

SYLLABUS

Land Use Planning

University year 2025-2026

1. Information regarding the programme

1.1. Higher education institution	"Babeş-Bolyai" UNIVERSITY Cluj-Napoca
1.2. Faculty	Environmental Science and Engineering
1.3. Department	Environmental Analysis and Engineering
1.4. Field of study	Environmental Engineering
1.5. Study cycle	License
1.6. Study programme/Qualification	Environmental Engineering
1.7. Form of education	Full-time Education

2. Information regarding the discipline

2.1. Name of the discipline		Land Use Planning					Discipline code		NLR5032		
2.2. Course coordinator					Lect. Nicolae Baci						
2.3. Seminar coordinator					Lect. Nicolae Baci						
2.4. Year of study		3	2.5. Semester		2	2.6. Type of evaluation		E	2.7. Discipline regime		C

3. Total estimated time (hours/semester of didactic activities)

3.1. Hours per week	4	of which: 3.2 course	2	3.3 seminar/laboratory	2
3.4. Total hours in the curriculum	56	of which: 3.5 course	28	3.6 seminar/laborator	28
Time allotment for individual study (ID) and self-study activities (SA)					hours
3.5.1. Learning using manual, course support, bibliography, course notes (SA) 20					
3.5.2. Additional documentation (in libraries, on electronic platforms, field documentation)					20
3.5.3. Preparation for seminars/labs, homework, papers, portfolios and essays					20
3.5.4. Tutorship					8
3.5.5. Evaluations					2
3.5.6. Other activities					
3.7. Total individual study hours		70			
3.8. Total hours per semester		126			
3.9. Number of ECTS credits		5			

4. Prerequisites (if necessary)

4.1. curriculum	
4.2. competencies	

5. Conditions (if necessary)

5.1. for the course	Video projector, internet connection
5.2. for the seminar /lab activities	Video projector, internet connection

6.1. Specific competencies acquired ¹

¹ One can choose either competences or learning outcomes, or both. If only one option is chosen, the row related to the other option will be deleted, and the kept one will be numbered 6.

Professional/essential competencies	<ul style="list-style-type: none"> Collects, analyzes and interprets data related to pollution/environmental protection Coordinates the implementation of solutions to prevent, control and remedy the negative effects of human activity
Transversal competencies	<ul style="list-style-type: none"> Applying efficient and responsible work procedures, punctuality, seriousness and personal responsibility, based on the principles, norms and values of the code of professional ethics. Developing autonomous thinking and critical judgment on environmental issues and sustainable development.

6.2. Learning outcomes

Knowledge	<p>The student knows the mechanisms of planning dynamics;</p> <p>The student understands the importance of local and national spatial development plans;</p> <p>The student knows the characteristics and quality of the urban and rural environment</p>
Skills	<p>The student is able to analyze and classify the elements of territorial planning;</p> <p>The student is able to interpret and understand the natural and anthropogenic processes that influence the dynamics of territorial planning;</p> <p>The student is able to apply spatial analysis and geolocation techniques to identify and characterize land use categories</p>
Responsibility and autonomy:	<p>The student has the ability to work independently to analyze and classify planning elements, using specific methods and geospatial and geolocation databases;</p> <p>The student can autonomously carry out assessments of land use dynamics;</p> <p>The student is able to process data and information regarding the dynamics of territorial planning.</p>

7. Objectives of the discipline (outcome of the acquired competencies)

7.1 General objective of the discipline	<ul style="list-style-type: none"> specifying the basic theoretical and methodological aspects in territorial planning,
7.2 Specific objective of the discipline	<ul style="list-style-type: none"> knowledge of the characteristic aspects in the use of the territory, the occupation of the agricultural space and the issue of soil protection

