

SYLLABUS ¹

1. Information about the program

1.1 Higher education institution	Politehnica University Timișoara
1.2 Faculty ² / Department ³	Civil engineering / CMMC
1.3 Chair	—
1.4 Field of study (name/code ⁴)	Inginerie civilă și instalații (Civil engineering and building services) / 10
1.5 Study cycle	Master
1.6 Study program (name/code/qualification)	Inginerie civilă (Civil engineering)/ 80 /Diplomă de master (Master degree)

2. Information about discipline

2.1 Name of discipline/The educational classe ⁵	Life Cycle Analysis for Building Structures						
2.2 Coordinator (holder) of course activities	Prof.dr.ing. Daniel Grecea						
2.3 Coordinator (holder) of applied activities ⁶	As.dr.ing. Silvia Hernea						
2.4 Year of study ⁷	1	2.5 Semester	1	2.6 Type of evaluation	E	2.7 Type of discipline ⁸	DS

3. Total estimated time (direct activities (fully assisted), partially assisted activities and unassisted activities⁹)

3.1 Number of hours fully assisted/week	5 ,of which:	3.2 course	3	3.3 seminar/laboratory/project			2
3.1* Total number of hours fully assisted/sem.	70 ,of which:	3.2* course	42	3.3* seminar/laboratory/project			28
3.4 Number of hours partially assisted/week	0 ,of which:	3.5 project, research	0	3.6 training	0	3.7 hours designing M.A. dizertation	0
3.4* Number of hours pasrtially assisted/ semester	0 ,of which:	3.5* project of research	0	3.6* training	0	3.7* hours designing M.A. dizertation	0
3.8 Number of hours of unassisted activities/ week	2 ,of which:	Additional documentation in the library, on specialized electronic platforms, and on the field					0.5
		Study using a manual, course materials, bibliography and lecture notes					0.5
		Preparation of seminars/ laboratories, homework, assignments, portfolios, and essays					1.0
3.8* Total number of hours of unasssited asctivities/ semester	28 ,of which:	Additional documentation in the library, on specialized electronic platforms, and on the field					7
		Study using a manual, course materials, bibliography and lecture notes					7
		Preparation of seminars/ laboratories, homework, assignments, portfolios, and essays					14
3.9 Total hrs./week¹⁰	7						
3.9* Total hrs./semester	98						
3.10 No. of credits	8						

4. Prerequisites (where applicable)

4.1 Curriculum	• Not applicable
-----------------------	------------------

¹ The form corresponds to the Syllabus promoted by OMECTS 5703/18.12.2011 (Annex 3), updated based on the Specific Standards ARACIS of December 2016.

² The name of the faculty which manages the educational curriculum to which the discipline belongs

³ The name of the department entrusted with the discipline, and to which the course coordinator/holder belongs.

⁴ Fill in the code provided in HG no. 376/18.05.2016 or in HG similars annually updated.

⁵ The educational classes of subjects (ARACIS – specific standards, art./paragraph 4.1.2.a) are: fundamental subjects, field subjects, majoring/specialization subjects.

⁶ The applied activities refer to: seminar (S) / laboratory (L) / project (P) / practice/training (Pr).

⁷ The year of study to which the discipline is provided in the curriculum .

⁸ The types of subjects (ARACIS – specific standards, art./paragraph 4.1.2.a) are: extended knowledge subject / advanced knowledge subject and synthetic subject (DA / DCAV and DS).

⁹ Within UPT, the number of hours from 3.1*, 3.2*,...,3.9* are obtained by multiplying by 14 (weeks) the number of hours from 3.1, 3.2,..., 3.9.

¹⁰ The total number of hours/week is obtained by summing up the number of hours from 3.1, 3.4 și 3.8.

- Operation with scientific and engineering fundamentals

5. Conditions (where applicable)

- Computer room

6. Specific competencies acquired through this discipline

- **Communication skills and networking:** capacity development of oral and written communication, respectively, the proper use of specific terms;
- **Skills for personal and professional development:** to develop the capacity for learning, improving management skills working with building components in order to obtain a maximum construction energetic efficiency.

