

UNIVERSITATEA TEHNICA CLUJ-NAPOCA

FACULTATE FACULTATEA DE INGINERIE A INSTALATIILOR

DOMENIU INGINERIE CIVILA SI INSTALATII

SPECIALIZARE INSTALATII PENTRU ORASE REGENERATIVE (IN LIMBA ENGLEZA)

Nivel de studii MASTER (PROFESIONAL)

PLAN DE INVATAMANT PENTRU PROMOTIA CARE INCEPE CU ANUL UNIVERSITAR 2025-2026

Listat la : 26/02/2025
Anexa nr. 12 la
Ședința nr. 172 din
data 29.05.2025
Pag. 1

CODUL SI DENUMIREA DISCIPLINEI	Anul : I										Forma de verificare			Nr.ore/disciplina				Credite/sem		Disciplina	
	SEM 1 14 sapt					SEM 2 14 sapt					E C V			Total C Apl St. ind				1 2		cat tip	
	C	S	L	P	Pr/Ce	C	S	L	P	Pr/Ce											
1.00 Instalatii avansate pentru constructii - Incalzire,Ventilare,AerConditionat si Distributia Apei	2	0	0	2	0						Nota			125	28	28	69	5.0		DA	DI
2.00 Iluminat centrat pe om	1	0	0	1	0						Nota			75	14	14	47	3.0		DA	DI
3.00 Proiectare si fabricatie digitala	1	0	1	0	0						Nota			75	14	14	47	3.0		DA	DI
4.00 Arhitectura avansata	1	0	1	0	0						Nota			75	14	14	47	3.0		DC	DI
5.00 Cladiri nZeB	1	0	0	1	0						Nota			75	14	14	47	3.0		DA	DI
6.00 Economie circulara	1	0	1	0	0						Nota			75	14	14	47	3.0		DS	DI
7.00 Practica profesionala 1	0	0	0	0	14						Nota			250	0	196	54	10.0		DS	DI
8.00 Evaluarea cladirilor si oraselor						1	0	0	2	0	Nota			100	14	28	58	4.0		DS	DI
9.00 Calitatea mediului interior si starea de bine						2	0	1	0	0	Nota			100	28	14	58	4.0		DS	DI
10.00 Solutii de modernizare a instalatiilor						1	0	0	2	0	Nota			100	14	28	58	4.0		DA	DI
11.00 Analiza energetica a unei cladiri / oras						1	0	1	0	0	Nota			75	14	14	47	3.0		DS	DI
12.00 Analiza ciclului de viata						2	0	0	1	0	Nota			100	28	14	58	4.0		DS	DI
13.00 Etica si integritate academica						1	0	0	0	0	Nota			50	14	0	36	2.0		DC	DI
14.00 Practica profesionala 2						0	0	0	0	13	Nota			225	0	182	43	9.0		DS	DI
TOTAL AN	7	0	3	4	14	8	0	2	5	13	sem1 4 2 1			1500	210	574	716	30.0	30.0		
					14.00					15.00	sem2 4 2 1										
201.00 Psihopedagogia adolescentilor, tinerilor si adultilor	2	1	0	0	0						Nota			125	28	14	83	5.0		DC	DFac
301.00 Voluntariat 1	0	1	0	0	0						A/R			50	0	14	36	2.0		DC	DFac
202.00 Proiectarea si managementul programelor educationale						2	1	0	0	0	Nota			125	28	14	83	5.0		DC	DFac
203.10 Comunicare educationala						1	2	0	0	0	Nota			125	14	28	83	5.0		DC	DFac
203.20 Metodologia cercetarii educationale						1	2	0	0	0	Nota			125	14	28	83	5.0		DC	DFac
203.30 Orientari moderne in teoria si practica evaluarii						1	2	0	0	0	Nota			125	14	28	83	5.0		DC	DFac
302.00 Voluntariat 2						0	1	0	0	0	A/R			50	0	14	36	2.0		DC	DFac
TOTAL AN	2	2	0	0	0	3	4	0	0	0	sem1 1 0 1			475	70	84	321	7.0	12.0		
					4.00					7.00	sem2 2 0 1										



Rector,
Prof. Dr. Ing. Vasile Topa

Decan,
Conf. dr. ing. Florin Vasile Domnita

Director departament,
Conf. dr. ing. Ciprian Valentin Bacotiu

EXEMPLAR UNIC

Originalul se află la PROCTORATUL DIDACTIC

Data: 10.04.2025 VAR-0

Semnătura: _____

UNIVERSITATEA TEHNICA CLUJ-NAPOCA

FACULTATE FACULTATEA DE INGINERIE A INSTALATIILOR

DOMENIU INGINERIE CIVILA SI INSTALATII

SPECIALIZARE INSTALATII PENTRU ORASE REGENERATIVE (IN LIMBA ENGLEZA)

