinas,, CA: Shelter Publications. Jacobs, J. (1992) <i>The death and life of great american cities: Orig. publ. 1961</i>. New York: Vintage Books. Richarz, C.C. (2013) <i>Energy efficiency refurbishments: Principles, details, case studies</i>. Munich: Walter de Gruyter. </p> <p>*Most books are part of the library collection</p>	
REQUIRED TECHNICAL APPLIANCES/ SOFTWARE	Sketchbook	

SCHEDULE OF THE SEMESTER		
WEEK	LECTURE	FORM OF TRAINING
1. 12 February	Problems on Earth	Lecture+challenge
2. 19 February	Light and Glass	Lecture+challenge
3. 26 February	The Modern Architect	Lecture+challenge
4. 04 March	Warmth and Insulation	Lecture+challenge
5. 11 March	Urban Renewal	Lecture+challenge
6. 18 March	-	<u>Midterm Presentations</u>
7. 25 March	Trees and Timber	Lecture+challenge
8. 08 April	Animal Builders	Lecture+challenge
9. 15 April	Energy Production	Lecture+challenge
10. 22 April	Occupancy Evaluation	Lecture+challenge
11. 29 April	Progress in Architecture	Lecture+challenge
11. 06 May Before 9 AM	<u>Final Document submission deadline (digital submission: chaplin.ian@ybl.uni-obuda.hu)</u>	
11. 06 May	-	<u>Final Presentations</u>
12. 13 May Before 9 AM	<i>Delayed submission deadline (digital submission: chaplin.ian@ybl.uni-obuda.hu)</i>	
12. 13 May	Beyond good and evil	Inequality Workshop

REQUIREMENTS FOR THE COMPLETION OF THE SEMESTER		
MID-SEMESTER TASKS AND TESTS		
Requirement	Description	Value (point, %, grade)
PARTICIPATION AT LESSONS	<p>Attendance will be checked at the start of the class, being late will count as being absent. Missing any class will have a negative impact on your grade (minus 2 points per missed class) unless provided with a medical certificate. [These can be provided through an e-mail to the lecturer.]</p> <p>The practice lessons can be missed up to three times (see § 46 ETVSZ) Missing more than three classes will automatically result in failing the course. This includes absence for a medical reason.</p> <p>During the lessons the use of laptops is prohibited, unless mentioned otherwise.</p>	-
IN CASE OF ABSENCE FROM LESSONS AND EXAMINATIONS	<p>Please note that the individual lectures will not be shared online, this means that in case of absence it is advised to ask somebody to make notes for you in your stead.</p> <p>Although the lectures provide support, the weekly challenges are manageable without them. As such they remain obligatory for the final document. The challenges will be shared separately.</p>	-
FINAL DOCUMENT SUBMISSION + PROBLEMS ON EARTH PRESENTATION + BUILDING FOR ANIMALS	<p><u>FINAL DOCUMENT SUBMISSION</u></p> <p>Description:</p> <ul style="list-style-type: none"> - A single A4 pdf document per fixed group of two, which showcases the personal products resulting from the weekly challenges. <p>Requirements:</p> <ul style="list-style-type: none"> - All challenges should be included - If something was not produced by a group member, it should be clearly mentioned. - It should follow the format as communicated by the lecturer - Max 50mb <p>Comment:</p> <ul style="list-style-type: none"> - in the case of a delayed submission 10 points will be deducted <p><u>PROBLEMS ON EARTH PRESENTATION</u></p> <p>Description:</p> <ul style="list-style-type: none"> - A 5 min A3 pdf based presentation per fixed group of two, which showcases a personal position on one of the problems that the earth has at the moment. <p>Requirements:</p> <ul style="list-style-type: none"> - It should include some speculations on what changes would help improve the current condition. - The presentation should refer to some form of larger entity, research or reliable news outlet. - The presentation should be submitted to the lecturer - Max 50mb <p style="text-align: center;"><i>Continuous on the next page -></i></p>	100 points

	<p><u>BUILDING FOR ANIMALS PRESENTATION</u></p> <p>Description:</p> <ul style="list-style-type: none"> - A 5 min A3 pdf based presentation per fixed group of two, which showcases a design that directly or indirectly improves the living conditions of an animal chosen by the group <p>Requirements:</p> <ul style="list-style-type: none"> - It should introduce the problematic conditions of the animal or the living conditions that affect a specific group of animals. - It should speculate on which changes could improve the living conditions of that or those animal(s) - The presentation should refer to some form of larger entity, research or reliable news outlet. - The presentation should be submitted to the lecturer - Max 50mb 	
EXAM	A 90-minute written test. Unless exempted on the basis of having been offered and accepting a grade.	30 points
TOTAL		130 points

SEMESTER CLOSING REQUIREMENTS					
CONDITIONS FOR OBTAINING A SIGNATURE	<ul style="list-style-type: none"> - Digital submission of a complete final document in time - Having successfully completed the 2 presentations. - A minimum of 60 points after deduction. 				
SIGNATURE REPLACEMENT REQUIREMENTS	If all other requirements are met, but the total number of points are below a passable level (0-59), it is possible to apply for a signature replacement. This means that all challenges were performed and included and the presentations did take place!				
SEMESTER GRADE	0-59 Point	60-69	70-79	80-89	90-100
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT
CONDITIONS FOR OBTAINING AN OFFERED GRADE	At least 70 points				
CONDITIONS FOR ADMISSION TO THE EXAM	During the exam period, the student has to register for the exam in the Neptun.				
EXAM GRADE	The final grade will be the sum of the semester grade and the exam				
	0-77 Point	78-90	91-103	104-116	117-130
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT