

## GUIDE TO THE FACULTY CURRICULUM

ACADEMIC INFORMATION FOR EXCHANGE STUDENTS

TECHNICAL UNIVERSITY OF CLUJ-NAPOCA  
FACULTY OF ARCHITECTURE AND URBAN PLANNING



2023-2024

*Dear exchange students and international partners,*

*This is a brief guide through the curriculum of the Faculty of Architecture and Urban Planning at the Technical University of Cluj-Napoca. We offer a six-year - bachelor and master integrated - programme towards obtaining the Diploma of Architect.*

*Holding high the formative impact, cultural enrichment, and creative inspiration of international experience in architectural education, we are committed to fostering sustainable and meaningful student and academic staff exchange. External participation in our diploma-project juries has become a tradition.*

*While in our Faculty courses are currently taught in Romanian, exchange students and staff are warmly welcome. We offer our mobility students English tutoring and guidance for project work and other practical assignments, as well as English references to support and complement theoretical disciplines.*

*We look forward to partnering in projects that enhance architectural education's potential of playing a relevant, responsible, and regenerating role in contemporary societies and territories.*



**TECHNICAL UNIVERSITY OF CLUJ-NAPOCA**  
FACULTY OF ARCHITECTURE AND URBAN PLANNING

01

- 1.00 Mathematics
- 2.00 History of Architecture - The Antiquity
- 3.00 Theory of Architecture - An Introduction
- 4.00 Environmental Aspects in Urban Planning
- 5.00 Descriptive Geometry
- 6.00 The Study of Forms
- 7.00 Architectural Design Studio1
- 8.10-8.40 Foreign Languages 1
- 9.00 Physical Education 1
- 
- 10.00 Perspectives
- 11.00 History of Architecture - The Middle Ages
- 12.00 Geometry of the Architectural Forms
- 13.00 The Study of Forms and Classical Orders
- 14.00 Architectural Design Studio 2
- 15.10-15.40 Foreign Languages 2
- 16.00 Physical Education 2
- 17.00 Professional Practice 1st Year

02

- 19.00 History of Architecture - The Renaissance
- 20.00 Geometry of the Architectural Forms
- 21.00 Theory of Architecture. Dwelling
- 22.00 Computer Aided Design
- 23.00 Elements of Construction
- 24.00 Structural Mechanics
- 25.00 Fundamentals of Architectural Design
- 26.00 Architectural Design Studio 3
- 
- 27.00 History of Architecture - Baroque
- 28.00 Residential Planning
- 29.00 Details in Architecture 1
- 30.00 Urban Design Foundation
- 31.00 Interior Design
- 32.00 Art History
- 33.00 Architectural Design Studio 4
- 34.00 Professional Practice 2nd Year

03

- 35.00 History of Architecture - the XIX Century
- 36.00 Urban Structures
- 37.00 Structural Engineering Theory 1
- 38.00 Details in Architecture 2
- 39.00 History of Furniture - Styles
- 40.10 Global and Local in Architecture
- 40.20 Space Perception and Configuration
- 41.00 Specialised Design - Urbanization
- 42.00 Architectural Design Studio 5
- 
- 43.00 History of Architecture - Modern and Contemporary Periods
- 44.00 Building Types
- 45.00 Structural Engineering Theory 2
- 46.00 Building Services
- 47.00 Furniture Design Techniques
- 48.10 Urban mobility
- 48.20 History of Furniture in the 20th Century
- 48.30 Architectural Lighting
- 49.00 Architectural Design Studio 6
- 50.00 Professional Practice 3rd year

04

- 49.10 Parametric Design
- 49.20 Ambiental Deisgn
- 49.30 Architectural Design
- 50.00 History of Romanian Architecture
- 51.00 Theories and Doctrines in Contemporary Architecture
- 52.00 Sociology
- 53.00 Interior Architecture
- 54.00 Specialised Design - Interior Design
- 55.00 Specialised Design - Structure and Facilities
- 56.00 Design Synthesis Studio 1
- 
- 57.10 Special Structures
- 57.20 Building Pathology and Therapy
- 57.30 Rehabilitation and Restoration of Historic Structures
- 58.10 Urban Composition
- 58.20 Urban Structures
- 58.30 Digital Fabrication
- 59.00 Restoration of Historic Buildings
- 60.00 Structural Engineering Theory 3
- 61.00 Construction and Urban Environment Physics
- 62.00 Specialised Design - Urban Design 2
- 63.00 Design Synthesis Studio 2
- 64.00 Professional Practice 4th Year

05

- 65.10 The Contemporary Cities
- 65.20 Human Settlement Strategies
- 65.30 Urban Strategy and Policy
- 66.10 Arts and Architecture
- 66.20 Psychology of Form
- 66.30 Anthropology. Cultural Psychology
- 67.00 Urban Management. Legislation and Zoning Codes
- 68.00 Architectural Composition
- 69.00 Landscape Architecture
- 70.00 New Technologies in Architecture
- 71.00 Specialised Design - Urban Design 3
- 72.00 Design Synthesis Studio 3
- 
- 73.10 Urban Mobility
- 73.20 Local Ordinance
- 74.10 Aesthetics in Architecture
- 74.20 Historical Building Types
- 74.30 Comparative Architecture
- 75.00 Research in Architecture
- 76.00 Marketing and Communication in Architecture
- 77.00 Urban Ecology and Urban Networks
- 78.00 Specialised Design - Landscape Design
- 79.00 Design Synthesis Studio 4
- 80.00 Professional Practice Vth Year

