COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	Transilvania University of Brasov
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Civil Engineering and Building Services
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and Conservation of Built Heritage

2. Data about the course

2.1 Name of course			Theory and history of restoration (THR01)					
2.2 Course convenor			Gabriela Cristina CHIȚONU					
2.3 Seminar/ laboratory/ project convenor			Christiana CAZACU					
2.4 Study year	I	2.5 Semester	I	2.6 Evaluation type	E	2.7 Course status	Content[3)]	PC
							Attendance type[4)]	CPC

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	4	out of which: 3.2 lecture	2	3.3 seminar/ laboratory/ project	2
3.4 Total number of hours in the curriculum	56	out of which: 3.5 lecture	28	3.6 seminar/ laboratory/ project	28

Time allocation	hours
Study of textbooks, course support, bibliography and notes	30
Additional documentation in libraries, specialized electronic platforms, and field research	20
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	40
Tutorial	-
Examinations	4
Other activities.....	

3.7 Total number of hours of student activity	94
3.8 Total number per semester	150
3.9 Number of credits[5)]	5

4. Prerequisites (if applicable)

4.1 curriculum-related	◘ Basic knowledge of construction/architecture; ◘ Basic knowledge of scientific research methodology.
4.2 competences-related	◘ The use of new information and communication technologies in the instructional-educational process.

5. Conditions (if applicable)

5.1 for course development	• Classroom equipped with video projector, blackboard and specific teaching materials; • Functional e-learning platform.
5.2 for seminar/ laboratory/ project development	◘ Seminar room, video projector, computers, software; ◘ Functional e-learning platform.

6. Specific competences and learning outcomes

Professional competences	CP1. Knowledge of concepts, principles, theories and methods related to the composition, structures and properties of materials, their use, behavior and performance under the influence of the environment, as well as the identification, processing and manufacture of optimal materials for various applications. L.O.1.1. The graduate recognizes, estimates, analyzes the main pathologies, understands the causes and presents intervention proposals. CP3. Knowledge of concepts, principles, theories and practices used in the planning, design, construction and maintenance of built heritage, taking into account aesthetic and functional concerns. L.O.3.1. The graduate identifies types of architectural concepts to produce solutions that correspond to the rehabilitation of heritage buildings. CP4. Knowledge of the concepts, principles, theories and practices used in the protection areas of monuments and historical sites. L.O.4.1. The graduate identifies problems related to urban planning and the impact assessment of urban regeneration programs / applies urban design to produce solutions that respond to the rehabilitation of built heritage. CP5. Knowledge of the concepts, theories and practices used in the planning, design, construction and adaptation of exterior elements, taking into account the planning of recreational activities, requirements, aesthetic value and compatibility with other developments and resources. L.O.5.1. The graduate evaluates sites in terms of landscape architecture and urbanism/Identifies the relationship between the natural and built environment in relation to the social and economic space.
Transversal competences	CP11. Knowledge of historical events, indicators and impacts on specific civilizations and cultures, as well as conservation and archiving techniques. L.O.11.1. The graduate effectively applies the methodology of analysis from archaeology in the analysis of specific problems.

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	Acquiring specific skills Understanding the concepts of restoration and conservation of built heritage through the prism of historical evolution; Assimilation of knowledge regarding the evaluation of built heritage; Assimilation and understanding of the process of restoring buildings in an integrated, multidisciplinary context;
7.2 Specific objectives	Understanding the doctrinal principles applicable to the restoration project. Awareness of the careful elaboration of foundation studies (historical-architectural study, geometric and degradation survey), viewed as instruments for informed intervention decisions. Awareness of the role that disciplines related to architecture have in the conservation/restoration process. Substantiation of intervention decisions, stages and criteria applicable to buildings with heritage value.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
Introductory notions. Theoretical foundations, legislative references, and definitions	Lectures (digital support; bibliography)	2	
Interventions for the conservation, restoration and enhancement of buildings with heritage value, identified in a European and national context		2	
Defining the concept of rehabilitation/restoration of a historic building or area Identifying the cultural value of historic buildings;		2	
Introduction to the history and theory of conservation/restoration, terminology The emergence and development of conservation/restoration notions from antiquity to the Renaissance, Baroque Directions of conservation in the interwar and postwar period		4	
Modern principles of conservation and restoration Contemporary problems of the conservation of built heritage.		4	
Historical-architectural study, a fundamental element in establishing values and defining intervention possibilities.		2	
Evaluation of the state of conservation. Establishing the diagnosis. Identification of the potential for use. Functional conversion – compatibility and durability		2	
Restoration principles and intervention stages on various constructive typologies/case analyses	Lectures (digital support; bibliography)	2	
Cultural value versus contemporary use. Establishing interventions compatible with the historic building; Typology of rehabilitation interventions		2	
Degradation survey, a mandatory inventory method for understanding building pathology and curative interventions.		2	
Case studies		4	

Bibliography

***, World Architecture. An Illustrated History, London, Paul Hamlyn, 1963
***, Le grand atlas de l'architecture mondiale, Enciclopædia Universalis, 1988
ACHE, Jean Baptiste, Elements d'une histoire de l'art de batir, Paris, 1970
BENEVOLO, Leonardo, Oraşul în istoria Europei, Iaşi, 2004
BENEVOLO, Leonardo, Storia della città, Roma, 1982
CHING, F., JARZOMBEK, M., PRAKASH, V., A global history of architecture, John Wiley and Sons, Inc., New York, 2007
CANTACUZINO, Sherban, Using and re-using buildings, Concerning Buildings, Studies in honour of Sir Bernard Feilden, Stephen Marks ed., Bath, The Architectural Press, 1996
CLARK, Kate, Informed conservation. Understanding Historic Buildings And Their Landscapes For Conservation, English Heritage, 2001

CRIȘAN, Rodica, Analiza integrativă a valorii culturale și de utilizare a clădirilor existente. Editura Universitară "Ion Mincu", 2004.
CURINSCHI-VORONA, Gheorghe, Centrele istorice ale orașelor, Ed. Tehnica, Bucuresti, 1967;
CURINSCHI-VORONA, Gheorghe, Restaurarea monumentelor istorice, Ed. Tehnica, Bucuresti, 1968;
CURINSCHI-VORONA, Gheorghe, Arhitectura. Urbanism. Restaurare, Ed. Tehnica, Bucuresti 1996;
FLETCHER, Sir Banister, A History of Architecture on the Comparative Method, London, 1961
GIEDION, Sigfried, The Beginnings of Architecture, Oxford, 1964
JOKILEHTO, Jukka, A History of Architectural Conservation, Routlege, New York, 2011 sau a doua ediție revizuita 2017;
GLENDINNING, Miles, The Conservation Movement, Routlege, 2013;
NORBERG SCHULZ, Christian, La signification dans l'architecture occidentale, Bruxelles, 1977
PEVSNER, Nikolaus, An Outline of European Architecture, Norwich, 1963
PETZET, Michael, Principles of Preservation, An Introduction to the International Charters for Conservation and Restoration 40 Years after the Venice Charter, ICOMOS2010

8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks
1.1. Documentation of the monument 1.2. Bibliographic documentation; organization and presentation of the documentary base 1.3. Architectural analysis 1.4. Geometric survey, a necessary tool in the research of the architectural object	Open and guided discussions with students on the topics proposed in the activity.	10	
2.1. Architectural analysis (continued) Modalities for interpreting and presenting volumes, surfaces or other architectural elements		8	
3.1. Synthesis of the study and establishing the types of intervention		2	
4.1. Discussion of proposals for solving the requirements of the theme	Open and guided discussions with students on the topics proposed in the activity.	2	
4.2. Detailing and motivating the proposed interventions		2	
Project submission and presentation		4	

Bibliography
***, Carta internațională pentru conservarea și restaurarea monumentelor și siturilor (Veneția, 1964).
***, The Nara Document on Authenticity, 1994.
***, Principles for Conservation and Restoration of built Heritage, ICOMOS, 2000 (Cracovia)
***, International Charters for Conservation and Restoration. Monuments and Sites, I, ICOMOS, 2004.
***, Charter for the Interpretation and Presentation of Cultural Heritage Sites, ICOMOS, 2007.
***, Charter for the Conservation of Places of Cultural Heritage Value, ICOMOS, 2010.
CANTACUZINO, Sherban, Using and re-using buildings, Concerning Buildings, Studies in honour of Sir Bernard Feilden, Stephen Marks ed., Bath, The Architectural Press, 1996
CLARK, Kate, Informed conservation. Understanding Historic Buildings And Their Landscapes For Conservation, English Heritage, 2001
CRIȘAN, Rodica, Analiza integrativă a valorii culturale și de utilizare a clădirilor existente. Editura Universitară "Ion Mincu", 2004.
CURINSCHI-VORONA, Gheorghe, Centrele istorice ale orașelor, Ed. Tehnica, Bucuresti, 1967;
CURINSCHI-VORONA, Gheorghe, Restaurarea monumentelor istorice, Ed. Tehnica, Bucuresti, 1968;
CURINSCHI-VORONA, Gheorghe, Arhitectura. Urbanism. Restaurare, Ed. Tehnica, Bucuresti 1996;
FLETCHER, Sir Banister, A History of Architecture on the Comparative Method, London, 1961

PETZET, Michael, Principles of Preservation, An Introduction to the International Charters for Conservation and Restoration 40 Years after the Venice Charter, ICOMOS2010

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The content of the discipline corresponds to the thematic area in the field, for this level of study, being in accordance with national and international regulations

10. The content of the discipline corresponds to the thematic area in the field, for this level of study, being in accordance with national and international regulations evaluation.

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	Summative evaluation	Written exam (40%) + ongoing evaluations (10%).	50%
10.5 Seminar/ laboratory/ project	Continuous evaluation	Evaluation of the activity carried out within the project	50%
10.6 Minimal performance standard			
•The result of each test must be at least 5.			

This course outline was certified in the Department Board meeting on …./…../…….and approved in the Faculty Board meeting on …./…../……..

Prof.dr.ing. Ioan TUNS **Dean**	**Conf.dr.ing. Teofil GALATANU** **Head of Department**
Sl.dr arch. Gabrela Cristina CHITONU **Course holder**	**Sl. dr. ing. Christiana CAZACU** **Holder of seminar/ laboratory/ project**

Note:

1) Field of study – select one of the following options: Bachelor / Master / Doctorat (to be filled in according to the forceful classification list for study programmes);

[2)] Study level – choose from among: Bachelor / Master / Doctorat;

[3)] Course status (content) – for the Bachelor level, select one of the following options: **FC** (fundamental course) / **DC** (course in the study domain)/ **SC** (speciality course)/ **CC** (complementary course); for the Master level, select one of the following options: **PC** (proficiency course)/ SC (synthesis course)/ **AC** (advanced course);

[4)] Course status (attendance type) – select one of the following options: **CPC** (compulsory course)/ **EC** (elective course)/ **NCPC** (non-compulsory course);

[5)] One credit is the equivalent of 25 study hours (teaching activities and individual study).

COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	Transilvania University of Brasov
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Civil Engineering and Building Services
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and Conservation of Built Heritage

2. Data about the course

2.1 Name of course				Cultural heritage and related legislation (CHL01)				
2.2 Course convenor				Associate professor PhD. Dinu Cătălina Georgeta				
2.3 Seminar/ laboratory/ project convenor				Associate professor PhD. Dinu Cătălina Georgeta				
2.4 Study year	I	2.5 Semester	I	2.6 Evaluation type	C	2.7 Course status	Content[3)]	DC
							Attendance type[4)]	DI

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	4	out of which: 3.2 lecture	2	3.3 seminar/ laboratory/ project	2/0/0
3.4 Total number of hours in the curriculum	56	out of which: 3.5 lecture	28	3.6 seminar/ laboratory/ project	28/0/0

Time allocation	hours
Study of textbooks, course support, bibliography and notes	28
Additional documentation in libraries, specialized electronic platforms, and field research	30
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	28
Tutorial	
Examinations	8
Other activities.....	

94	32
3.8 Total number per semester	150
3.9 Number of credits[5)]	5

4. Prerequisites (if applicable)

4.1 curriculum-related	it is not the case
4.2 competences-related	it is not the case

5. Conditions (if applicable)

5.1 for course development	• Classroom equipped with video projector, blackboard and specific teaching materials; • Functional e-learning platform.
5.2 for seminar/ laboratory/ project development	• Seminar room, video projector, computers, software programs: MS Office, Power Point, electronic legislative program (e.g., Sintact); • Functional e-learning platform

6. Specific competences and learning outcomes

Professional competences	C10. Ability to apply legislation and policies related to conservation and restoration of heritage Learning outcomes 10.1. Knowledge L.o.10.1.1. Knows legislation, policies, and guidelines applicable to conservation. 10.2. Skills L.o.10.2.1. Applies legislation in the preparation of technical documentation. 10.3. Responsibility and autonomy L.o.10.3.1. Ensures the legal and ethical compliance of restoration activities.

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	• Familiarizing students with the concepts of cultural heritage. • Understanding the national and international legislative framework regarding the protection and conservation of heritage. • Developing the capacity to apply conservation and restoration policies in practice. • Encouraging responsible behavior towards heritage, in the spirit of sustainable development.
7.2 Specific objectives	• developing the ability to know and acquire the main points of view regarding the notions of applied legislation; • acquiring the knowledge necessary for understanding, respecting, developing and implementing the notions of applied legislation.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
Defining the notion of heritage. Classifications. Importance of heritage protection.	Interactive lecture, presentation based on the use of a video projector, conversation, debate	2	
International / European / national legal framework.		6	
Competent institutions and responsibilities		2	
Heritage inventory and classification.		2	
Urban and rural cultural heritage.		2	
Conservation and restoration policies.		4	
Interventions on historical monuments.		2	
Risks and destruction of heritage.		2	
Reuse and reconversion of heritage.		2	
Debate: "Conservation versus development - conflicts and solutions"		4	

Bibliography

Dinu, Cătălina Georgeta, Administrative Contracts, CH Beck, 2023
Dinu, Cătălina Georgeta, Concession Contract, CH Beck, 2016
Matefi, Roxana, Syntheses and Applications. Civil Law. General Part. Persons, Hamangiu, 2024
Goțiu, Mihai, Roșia Montană Business, Tact, 2013
Alramahi, Moe, Oil and Gas Law in the UK, Ed.Bloomsbury Professional Ltd, West Sussex, 2013
Auby, Jean-Marie; Bon, Pierre; Auby, Jean-Bernard; Terneyre, Philippe, Droit administratif des biens, ed. a 6-a, Dalloz, Paris, 2011

8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks

Analysis of examples of local and international heritage. Case study: UNESCO sites and the legal implications of their inclusion in the list.	oral presentation, project presentation, video presentation; reports drawn up by students; discussions	6	
Analysis of European strategies and available funding for heritage conservation.		4	
Identification of heritage categories and legal regime based on current legislation.		4	
Rules and limitations regarding works on monuments (restoration, rehabilitation, consolidation, reconversion).		4	
Analysis of a protected urban ensemble (e.g. Brașov city center, Sighișoara etc.).		6	
Debate: "Conservation versus development - conflicts and solutions".		4	

Bibliography

Dinu, Cătălina Georgeta, Administrative Contracts, CH Beck, 2023

Dinu, Cătălina Georgeta, Concession Contract, CH Beck, 2016

Matefi, Roxana, Syntheses and Applications. Civil Law. General Part. Persons, Hamangiu, 2024

Goțiu, Mihai, Roșia Montană Business, Tact, 2013

Alramahi, Moe, Oil and Gas Law in the UK, Ed.Bloomsbury Professional Ltd, West Sussex, 2013

Auby, Jean-Marie; Bon, Pierre; Auby, Jean-Bernard; Terneyre, Philippe, Droit administratif des biens, ed. a 6-a, Dalloz, Paris, 2011

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The content of the discipline corresponds to the thematic area in the field, for this level of study, being in accordance with national and international regulations

10. The content of the discipline corresponds to the thematic area in the field, for this level of study, being in accordance with national and international regulationsvaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	Writing a scientific paper on a chosen topic, following the methodology presented in the course. Public defense of the paper. Correctness and completeness of knowledge, logical coherence, degree of assimilation of specialized language, criteria targeting attitudinal aspects: conscientiousness, interest in individual study.	oral	50%
10.5 Seminar/ laboratory/ project	the ability to operate with the acquired knowledge, the ability to apply it in practice, criteria that target attitudinal aspects: conscientiousness, interest in individual study.	project	50%

10.6 Minimal performance standard
The result of each test must be at least 5.

This course outline was certified in the Department Board meeting on …./…../ ..... and approved in the Faculty Board
meeting on …./…../……..

Prof.dr.ing. **Dean**	**Assoc. prof. eng. Teofil GĂLĂȚANU, Ph.D.** **Head of Department**
Assoc.prof.eng. **Catalina Georgeta DINU, Ph.D.** **Course holder**	**Assoc.prof.eng.** **Catalina Georgeta DINU, Ph.D.** **Seminar holder**

Note:

1) Field of study – select one of the following options: Bachelor / Master / Doctorat (to be filled in according to the forceful classification list for study programmes);

[2)] Study level – choose from among: Bachelor / Master / Doctorat;

[3)] Course status (content) – for the Bachelor level, select one of the following options: **FC** (fundamental course) / **DC** (course in the study domain)/ **SC** (speciality course)/ **CC** (complementary course); for the Master level, select one of the following options: **PC** (proficiency course)/ SC (synthesis course)/ **AC** (advanced course);

[4)] Course status (attendance type) – select one of the following options: **CPC** (compulsory course)/ **EC** (elective course)/ **NCPC** (non-compulsory course);

[5)] One credit is the equivalent of 30 study hours (teaching activities and individual study).

COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	Transilvania University of Brasov
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Master
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and Conservation of Built Heritage / Master

2. Data about the course

2.1 Name of course			Ethics and integrity in scientific research (EISR01)					
2.2 Course convenor			Maftei Carmen Elena					
2.3 Seminar/ laboratory/ project convenor			Maftei Carmen Elena					
2.4 Study year	I	2.5 Semester	I	2.6 Evaluation type	C	2.7 Course status	Content[3)]	DC
							Attendance type[4)]	DI

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	1	out of which: 3.2 lecture	1	3.3 seminar/ laboratory/ project	1/0/0
3.4 Total number of hours in the curriculum	14	out of which: 3.5 lecture	14	3.6 seminar/ laboratory/ project	14/0/0

Time allocation	hours
Study of textbooks, course support, bibliography and notes	10
Additional documentation in libraries, specialized electronic platforms, and field research	10
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	10
Tutorial	--
Examinations	2
Other activities.....	-

3.7 Total number of hours of student activity	32
3.8 Total number per semester	60
3.9 Number of credits[5)]	3

4. Prerequisites (if applicable)

4.1 curriculum-related	• N/A
4.2 competences-related	• N/A

5. Conditions (if applicable)

5.1 for course development	• Classroom provided with video projector, blackboard and specific teaching materials. • Functional e-learning platform.
5.2 for seminar/ laboratory/ project development	• Seminar room, video projector, computers, software: MS Office, Power Point, Anelis+ access. • Functional e-learning platform.

6. Specific competences

Professional competences	C14. Ability to apply ethical principles in scientific research and to communicate projects effectively to specialists, institutions, and the public Learning outcomes 14.1. Knowledge L.o.14.1.1. Understands the principles of ethics and integrity in scientific research and professional practice. 14.2. Skills L.o.14.2.1. Applies ethical standards in the preparation and dissemination of research and project results. 14.3. Responsibility and autonomy L.o.14.3.1. Demonstrates professional integrity and transparency in research and project activities.

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	• acquiring and applying in the professional career the specific concepts of ethics and academic integrity. • deontology and integrity in university and scientific research and, implicitly, the development of a culture of responsibility in terms of involvement in the joint effort to prevent, identify and combat possible academic fraud, especially plagiarism.
7.2 Specific objectives	• developing the capacity to know and master the main points of view regarding academic ethics. • acquiring the necessary knowledge to understand, respect, develop and implement codes of ethics and academic integrity.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
Introductory aspects of ethics and integrity academic. Norms of ethics in the professional and interpersonal relations of the members of the university community.	Interactive lecture, presentation based on the use of the video projector, conversation, debate	2	
Deviations from the university ethics and from the norms of good conduct in the scientific research activity. Applicable sanctions.		2	
General notions of intellectual property. Protection of copyright and related rights.		2	
Principles of good practice in academic writing. Writing a scientific paper.		2	
Regulations on research ethics and academic deontology.		2	
Plagiarism. Concepts, identification, and analysis. Preventing and combating plagiarism in academia.		2	
Guide for the preparation of scientific papers: essays, articles, bachelor's and dissertation papers, doctoral theses.		2	

Bibliography

1. Evans, D., Gruba, P., & Zobel, J. (2011). How to write a better thesis. Melbourne Univ. Publishing.
2. Macfarlane, B. (2010). Researching with integrity: The ethics of academic enquiry. Routledge.
3. European Commission, EURAXESS. Brochure: The European Charter for Researchers & the Code of Conduct for their Recruitment, https://euraxess.ec.europa.eu/content/brochure-european-charter-researchers-code-

conduct-their-recruitment
4. Dunleavy, P. (2003). Authoring a PhD: How to plan, draft, write and finish a doctoral thesis or dissertation. Houndmills, UK: Palgrave Macmillan
5. Roig, Michael. 2015. Avoiding plagiarism, self-plagiarism, and other questionable writing practices: A guide to ethical writing. Rockville, Md.: Office of Research Integrity.

8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks
Identifying types of ethical violations rules	Discussions, explanations, case studies. Presentation of reports, short versions, syntheses, etc.	6	
The ethical aspects of research are analyzed in a personal research project, a bachelor's thesis that clearly meets the requirements. Public defense of the work.		8	

Bibliography

1. Citation guides, document disponibil la adresa web: http://www.citethisforme.com/guides, consultat in ian 2021;
2. Day Robert A., How to Write & Publish a Scientific Paper, 7th edition, OECD Science, Technology and Industry Outlook, ISBN 978-92-64-04991-8 – No. 56341, 2008;
3. Bailey, S. (2003). Academic writing: A practical guide for students. Psychology Press.
4. Whitaker, A. (2009). Academic writing guide. A step-by-step-guide to writing academic papers. Seattle: City University of Seattle.
5. Evans, D., Gruba, P., & Zobel, J. (2011). How to write a better thesis. Melbourne Univ. Publishing.