8. Content

8.1 Course	Teaching methods	Remarks

1. territorial planning and related notions	lecture, interactive discussions, ppt presentation	Historical evolution: ex. systematization
2.territorial planning elements	lecture, interactive discussions, ppt presentation	
3.environmental planning	lecture, interactive discussions, ppt presentation	
4.urban planning	lecture, interactive discussions, ppt presentation	
5.the structure of the land fund - the agricultural land fund	lecture, interactive discussions, ppt presentation	
6.the structure of the land fund - the non-agricultural land fund	lecture, ppt presentation	
7.specific forms of territorial organization – historical perspective	lecture, interactive discussions, ppt presentation	
8.specific forms of territorial organization - evolution in the century. 20th	lecture, interactive discussions, ppt presentation	
9.specific forms of territorial organization – development regions, metropolitan areas	lecture, interactive discussions, ppt presentation	With an emphasis on the Cluj Metropolitan Area
10.specific forms of territorial organization – European models, comparisons	lecture, interactive discussions, ppt presentation	
11.Development strategy of metropolitan areas - ex Cluj-Napoca	Lecture, thematic presentations, ppt presentation	With an emphasis on the Cluj Metropolitan Area
12.risks associated with land use	lecture, ppt presentation	
13.preventing and combating soil erosion	lecture, ppt presentation	
14.perspectives of the sustainable management of the rural and urban environment	brainstorming, lecture, ppt presentation	
Bibliography 1. *** (2021), <i>Strategia Integrată de Dezvoltare Urbană Cluj</i> , Primăria Cluj-Napoca, pdf și ppt.; Cluj Integrated Urban Development Strategy, Cluj-Napoca City Hall, pdf and ppt 2. *** (2007), <i>Conceptul strategic de dezvoltare teritorială România 2007-2030</i> – o Românie competitivă, armonioasă și prosperă (CSDTR 2007-2030). ; The strategic concept of territorial development Romania 2007-2030 – a competitive, harmonious and prosperous Romania 3. *** (2023), <i>Agenda 2030 pentru dezvoltare durabilă</i> , https://www.mae.ro/node/35919 ; <i>Agenda 2030 for sustainable development</i> 4. ***(2023), <i>Starea regiunilor și orașelor</i> , Raportul anual al UE, Comitetul european al regiunilor, cor.europa.eu/ ; State of the Regions and Cities, EU Annual Report, European Committee of the Regions, cor.europa.eu/ 5. *** (2020), <i>LIVRABIL 3. POLITICA URBANĂ 2020-2035 ȘI PLANUL DE ACȚIUNE</i> , MDLPA, https://www.mdlpa.ro/userfiles/sipoca711/anexe_livrabil3_1.pdf ; <i>URBAN POLICY 2020-2035 AND ACTION PLAN</i> 6. Alpopi, Cr. (2006), <i>Orașul prezent – orașul viitorului</i> , Theoretical and Empirical Researches in Urban Management.; The present city – the future city, Theoretical and Empirical Researches in Urban Management. 7. Baci, N. (2013), <i>Gestionarea durabilă a mediului urban și rural</i> , Bioflux, Cluj-Napoca.; Sustainable management of the urban and rural environment 8. Cândea Melinda, Bogan Elena, Simon Tamara (2011), <i>Așezările umane și organizarea spațiului geografic</i> , Editura Universitară, București; Human settlements and the organization of geographical space, University Publishing House, Bucharest 9. Dincă, D., Dumitrică, C. (2010), <i>Dezvoltare și planificare urbană</i> , Ed. Economică, Buc.; Urban development and planning.		

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11. Gehl, J. (2012), *Orașe pentru oameni*, Ingloomedia, București.; Cities for people
12. Liu, K.F et all (2012), *Combining risk assessment, life cycle assessment and multi-criteria decision analysis to estimate environmental aspects in envirenmental managemnt system*, the International Journal of Life Cycle Assessment, 17, 7.
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14. Roșian, Gh. (2020), *Relieful din Depresiunea Transilvaniei*, Presa Universitară Clujeană.; Relief from the Transylvanian Depression
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16. Simon, Tamara (2009), *Geografia așezărilor umane pe Terra*, Ed. Fundației «România de Măine», București.; Geography of human settlements on Earth, Ed. "Romania of Tomorrow" Foundation

<https://www.mlpda.ro/>

<https://citadini.ro/baza-de-date-urbane/>

8.2 Seminar / laboratory		
	Teaching methods	Remarks
1. models of organization of the geographical space	Lecture, thematic analysis, Presentation ppt	
2. coordinates of environmental planning	Lecture, Presentation ppt	
3. coordinates of urban planning	Lecture, Presentation ppt	With examples from Cluj-Napoca
4. analysis of land use - land use and land cover	Lecture, thematic analysis, Presentation ppt	
5. analysis of land use - agricultural land fund	Lecture, thematic analysis, Presentation ppt	Indicators
6. analysis of land use - the forest fund	Lecture, thematic analysis, Presentation ppt	The use of multiple info sources
7. administrative-territorial organization – organization models; historical perspective	Lecture, thematic analysis, Presentation ppt	
8. administrative-territorial organization - 20th century and regionalization	Lecture, thematic analysis, Presentation ppt	
9. economic development regions – their evolution	Lecture, thematic analysis, Presentation ppt	
10. development regions – European models	Lecture, thematic analysis, Presentation ppt	
11. The Cluj metropolitan area - appearance and functionality	Lecture, thematic analysis, Presentation ppt	
12. The Cluj metropolitan area – development perspectives	brainstorming, Lecture, thematic analysis, Presentation ppt	
13. the main improvement works	Lecture, thematic analysis, Presentation ppt	