06

- 81.00 Professional Practice Vith Year
- 82.00 Design Synthesis Studio 5
- 83.10 English Language
- 83.20 French Language
- 83.30 German Language
- 
- 84.00 Dissertation Project
- 85.00 Graduation Project
- 86.00 Advice in Technology and Structures
- 103.00 Master Thesis Defense
- 104.00 BSc. Thesis Defense



*01* year  
1st semester

# MATHEMATICS

Code	1.00
Semester	1
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Assoc. Prof. PhD Marius Mihai Birou

e-mail: Marius.Birou@math.utcluj.ro

### Objectives

Acquiring knowledge of analytic and differential geometry.  
Obtaining the ability to generate solutions to architectural problems based on the aforementioned information.

### Lecture / project contents

- C1 Coordinate system in Euclidean space. Vector calculus.
- C2 Vector algebra.
- C3 Plane in space. Line in space.
- C4 Projection. Distance. Angle.
- C5 Conics: equations in standard form. Circle. Ellipse. Parabola. Hyperbola.
- C6 Second order curves. Conics: equations in general form.
- C7 Second order surfaces. Quadrics.
- C8 Generation of surfaces.
- C9 Planar curves. Equations. Graphic representation. Tangent and normal.
- C10 Distances. Angles. Projections.
- C11 Quadrics on reduced equations.
- C12 Generation of surfaces.
- C13 Plane curves
- C14 Curves in space. Surfaces

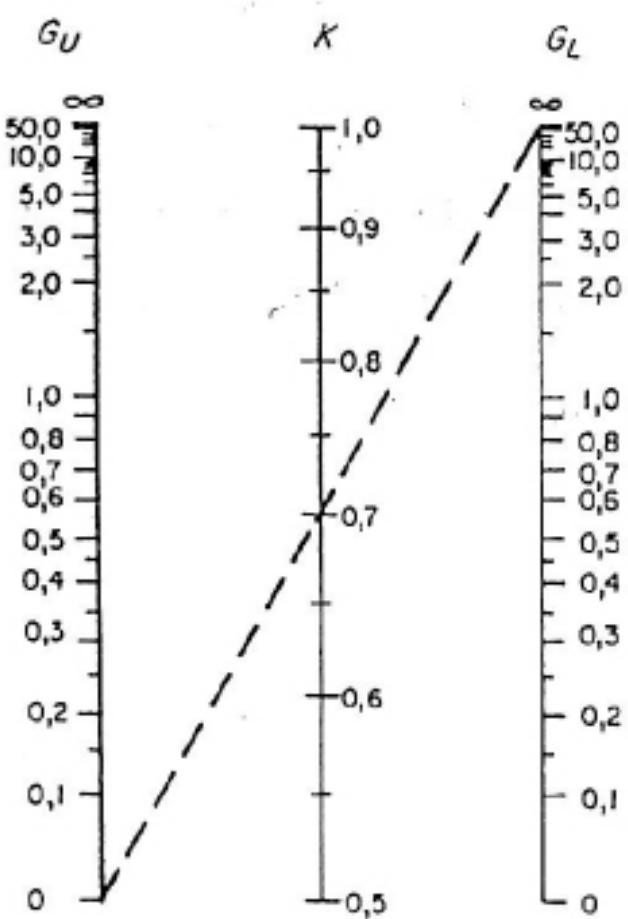
### Seminar contents

### Evaluation

Formative assessment during the semester  
(20% of overall grade) min. 5p/10  
Written test which includes theoretical knowledge and problem solving. (80% of overall grade) min. 5p/10.

### Selected bibliography

V. MIHEȘAN, *Geometrie analitică și diferențială, teorie și probleme*, Editura Mediamira, Cluj-Napoca



1.00

# HISTORY OF ARCHITECTURE

## - THE ANTIQUITY

Code

2.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

### Objectives

The study of the evolution of architecture throughout Antiquity and the Middle Ages is seeking to explain the different manifestations, expressions, and representations of the architectural and artistic instances, in accordance with the economical means, the technical development, the forms of social organization, the religious beliefs, and the life philosophy.

The main goal of the discipline is to develop competences and knowledge specific to the architectural profession, by understanding the phenomenon and the architectural process, which unfolds starting from Prehistory up to the end of the 15th century.

The study is contextualized, a fact which is essential for understanding the following periods of the history of architecture.

### Lecture / project contents

- C1 Introduction. Prehistory. Near Eastern Civilizations -
- C2 the Architecture of Mesopotamia
- C3-4 Near Eastern Civilizations - the Architecture of Ancient Egypt
- C5 Mediterranean Civilizations - Cretan and Mycenaean Civilization.
- C6 Greek Civilization - Introduction. Ancient Greece - the Homeric Period and the Archaic Period
- C7-8 Mediterranean Civilizations. Ancient Greece - the Classical Period
- C9 Mediterranean Civilizations. Ancient Greece - the Classical Period (part 2) and the Hellenistic Period
- C10 Mediterranean Civilizations. Etruscan Civilization
- C11 Roman Civilization - Ancient Rome, Building Types.Mediterranean
- C12 Civilizations. Roman Civilization - Building Types (part2)
- C13 Roman Civilization - military, tribute, funeral architecture
- C14 Roman Civilization - civil architecture

### Seminar contents

### Evaluation

1 hour and 20 minutes written exam  
The answers should include both text and drawings.