9. Correlation of course content with the demands of the labor market (epistemic communities, professional associations, potential employers in the field of study)

The content of the discipline corresponds to the thematic area in the field, for this level of study, being in accordance with national and international regulations.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	Score on each question	Written test	40%
10.5 Seminar/ laboratory/ project	Frequency / relevance of interventions, portfolio with complete reports.	Public presentation of the scientific paper.	60%
10.6 Minimal performance standard			
• The result of each test must be at least 5.			

This course outline was certified in the Department Board meeting on ...../...../..... and approved in the Faculty Board meeting on ...../...../.....

Prof. eng. Ioan TUNS, Ph.D. **Dean**	**Assoc. prof. eng. Teofil GĂLĂȚANU, Ph.D.** **Head of Department**

Prof.habil.Eng, Ph.D Maftei Carmen ELena **Course holder**	**Prof.habil.Eng, Ph.D Maftei Carmen ELena** **Holder of seminar/ laboratory/ project**

Note:

1) Field of study – select one of the following options: Bachelor / Master / Doctorat (to be filled in according to the forceful classification list for study programmes);

[2)] Study level – choose from among: Bachelor / Master / Doctorat;

[3)] Course status (content) – for the Bachelor level, select one of the following options: **FC** (fundamental course) / **DC** (course in the study domain)/ **SC** (speciality course)/ **CC** (complementary course); for the Master level, select one of the following options: **PC** (proficiency course)/ SC (synthesis course)/ **AC** (advanced course);

[4)] Course status (attendance type) – select one of the following options: **CPC** (compulsory course)/ **EC** (elective course)/ **NCPC** (non-compulsory course);

[5)] One credit is the equivalent of 25 study hours (teaching activities and individual study).

COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	Transilvania University of Brasov
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Master
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and conservation of built heritage / Master

2. Data about the course

2.1 Name of course			Practical placement I (PP01)					
2.2 Course convenor								
2.3 Seminar/ laboratory/ project convenor			Radu MUNTEAN					
2.4 Study year	I	2.5 Semester	I	2.6 Evaluation type	C	2.7 Course status	Content[3)]	SC
							Attendance type[4)]	CPC

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	10	out of which: 3.2 lecture	0	3.3 seminar/ laboratory/ project	0/0/10
3.4 Total number of hours in the curriculum	140	out of which: 3.5 lecture	0	3.6 seminar/ laboratory/ project	0/0/140

Time allocation	hours
Study of textbooks, course support, bibliography and notes	40
Additional documentation in libraries, specialized electronic platforms, and field research	40
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	56
Tutorial	
Examinations	4
Other activities.....	

3.7 Total number of hours of student activity	140
3.8 Total number per semester	140
3.9 Number of credits[5)]	6

4. Prerequisites (if applicable)

4.1 curriculum-related	• it is not the case
4.2 competences-related	• it is not the case

5. Conditions (if applicable)

5.1 for course development	• it is not the case
5.2 for seminar/ laboratory/ project development	• the company / institution where the internship is carried out must have in its field of activity concerns related to construction / architecture / urban planning / restoration and conservation of built heritage / etc.

6. Specific competences and learning outcomes

Professional competences	C3. Ability to identify architectural concepts and solutions for the restoration of heritage buildings 3.1. Knowledge L.o.3.1.1. Understands aesthetic and functional concepts applicable to built heritage. 3.2. Skills L.o.3.2.1. Analyzes and interprets historical architectural elements. 3.3. Responsibility and autonomy L.o.3.3.1. Justifies design choices in relation to conservation principles. C5. Ability to evaluate and integrate landscape architecture elements and the relationship between natural and built environments 5.1. Knowledge L.o.5.1.1. Knows concepts of urban planning, landscape architecture, and functional compatibility. 5.2. Skills L.o.5.2.1. Evaluates sites from the perspective of the natural–built relationship. 5.3. Responsibility and autonomy L.o.5.3.1. Integrates the specific features of rural and vernacular heritage into projects. C8. Ability to communicate and promote built heritage 8.1. Knowledge L.o.8.1.1. Knows principles of written, oral, and visual communication applicable to heritage. 8.2. Skills L.o.8.2.1. Prepares presentations and reports for diverse audiences. 8.3. Responsibility and autonomy L.o.8.3.1. Assumes the role of mediator between specialists and the community
Transversal competence	

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	• Training of applied skills in the field of conservation and management of built heritage; • Familiarization with professional activities carried out in institutions and organizations in the field of heritage; • Development of the capacity to integrate legislative and technical knowledge in interventions on heritage.
7.2 Specific objectives	• To correctly identify the types of cultural heritage (historical, architectural, archaeological) in the field; • To recognize the legal regime of protected buildings and sites; • To apply the principles of conservation and restoration in real contexts (rehabilitation works, intervention projects, etc.); • To ethically and professionally argue the importance of preserving built heritage.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
-	-	-	-
Bibliography			

8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks
Preparation of a practice notebook including, among others: - information and examples of scientific papers/articles dealing with theoretical notions regarding the restoration and conservation of built heritage, - documentation studies: applicable legislation, monument files, local regulations; - field activities and assisted observation; - technical application activities; measurements, visual assessments of the state of conservation - participation in design or coordination activities.	individual study in the library, use of international databases, study of the portfolio of works belonging to the company / institution where the internship takes place, teamwork within several departments in the company, work in the field to observe how projects are implemented	140	The company / institution where the internship is done will make its own assessment of what the student has understood / mastered
Bibliography Course materials / seminars related to the subjects taught during the semester; UNESCO – Operational Guidelines for the Implementation of the World Heritage Convention, 2023, https://whc.unesco.org/en/guidelines/ Jokilehto, Jukka – A History of Architectural Conservation, Routledge, 2017 (2nd ed.) ICOMOS – The Venice Charter (1964) – International Charter for the Conservation and Restoration of Monuments and Sites Ioan Opris - Ocrotirea patrimoniului cultural (Protection of cultural heritage), Editura Meridiane, 1986			

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The discipline presents a content that aims at the formation of specific competencies that correspond to the occupational standards in the field of project management.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course			
10.5 Seminar/ laboratory/ project	Clarity, consistency and conciseness of oral presentation. Ability to exemplify. Correct use of domain-specific terms and notions.	Presentation and support of the activities contained in the Practice Booklet	100%
10.6 Minimal performance standard			
• presentation of a Practice Booklet. • presentation of a Certificate of Practice issued by the company / institution where the internship was performed.			

This course outline was certified in the Department Board meeting on ...../...../..... and approved in the Faculty Board meeting on ...../...../.....

Prof. dr. eng. Ioan TUNS, **Dean**	**Assoc. prof. dr. eng. Teofil GĂLĂȚANU,** **Head of Department**
Course holder	**Holder of seminar/ laboratory/ project** **Assoc. prof. dr. eng. Radu MUNTEAN**

Note:

1) Field of study – select one of the following options: Bachelor / Master / Doctorat (to be filled in according to the forceful classification list for study programmes);

2) Study level – choose from among: Bachelor / Master / Doctorat;

3) Course status (content) – for the Bachelor level, select one of the following options: **FC** (fundamental course) / **DC** (course in the study domain)/ **SC** (speciality course)/ **CC** (complementary course); for the Master level, select one of the following options: **PC** (proficiency course)/ SC (synthesis course)/ **AC** (advanced course);

4) Course status (attendance type) – select one of the following options: **CPC** (compulsory course)/ **EC** (elective course)/ **NCPC** (non-compulsory course);

5) One credit is the equivalent of 25 study hours (teaching activities and individual study).

COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	TRANSILVANIA UNIVERSITY OF BRAŞOV
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Civil Engineering and Building Services
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and Conservation of Built Heritage

2. Data about the course

2.1 Name of course			Digital tools for documentation, analysis and presentation of built heritage (DT02)					
2.2 Course convenor								
2.3 Seminar/ laboratory/ project convenor			eng. drd. Cătălin MAFTEI					
2.4 Study year	I	2.5 Semester	I	2.6 Evaluation type	E	2.7 Course status	Content[3)]	DS
							Attendance type[4)]	DOB

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	5	out of which: 3.2 lecture	2	3.3 seminar / laboratory / project	3/0/0
3.4 Total number of hours in the curriculum	70	out of which: 3.5 lecture	28	3.6 seminar / laboratory / project	42/0/0

Time allocation	hours
Study of textbooks, course support, bibliography and notes	28
Additional documentation in libraries, specialized electronic platforms, and field research	40
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	42
Tutorial	-
Examinations	10
Other activities	-

3.7 Total number of hours of student activity	120
3.8 Total number per semester	180
3.9 Number of credits[5)]	6

4. Prerequisites (if applicable)

4.1 curriculum-related	Basic knowledge of computer

4.2 competences-related	-

5. Conditions (if applicable)

5.1 for course development	Class with appropriate furniture, whiteboard and watermarker, possibly blackboard and chalk, video projector and internet access.
5.2 for seminar / laboratory/ project development	Room with appropriate furniture, whiteboard and watermarker, possibly blackboard and chalk, video projector and internet access.

6. Specific competences

Professional competences	C6. Ability to use digital tools for documenting and analyzing built heritage Learning outcomes 6.1. Knowledge L.o.6.1.1. Knows data modeling and management principles (BIM, GIS, etc.). 6.2. Skills L.o.6.2.1. Uses dedicated software for documentation and analysis. L.o.6.2.2. Integrates digital methods for presenting investigation results. 6.3. Responsibility and autonomy L.o.6.3.1. Assumes responsibility for the accuracy and transparency of digital information.
Transversal competences	

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	• To develop advanced digital skills required for high-quality documentation, analysis, and presentation of built heritage, enabling master's students to seamlessly integrate into current professional practice and research projects in the field.
7.2 Specific objectives	• Independently use professional real-time rendering and animation tools to create realistic and artistic representations of heritage objects. • Correctly integrate 3D models from digital surveys (SketchUp, Revit, ArchiCAD) into professional visualization workflows. • Apply principles of visual composition, lighting, and post-processing to produce professional-grade presentation materials. • Create short films, static renderings, and 360° panoramas that meet the communication requirements of restoration, research, and cultural tourism projects. • Organize and publicly present a complete digital presentation project of a heritage building in accordance with current standards of quality and accuracy.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks

Module 1: Introduction and Setting up the Working Environment	Lecture	4	
Module 2: Realistic Materials, Natural Context and Lighting		6	
Module 3: Composition, Static Shots and Basic Animation		6	
Module 4: Scene Population, Environmental Sound and Advanced Artistic Representation Techniques		6	
Module 5: Final Presentation and Professional Delivery		6	

Bibliography:

Act-3D, Lumion Essential Guide, Lumion Press, 2024.

McCarthy, J., Visualization for Architects: Mastering Lumion and Real-Time Rendering, Routledge, 2023.

Smith, R., Architectural Visualization: Principles and Practice with Lumion, Wiley, 2022.

Brown, A., Digital Tools for Heritage Conservation: Rendering and Visualization Techniques, Springer, 2021.

Cardoso, D., Real-Time Architectural Visualization: The Power of Lumion, O'Reilly Media, 2024.

Popescu, M.; Ionescu, C., Patrimoniul construit românesc – Documentare și reprezentare digitală, Editura Universitară „Ion Mincu", București, 2023.

Groat, L.; Wang, D., Architectural Research Methods, 2nd ed., Wiley, 2019 (cap. 9 – Visual Representation).