7. Objectives of the discipline (based on the grid of specific competencies acquired)

- To introduce new notions such as sustainability, sustainable development, life cycle analysis, etc.

8. Content

Oral exposure and interrogation, lecture, explanation, demonstration (by effective action, with the help of graphic materials, with the aid of 3D models using real objects), problems, case studies.

Bibliography¹¹

C. Neme, M. Gottstein & B. Hamilton, *Residential efficiency retrofits: a roadmap for the future*, EU, 2011

C.J. Kibert, Policy instruments for sustainable built environment, *Journal of Land Use and Environmental Law*, Vol. 17, Issue 2, 2002

M. Economidou & all., *Europe's buildings under the microscope – A country-by-country review of the energy performance of buildings*, BPIE, 2011

D. Sandu & all., *Viata sociala in Romania urbana (Urban social life in Romania)*, Polirom, 2006

INSSE – Institutul National de Statistica. *Recensamantul populatiei si al locuintelor (Population and Housing Census)* – 18 martie 2002, vol.3, table 6, www.insse.ro, 2003

EN 15643–1:2010 Standard, Sustainability Assessment of Buildings - General Framework

ISO 21929-1:2011 Standard, Sustainability in building construction - Sustainability indicators - Part 1: Framework for the development of indicators and a core set of indicators for buildings

8.2 Applied activities¹²

	Number of hours	Teaching methods
Analysis of environmental impact for a house: Indicator: consumption of CO2 equivalent. The impact is detailed for the construction phase and the use phase	28	Problems, explanations, case studies carried out independently

Bibliography¹³

EN 15643–1:2010 Standard, Sustainability Assessment of Buildings - General Framework

ISO 21929-1:2011 Standard, Sustainability in building construction - Sustainability indicators - Part 1: Framework for the development of indicators and a core set of indicators for buildings

9. Corroboration of the content of the discipline with the expectations of the main representatives of the epistemic community, professional associations and employers in the field afferent to the program

- The content of the course and the seminar was established in the board of specialization in line with the expectations of the representatives of the epistemic community, professional associations and representative employers in the field related to the program.

10. Evaluation

Type of activity	10.1 Evaluation criteria ¹⁴	10.2 Evaluation methods	10.3 Share of the final grade
10.4 Course	2-3 exam subjects with theoretical character	Written examination	0.5
10.5 Applied activities	S: Problems with applicable character	Verification tests during the semester	0.5
	L:		

¹¹ At least one title must belong to the department staff teaching the discipline, and at least one title must refer to a relevant work for the discipline, a national and international work that can be found in the UPT Library.

¹² The types of applied activities are those mentioned in 5. If the discipline contains more types of applied activities then they are marked, consecutively, in the table below. The type of activity will be marked distinctively under the form: „Seminar:”, „Laboratory:”, „Project:” and/or „Practice/Training:”.

¹³ At least one title must belong to the staff teaching the discipline.

¹⁴ The Syllabus must contain the evaluation method of the discipline, specifying the criteria, the methods and the forms of evaluation, as well as mentioning the share attached to these within the final mark. The evaluation criteria must correspond to all activities stipulated in the curriculum (course, seminar, laboratory, project), as well as to the methods of continuous assessment (homework, essays etc.)

	P:		
	Pr:		
	Tc-R¹⁵:		
10.6 Minimum performance standard (minimum amount of knowledge necessary to pass the discipline and the way in which this knowledge is verified ¹⁶)			
•			

Date of completion

01.10.2018

**Course coordinator
(signature)**

.....

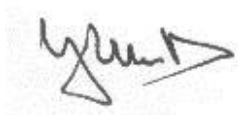
**Coordinator of applied activities
(signature)**

.....

**Head of Department
(signature)**

.....

**Date of approval in the Faculty
Council ¹⁷**



**Dean
(signature)**

.....

¹⁵ Tc-R= Homework-Reports

¹⁶ For this point turn to "Ghid de completare a Fișei disciplinei" found at: http://univagora.ro/m/filer_public/2012/10/21/ghid_de_completare_fisa_disciplinei.pdf

¹⁷ The approval is preceded by discussing the study program's board's point of view with redgards to the syllabus.