

SYLLABUS

1. Data about the program of study

1.1	Institution	The Technical University of Cluj-Napoca
1.2	Faculty	Faculty of Civil Engineering
1.3	Department	Buildings and Management
1.4	Field of study	Civil Engineering
1.5	Cycle of study	Bachelor of Science
1.6	Program of study/Qualification	Civil, Industrial and Agricultural Buildings /Engineer (English language)
1.7	Form of education	Full time
1.8	Subject code	42.0

2. Data about the subject

2.1	Subject name				Instalatii pentru constructii						
2.2	Course responsible/lecturer				Sl.Dr.Ing. Babota Florin-Florin.Babota@ccm.utcluj.ro						
2.3	Teachers in charge of seminars				Sl.Dr.Ing. Babota Florin-Florin.Babota@ccm.utcluj.ro						
2.4	Year of study	3	2.5	Semester	1	2.6	Assessment	C	2.7	Subject category	DID/DI

3. Estimated total time

3.1 Number of hours per week	2	3.2 of which, course:	2	3.3 applications:	
3.4 Total hours in the curriculum	28	3.5 of which, course:	28	3.6 applications:	
Individual study					hours
Manual, lecture material and notes, bibliography					12
Supplementary study in the library, online and in the field					8
Preparation for seminars/laboratory works, homework, reports, portfolios, essays					0
Tutoring					0
Exams and tests					2
Other activities					0
3.7	Total hours of individual study	22			
3.8	Total hours per semester	50			
3.9	Number of credit points	2			

4. Pre-requisites (where appropriate)

4.1	Curriculum	Curriculum
4.2	Competence	Competence

5. Requirements (where appropriate)

5.1	For the course	For the course
5.2	For the applications	For the applications

6. Specific competences

Professional competences	<ul style="list-style-type: none"> -To know the categories and types of building services -To know the equipment and materials in building services -To know the functioning schemes of various types of building services equipment.
Cross competences	<ul style="list-style-type: none"> -Be able to make the connection between resistance elements of the building and related facilities building. -Be able to work together with building services engineers

7. Discipline objectives (as results from the *key competences gained*)

7.1	General objective	General objective
7.2	Specific objectives	Specific objectives

8. Contents

8.1. Lecture (syllabus)	Teaching methods	Notes
01. Presentation of the discipline. Introductory notions.	-	-
02. Pipes and fittings used in building services – part 1		
03. Pipes and fittings used in building services – part 2		
04. Exterior electrical installations		
05. Indoor electrical installations		
06. Exterior sanitary installations		
07. Interior sanitary installations		
08. Exterior gas installations		
09. Indoor gas installations		
10. Thermal installations		
11. Ventilation and air conditioning installations		
12. Non-conventional installations. Renewable energy sources		
13. Maintenance of building services		
14. Examination		
Bibliography		
Bibliography		
Horea Dan – Instalații pentru construcții		
Pop Florin – Curs instalații electrice		
NTE 007/08/00 – Normativ pentru proiectarea și executarea rețelelor de cabluri electrice		
NP 133–2013 – Normativ privind proiectarea, execuția și exploatarea sistemelor de alimentare cu apă și canalizare a localităților		
NP 133/2-2013 – Normativ privind proiectarea, execuția și exploatarea sistemelor de alimentare cu apă și canalizare a localităților. Partea a II-a: Sisteme de canalizare a localităților		
NTPEE-2018 – Norme tehnice pentru proiectarea, executarea și exploatarea sistemelor de alimentare cu gaze naturale		
I5-2010 – Normativ proiectarea, executarea, exploatarea instalațiilor de ventilare și climatizare		
I7-2011 – Normativ pentru proiectarea, execuția și exploatarea instalațiilor electrice aferente clădirilor		
I9-2018 – Normativ privind proiectarea, execuția și exploatarea instalațiilor sanitare aferente clădirilor		
I13-2015 - Normativ privind proiectarea, executarea și exploatarea instalațiilor de incalzire centrala		

8.2. Applications/Seminars	Teaching methods	Notes
	-	-
11. Ventilation and air conditioning installations		
Bibliography		

9. Bridging course contents with the expectations of the representatives of the community, professional associations and employers in the field

Using industry-specific regulations , legislation on the works of execution and operation , professional software products , developed and competition Building Services Engineers Association in Romania

10. Evaluation

Activity type	10.1 Assessment criteria	10.2 Assessment methods	10.3 Weight in the final grade
10.4 Course	Knowing the content of training materials	Written test (onsite/online)	Written test (onsite/online)
10.5 Applications			
10.6 Minimum standard of performance			

Date of filling in:		Title Surname Name	Signature
	Lecturer	Sl.Dr.Ing. Babota Florin	
	Teachers in charge of application	Sl.Dr.Ing. Babota Florin	

Date of approval in the department

20/06/2025

Head of department
conf.dr.ing. Caludiu ACIU

Date of approval in the faculty

25/06/2025

Dean
prof.dr.ing Daniela MANEA