Farrelly, L., Representational Techniques for Architecture, 3rd ed., Bloomsbury Visual Arts, 2022.

Ching, F. D. K., Architectural Graphics, 7th ed., Wiley, 2023.

Neufert, E., Architects' Data, 5th ed., Wiley-Blackwell, 2022.

8.2 Seminar / Laboratory / Project	Teaching methods	Number of hours	Remarks
Module 1: Installation, Interface and Correct 3D Model Import	Project-based learning	6	
Module 2: Realistic Materials and Natural Context		9	
Module 3: Composition, Static Frames and First Complete Animation		9	
Module 4: Characters, Sound, Artistic Styles and Interior Rendering		9	
Module 5: Final Project: 60–90 sec film + 360° panorama + presentation		9	

Bibliography:

Act-3D, Lumion User Manual 2024 (PDF oficial inclus în instalarea Educațională).

Act-3D, Lumion Knowledge Base & Technical Documentation, ediția 2024–2025 (documentație oficială).

Act-3D, Lumion Pro Student Handbook, 2024 (furnizat gratuit cu licența educațională).

McCarthy, J., Visualization for Architects (capitolele practice 5–10), Routledge, 2023.

Smith, R., Architectural Visualization with Lumion (exercițiile practice), Wiley, 2022.

Cardoso, D., Real-Time Architectural Visualization (partea a II-a – Workflow), O'Reilly, 2024.

Materiale de curs și biblioteca digitală „Romanian Heritage Assets” (elaborată și furnizată de titularul disciplinei)

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The course develops advanced digital skills in documentation, analysis, and presentation of built heritage, explicitly required by employers and specialist institutions in current job descriptions and real-world projects in the field.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	Acquired theoretical knowledge concerning the digital workflow for documentation and presentation of built heritage (quantity, accuracy, depth, applicability)	Module 1: short written/oral questions Module 2: mini multiple-choice test Module 3: composition & framing assessment Module 4: quick quiz Module 5: active participation and questions during final presentations	30 % of the final grade (6 % per module)
10.5 Seminar / Laboratory / project	Quality of digital deliverables, accuracy in representing built heritage, compliance with technical and aesthetic requirements, file organization, steady progress, final oral presentation	Module 1: portfolio check – correct import + interface screenshots Module 2: review of 8–10 high-quality renderings + project file Module 3 : review of 45–60 sec film + project file Module 4: review of interior tour + 3 artistic renderings Module 5: complete final project + 6–7 minute oral presentation	70 % of the final grade (10 % + 15 % + 15 % + 10 % + 30 %)
10.6 Minimal performance standard • The result of each evaluation must be at least 5.			

This course outline was certified in the Department Board meeting on __/__/2025 and approved in the Faculty Board meeting on __/__/2025.

Prof. dr. ing. Ioan TUNS Dean	Conf. dr. ing. Teofil GĂLĂȚANU Head of Department
eng. drd. Cătălin MAFTEI Course holder	eng. drd. Cătălin MAFTEI Seminar/laboratory/project leader

Notă:

1) Domeniul de studii - se alege una din variantele: Licență/ Masterat/ Doctorat (se completează conform cu Nomenclatorul domeniilor şi al specializărilor/ programelor de studii universitare în vigoare);
2) Ciclul de studii - se alege una din variantele: Licență/ Masterat/ Doctorat;
3) Regimul disciplinei (conținut) - se alege una din variantele: DF (disciplină fundamentală)/ DD (disciplină din domeniu)/ DS (disciplină de specialitate)/ DC (disciplină complementară) - pentru nivelul de licență; DAP (disciplină de aprofundare)/ DSI (disciplină de sinteză)/ DCA (disciplină de cunoaştere avansată) - pentru nivelul de masterat;
4) Regimul disciplinei (obligativitate) - se alege una din variantele: DI (disciplină obligatorie)/ DO (disciplină opțională)/ DFac (disciplină facultativă);
5) Un credit este echivalent cu 25 de ore de studiu (activități didactice şi studiu individual)

COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	Transilvania University of Brasov
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Master
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and conservation of built heritage / Master

2. Data about the course

2.1 Name of course				Modern intervention and restoration techniques (MIRT02)				
2.2 Course convenor				Teofil GĂLĂȚANU				
2.3 Seminar/ laboratory/ project convenor				Teofil GĂLĂȚANU				
2.4 Study year	I	2.5 Semester	II	2.6 Evaluation type	E	2.7 Course status	Content[3)]	AC
							Attendance type[4)]	EC

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	5	out of which: 3.2 lecture	2	3.3 seminar/ laboratory/ project	3/0/0
3.4 Total number of hours in the curriculum	70	out of which: 3.5 lecture	28	3.6 seminar/ laboratory/ project	42/0/0

Time allocation	hours
Study of textbooks, course support, bibliography and notes	30
Additional documentation in libraries, specialized electronic platforms, and field research	30
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	44
Tutorial	4
Examinations	2
Other activities.....	

3.7 Total number of hours of student activity	110
3.8 Total number per semester	180
3.9 Number of credits5)	6

4. Prerequisites (if applicable)

4.1 curriculum-related	
4.2 competences-related	•

5. Conditions (if applicable)

5.1 for course development	• Classroom with video projector, blackboard and specific teaching materials; • Functional e-learning platform.
5.2 for seminar/ laboratory/ project development	• Seminar room, video projector, computers, software: MS Office, Power Point, Anelis+ access; • Functional e-learning platform.

6. Specific competences and learning outcomes

Professional competences	C1. Knowledge of traditional and modern materials, techniques, their long-term behavior, and their use in restoration and conservation works Learning outcomes 1.1. Knowledge L.o.1.1.1. Knows the composition, structure, and properties of traditional and modern materials. L.o.1.1.2. Explains the main degradation processes and pathologies of construction materials. 1.2. Skills L.o.1.2.1. Identifies defects and causes of material degradation in heritage buildings. L.o.1.2.2. Applies traditional techniques compatible with historical structures. 1.3. Responsibility and autonomy L.o.1.3.1. Proposes intervention solutions appropriate to the materials and historical context.
	C2. Ability to design, execute, and maintain restoration and conservation works of constructions Learning outcomes 2.1. Knowledge L.o.2.1.1. Knows the principles of engineering design, including Eurocodes and quality standards. 2.2. Skills L.o.2.2.1. Applies engineering principles to the design and execution of restoration works. L.o.2.2.2. Integrates technical solutions compatible with long-term maintenance. 2.3. Responsibility and autonomy L.o.2.3.1. Assumes decisions regarding the technical and functional compatibility of solutions.
	C3. Ability to identify architectural concepts and solutions for the restoration of heritage buildings Learning outcomes 3.1. Knowledge L.o.3.1.1. Understands aesthetic and functional concepts applicable to built heritage. 3.2. Skills L.o.3.2.1. Analyzes and interprets historical architectural elements. L.o.3.2.2. Proposes restoration solutions compatible with architectural value. 3.3. Responsibility and autonomy L.o.3.3.1. Justifies design choices in relation to conservation principles.
Transversal competences	

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	• Familiarizing students with modern restoration concepts, alongside the acquisition and understanding of traditional restoration techniques; • Developing the ability to apply well-established modern intervention and restoration techniques;
7.2 Specific objectives	• Enhancing the capacity to understand and adopt key modern intervention and restoration methods; • Acquiring the knowledge necessary to comprehend, respect, design, and implement modern intervention and restoration techniques.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks

Current Techniques in Conservation and Restoration. Modern Scientific Methods for Material Analysis (Microscopy, Spectroscopy, etc.)	oral presentation and with the help of the video projector	4	
Non-invasive, sustainable, and reversible interventions		4	
Use of compatible and reversible materials for restoration (composite materials, nanomaterials, etc.) Compatibility between original and new materials		4	
Modern structural consolidation and restoration. Restoration of architectural elements		4	
Preventive conservation techniques for historic buildings: digital monitoring systems, biocidal and anti-salinity treatments		4	
Artificial Intelligence (AI) for predictive restoration. Smart materials Participatory conservation: involving local communities in heritage protection through digital and educational methods		4	
Case studies. Examples of successful (or controversial) restorations Interdisciplinary projects (art historians, architects, engineers, chemists, biologists, etc.)		4	
Bibliography 1. The International Venice Charter for the Conservation and Restoration of Historic Monuments. 2. Jukka Jokilehto, A History of Architectural Conservation, Taylor & Francis Ltd, 2017; 3. Machel Petzet, International Principles of Preservation			
8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks
Identification and Implementation of Various Intervention and Restoration Solutions	oral presentation, project presentation, video presentation; reports drawn up by students; discussions	6	
Preparation of a research paper on a chosen topic—a historic monument building—and identification of the main issues that led to specific forms of deterioration.		15	
Presentation of the paper.		3	
Development of a restoration project using modern techniques and materials, while adhering to non-invasive principles.		15	
Public presentation of the project.		3	
Bibliography 1. B. Szabo, Illustrated dictionary. of historic load-bearing structures 2. Jan K. Kazak, Katarzyna Hodor and Magdalena Wilkosz-Mamcarczyk, Natural Environment and Cultural Heritage in the City, MDPI, 2021 3. Conservation notebooks -https://patrimonescu.ro/			

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The content of the discipline corresponds to the thematic area in the field, for this level of study, being in accordance with national and international regulations.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	Grid test with 20 questions / synthesis paper - theory	Written test	50%
10.5 Seminar/ laboratory/ project	Assessment of practical application / papers / project	Oral test – presentation	50%

10.6 Minimal performance standard

- The result of each test must be at least 5.

Performance level evaluation grid		
Performance level	General description	Features
Excellent (10–9)	Fully masters the concepts; analyses are innovative and accurate	Perfect terminology, logical structure, autonomy, critical thinking
Very good (8)	Demonstrates solid understanding and correct application	Minor errors, but conceptual and applicative coherence
Good (7)	Understands basic concepts, but application is partial	Sometimes inaccurate terminology, incomplete explanations
Sufficient (6)	Mechanical application of notions, without real reflection	Partially correct answers, gaps in logic
Insufficient (<5)	Does not demonstrate understanding of fundamental concepts	Theoretical confusion, misapplications, lack of argumentation

This course outline was certified in the Department Board meeting on 30/09/2025 and approved in the Faculty Board meeting on 30/09/2025.

Prof. eng. Ioan TUNS, Ph.D. **Dean**	**Assoc. prof. eng. Teofil GĂLĂȚANU, Ph.D.** **Head of Department**
Assoc. prof. eng. Teofil GĂLĂȚANU, Ph.D. **Course holder**	**Assoc. prof. eng. Teofil GĂLĂȚANU, Ph.D.** **Holder of seminar/ laboratory/ project**

Note:

1) Field of study – select one of the following options: BA/MA/PhD. (to be filled in according to the forceful classification list for study programmes);

[2] Study level – choose from among: BA/MA/PhD;

[3] Course status (content) – for the BA level, select one of the following options: FC (fundamental course) / DC (course in the study domain)/ SC (speciality course)/ CC (complementary course); for the MA level, select one of the following options: PC (proficiency course)/ SC (synthesis course)/ AC (advanced course);

[4] Course status (attendance type) – select one of the following options: CPC (compulsory course)/ EC (elective course)/ NCPC (non-compulsory course);

[5] One credit is the equivalent of 25 – 30 study hours (teaching activities and individual study).