### Selected bibliography

FLETCHER, Banister, Sir. *A History of Architecture on the Comparative Method*. London: B.T. Batsford & New York: C. Scribner's Sons, 1896.

KOCH, Wilfried. *Baustilkunde : Das große Standardwerk zur europäischen Baukunst von der Antike bis zur Gegenwart*. München: Orbis Verlag, 1994.

MANSBRIDGE, John. *Graphic History of Architecture*. Santa Monica, CA: Hennessey & Ingalls, 1999 [1967].



# THE THEORY OF ARCHITECTURE - AN INTRODUCTION

Code

3.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Assoc. Prof. PhD Arch. Șerban Țigănaș

e-mail:  
dragos.tiganas@arch.utcluj.ro

### Objectives

Acquiring general knowledge about architectural theory and understanding the importance of it in architectural projects.

### Lecture / project contents

- C1 Introduction
- C2 The relationship between architect, engineer and the team of people
- C3 Short history of architecture
- C4 Short history of architectural theory through ideas and conventions
- C5 Fundamental architectural archetypes
- C6 Composition, scale, perspective
- C7 Architecture and other arts
- C8 The limits of architecture and the are forms of building
- C9 Digital transformation and new mathematics
- C10 Current problems of mankind and inconvenient truths
- C11 The theory of sustainability and futuristic architecture
- C12 The new role of architecture
- C13 Architecture (temporal and evergreen)
- C14 Architecture- a free profession through evolution

### Seminar contents

### Evaluation

Final exam – written test; min.5p/10.

### Selected bibliography

C. DAVIES, *Thinking about Architecture, An Introduction to Architectural Theory*, Lawrence King Publishing, Londra  
PIERRE VON MEISS, *De la forme au lieu + de la tectonique*, Presses polytechniques romandes, Lausanne  
D. SUDJIC, *The Edifice Complex, The Architecture of Power*, Penguin Books, Londra  
R. BUTLER, *Reflexion sur la question architecturale*, Les belles lettres, Paris  
L. B. ALBERTI, *De re aedificatorie, On the art of building in ten books*, trad. J. Rykwert, R  
T. N. LEACH, MIT Press, CambridgeRem Koolhaas, *Elements*, Marsilio, Venetia  
LE CORBUSIER, *Toward an Architecture*, trad. J. Goodman, The Gety Research Institute Publications Program  
I.,A. RUBY, *Re-Inventing Construction*, Ruby Press, Berlin



3.00



# ENVIRONMENTAL ASPECTS IN URBAN PLANNING

Code	4.00
Semester	1
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Prof. PhD Arch. Habil.  
Mihaela Ioana Maria Agachi

e-mail:  
mihaela.ioana.agachi@arch.utcluj.ro

## Objectives

Developing an understanding on the complex relationship between the natural and human-transformed environment and architecture at a diverse range of territorial levels.

Aquiring essential knowledge about the history of the city and of urbanism.

## Lecture / project contents

- C1 Introduction. Basic notions about urbanism and environment
- C2 Natural limitations. Introduction.
- C3 Relief. Implications in the development of settlements
- C4 Soil. Vegetation. Water
- C5 Climate. Solar radiation. Wind. Humidity. Precipitation.
- C6 Material and energetic resources. Pollution. Social, economical and political aspects
- C7 The process of urbanisation. Artificial Environment. Morphologic elements
- C8 Morphologic elements
- C9 History of urbanism. Introduction
- C10 Urbanism in Ancient Greece
- C11 Urbanism in Ancient Rome
- C12 Urbanism and politics: Renaissance
- C13 Urbanism and politics: Baroque
- C14 Urbanism and politics: Classicisms

## Seminar contents

-

## Evaluation

Total: 0,8\*T+0,2\*C, notebook evaluation =C, final exam - written test, 3 theoretical questions =T  
Optional homework – can replace one of the 3 theoretical questions.

## Selected bibliography

J.O. SIMMONDS, *Arhitectura peisajului*, Ed. Tehnică București 1967  
R. LAURIAN, *Probleme de estetica orașelor*, Ed. Tehnica București 1962  
W. SCHNEIDER, *Varosok Urtol Utopiaig, Gondolat*, Budapest 1973  
R. BELEA, V. FULICEA. ș.a. *Desenul în arhitectură și urbanism*, Ed. Tehnică, București 1976  
Z. MIESZKOWSKY, *Elemente de proiectare în arhitectură și urbanism*, Ed. Tehnică, București 1981  
J. GARNIER, G.CHABOT, *Geografia urbană*, Ed. Stințifică București 1971  
N. SCHULZ, *Genius Loci - paysage, ambiance architecture*, Ed. Pierre Mardaga, Bruxelles 1981  
J.L. HAROUEL, *Istoria urbanismului*, Ed. Meridiane București 2000  
Legea 137/1995, legea protecției mediului, republicată în M. Of. nr. 512 partea I din 22.10.1999  
Legea 226/2013 privind aprobarea OUG 164/2008 pentru modificarea și completarea OUG 195/2005 privind protecția mediului. Lege nr. 226/2013



