

SYLLABUS

1. Data about the program of study

1.1	Institution	The Technical University of Cluj-Napoca
1.2	Faculty	Faculty of Building Services Engineering
1.3	Department	Building Services Engineering
1.4	Field of study	Civil Engineering and Building Services
1.5	Cycle of study	Master
1.6	Program of study/Qualification	Building Services for Regenerative Cities / MS Engineer
1.7	Form of education	Full time

2. Data about the subject

2.1	Subject name				Local, National and European Policies	Subject code	20.20
2.2	Course responsible/lecturer				Lect.PhD.Eng. Cristina IACOB – cristina.iacob@insta.utcluj.ro		
2.3	Teachers in charge of seminars				Lect.PhD.Eng. Cristina IACOB – cristina.iacob@insta.utcluj.ro		
2.4 Year of study	II	2.5 Semester	1	2.6 Assessment			Exam
2.7 Subject category		Formative category					DC
		Optional					DOP

3. Estimated total time

3.1 Number of hours per week	2	of which	3.2 Course	1	3.3 Seminar		3.3 Laboratory	1	3.3 Project	
3.4 Total hours in the curriculum	28	of which	3.5 Course	14	3.6 Seminar		3.6 Laboratory	14	3.6 Project	
3.7 Individual study:										
(a) Exams and tests										21
(b) Manual, lecture material and notes, bibliography										7
(c) Supplementary study in the library, online and in the field										10
(d) Preparation for seminars/laboratory works, homework, reports, portfolios, essays										7
(e) Tutoring										2
(f) Other activities										
3.8 Total hours of individual study (sum (3.7(a)...3.7(f)))					47					
3.9 Total hours per semester (3.4+3.8)					75					
3.10 Number of credit points					3					

4. Pre-requisites (where appropriate)

4.1	Curriculum	Bachelor's degree
4.2	Competence	

5. Requirements (where appropriate)

5.1	For the course	Classroom equipped with Video Projector - 21 December 1989 Blvd., no. 128-130
5.2	For the applications Seminar / laboratory / project	Classroom equipped with Video Projector - 21 December 1989 Blvd., no. 128-130

6. Specific competences

Professional competences	CP6 – assess environmental impact CP8 – compare contractors' offers CP19 – oversee wetlands in real estate developments CP20 – mitigate the environmental impact of infrastructure projects CP25 – manage air quality CP26 – manage contracts CP27 – ensure compliance with procurement and contracting regulations
Cross competences	CT2 – think holistically CT4 – respect the diversity of values and cultural norms

7. Expected Learning Outcomes

Knowledge	CP6 – Knows the principles and methodologies for environmental impact assessment, as well as the relevant local, national and European regulations. CP8 – Knows the procedures and criteria for evaluating and comparing contractors' offers. CP19 – Knows the regulations regarding the protection and integration of wetlands in urban development. CP20 – Knows policies and strategies for reducing environmental impact at national and European level. CP25 – Knows standards and methods for assessing and managing air quality in urban areas. CP26 – Knows the structure and procedures of contracts in infrastructure projects. CP27 – Knows the national and European legal framework for procurement and contracting.
Skills	CP6 – Analyzes the environmental impact of policies and infrastructure projects and proposes mitigation measures. CP8 – Evaluates and compares offers based on technical, economic and legal criteria. CP19 – Analyzes the integration of natural areas and wetlands in urban development strategies. CP20 – Develops solutions for reducing the environmental impact of projects. CP25 – Interprets air quality indicators and proposes improvement measures. CP26 – Manages contractual documents and administrative processes in projects. CP27 – Applies procurement procedures and ensures compliance with regulations. CT2 – Integrates interdisciplinary information in the analysis of policies. CT4 – Applies principles of social responsibility and respect for cultural diversity.

Responsibilities and autonomy	CP6 – Assumes responsibility for the correct assessment of environmental impact. CP8 – Makes justified decisions in the evaluation of offers, respecting transparency principles. CP19 – Approaches responsibly the integration of natural environments in urban development. CP20 – Promotes environmental protection measures in projects and policies. CP25 – Contributes responsibly to air quality management. CP26 – Manages contracts responsibly in compliance with regulations. CP27 – Ensures legality and transparency of procurement processes. CT2 – Approaches problems in a holistic and integrated manner. CT4 – Acts with respect for social and cultural diversity in professional contexts.
-------------------------------	---

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

8.1	General objective	To develop students' ability to understand, analyze and apply local, national and European policies, strategies and regulations relevant to urban infrastructure, in order to support technical, economic and environmental decision-making in the context of sustainable urban development.
8.2	Specific objectives	To know the technical and regulatory framework in the field of building services, in correlation with European regulations. To analyze and synthesize information regarding policies and strategies in urban infrastructure. To use methods and tools for transmitting and interpreting information. To know the funding mechanisms and European programs for infrastructure development. To analyze policies in the fields of water supply, sewerage and energy. To apply principles regarding the assessment and reduction of environmental impact. To use analysis criteria in procurement and contracting processes.