COURSE OUTLINE

1. Data about the study program

1.1 Higher education institution	Transilvania University of Brasov
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Master
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and conservation of built heritage / Master

2. Data about the course

2.1 Name of course								
2.2 Course convenor								
2.3 Seminar/ laboratory/ project			Prof.dr.hab. Alina BĂRBULESCU					
2.4 Study year	I	2.5 Semester	I	2.6 Evaluation type	V	2.7 Course status	Content[3)]	SC
							Attendance type[4)]	CPC

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	10	out of which: 3.2 lecture	0	3.3 seminar/ laboratory/ project	0/0/10
3.4 Total number of hours in the curriculum	140	out of which: 3.5 lecture	0	3.6 seminar/ laboratory/ project	0/0/140

Time allocation	hours
Study of textbooks, course support, bibliography and notes	40
Additional documentation in libraries, specialized electronic platforms, and field research	70
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	46
Tutorial	
Examinations	4
Other activities.....	

3.7 Total number of hours of student activity	160
3.8 Total number per semester	300
3.9 Number of credits[5)]	10

4. Prerequisites (if applicable)

4.1 curriculum-related	• it is not the case
4.2 competences-related	• it is not the case

5. Conditions (if applicable)

5.1 for course development	• it is not the case •
5.2 for seminar/ laboratory/ project development	• the company / institution where the internship is carried out must have in its field of activity concerns related to construction / architecture / urban planning / restoration and conservation of built heritage / etc.

6. Specific competences and learning outcomes

	C3. Ability to identify architectural concepts and solutions for the restoration of heritage buildings 3.1. Knowledge L.o.3.1.1. Understands aesthetic and functional concepts applicable to built heritage. 3.2. Skills L.o.3.2.1. Analyzes and interprets historical architectural elements. 3.3. Responsibility and autonomy L.o.3.3.1. Justifies design choices in relation to conservation principles. C5. Ability to evaluate and integrate landscape architecture elements and the relationship between natural and built environments 5.1. Knowledge L.o.5.1.1. Knows concepts of urban planning, landscape architecture, and functional compatibility. 5.2. Skills L.o.5.2.1. Evaluates sites from the perspective of the natural–built relationship. 5.3. Responsibility and autonomy L.o.5.3.1. Integrates the specific features of rural and vernacular heritage into projects. C8. Ability to communicate and promote built heritage 8.1. Knowledge L.o.8.1.1. Knows principles of written, oral, and visual communication applicable to heritage. 8.2. Skills L.o.8.2.1. Prepares presentations and reports for diverse audiences. 8.3. Responsibility and autonomy L.o.8.3.1. Assumes the role of mediator between specialists and the community
Professional competences	

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	• Training of applied skills in the field of conservation and management of built heritage; • Familiarization with professional activities carried out in institutions and organizations in the field of heritage; • Development of the capacity to integrate legislative and technical knowledge in interventions on heritage.
7.2 Specific objectives	• To correctly identify the types of cultural heritage (historical, architectural, archaeological) in the field; • To recognize the legal regime of protected buildings and sites; • To apply the principles of conservation and restoration in real contexts (rehabilitation works, intervention projects, etc.); • To ethically and professionally argue the importance of preserving built heritage.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
-	-	-	-
Bibliography			
8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks
Preparation of a practice notebook including, among others: - information and examples of scientific papers/articles dealing with theoretical notions regarding the restoration and conservation of built heritage, - documentation studies: applicable legislation, monument files, local regulations; - field activities and assisted observation; - technical application activities; measurements, visual assessments of the state of conservation - participation in design or coordination activities.	individual study in the library, use of international databases, study of the portfolio of works belonging to the company / institution where the internship takes place, teamwork within several departments in the company, work in the field to observe how projects are implemented	140	The company / institution where the internship is done will make its own assessment of what the student has understood / mastered
Bibliography Course materials / seminars related to the subjects taught during the semester; UNESCO – Operational Guidelines for the Implementation of the World Heritage Convention, 2023, https://whc.unesco.org/en/guidelines/ Jokilehto, Jukka – A History of Architectural Conservation, Routledge, 2017 (2nd ed.) ICOMOS – The Venice Charter (1964) – International Charter for the Conservation and Restoration of Monuments and Sites Ioan Opris - Ocrotirea patrimoniului cultural (Protection of cultural heritage), Editura Meridiane, 1986			

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The discipline presents a content that aims at the formation of specific competencies that correspond to the occupational standards in the field of project management.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course			
10.5 Seminar/ laboratory/ project	Clarity, consistency and conciseness of oral presentation. Ability to exemplify. Correct use of domain-specific terms and notions.	Presentation and support of the activities contained in the Practice Booklet	100%
10.6 Minimal performance standard			
• presentation of a Practice Booklet.			

• presentation of a Certificate of Practice issued by the company / institution where the internship was performed.

This course outline was certified in the Department Board meeting on ...../...../..... and approved in the Faculty Board meeting on ...../...../.....

Prof.eng. Ioan TUNS, Ph.D. **Dean**	**Assoc.prof.eng. Teofil GĂLĂȚANU, Ph.D.** **Head of Department**
Course holder	**Prof.hab. Alina BĂRBULESCU, Ph.D.** **Holder of seminar/ laboratory/ project**

Note:

1) Field of study – select one of the following options: Bachelor / Master / Doctorate (to be filled in according to the forceful classification list for study programs);

2) Study level – choose from among: Bachelor / Master / Doctorate.

3) Course status (content) – for the Bachelor level, select one of the following options: **FC** (fundamental course) / **DC** (course in the study domain)/ **SC** (specialty course)/ **CC** (complementary course); for the Master level, select one of the following options: **PC** (proficiency course)/ SC (synthesis course)/ **AC** (advanced course).

4) Course status (attendance type) – select one of the following options: **CPC** (compulsory course)/ **EC** (elective course)/ **NCPC** (non-compulsory course).

5) One credit is the equivalent of 30 study hours (teaching activities and individual study).

COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	TRANSILVANIA UNIVERSITY OF BRAŞOV
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Civil Engineering and Building Services
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and Conservation of Built Heritage

2. Data about the course

2.1 Name of course			INDUSTRIAL HERITAGE AND URBAN REGENERATION (IH02)					
2.2 Course convenor			Prof. dr. arh. Teofil MIHĂILESCU					
2.3 Seminar/ laboratory/ project convenor			Prof. dr. arh. Teofil MIHĂILESCU					
2.4 Study year	I	2.5 Semester	I	2.6 Evaluation type	E	2.7 Course status	Content[3)]	DCA
							Attendance type[4)]	DO

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	3	out of which: 3.2 lecture	2	3.3 seminar / laboratory / project	1/0/0
3.4 Total number of hours in the curriculum	42	out of which: 3.5 lecture	28	3.6 seminar / laboratory / project	14/0/0

Time allocation	hours
Study of textbooks, course support, bibliography and notes	25
Additional documentation in libraries, specialized electronic platforms, and field research	25
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	26
Tutorial	-
Examinations	2
Other activities Explorarea practică de soluții principiale de design/arhitectură de interior pentru unități de alimentație publică (restaurante, cafenele, baruri, cofetării, braserii etc) şi unități hoteliere.	-

3.7 Total number of hours of student activity	78
3.8 Total number per semester	120
3.9 Number of credits[5)]	4

4. Prerequisites (if applicable)

4.1 curriculum-related	it is not the case
4.2 competences-related	it is not the case

5. Conditions (if applicable)

5.1 for course development	Room with appropriate furniture, whiteboard and watermarker, possibly blackboard and chalk, video projector and internet access.
5.2 for seminar / laboratory/ project development	Room with appropriate furniture, whiteboard and watermarker, possibly blackboard and chalk, video projector and internet access.

6. **Professional competences and learning outcomes:**

Professional competences	C3. Ability to identify architectural concepts and solutions for the restoration of heritage buildings. Learning outcomes 3.1. Knowledge L.o.3.1.1. Understands aesthetic and functional concepts applicable to built heritage. 3.2. Skills L.o.3.2.1. Analyzes and interprets historical architectural elements. L.o.3.2.2. Proposes restoration solutions compatible with architectural value. 3.3. Responsibility and autonomy L.o.3.3.1. Justifies design choices in relation to conservation principles. C4. Ability to plan and design interventions in protected areas and historic sites. Learning outcomes 4.1. Knowledge L.o.4.1.1. Knows urban planning principles applicable to protected areas. 4.2. Skills L.o.4.2.1. Applies urban planning tools at the level of historic sites. L.o.4.2.2. Analyzes the impact of urban regeneration on heritage. 4.3. Responsibility and autonomy L.o.4.3.1. Integrates sustainability and urban regeneration criteria into design. L.o.4.3.2. Recognizes the particularities of industrial heritage in regeneration processes. C5. Ability to evaluate and integrate landscape architecture elements and the relationship between natural and built environments. Learning outcomes 5.1. Knowledge L.o.5.1.1. Knows concepts of urban planning, landscape architecture, and functional compatibility. 5.2. Skills L.o.5.2.1. Evaluates sites from the perspective of the natural–built relationship. L.o.5.2.2. Identifies and proposes solutions for conserving cultural and historical landscapes. 5.3. Responsibility and autonomy L.o.5.3.1. Integrates the specific features of rural and vernacular heritage into projects. C11. Ability to understand and interpret history, culture, and conservation techniques. Learning outcomes 11.1. Knowledge L.o.11.1.1. Knows historical events and their impact on built heritage. L.o.11.1.2. Understands archiving and conservation techniques. 11.2. Skills L.o.11.2.1. Applies archaeological analysis methods in heritage investigation. L.o.11.2.2. Documents and interprets the cultural context of monuments. 11.3. Responsibility and autonomy L.o.11.3.1. Demonstrates responsibility in protecting and transmitting cultural values.