4.00

# DESCRIPTIVE GEOMETRY

Code	5.00
Semester	1
Credits	3
No. of hours/ lecture	2 / week
No. of hours/ seminar	1 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

Responsible  
Assist. Prof. PhD Arch. Ana-Maria Graur

e-mail: Anamaria.RUSU@arch.utcluj.ro

**Objectives**

The main task of Descriptive Geometry (DG) in architectural education is to train three-dimensional thinking and to form a precise logical spatial vision, the development of effective solution strategies. At the beginning of studies, this competence is best fostered didactically by manual drawing and later by scale models, providing new means of formal concept analysis and representation. The course covers basic DG concepts, solving problems involving lines and planes in space and their relationships; axonometric projection - plan and elevation, giving students the intellectual capability of space perception and the principles of its graphical representation; locating points and tangents on solids and surfaces; and development of surfaces. The students get knowledge and skills for drawing solids, plane solid's sections and intersection. The course provides tools to imagine and represent with precision, dexterity, and virtuosity, a continually expanding expression of three-dimensional architectural form. Abstract thinking in DG is a perfect medium for design in three-dimensional space. This is best realised in topics and tasks related to architecture, thus maintaining a high motivation level, essential for successfully building up three-dimensional imagination and thinking.

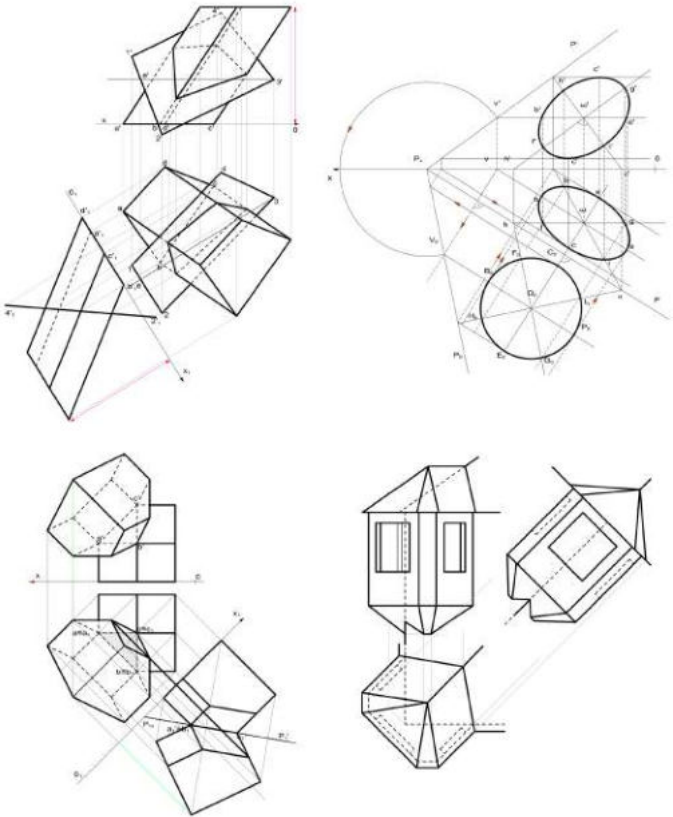
Lecture / project contents	
C1	Introduction. Projection systems. Projective transformations (Homothetic, affine and perspective transformations)
C2	Elements of descriptive geometry. Two-dimensional and three-dimensional representation of points and lines
C3	Right
C4	Plane. Relative position of two different planes.
C5	Relative position of a line in relation to a plane
C6	The methods of descriptive geometry. Changing the projection planes.
C7	Rotation.
C8	Folding. Circle in descriptive geometry
C9	Polyhedral surfaces. Representation in descriptive geometry. Flat sections.
C10	Polyhedral surfaces. Developments, applications.
C11	Cylindrical-conical surfaces. Representation in descriptive geometry.
C12	Flat sections
C13	Cylindrical-conical surfaces. Developments, applications.
C14	Intersections of polyhedra 1 Intersections of polyhedra 2

Seminar contents	
S1	Projective transformations.
S2	Orthographic projection.
S3	Changing the projection planes.
S4	Plan 1
S5	Plan 2
S6	Representation of cylindro-conical surfaces.
S7	Rotation method
S8	Method of folding and lifting from folding
S9	Polyhedral surfaces. Plane sections
S10	Polyhedral surfaces. Developments,
S11	applications
S12	Cylindrical-conical surfaces.Flat sections Cylindrical-conical surfaces. Developments, applications.