9. Contents

9.1. Lecture (syllabus)	Number of hours	Teaching methods	Notes
1. Local, National and EU Institutions and Legislation	2	Presentation, discussions and case studies	
2. Policymaking in the EU. Transposition and Implementation	2		
3. The EU Budget, Programmes and Projects. EU Cohesion Policy and Structural and Investment Funds	2		
4. National and EU Regional and Urban Development Strategies.	2		

5. Water Resources Policy and Management	2		
6. Wastewater Policy and Management.	2		
7. Energy Strategies. Energy Efficiency – Targets, Directives and Rules.	2		
Bibliography <i>Policies and Policy Processes of the European Union</i> - Laurie Buonanno, Neill Nugent, Macmillan International Higher Education, 2013 <i>Environmental Policy in the EU: Actors, Institutions and Processes</i> - Andrew Jordan, Taylor & Francis 2nd Edition, 2012 https://europa.eu/european-union/law_en https://www.europarl.europa.eu/factsheets/en/home https://www.europarl.europa.eu/factsheets/en/section/193/environment-policy https://ec.europa.eu/regional_policy/en/funding/ <i>Strategia Națională pentru Dezvoltare Durabilă a României Orizonturi 2013-2020-2030</i> , Guvernul României, Ministerul Mediului și Dezvoltării Durabile - București 2008 <i>Strategia energetică a României 2020-2030, cu perspectiva anului 2050</i> - Ministerul Economiei Energiei și Mediului de Afaceri <i>The Transposition of EC Directives: A Comparative Study of Instruments, Techniques and Processes in Six EU Member States</i> - Steunenbergh, B., Voermans, W. J., 2006. <i>Carta de la Lisabona. Ghid privind reglementări și politici publice în domeniul serviciilor de alimentare cu apă potabilă, canalizare și managementul apelor uzate</i> -International Water Association, 2015			
9.2. Seminar /Laboratory/Project	Number of hours	Teaching methods	Notes
1. The main European and national regulations in the field of water and energy - applications and case studies.	2	Presentation, discussions and case studies	
2. Preparing the documentation for financing applications for development projects in the sectors of drinking water supply systems and collection and treatment of urban wastewater.	2		
3. Preparing the documentation for financing applications for development / investment projects in the electricity and gas transmission systems sector.	2		
4. Preparing the documentation for financing applications for development / investment projects in the renewable energy sector and increasing energy efficiency.	2		
5. Preparing the documentation for financing applications for development / investment projects in the sector of central heating systems.	2		
6. Presentation of an IT system for electronic data exchange between beneficiaries and authorities for coordination, management and control of the Structural and Investigation Funds (MySims)	2		
7. Evaluation of practical work.	2		
Bibliography https://europa.eu/european-union/law_en https://www.europarl.europa.eu/factsheets/en/home https://www.europarl.europa.eu/factsheets/en/section/193/environment-policy https://ec.europa.eu/regional_policy/en/funding/			

Strategia Națională pentru Dezvoltare Durabilă a României Orizonturi 2013-2020-2030, Guvernul României, Ministerul Mediului și Dezvoltării Durabile - București 2008
Strategia energetică a României 2020-2030, cu perspectiva anului 2050 - Ministerul Economiei Energiei și Mediului de Afaceri
Carta de la Lisabona. Ghid privind reglementări și politici publice în domeniul serviciilor de alimentare cu apă potabilă, canalizare și managementul apelor uzate -International Water Association, 2015
<https://www.anre.ro/ro/energie-termica/legislatie1580310091>
<https://www.anre.ro/ro/energie-electrica/legislatie>
<https://www.anre.ro/ro/gaze-naturale/legislatie>
<https://www.anre.ro/ro/eficienta-energetica/legislatie>

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

The acquired competencies will be necessary for the employees who carry out their activity in design, execution and maintenance.

11. Evaluation

Activity type	11.1 Assessment criteria	11.2 Assessment methods	11.3 Weight in the final grade
11.4 Course	Evaluating the theoretical and practical knowledge acquired	Written test	80%
11.5 Seminars /Laboratory/Project	Evaluation of knowledge and abilities acquired during class practical activities.	Oral examination	20%
11.6 Minimum standard of performance			
Students must pass the laboratory test for the final exam. The components of the final grade are Exam (E) and Laboratory (L). Thus, the formula for the final grade of this subject is $N = 0.8 \times E + 0.2 \times L$. The 3 credits are obtained only if $N \geq 5$, where both $E \geq 5$ and $L \geq 5$.			

Date of filling in:		Title Surname Name	Signature
11.05.2026	Lecturer	Lect.PhD.Eng. Cristina IACOB	
	Teachers in charge of application	Lect.PhD.Eng. Cristina IACOB	

Date of approval in the Department of Building Services Engineering

09.07.2026

Head of department
Assoc.Prof.PhD.Eng. Ciprian BACOTIU

Date of approval in the Council of the Faculty of Building Services Engineering

09.07.2026

Dean
Assoc.Prof.PhD.Eng. Florin DOMNIȚA