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	Developing the skills to analyze / interpret / understand an industrial heritage and urban regeneration context, urban design themes, to understand the process that leads to the realization of an industrial heritage and urban regeneration project at an urban level in relation to contemporary concepts in sustainable architectural and urban design, to link the requirements that confer to the industrial heritage contexts potential from the point of view of the primary, functional, cultural-symbolic and aesthetic meanings, to create the premises for sustainable dialogue in practice between engineering specialists, architects and urban planners. Developing the capacity for an inter-, pluri-, trans- and multi-disciplinary approach in the field of urbanism and the understanding of the city as an organism/system/phenomenon.
7.2	Challenging interactivity by designing various teaching-learning situations using active-participative

Specific objectives	strategies aiming to familiarize students with the world of urban planning and develop specialized communication skills. Developing the capacity for a systemic approach to the discipline by highlighting the links between structural engineering and the history/theory/practice of design in the field of urbanism, insisting on active learning/experience. Acquiring specialized terminology, thinking and working mechanisms specific to the field and developing communication and teamwork skills in a professional context, as well as the effective use of information sources and resources for communication and assisted professional training (portals, internet, applications specialized software, databases, online courses, etc.). Crystallization of a creative and initiative spirit in solving complex specialized problems in the field of the built universe, in an inter-, pluri-, trans- and multidisciplinary context, as well as the crystallization of cognitive, applied-professional and affective-value skills as a reference matrix for approaching practical situations in the field.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
General specifications. The professor has intellectual property rights over the materials, creations and professional and artistic contents of which he is the author, presented in courses, seminars and/or exams in the form of slides, audio-video materials and specific didactic materials (models, artistic works, exam subjects, grids, etc.), as well as the right to manage one's own image in any media, guaranteed by the specific legislation in Romania and EU. Therefore, without the prior written consent of the teacher and in light of the legislation in force, it is forbidden to photograph, film and/or audio-video record by any means, partially and/or in full: i) of the activities carried out at courses, seminars, submissions of papers, exams, etc., ii) of the contents, slides, didactic materials, etc. presented in courses, seminars, etc., as well as the contents drawn directly on the blackboard or on other supports by the teacher and/or iii) of the teacher (image and/or voice, fully or partially) at courses, seminars, thesis defenses, exams, etc. Regarding the teacher-student relationship, carried out strictly within the provisions of the regulations in force in UniTBv as well as mutual respect, good faith and common sense, the teacher: i) accepts exclusively written communication and only with students who are legal holders of a institutional e-mail addresses of UniTBv, ii) answers any questions within the limits of the powers and obligations provided for in the regulations that apply to it, iii) reserves the right not to answer e-mails outside of working hours / weekends / legal days off / rest or medical leave or in situations that can be interpreted as intimidation, insults, attempted fraud, lies presented as truth, manipulation, etc., iv) does not in any way mediate the relationship of students with the secretary or other entities within UniTBv and v) for the efficient use of the time dedicated to the educational process, reserves the right not to answer questions that already have their answers in the .pdf documents uploaded on the E-learning platform of UniTBv for the related discipline.			
Introduction to design heuristics in architecture and urban planning (reality, image, imaginary). Syntax. Analytical approach to the built environment (from idea, theme and project to built reality) related to the demands of sustainable development (technical/structural, functional, aesthetic, site, legislative etc.).	Lecture based on image projection, case studies,	2h	-
Planning and Urban Structure. About the morphology of the urban space an the problematic of industrial areas. Foray into the history, theory and criticism		8h	

of architecture-city-territory relationship for understanding the typology of various design situations in planning. Currents and urban models (culturalist, progressive, naturalist; the garden / industrial / linear / regional / of monuments / totalitarian city. The ideal, utopian, magical, virtual city. an Industrial heritage and urban regeneration: working and design contexts, problematic, approaching directions.	interactive debate and multimedia.		
Elements of urban composition. Zoning and function at the city scale. Fair building and smart building in the context of the industrial heritage and urban regeneration field. The relationship of building materials / structural systems - destination / function - form / expression in architecture and urbanism: the Vitruvian attributes: Stabilitas/Firmitas (resistance, safety, structural engineering, associated meanings) - Utilitas (function, associated meanings) - Venustas (expressiveness, beauty, associated meanings).		6h	
City versus village. Urban and rural heritage. The built environment as a system, phenomenon, organism, scene of human lives and activities. Strategy, management and urban development as a result of the fusion of all professions involved in the becoming of the rural context, in the vernacular architecture and rural heritage. Types of dedicated planning projects, graphic representations / conventions in planning, the importance of written / drawn pieces (scale, symbols, representations, anthropometry, ergonomics, etc).		6h	
Sustainable design in the dichotomy of virtual ideal and/versus designed, accepted, approved and built reality theme. Analysis of the actual situation, mentality, limits and types of legislative conditions. Project development phases, quality requirements, importance the dialogue between urban actors. The challenges in the "road" of the technical documentation to the building permit, the types of challenges in the transformation of the urban planning project into a built reality.		6h	
			Total course hours=28h

Bibliography:

1. BELEA, R., FULICEA, V., TEODORESCU, A., Desenul în arhitectură şi urbanism, Ed. Tehnică, Bucureşti, 1967;
2. BUSSAGLI, M., Să înțelegem arhitectura, Enciclopedia RAO, Bucureşti, 2005;
3. CHING, F., Arhitecture: Form, Space and Order, Ed. Taschen, 1995;
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6. GUEDES, P. The Macmillan Encyclopedia of Architecture and Technological Change, The Macmillan, London, 1979;
7. HALL, P., Cities of Tomorrow, ALL Educational, 1988;
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9. LYNCH, K.,The Image of the City, 1960; Good City Form, 1981; City Sense and City Design, 1990, MIT Press;
10. MARCUS, S., Centru şi periferie în secolul 20 spre 21, pp 50-62, 2000;
11. MIHĂILESCU, T.,Standard economic bioclimatic solar individual houses. 4 hypostases (IOP Publishing), 2017;
12. MIHAILESCU, T., Elemente de geometrie descriptivă, Ed. Univ. Ion Mincu, Bucureşti, 2025;
13. NEUBAUER, H., WACHTEN, K., Urban Design and The 20th Century Architecture, Tandem Verlag GmbH, 2010;
14. NEUFERT, E., Manualul arhitectului: elemente de proiectare şi de construcție, Ed. Alutus, 2004;
15. NORBERG-SCHULTZ, C. Existence, Space and Architecture, London, Praeger Publishers, 1971;
16. OBERFRANCOVA, L., WOLLENSAK, M., Life time design of building in urban areas. Methods, instruments and process of sustainable building design in architecture, Wismar University, 2015;
17. TRACHTENBERG, M.; HYMAN, I., Architecture from Prehistory to Postmodernity, Ed. H. N. Abrams Inc., N.Y., 2002;
- Declaratia de la Toledo-document U.E. 2010 (http://www.rur.ro/cod-deontologic);

- Towards an International Landscape Convention, 2011 (http://www.iflaonline.org); - Exercitarea profesiei de arhitect, Ordinul Arhitectilor din România, Simetria, 2006; - Reviste de specialitate: Arhitext Design, Igloo, Domus, Arhitectura etc; Internet.			
8.2 Seminar / laboratory/ project General specifications. The professor has intellectual property rights over the materials, creations and professional and artistic contents of which he is the author, presented in courses, seminars and/or exams in the form of slides, audio-video materials and specific didactic materials (models, artistic works, exam subjects, grids, etc.), as well as the right to manage one's own image in any media, guaranteed by the specific legislation in Romania and EU. Therefore, without the prior written consent of the teacher and in light of the legislation in force, it is forbidden to photograph, film and/or audio-video record by any means, partially and/or in full: i) of the activities carried out at courses, seminars, submissions of papers, exams, etc., ii) of the contents, slides, didactic materials, etc. presented in courses, seminars, etc., as well as the contents drawn directly on the blackboard or on other supports by the teacher and/or iii) of the teacher (image and/or voice, fully or partially) at courses, seminars, thesis defenses, exams, etc. Regarding the teacher-student relationship, carried out strictly within the provisions of the regulations in force in UniTBv as well as mutual respect, good faith and common sense, the teacher: i) accepts exclusively written communication and only with students who are legal holders of a institutional e-mail addresses of UniTBv, ii) answers any questions within the limits of the powers and obligations provided for in the regulations that apply to it, iii) reserves the right not to answer e-mails outside of working hours / weekends / legal days off / rest or medical leave or in situations that can be interpreted as intimidation, insults, attempted fraud, lies presented as truth, manipulation, etc., iv) does not in any way mediate the relationship of students with the secretary or other entities within UniTBv and v) for the efficient use of the time dedicated to the educational process, reserves the right not to answer questions that already have their answers in the .pdf documents uploaded on the E-learning platform of UniTBv for the related discipline.	Teaching-learning methods	Number of hours	Remarks
The project theme proposed to the master's students in the course, intended to crystallize the students' relationship with the an industrial heritage and urban regeneration universe, proposes a conscious exploration of the presence, impact and potential of the industrial heritage: i) of the context (urban, historical, political, economic, etc.) that led to understanding the importance and the potential of the vernacular architecture and rural heritage, therefore to the need of specific projects in a specific city/territory, ii) of the route of work concepts until the identification of a concept to be translated into an urban planning project leading to the conservation, protection and valorify the vernacular architecture and rural heritage, iii) of the course of the project (direct order, result of a competition, etc.) , iv) of the specialties and urban actors involved in the project (residents, public administration, private investors, partnerships, etc.), v) of the specific differences (if any) between the	Practical activity, corrections, interactive discussions, team work, guidance, documentation and research, image analysis and reporting on specific topics, analysis and debate of ideas	14h	

project – built reality – post-construction reality at present, vi) of the impact of the project achieved with the immediate vicinity and within the context in which it was implemented, vii) of the impact, if any, on the repositioning of the vernacular architecture and rural heritage context in which it was implemented in its competition with other similar contexts (tourism, investments, quality of life, etc.) - materialized in the study of an conservation, protection, valorification and regeneration process-project of industrial heritage, realized (not virtual), relevant in terms of surface area, impact and reflection in national and/or international specialist media and publications, carried out anywhere in the world and at any time in the last two centuries (the beginning of the 19th century - the beginning of the 21st century). The theme is intended to deepen the realities and image of the contemporary vernacular architecture and rural heritage contexts city both as i) system, phenomenon and organism and as ii) product, market and enterprise, in the struggle of all urban actors involved in its destiny to consolidate a better place in the urban competition.	and visions, brainstorming, technical explorations.		
			Total seminar hours=14h

Bibliography:

1. BELEA, R., FULICEA, V., TEODORESCU, A., Desenul în arhitectură şi urbanism, Ed. Tehnică, Bucureşti, 1967;
2. BUSSAGLI, M., Să înțelegem arhitectura, Enciclopedia RAO, Bucureşti, 2005;
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15. NORBERG-SCHULTZ, C. Existence, Space and Architecture, London, Praeger Publishers, 1971;
16. OBERFRANCOVA, L., WOLLENSAK, M., Life time design of building in urban areas. Methods, instruments and process of sustainable building design in architecture, Wismar University, 2015;
17. TRACHTENBERG, M.; HYMAN, I., Architecture from Prehistory to Postmodernity, Ed. H. N. Abrams Inc., N.Y., 2002;
- Declaratia de la Toledo-document U.E. 2010 (http://www.rur.ro/cod-deontologic);
- Towards an International Landscape Convention, 2011 (http://www.iflaonline.org);
- Exercitarea profesiei de arhitect, Ordinul Arhitectilor din România, Simetria, 2006;
- Reviste de specialitate: Arhitext Design, Igloo, Domus, Arhitectura etc; Internet.