Nivel de studii MASTER (PROFESIONAL)

PLAN DE INVATAMANT PENTRU PROMOTIA CARE INCEPE CU ANUL UNIVERSITAR 2024-2025

Listat la : 13/02/2024

Anexa nr. 11 la

Sedința nr. 161 din

23.05.2024

CODUL SI DENUMIREA DISCIPLINEI	Anul : II										Forma de verificare	Nr.ore/disciplina				Credite/sem		Disciplina	
	SEM 1 14 sapt					SEM 2 14 sapt						Total	C	Apl	St. Ind	1	2	cat	tip
	C	S	L	P	Pr/Ce	C	S	L	P	Pr/Ce									
15.00 Managementul retelelor urbane	2	0	2	0	0						Nota	125	28	28	69	5.0		DA	DI
16.00 Instrumente si programe de management energetic pentru orase regenerative	1	0	0	1	0						Nota	75	14	14	47	3.0		DS	DI
17.00 Abilitati de comunicare	1	0	1	0	0						Nota	75	14	14	47	3.0		DC	DI
18.00 Surse de energie regenerabila	1	0	1	0	0						Nota	75	14	14	47	3.0		DA	DI
19.10 Infrastructura electrica urbana	1	0	1	0	0						Nota	75	14	14	47	3.0		DA	DO
19.20 Sisteme de control pentru cladiri si orase inteligente	1	0	1	0	0						Nota	75	14	14	47	3.0		DA	DO
20.10 Managementul proiectelor	1	0	1	0	0						Nota	75	14	14	47	3.0		DS	DO
20.20 Politici locale, nationale si europene	1	0	1	0	0						Nota	75	14	14	47	3.0		DS	DO
21.00 Practica profesionala 3	0	0	0	0	14						Nota	250	0	196	54	10.0		DS	DI
22.00 Practica profesionala 4						0	0	0	0	14	A/R	250	0	196	54	10.0		DS	DI
23.00 Elaborare lucrare de disertatie						0	0	0	7	0	A/R	250	0	98	152	10.0		DS	DI
24.00 Practica pentru elaborarea disertatiei						0	0	0	0	7	A/R	250	0	98	152	10.0		DS	DI
25.00 Sustinere lucrare de disertatie						0	0	0	0	0	Nota	0	0	0	0	10.0		DS	DI
TOTAL AN	7	0	6	1	14	0	0	0	7	14	sem1 4 2 1 sem2 0 0 3	1500	98	686	716	30.0 30.0 + 10			

204.00 Didactica domeniului si dezvoltari in didactica specializarii (invatamant liceal, postliceal, dupa caz)	2	1	0	0	0						Nota	125	28	14	83	5.0		DC	DFac
205.10 Managementul organizatiei scolare	1	2	0	0	0						Nota	125	14	28	83	5.0		DC	DFac
205.20 Educatie metacognitiva	1	2	0	0	0						Nota	125	14	28	83	5.0		DC	DFac
205.30 Educatie interculturala	1	2	0	0	0						Nota	125	14	28	83	5.0		DC	DFac
303.00 Voluntariat 3	0	1	0	0	0						A/R	50	0	14	36	2.0		DC	DFac
206.00 Practica pedagogica de specialitate in invatamantul preuniversitar (invatamant liceal, postliceal, dupa caz)						0	0	0	0	3	Nota	125	0	42	83	5.0		DC	DFac
207.00 Examen de absolvire: nivelul II						0	0	0	0	0	Nota	125	0	0	125	5.0		DC	DFac
304.00 Voluntariat 4						0	1	0	0	0	A/R	50	0	14	36	2.0		DC	DFac

Rector,
Prof.Dr.Ing.Vasile TopaDecan,
Conf. dr. ing. Florin Vasile DomnitaDirector departament,
Conf. dr. ing. Carmen Marza**EXEMPLAR UNIC**

Originalul se află la PROCTORATUL DIDACTIC

Data: 09.04.2024 - VAR.0

Semnătura: _____

UNIVERSITATEA TEHNICA CLUJ-NAPOCA

FACULTATE FACULTATEA DE INGINERIE A INSTALATIILOR

Listat la : 13/02/2024

DOMENIU INGINERIE CIVILA SI INSTALATII

SPECIALIZARE INSTALATII PENTRU ORASE REGENERATIVE (IN LIMBA ENGLEZA)

Nivel de studii MASTER (PROFESIONAL)

PLAN DE INVATAMANT PENTRU PROMOTIA CARE INCEPE CU ANUL UNIVERSITAR 2024-2025

Pag. 4

TOTAL AN	3	4	0	0	0	0	1	0	0	3	sem1	2	0	1	600	42	112	446	12.0	7.0	
				7.00					1.00		sem2	0	1	1						+ 5	