Evaluation
1 point by default + 9 points exam

**Selected bibliography**

Felicia Olariu, Ana-Maria Graur, *Geometrie Descriptivă 1. Explicații și aplicații*. Editura U.T. Press, Cluj-Napoca, 2016.  
Olariu, F. Dana Opincariu, Șerban Țigănaș, Ana-Maria Rusu, *Desen tehnic și liber : culegere de teme pentru admiterea la facultatea de arhitectură*, Editura U.T. Press, Cluj-Napoca, 2010.  
Dragomir, V., s.a. *Reprezentări axonometrice în construcții și arhitectură*, Editura Tehnică București, 1970.  
Gh. Tanasescu, A., *Geometrie descriptivă, probleme*, Editura Didactică și Pedagogică, 1962 și 1967.  
Enache, I., s.a. *Geometrie descriptivă*, Editura Didactică și Pedagogică, București, 1979.



5.00

# THE STUDY OF FORMS

Code

6.00

Semester

1

Credits

2

No. of hours/ lecture

-

No. of hours/ seminar

-

No. of hours project

2 / beweekly

Discipline type

Compulsory

Examination form

Colloquium

## Objectives

Understanding the relationship between object and visualization.  
Exploring the process of representation in relation to different techniques of portrayal.

## Seminar contents

Practical works on subjects connected to the Design Studio Assignments, using manual techniques, with tutors` guidance.

Responsible:

Lect. PhD Leonard Vartic

e-mail:

leonardvartic@yahoo.co.uk

Teaching team:

Lect.PhD Arch. Andreea Pop

Assist. Prof.PhD Arch. Laura Patachi

Assist. Prof. PhD Arch. Alina Voinea

PhDs Arch. Verona Musteață

## Lecture / project contents

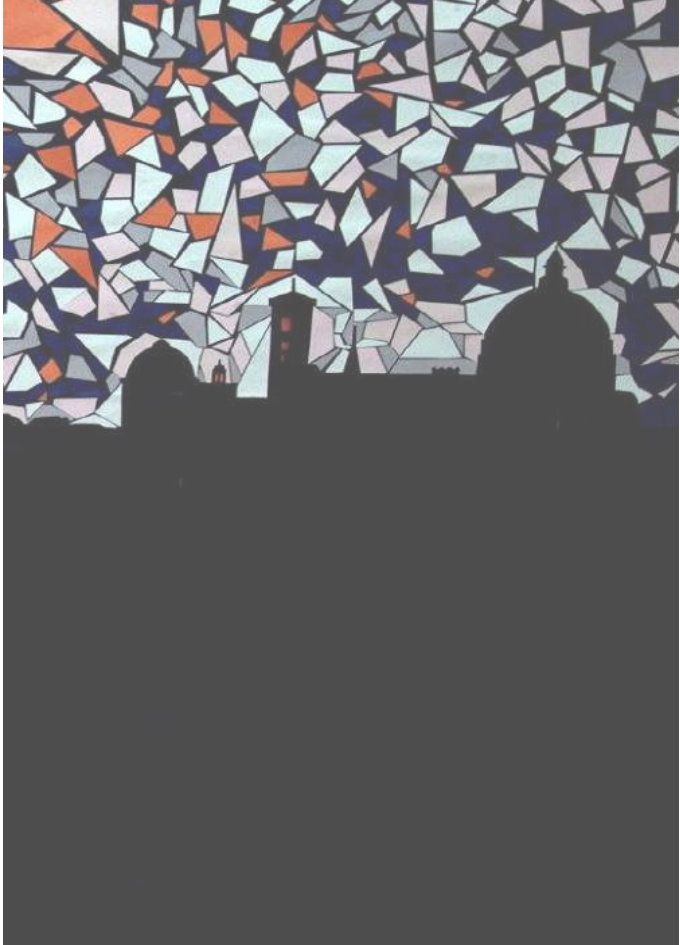
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## Evaluation

Formative assessment during the semester through regular engagement during the seminar hours.  
Evaluation of final portfolio. min 5p/10

## Selected bibliography

R. ARNHEIM, *Arta și percepția vizuală*, Editura Meridiane, București, 1979  
R. ARNHEIM, *Forța centrului vizual*, Editura Meridiane, București, 1995  
J. BALTRUSAITIS, *Aberații - legende ale formelor*, Ed. Meridiane, București, 1972  
J. BALTRUSAITIS, *Formări, deformări*, Editura Meridiane, București, 1989  
R. BERGER, *Artă și comunicare*, Editura Meridiane, București, 1976  
E. H. GOMBRICH, *Artă și iluzie*, Ed. Meridiane, București, 1973  
D. HOCKNEY, *Secret Knowledge, Rediscovering the lost techniques of the Old Masters*, Editura Thames & Hudson, London, 2001  
R. HUYGHE, *Puterea imaginii*, Ed. Meridiane, București, 1971  
J. ITTEN, *Art de la couleur (édition intégrale)*, Ed. Dessain et Tolra, Paris, 1977  
N. KNOBLER, *Dialogul vizual*, Ed. Meridiane, Bucuresti, 1983



6.00

# ARCHITECTURAL DESIGN STUDIO 1

Code

7.00

Semester

1

Credits

13

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

9 /week

Discipline type

Compulsory

Examination form

Colloquim

- Objectives
- understanding the qualities and configurations of architectural spaces through drawing, sketching and documenting through drawing
  - practicing compositions and architectural concepts through drawings and models
  - discovering the interaction between the architectural object and the natural context
  - developing creativity in the process of designing
  - practicing architectural graphics and poster presentations
  - learning to build models for architectural objects

- Lecture / project contents
- Project: Pavilion for architecture in a park
- Phase A: Documenting, analysing and representing an existing pavilion
- Phase B: Developing the concept, the project and the scale model for an original pavilion

Seminar contents

-

- Evaluation
- The evaluation and the notation of the projects are made by the responsible professors.