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The content of the discipline responds to the thematic area in the field, for this level of study, being in accordance with national and international regulations. The accumulated knowledge is necessary for carrying out the professional activity in the field of urban design and urban management.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	The projects are the result of the permanent dialogue between the students and the teacher, at the dedicated seminars, in the light of the course theme and in the spirit of the theme posted on the E-learning platform for this discipline. A professional, inter-, multi-, trans- and pluridisciplinary approach is of interest, the relevance of the subject chosen for study, the clarity, coherence and brevity of the project written in accordance with the structure of the course, as well as the correct use of research, interpretation and analysis methods specific to the course's issues , in order to formulate relevant conclusions.	Oral. Comparative evaluation within the group and support of the project developed according to the requirements of the theme.	100% The final grade results from the overall evaluation of the essay and the project according to the requirement s and his support during the exam.
0.5 Seminar / Laboratory / project	The projects will contain a significant number of written and drawn pieces for the synthetic presentation of the characteristics of the studied urban regeneration subject. They are prepared according to the specific norms of writing and academic integrity, ONLY as a .pdf document (A4, portrait orientation, normal margins, Times New Roman 12 font, single line) and are taught exclusively on the e-learning platform of UniTBv, at the dedicated resource for teaching, open on the E-learning platform of UniTBv on the last didactic day of the semester in week 14, in the time interval 08.00-22.00. The projects are supported publicly during the exam. Only students who have previously taught projects on the platform can participate in the exam. The exam consists of the public support of the taught project. In order to take the exam, the projects will be downloaded by the teacher from the e-learning platform and designed at the faculty, so it is not necessary to print them, for reasons of respect for the environment. Unturned projects according to the rules can NOT be recovered except in the dedicated backlog sessions. Grading is based on compliance with the theme's requirements, the relevance of the chosen example of urban regeneration, the clarity, coherence and brevity of the written and oral presentation, the complexity of the presentation of the project through relevant images and synthetic texts, the correct use of methods specific to the course's issues, correctness understanding the functional, formal, constructive and aesthetic solutions of the chosen subject. The conditions for all the re-examinations are: 1) the elaboration, upload and send of the project corresponding to: i) the assignments not uploaded on the E-learnin platform and remained without grade,		

	and/or ii) assignments uploaded on the E-learning platform, but without having a minimum grade of 5 (five), and/or iii) assignments uploaded on the E-learning platform, but with an unsatisfactory grade and submitting (ONLY as .pdf document, not links!) to the institutional e-mail address: t.mihailescu@unitbv.ro in the interval between the first day of the re-examination session and 24 hours before the date/time scheduled for the desired exam; 2) appearing to the exam under the conditions mentioned at point 1.		

10.6 Minimal performance standard
Understanding the terminology specific to the field, forming an own system of coherent urban thinking, developing the capacity for an interdisciplinary approach in the field and the understanding of the city as a complex organism/system/phenomenon. The ability to express and represent through means and work techniques specific to the field of urban planning as fundamental elements of specialized culture in terms of reporting to the urban universe. The development of communication and teamwork skills in a professional context, to understand a design theme and to respond to it in a creative-innovative-technical way by transforming it into an urban planning project. The christallization of some cognitive/applicative-professional/affective-value skills and a minimum of specialized border culture as a reference matrix for approaching practical situations in the sphere of urbanism. The result of each test must be at least 5.

This course outline was certified in the Department Board meeting on __/__/2025 and approved in the Faculty Board meeting on __/__/2025.

Dean: **Prof. dr. ing. Ioan TUNS**	**Head of Department:** **Conf. dr. ing. Teofil GĂLĂȚANU**
Course holder: **Prof. dr. arh. Teofil MIHĂILESCU**	**Holder of seminar / laboratory / project:** **Prof. dr. arh. Teofil MIHĂILESCU**

Note:

1) Field of study – select one of the following options: Bachelor / Master / Doctorat (to be filled in according to the forceful classification list for study programmes);
2) Study level – choose from among: Bachelor / Master / Doctorat;
3) Course status (content) – for the Bachelor level, select one of the following options: FC (fundamental course) / DC (course in the study domain)/ SC (speciality course)/ CC (complementary course); for the Master level, select one of the following options: PC (proficiency course)/ SC (synthesis course)/ AC (advanced course);
4) Course status (attendance type) – select one of the following options: CPC (compulsory course)/ EC (elective course)/ NCPC (non-compulsory course);
5) One credit is the equivalent of 25 study hours (teaching activities and individual study).

COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	TRANSILVANIA UNIVERSITY OF BRAŞOV
1.2 Faculty	Civil Engineering
1.3 Department	Civil Engineering
1.4 Field of study[1)]	Civil Engineering and Building Services
1.5 Study level[2)]	Master
1.6 Study programme/ Qualification	Restoration and Conservation of Built Heritage

2. Data about the course

2.1 Name of course			VERNACULAR ARCHITECTURE AND RURAL HERITAGE (VA02)					
2.2 Course convenor			Prof. dr. arh. Teofil MIHĂILESCU					
2.3 Seminar / laboratory / project convenor			Prof. dr. arh. Teofil MIHĂILESCU					
2.4 Study year	I	2.5 Semester	I	2.6 Evaluation type	E	2.7 Course status	Content[3)]	DCA
							Attendance type[4)]	DO

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	3	out of which: 3.2 lecture	2	3.3 seminar / laboratory / project	1/0/0
3.4 Total number of hours in the curriculum	42	out of which: 3.5 lecture	28	3.6 seminar / laboratory / project	14/0/0
Time allocation					hours
Study of textbooks, course support, bibliography and notes					25
Additional documentation in libraries, specialized electronic platforms, and field research					25
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays					26
Tutorial					-
Examinations					2
Other activities Explorarea practică de soluții principiale de design/arhitectură de interior pentru unități de alimentație publică (restaurante, cafenele, baruri, cofetării, braserii etc) şi unități hoteliere.					-

3.7 Total number of hours of student activity	78
3.8 Total number per semester	120
3.9 Number of credits[5)]	4

4. Prerequisites (if applicable)

4.1 curriculum-related	it is not the case
4.2 competences-related	it is not the case

5. Conditions (if applicable)

5.1 for course development	Room with appropriate furniture, whiteboard and watermarker, possibly blackboard and chalk, video projector and internet access.
5.2 for seminar / laboratory/ project development	Room with appropriate furniture, whiteboard and watermarker, possibly blackboard and chalk, video projector and internet access.

6. Professional competences and learning outcomes:

Professional competences	C3. Ability to identify architectural concepts and solutions for the restoration of heritage buildings. Learning outcomes 3.1. Knowledge L.o.3.1.1. Understands aesthetic and functional concepts applicable to built heritage. 3.2. Skills L.o.3.2.1. Analyzes and interprets historical architectural elements. L.o.3.2.2. Proposes restoration solutions compatible with architectural value. 3.3. Responsibility and autonomy L.o.3.3.1. Justifies design choices in relation to conservation principles. C4. Ability to plan and design interventions in protected areas and historic sites. Learning outcomes 4.1. Knowledge L.o.4.1.1. Knows urban planning principles applicable to protected areas. 4.2. Skills L.o.4.2.1. Applies urban planning tools at the level of historic sites. L.o.4.2.2. Analyzes the impact of urban regeneration on heritage. 4.3. Responsibility and autonomy L.o.4.3.1. Integrates sustainability and urban regeneration criteria into design. C5. Ability to evaluate and integrate landscape architecture elements and the relationship between natural and built environments. Learning outcomes 5.1. Knowledge L.o.5.1.1. Knows concepts of urban planning, landscape architecture, and functional compatibility. 5.2. Skills L.o.5.2.1. Evaluates sites from the perspective of the natural–built relationship. L.o.5.2.2. Identifies and proposes solutions for conserving cultural and historical landscapes. 5.3. Responsibility and autonomy L.o.5.3.1. Integrates the specific features of rural and vernacular heritage into projects. C11. Ability to understand and interpret history, culture, and conservation techniques. Learning outcomes 11.1. Knowledge L.o.11.1.1. Knows historical events and their impact on built heritage. L.o.11.1.2. Understands archiving and conservation techniques. 11.2. Skills L.o.11.2.1. Applies archaeological analysis methods in heritage investigation. L.o.11.2.2. Documents and interprets the cultural context of monuments. 11.3. Responsibility and autonomy L.o.11.3.1. Demonstrates responsibility in protecting and transmitting cultural values.

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	Developing the skills to analyze / interpret / understand an vernacular architecture and rural heritage context, urban design themes, to understand the process that leads to the realization of a vernacular architecture and rural heritage project at an urban level in relation to contemporary concepts in sustainable architectural and urban design, to link the requirements that confer urban contexts potential from the point of view of the primary, functional, cultural-symbolic and aesthetic meanings, to create the premises for sustainable dialogue in practice between engineering specialists, architects and urban planners. Developing the capacity for an inter-, pluri-, trans- and multi-disciplinary approach in the field of urbanism and the understanding of the city as an organism/system/phenomenon.
7.2 Specific	Challenging interactivity by designing various teaching-learning situations using active-participative strategies aiming to familiarize students with the world of urban planning and develop specialized

objectives	communication skills. Developing the capacity for a systemic approach to the discipline by highlighting the links between structural engineering and the history/theory/practice of design in the field of urbanism, insisting on active learning/experience. Acquiring specialized terminology, thinking and working mechanisms specific to the field and developing communication and teamwork skills in a professional context, as well as the effective use of information sources and resources for communication and assisted professional training (portals, internet, applications specialized software, databases, online courses, etc.). Crystallization of a creative and initiative spirit in solving complex specialized problems in the field of the built universe, in an inter-, pluri-, trans- and multidisciplinary context, as well as the crystallization of cognitive, applied-professional and affective-value skills as a reference matrix for approaching practical situations in the field.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
General specifications. The professor has intellectual property rights over the materials, creations and professional and artistic contents of which he is the author, presented in courses, seminars and/or exams in the form of slides, audio-video materials and specific didactic materials (models, artistic works, exam subjects, grids, etc.), as well as the right to manage one's own image in any media, guaranteed by the specific legislation in Romania and EU. Therefore, without the prior written consent of the teacher and in light of the legislation in force, it is forbidden to photograph, film and/or audio-video record by any means, partially and/or in full: i) of the activities carried out at courses, seminars, submissions of papers, exams, etc., ii) of the contents, slides, didactic materials, etc. presented in courses, seminars, etc., as well as the contents drawn directly on the blackboard or on other supports by the teacher and/or iii) of the teacher (image and/or voice, fully or partially) at courses, seminars, thesis defenses, exams, etc. Regarding the teacher-student relationship, carried out strictly within the provisions of the regulations in force in UniTBv as well as mutual respect, good faith and common sense, the teacher: i) accepts exclusively written communication and only with students who are legal holders of a institutional e-mail addresses of UniTBv, ii) answers any questions within the limits of the powers and obligations provided for in the regulations that apply to it, iii) reserves the right not to answer e-mails outside of working hours / weekends / legal days off / rest or medical leave or in situations that can be interpreted as intimidation, insults, attempted fraud, lies presented as truth, manipulation, etc., iv) does not in any way mediate the relationship of students with the secretary or other entities within UniTBv and v) for the efficient use of the time dedicated to the educational process, reserves the right not to answer questions that already have their answers in the .pdf documents uploaded on the E-learning platform of UniTBv for the related discipline.			
Introduction to design heuristics in architecture and urban planning (reality, image, imaginary). Syntax. Analytical approach to the built environment (from idea, theme and project to built reality) related to the demands of sustainable development (technical/structural, functional, aesthetic, site, legislative etc.).	Lecture based on image projection, case studies, interactive	2h	-
Planning and Urban Structure. About the morphology of the rural and urban space. Foray into the history, theory and criticism of architecture-city-territory relationship for understanding the typology of various design situations in		8h	

planning. Currents and urban models (culturalist, progressive, naturalist; the garden / industrial / linear / regional / of monuments / totalitarian city. The ideal, utopian, magical, virtual city. Vernacular architecture and rural heritage: working and design contexts, problematic, approaching directions.	debate and multimedia.		
Elements of urban composition. Zoning and function at the city scale. Fair building and smart building in the context of vernacular architecture and rural heritage field. The relationship of building materials / structural systems - destination / function - form / expression in architecture and urbanism: the Vitruvian attributes: Stabilitas/Firmitas (resistance, safety, structural engineering, associated meanings) - Utilitas (function, associated meanings) - Venustas (expressiveness, beauty, associated meanings).		6h	
City versus village. Urban and rural heritage. The built environment as a system, phenomenon, organism, scene of human lives and activities. Strategy, management and urban development as a result of the fusion of all professions involved in the becoming of the rural context, in the vernacular architecture and rural heritage. Types of dedicated planning projects, graphic representations / conventions in planning, the importance of written / drawn pieces (scale, symbols, representations, anthropometry, ergonomics, etc).		6h	
Sustainable design in the dichotomy of virtual ideal and/versus designed, accepted, approved and built reality theme. Analysis of the actual situation, mentality, limits and types of legislative conditions. Project development phases, quality requirements, importance the dialogue between urban actors. The challenges in the "road" of the technical documentation to the building permit, the types of challenges in the transformation of the urban planning project into a built reality.		6h	
			Total course hours=28h