Rector,
Prof.Dr.Ing.Vasile Topa

Decan,
Conf. dr. ing. Florin Vasile Doprinita

Director departament,
Conf. dr. ing. Carmen Marza

EXEMPLAR UNIC

Originalul se află la PRORECTORATUL DIDACTIC

Data: 09.04.2024 - VAR. 0

Semnătura: _____

TECHNICAL UNIVERSITY of CLUJ-NAPOCA
FACULTY OF BUILDING SERVICES ENGINEERING

Domain CIVIL AND BUILDING SERVICES ENGINEERING

Program Name BUILDING SERVICES FOR REGENERATIVE CITIES (IN ENGLISH LANGUAGE)

Study Level PROFESSIONAL MASTERS

CURRICULA

Valid for the Academic Year

2025-2026

Listat la : 26.02.2025

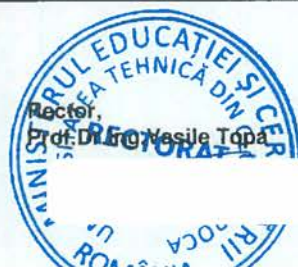
Sedinta nr. 172

data 29.05.2025

Pag. 1

COURSE CODE AND TITLE		Year I										Methods of Assessment			Nr.of Hours/Discipline				ECTS/Sem		Discipline	
		SEM 1 14 weeks					SEM 2 14 weeks					E	C	V	Total	C	Apl	Indiv. St.	1	2	cat	type
		C	S	L	P	Pr/Ce	C	S	L	P	Pr/Ce											
1.00	Advanced Building Services - HVAC and Water Distribution	2	0	0	2	0						Gr		125	28	28	69	5.0		DA	DI	
2.00	Human Centric Lighting	1	0	0	1	0						Gr		75	14	14	47	3.0		DA	DI	
3.00	Digital Design and Fabrication	1	0	1	0	0						Gr		75	14	14	47	3.0		DA	DI	
4.00	Advanced Architecture	1	0	1	0	0						Gr		75	14	14	47	3.0		DC	DI	
5.00	nZeB buildings	1	0	0	1	0						Gr		75	14	14	47	3.0		DA	DI	
6.00	Circular Economy	1	0	1	0	0						Gr		75	14	14	47	3.0		DS	DI	
7.00	Professional Practice 1	0	0	0	0	14						Gr		250	0	196	54	10.0		DS	DI	
8.00	Building and City Assessment						1	0	0	2	0	Gr		100	14	28	58		4.0	DS	DI	
9.00	Indoor Environment Quality and Well-being						2	0	1	0	0	Gr		100	28	14	58		4.0	DS	DI	
10.00	Building Services Retrofit Solutions						1	0	0	2	0	Gr		100	14	28	58		4.0	DA	DI	
11.00	Energy Analysis of a Building / City						1	0	1	0	0	Gr		75	14	14	47		3.0	DS	DI	
12.00	Lifecycle Analysis						2	0	0	1	0	Gr		100	28	14	58		4.0	DS	DI	
13.00	Ethics and Academic Integrity						1	0	0	0	0	Gr		50	14	0	36		2.0	DC	DI	
14.00	Professional practice 2						0	0	0	0	13	Gr		225	0	182	43		9.0	DS	DI	
TOTAL AN		7	0	3	4	14	8	0	2	5	13	sem1	4	2	1	1500	210	574	716	30.0	30.0	
					14.00					15.00		sem2	4	2	1							

201.00 Psychopedagogy of Adolescents, Youngs and Adults	2	1	0	0	0						Gr			125	28	14	83	5.0		DC	DFac
301.00 Volunteering 1	0	1	0	0	0						A/R			50	0	14	36	2.0		DC	DFac
202.00 Design and Management of Educational Programs						2	1	0	0	0	Gr			125	28	14	83		5.0	DC	DFac
203.10 Educational Communication						1	2	0	0	0	Gr			125	14	28	83		5.0	DC	DFac
203.20 Educational Research Methodology						1	2	0	0	0	Gr			125	14	28	83		5.0	DC	DFac
203.30 Modern Trends in Assesment Theory and Practice						1	2	0	0	0	Gr			125	14	28	83		5.0	DC	DFac
302.00 Volunteering 2						0	1	0	0	0	A/R			50	0	14	36		2.0	DC	DFac



Rector,
Prof. dr. ing. Vasile Topa

Dean,
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Department Director,
Conf. dr. ing. Ciprian Valentin Bacotiu

EXEMPLAR UNIC

Originalul se află la PRORECTORATUL DIDACTIC

Data: 10.04.2025 VAR. 0

Semnătura: _____

Domain CIVIL AND BUILDING SERVICES ENGINEERING

Program Name BUILDING SERVICES FOR REGENERATIVE CITIES (IN ENGLISH LANGUAGE)