Selected bibliography

Ching, Francis D. K. *Architecture, Form, Space and Order*, ed. a 3-a. Hoboken, NJ: John Wiley & Sons, 2007

Ching, Francis D.K. *Architectural graphics*, ed. a 5-a Hoboken, NJ : John Wiley and Sons, 2009

Jodidio, Philip. *Serpentine Gallery Pavilions*. Köln: Taschen, 2011

McLeod, Virginia, *Detail in contemporary landscape architecture*. London : Laurence King Publishing, 2008

Zumthor, Peter, *Atmospheres : architectural environments ; surrounding objects*. Basel : Birkhäuser, 2006





# ENGLISH LANGUAGE 1

Code	8.10
Semester	1
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	2 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

Responsible  
Assoc. Prof. PhD. Sanda Paduretu  
e-mail: Sanda.Paduretu@lang.utcluj.ro

### Objectives

- Development of oral communication skills for professional technical context.
- Development of lexical, grammatical and discursive knowledge in technical language.
- Developing the knowledge to understand, transmit and evaluate an oral message in a professional technical context.

### Lecture / project contents

-

### Seminar contents

1. Organizing of study groups - placement test
2. Personal coordinates: the business card, personal motivation
3. Higher technical education and educational systems
4. Notions of mathematics: calculations; bodies and figures
5. Forms and dimensions
6. The architect; training, responsibilities, skills
7. Elements of culture and civilization; Geography
8. Situation in time
9. Placement in space
10. Visiting a city where the taught language is spoken
11. Presentation of architectural monuments I
12. Presentation of architectural monuments II
13. Evaluation: written test
14. Final evaluation

### Evaluation

1. Written test – 70%
  2. Oral test – 10%
  3. Evaluation during the semester – 20%
- To attend the tests, a presence in min. 80% of the seminars is required

### Selected bibliography

Glendinning, E.H., Technology 1, Oxford University Press, 2007.  
Pădurețu, S. – English for Architecture, Ed. Risoprint, Cluj-Napoca, 2015.  
Ibbotson, M. - Cambridge English for Engineering, Cambridge University Press, 2009.



# FRENCH LANGUAGE 1

Code	8.20
Semester	1
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	2 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

Objectives
Development of oral communication skills for professional technical context.
Development of lexical, grammatical and discursive knowledge in technical language.
Developing the knowledge to understand, transmit and evaluate an oral message in a professional technical context.

Responsible
Lect. dr. Aurel Bărbîntă
E-mail:
Aurel.Barbinta@lang.utcluj.ro

Lecture / project contents
-

Seminar contents
1. Organizing of study groups - placement test
2. Personal coordinates: the business card, personal motivation
3. Higher technical education and educational systems
4. Notions of mathematics: calculations; bodies and figures
5. Forms and dimensions
6. The architect; training, responsibilities, skills
7. Elements of culture and civilization; Geography
8. Situation in time
9. Placement in space
10. Visiting a city where the taught language is spoken
11. Presentation of architectural monuments I
12. Presentation of architectural monuments II
13. Evaluation: written test
14. Final evaluation

Evaluation
1. Written test – 70%
2. Oral test – 10%
3. Evaluation during the semester – 20%
To attend the tests, a presence in min. 80% of the seminars is required

Selected bibliography
Forna, Adina-Irina, <i>Le français pour les étudiants en architecture et en génie civil</i> , Cluj-Napoca, UTPRESS, 2017.
Vignozii, Alessandro, <i>Petites et grandes constructions, avec les illustrations de Giuseppe Arrighi, Giovanni Bernardi, Simone Boni, Lorenzo Cecchi, L.R. Galante, Lorentzo Pieri, Ivan Stalio, Stefano Tartarotti</i> , traduction Maria Grazzini, La Compagnie du Livre, 1995.
<i>Merveilles de l'architecture</i> , texte original de Brian Williams, adaptation française de Jean Bertrand, Paris, Gründ, coll. « Comprendre », 1993.

# GERMAN LANGUAGE 1

Code	8.30
Semester	1
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	2 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

- Objectives**
- Development of oral communication skills for professional technical context.
  - Development of lexical, grammatical and discursive knowledge in technical language.
  - Developing the knowledge to understand, transmit and evaluate an oral message in a professional technical context.

Responsible:	Asist. CDA Miruna Opris
E-mail:	Miruna.Opris@lang.utcluj.ro

<b>Lecture / project contents</b>	-
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- Seminar contents**
- 1. Organizing of study groups - placement test
  - 2. Personal coordinates: the business card, personal motivation
  - 3. Higher technical education and educational systems
  - 4. Notions of mathematics: calculations; bodies and figures
  - 5. Forms and dimensions
  - 6. The architect; training, responsibilities, skills
  - 7. Elements of culture and civilization; Geography
  - 8. Situation in time
  - 9. Placement in space
  - 10. Visiting a city where the taught language is spoken
  - 11. Presentation of architectural monuments I
  - 12. Presentation of architectural monuments II
  - 13. Evaluation: written test
  - 14. Final evaluation

- Evaluation**
- 1. Written test – 70%
  - 2. Oral test – 10%
  - 3. Evaluation during the semester – 20%
- To attend the tests, a presence in min. 80% of the seminars is required

**Selected bibliography**

Dallapiazza/von Jahn/Schönherr - *Tangram. Kursbuch für Deutsch als Fremdsprache*. München: Hueber Verlag, 2002.