Bibliography:

1. BELEA, R., FULICEA, V., TEODORESCU, A., Desenul în arhitectură şi urbanism, Ed. Tehnică, Bucureşti, 1967;
2. BUSSAGLI, M., Să înțelegem arhitectura, Enciclopedia RAO, Bucureşti, 2005;
3. CHING, F., Arhitecture: Form, Space and Order, Ed. Taschen, 1995;
4. CHOY, F., Urbanismul, utopii şi realități, Ed. Paideia, Bucureşti, 2000;
5. GÖSSEL, P., LEUTHÄUSER, G., Architecture in the 20th Century, Vol. 1 & 2, Ed. Benedikt Taschen, 2005;
6. GUEDES, P. The Macmillan Encyclopedia of Architecture and Technological Change, The Macmillan, London, 1979;
7. HALL, P., Cities of Tomorrow, ALL Educational, 1988;
8. LEWIS, J., A Green Vitruvius: Principles and Practice of Sustainable Architectural Design, Earthscan Ltd., U.K., 1999;
9. LYNCH, K.,The Image of the City, 1960; Good City Form, 1981; City Sense and City Design, 1990, MIT Press;
10. MARCUS, S., Centru şi periferie în secolul 20 spre 21, pp 50-62, 2000;
11. MIHĂILESCU, T.,Standard economic bioclimatic solar individual houses. 4 hypostases (IOP Publishing), 2017;
12. MIHAILESCU, T., Elemente de geometrie descriptivă, Ed. Univ. Ion Mincu, Bucureşti, 2025;
13. NEUBAUER, H., WACHTEN, K., Urban Design and The 20th Century Architecture, Tandem Verlag GmbH, 2010;
14. NEUFERT, E., Manualul arhitectului: elemente de proiectare şi de construcție, Ed. Alutus, 2004;
15. NORBERG-SCHULTZ, C. Existence, Space and Architecture, London, Praeger Publishers, 1971;
16. OBERFRANCOVA, L., WOLLENSAK, M., Life time design of building in urban areas. Methods, instruments and process of sustainable building design in architecture, Wismar University, 2015;
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- Declaratia de la Toledo-document U.E. 2010 (http://www.rur.ro/cod-deontologic);
- Towards an International Landscape Convention, 2011 (http://www.iflaonline.org);
- Exercitarea profesiei de arhitect, Ordinul Arhitectilor din România, Simetria, 2006;

- Reviste de specialitate: Arhitext Design, Igloo, Domus, Arhitectura etc; Internet.			
8.2 Seminar / laboratory / project General specifications. The professor has intellectual property rights over the materials, creations and professional and artistic contents of which he is the author, presented in courses, seminars and/or exams in the form of slides, audio-video materials and specific didactic materials (models, artistic works, exam subjects, grids, etc.), as well as the right to manage one's own image in any media, guaranteed by the specific legislation in Romania and EU. Therefore, without the prior written consent of the teacher and in light of the legislation in force, it is forbidden to photograph, film and/or audio-video record by any means, partially and/or in full: i) of the activities carried out at courses, seminars, submissions of papers, exams, etc., ii) of the contents, slides, didactic materials, etc. presented in courses, seminars, etc., as well as the contents drawn directly on the blackboard or on other supports by the teacher and/or iii) of the teacher (image and/or voice, fully or partially) at courses, seminars, thesis defenses, exams, etc. Regarding the teacher-student relationship, carried out strictly within the provisions of the regulations in force in UniTBv as well as mutual respect, good faith and common sense, the teacher: i) accepts exclusively written communication and only with students who are legal holders of a institutional e-mail addresses of UniTBv, ii) answers any questions within the limits of the powers and obligations provided for in the regulations that apply to it, iii) reserves the right not to answer e-mails outside of working hours / weekends / legal days off / rest or medical leave or in situations that can be interpreted as intimidation, insults, attempted fraud, lies presented as truth, manipulation, etc., iv) does not in any way mediate the relationship of students with the secretary or other entities within UniTBv and v) for the efficient use of the time dedicated to the educational process, reserves the right not to answer questions that already have their answers in the .pdf documents uploaded on the E-learning platform of UniTBv for the related discipline.	Teaching-learning methods	Number of hours	Remarks
The project theme proposed to the master's students in the course, intended to crystallize the students' relationship with the vernacular architecture and rural heritage universe, proposes a conscious exploration of the urban – rural relation and of the architectural-urbanistic space: i) of the context (urban, historical, political, economic, etc.) that led to understanding the importance and the potential of the vernacular architecture and rural heritage, therefore to the need of specific projects in a specific city/territory, ii) of the route of work concepts until the identification of a concept to be translated into an urban planning project leading to the conservation, protection and valorify the vernacular architecture and rural heritage, iii) of the course of the project (direct order, result of a competition, etc.) , iv) of the specialties and urban actors involved in the project (residents, public administration, private investors, partnerships, etc.), v) of the specific	Practical activity, corrections, interactive discussions, team work, guidance, documentation and research, image analysis and reporting on specific topics, analysis and debate of ideas	14h	

differences (if any) between the project – built reality – post-construction reality at present, vi) of the impact of the project achieved with the immediate vicinity and within the context in which it was implemented, vii) of the impact, if any, on the repositioning of the vernacular architecture and rural heritage context in which it was implemented in its competition with other similar contexts (tourism, investments, quality of life, etc.) - materialized in the study of an conservation, protection, valorification and regeneration process-project of vernacular architecture and rural heritage, realized (not virtual), relevant in terms of surface area, impact and reflection in national and/or international specialist media and publications, carried out anywhere in the world and at any time in the last two centuries (the beginning of the 19th century - the beginning of the 21st century). The theme is intended to deepen the realities and image of the contemporary vernacular architecture and rural heritage contexts city both as i) system, phenomenon and organism and as ii) product, market and enterprise, in the struggle of all urban actors involved in its destiny to consolidate a better place in the urban competition.	and visions, brainstorming, technical explorations.		
			Total seminar hours=14h

Bibliography:

1. BELEA, R., FULICEA, V., TEODORESCU, A., Desenul în arhitectură şi urbanism, Ed. Tehnică, Bucureşti, 1967;
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- Reviste de specialitate: Arhitext Design, Igloo, Domus, Arhitectura etc; Internet.

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The content of the discipline responds to the thematic area in the field, for this level of study, being in accordance with national and international regulations. The accumulated knowledge is necessary for carrying out the professional activity in the field of urban design and urban management.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	The projects are the result of the permanent dialogue between the students and the teacher, at the dedicated seminars, in the light of the course theme and in the spirit of the theme posted on the E-learning platform for this discipline. A professional, inter-, multi-, trans- and pluridisciplinary approach is of interest, the relevance of the subject chosen for study, the clarity, coherence and brevity of the project written in accordance with the structure of the course, as well as the correct use of research, interpretation and analysis methods specific to the course's issues , in order to formulate relevant conclusions.	Oral. Comparative evaluation within the group and support of the project developed according to the requirements of the theme.	100% The final grade results from the overall evaluation of the essay and the project according to the requirements and his support during the exam.
0.5 Seminar / laboratory / project	The projects will contain a significant number of written and drawn pieces for the synthetic presentation of the characteristics of the studied urban regeneration subject. They are prepared according to the specific norms of writing and academic integrity, ONLY as a .pdf document (A4, portrait orientation, normal margins, Times New Roman 12 font, single line) and are taught exclusively on the e-learning platform of UniTBv, at the dedicated resource for teaching, open on the E-learning platform of UniTBv on the last didactic day of the semester in week 14, in the time interval 08.00-22.00. The projects are supported publicly during the exam. Only students who have previously taught projects on the platform can participate in the exam. The exam consists of the public support of the taught project. In order to take the exam, the projects will be downloaded by the teacher from the e-learning platform and designed at the faculty, so it is not necessary to print them, for reasons of respect for the environment. Unturned projects according to the rules can NOT be recovered except in the dedicated backlog sessions. Grading is based on compliance with the theme's requirements, the relevance of the chosen example of urban regeneration, the clarity, coherence and brevity of the written and oral presentation, the complexity of the presentation of the project through relevant images and synthetic texts, the correct use of methods specific to the course's issues, correctness understanding the functional, formal, constructive and aesthetic solutions of the chosen subject. The conditions for all the re-examinations are: 1) the elaboration, upload and send of the project corresponding to: i) the assignments		

	not uploaded on the E-learnin platform and remained without grade, and/or ii) assignments uploaded on the E-learning platform, but without having a minimum grade of 5 (five), and/or iii) assignments uploaded on the E-learning platform, but with an unsatisfactory grade and submitting (ONLY as .pdf document, not links!) to the institutional e-mail address: t.mihailescu@unitbv.ro in the interval between the first day of the re-examination session and 24 hours before the date/time scheduled for the desired exam; 2) appearing to the exam under the conditions mentioned at point 1.		

10.6 Minimal performance standard
Understanding the terminology specific to the field, forming an own system of coherent urban thinking, developing the capacity for an interdisciplinary approach in the field and the understanding of the city as a complex organism/system/phenomenon. The ability to express and represent through means and work techniques specific to the field of urban planning as fundamental elements of specialized culture in terms of reporting to the urban universe. The development of communication and teamwork skills in a professional context, to understand a design theme and to respond to it in a creative-innovative-technical way by transforming it into an urban planning project. The crystallization of some cognitive/applicative-professional/affective-value skills and a minimum of specialized border culture as a reference matrix for approaching practical situations in the sphere of urbanism. The result of each test must be at least 5.

This course outline was certified in the Department Board meeting on __/__/2025 and approved in the Faculty Board meeting on __/__/2025.

Dean: **Prof. dr. ing. Ioan TUNS**	**Head of Department:** **Conf. dr. ing. Teofil GĂLĂȚANU**
Course holder: **Prof. dr. arh. Teofil MIHĂILESCU**	**Holder of seminar / laboratory/ project:** **Prof. dr. arh. Teofil MIHĂILESCU**

Note:

1) Field of study – select one of the following options: Bachelor / Master / Doctorat (to be filled in according to the forceful classification list for study programmes);
2) Study level – choose from among: Bachelor / Master / Doctorat;
3) Course status (content) – for the Bachelor level, select one of the following options: FC (fundamental course) / DC (course in the study domain)/ SC (speciality course)/ CC (complementary course); for the Master level, select one of the following options: PC (proficiency course)/ SC (synthesis course)/ AC (advanced course);
4) Course status (attendance type) – select one of the following options: CPC (compulsory course)/ EC (elective course)/ NCPC (non-compulsory course);
5) One credit is the equivalent of 25 study hours (teaching activities and individual study).