14. final seminar; Reports	thematic discussion, brainstorming	With emphasis on planning issues in students' home communities
<p>Bibliography</p> <p>*** <i>Rural space and local development - regeneration of the rural space</i>, PUC, 2010.</p> <p>*** (1983), <i>Charte Européenne de l'aménagement du territoire</i>, Charte de Torremolinos, adoptée le 20 mai 1983 à Torremolinos (Espagne), à l'occasion de la 6ème Conférence Européenne des Ministres Responsables de l'Aménagement du Territoire.</p> <ol style="list-style-type: none"> Alpopi, Cristina (2007), <i>Urbanismul spațial – soluția rezolvării problemei suprapopulării orașelor</i>, Cercetări practice și teoretice în Managementul Urban, an 2, nr 2, ISSN: 1842-5712.; Spatial urbanism – the solution to solving the problem of overpopulation of cities, Practical and theoretical researches in Urban Management, year 2, no 2 Alpopi, Cristina (2007), <i>Echilibrul sistemelor urbane</i>, Cercetări practice și teoretice în Managementul Urban, an 2, nr 5, ISSN: 1842-5712. ; The balance of urban systems, Practical and theoretical research in Urban Management, year 2, no 5 Andrei, Mădălina Teodora (2009), <i>Geografia așezărilor umane</i>, Academia.edu.; Geography of human settlements Baciu, N (2013), <i>Gestionarea durabilă a mediului urban și rural</i>, Bioflux, Cluj-Napoca.; Sustainable management of the urban and rural environment Baciu, N. (2009), <i>Geografia regională a României – îndrumător de lucrări practice</i>, PUC.; Regional geography of Romania - guide to practical works Baciu, N. et al (2021), <i>The evolution of rural clusters within the Cluj Metropolitan Area</i>, Studia Ambientum. Borbely L (2012), <i>Modele de dezvoltare regională în Uniunea Europeană și România</i>, PUC.; Models of regional development in the European Union and Romania Fodor, A. coord. (2014), <i>Analize de politici publice cu impact asupra mediului și dezvoltării durabile</i>, Wolters Kluwer.; Analysis of public policies with impact on the environment and sustainable development Jansson, M. (2014), <i>Green space in compact cities: the benefits and values of urban ecosystem services in planning</i>. Nordic Journal of Architectural Research 2, 139-160. Oreshina, Yulia (2013), <i>Cluj-Napoca in communist Romania: anatomy of urban changes and memory</i>, ANNALES UNIVERSITATIS MARIAE CURIE-SKŁODOWSKA LUBLIN – POLONIA, VOL. LXVIII, z. 1–2 SECTIO F, pp. 141-163, 10.1515/umcshist-2015-0008. Roșian, Gh. (2020), <i>Relieful din Depresiunea Transilvaniei</i>, Presa Universitară Clujeană.; Relief from the Transylvanian Depression Roșian, Gh. (2017), <i>Geomorfologia mediului</i>, Presa Universitară Clujeană.; Geomorphology of the environment Zaharia, Carmen (2008), <i>Dezvoltarea industrială durabilă – concepte, principii, eco-capacitate, eco-eficiență, eco-echitate, eco-condiționalitate</i>, https://www.academia.edu/51190271/.; Sustainable industrial development - concepts, principles, eco-capacity, eco-efficiency, eco-equity, eco-conditionality <p>Espan - https://gis-portal.espon.eu/arcgis/apps/</p> <p>http://www.nato.int/ccms/pilot-studies/lsea/lsea-index.htm</p> <p>www.environment.home.ro</p> <p>http://www.eea.eu.int</p>		

9. Corroborating the content of the discipline with the expectations of the epistemic community, professional associations and representative employers within the field of the program

- Knowledge of the main data related to territorial planning
- Knowledge of territorial realities and regional development
- Correlation of the current state of the environment with that resulting from the impacts resulting from regional development projects
- Development and analysis of SWOT data

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of final grade
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10.4 Course	Exam	Written	75%
10.5 Seminar/laboratory	E, reports, attendance	Written, final presentation	25%
10.6 Minimum standard of performance			
<ul style="list-style-type: none"> Definitions The structure of the land fund Analysis of development regions SWOT analysis Development strategy of metropolitan areas 			

11. Labels ODD (Sustainable Development Goals)²

	General label for Sustainable Development							

Date:
22 03 2025

Signature of course coordinator

Signature of seminar coordinator

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Date of approval:

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Signature of the head of department

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² Keep only the labels that, according to the [Procedure for applying ODD labels in the academic process](#), suit the discipline and delete the others, including the general one for *Sustainable Development* – if not applicable. If no label describes the discipline, delete them all and write „Not applicable.”.