Opris, M. - *Deutsch in Studium und Wissenschaft*, UTPRESS, Cluj-Napoca 1993.

# ITALIAN LANGUAGE 1

Code	8.40
Semester	1
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	2 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

Development of oral communication skills for professional technical context.

Development of lexical, grammatical and discursive knowledge in technical language.

Developing the knowledge to understand, transmit and evaluate an oral message in a professional technical context.

## Seminar contents

1. Organizing of study groups - placement test
2. Personal coordinates: the business card, personal motivation
3. Higher technical education and educational systems
4. Notions of mathematics: calculations; bodies and figures
5. Forms and dimensions
6. The architect; training, responsibilities, skills
7. Elements of culture and civilization; Geography
8. Situation in time
9. Placement in space
10. Visiting a city where the taught language is spoken
11. Presentation of architectural monuments I
12. Presentation of architectural monuments II
13. Evaluation: written test
14. Final evaluation

## Evaluation

1. Written test – 70%
  2. Oral test – 10%
  3. Evaluation during the semester – 20%
- To attend the tests, a presence in min. 80% of the seminars is required

## Selected bibliography

Căpraru, A. - *L italiano per gli ingeneri*, UTPRESS, Cluj-Napoca, 2003.  
La Grassa, M. - *L italiano all'università*, EdiLingua, Perugia, 2011.

Responsible:  
Conf. Dr. Angelica Căpraru

E-mail:  
Angela.Capraru@lang.utcluj.ro

## Lecture / project contents

-



# PHYtSICAL EDUCATION 1

Code

9.00

Semester

1

Credits

2

No. of hours/ lecture

-

No. of hours/ seminar

2 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

Colloquium

## Objectives

Development of motor knowledge, skills and abilities. Teaching means and methods for harmonious and balanced physical development. Developing the concept of fair-play in sports and social activities.

## Seminar contents

1. Informing students about the requirements of the discipline. Testing the level of physical ability of students. Accommodating students with physical effort.
2. Teaching basic principles and technics in ball games and swimming.



## Lecture / project contents

-

## Evaluation

A minimum presence of 10/14 seminars is required. The final test consists in completing a series of exercises in a specified order and time.

## Selected bibliography

*Curs de Educație fizică* – Litografiat UTC-N.  
*Dezvoltare fizică generală pentru studenți* – UTC-N.  
*Cultură fizică pentru tineret* – UT.PRESS.

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9.00

01 *year*  
2nd semester

# PERSPECTIVES

Code

10.00

Semester

2

Credits

3

No. of hours/ lecture

2 / week

No. of hours/ seminar

1 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Assoc. Prof. PhD Arch.  
Dana Sorina Opincariu  
  
e-mail: dana.opincariu@Arch.utcluj.ro

**Objectives**

Acquiring knowledge about Perception and Visual Communication; understanding the methods studied during the lectures and their importance in architectural visualization and obtaining the ability to use them in architectural representation.

- Lecture / project contents**
- C1 Introduction. Perception (P). Representation (R)
  - C2 Communication (C )
  - C3 The art of perspective
  - C4 The Brunelleschi Method
  - C5 Dependent method perspective to the vertical plane FF90/OP, step-by-step
  - C6 Dependent method perspective to the vertical plane OF, FP, FM, step-by-step
  - C7 Free method perspective to the vertical plane
  - C8 Free method perspective to the vertical plane, step-by-step
  - C9 History of representation through perspective
  - C10 Aerial perspective
  - C11 Photography and restitution of perspective
  - C12 Shadows and mirroring through perspective
  - C13 Architectural visualisation through perspective
  - C14 The stenographic art - the language of visual communication. Recapitulation