Study Level PROFESSIONAL MASTERS

CURRICULA

Valid for the Academic Year

2025-2026

Pag. 2

TOTAL AN	2	2	0	0	0	3	4	0	0	0	sem1	1	0	1	475	70	84	321	7.0	12.0	
				4.00					7.00		sem2	2	0	1							



Rector,
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Dean,
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Department Director,
Conf. dr. ing. Ciprian Valentin Bacotiu

EXEMPLAR UNIC
Originalul se află la PRORECTORATUL DIDACTIC
Data: 10.04.2025 VAR.0
Semnătura: _____

Domain

Program Name BUILDING SERVICES FOR REGENERATIVE CITIES (IN ENGLISH LANGUAGE)

Study Level PROFSSIONAL MASTERS

CURRICULA

Valid for the Academic Year

2024-2025

Listat la : 13/02/2024 11
Anexa nr. la
Sedinta nr. 161 din
data 23.05.2024
Pag. 3

COURSE CODE AND TITLE	Year II										Methods of Assessment	Nr.of Hours/Discipline				ECTS/Sem		Discipline				
	SEM 1 14 weeks					SEM 2 14 weeks						E	C	V	Total	C	Apl	Indiv. St.	1	2	cat	type
	C	S	L	P	Pr/Ce	C	S	L	P	Pr/Ce												
15.00 Urban Network Management	2	0	2	0	0						Gr		125	28	28	69		5.0		DA	DI	
16.00 Energy Management tools and Programs for Regenerative Cities	1	0	0	1	0						Gr		75	14	14	47		3.0		DS	DI	
17.00 Communication Skills	1	0	1	0	0						Gr		75	14	14	47		3.0		DC	DI	
18.00 Renewable Energy Sources	1	0	1	0	0						Gr		75	14	14	47		3.0		DA	DI	
19.10 Urban Electric Infrastructure	1	0	1	0	0						Gr		75	14	14	47		3.0		DA	DO	
19.20 Control Systems for Smart Homes and Cities	1	0	1	0	0						Gr		75	14	14	47		3.0		DA	DO	
20.10 Project Management	1	0	1	0	0						Gr		75	14	14	47		3.0		DS	DO	
20.20 Local, National and European Policies	1	0	1	0	0						Gr		75	14	14	47		3.0		DS	DO	
21.00 Professional practice 3	0	0	0	0	14						Gr		250	0	196	54		10.0		DS	DI	
22.00 Professional Practice 4						0	0	0	0	14		A/R	250	0	196	54		10.0		DS	DI	
23.00 Dissertation Project Work						0	0	0	7	0		A/R	250	0	98	152		10.0		DS	DI	
24.00 Practice for Dissertation						0	0	0	0	7		A/R	250	0	98	152		10.0		DS	DI	
25.00 Presentation of Dissertation						0	0	0	0	0		Gr	0	0	0	0		10.0		DS	DI	
TOTAL AN	7	0	6	1	14	0	0	0	7	14	sem1	4	2	1	1500	98	686	716	30.0	30.0		
				14.00					14.00		sem2	0	0	3					+ 10			

204.00 Didactics of the Field and Development in Didactics Specialties (High School and Post High School Education)	2	1	0	0	0						Gr			125	28	14	83	5.0		DC	DFac
205.10 School Organization Management	1	2	0	0	0						Gr			125	14	28	83	5.0		DC	DFac
205.20 Metacognitive Education	1	2	0	0	0						Gr			125	14	28	83	5.0		DC	DFac
205.30 Intercultural Education	1	2	0	0	0						Gr			125	14	28	83	5.0		DC	DFac
303.00 Volunteering 3	0	1	0	0	0						A/R			50	0	14	36	2.0		DC	DFac
206.00 Teaching Practice (in Secondary School and Tertiary Education)						0	0	0	0	3	Gr			125	0	42	83	5.0		DC	DFac
207.00 Graduation exam - Level II						0	0	0	0	0	Gr			125	0	0	125	5.0		DC	DFac

Rector,
Prof.Dr.Ing.Vasile Topa

Dean,
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Department Director,
Conf. dr. ing. Carmen Marza

EXEMPLAR UNIC

Originalul se află la PRORECTORATUL DIDACTIC

Data: 09.04.2024 - VAR. 0

Semnătura: _____

Domain

Program Name BUILDING SERVICES FOR REGENERATIVE CITIES (IN ENGLISH LANGUAGE)

Study Level PROFSSIONAL MASTERS

CURRICULA

Valid for the Academic Year

2024-2025

Pag. 4

304.00 Volunteering 4								0	1	0	0	0	A/R				50	0	14	36	2.0		DC	DFac	
TOTAL AN				3	4	0	0	0	0	1	0	0	3	sem1	2	0	1	600	42	112	446	12.0	7.0		
						7.00						1.00		sem2	0	1	1					+ 5			

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