**Seminar contents**

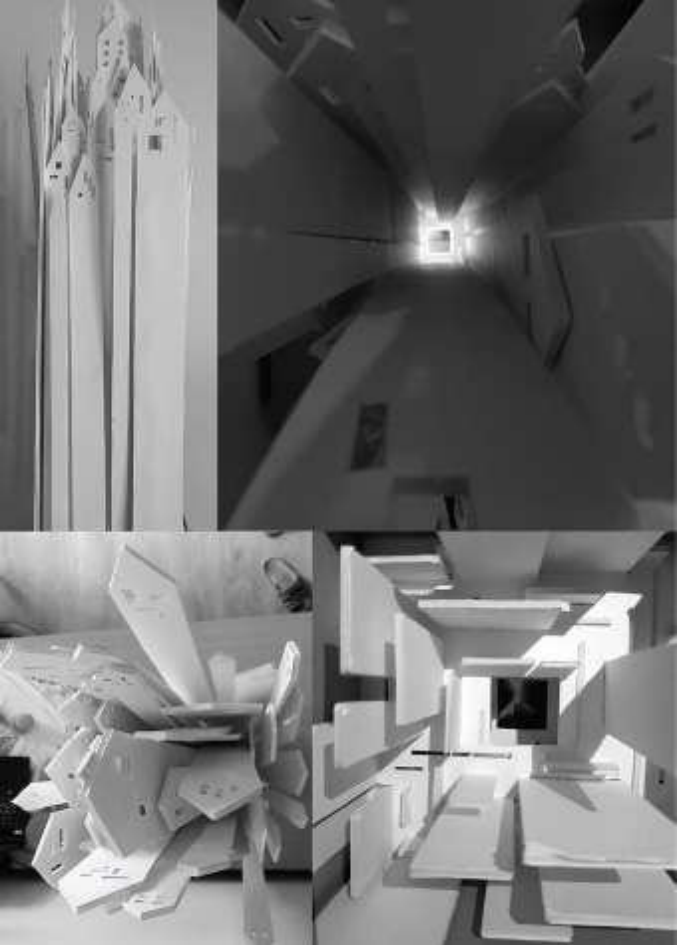
Practical exercises, applications, perspective drawings.

**Evaluation**

Portfolio - max 3p/10.  
Final exam – written test, perspective drawing- max 7p/10.  
Requires attendance to lectures and seminars. (min 50%)

**Selected bibliography**

R. ARNHEIM, *Arta si perceptia vizuala*, Ed. Polirom-1974, 2004, 2011  
J. BALTRUSAITIS, *Anamorfoze*, Ed. Meridiane, Bucuresti, 1973  
D.K.F. CHING, *Design Drawing*, Ed. John Wiley& Sons, USA, 1998  
B. DONNADIEU, *L'Apprentissage du regard*, Ed. La Villette, Paris, 2002  
C. DUMITRESCU, *Perspectiva*, Timisoara, 2002  
Z. DUMITRESCU, *Ars Perspectivae*, Bucuresti, 2002  
Z. DUMITRESCU, *Caiete de perspectiva*, Ed. Bucuresti, 2002  
E.H. GOMBRICH, *Art & Illusion*, Ed. Phaidon, 1960, 1994  
R. HUYGHE, *Dialog cu vizibilul*, Ed. Meridiane, 1981  
I. IONESCU, *Perspectiva-Instrument de proiectare*, Ed. Universitara Ion Mincu-EUIM. 2009  
A. PALLADIO, *Les Quatre Livres de L'Architecture*, Ed. Flammarion, France, 1997



10.00

# HISTORY OF ARCHITECTURE

## - THE MIDDLE AGES

Code	11.00
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Assoc. Prof. PhD Habil. Arch.  
Dan-Ionuț Julean  
  
e-mail: ionut.julean@arch.utcluj.ro

### Objectives

The study of the evolution of architecture throughout Antiquity and the Middle Ages is seeking to explain the different manifestations, expressions, and representations of the architectural and artistic instances, in accordance with the economical means, the technical development, the forms of social organization, the religious beliefs, and the life philosophy.  
The main goal of the discipline is to develop competences and knowledge specific to the architectural profession, by understanding the phenomenon and the architectural process, which unfolds starting from Prehistory up to the end of the 15th century.  
The study is contextualized, a fact which is essential for understanding the following periods of the history of architecture.

### Lecture / project contents

- C1 The Preconditions of Medieval Art. Paleochristianity. The Eastern Roman Empire,
- C2 the Byzantine Style
- C3 The Eastern Roman Empire , IV-V centuries
- C4 The Eastern Roman Empire, VIII-XII centuries
- C5 The Eastern Roman Empire, VIII-XV centuries
- C6 Early Feudalism (V-X Centuries)
- C7 Developed Feudalism. Romance Style
- C8 The Middle Ages in Central and Western Europe. Pre-Romanesque and Romanesque Architecture
- C9 The Middle Ages in Central and Western Europe. Romanesque Architecture in
- C10 France and Outside France
- C11 The Middle Ages in Central and Western Europe. Gothic Architecture - an Overview
- C12 The Middle Ages in Central and Western Europe. Gothic Architecture in France
- C13 The Middle Ages in Central and Western Europe. Gothic Architecture
- C14 Outside France  
EASTERN ROMAN EMPIRE VIII-IX CENTURIES. Iconoclastic period IX-XII CENTURIES. The era of the Macedonian and Comnenian emperors

### Seminar contents

-

### Evaluation

1 hour and 20 minutes written exam  
The answers should include both text and drawings.

### Selected bibliography

FLETCHER, Banister, Sir. *A History of Architecture on the Comparative Method*. London: B.T. Batsford & New York: C. Scribner's Sons, 1896.  
KOCH, Wilfried. *Baustilkunde : Das große Standardwerk zur europäischen Baukunst von der Antike bis zur Gegenwart*. München: Orbis Verlag, 1994.  
MANSBRIDGE, John. *Graphic History of Architecture*. Santa Monica, CA: Hennessey & Ingalls, 1999 [1967].





# THE GEOMETRY OF ARCHITECTURAL FORMS

Code

12.00

Semester

2

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

## Objectives

The course examines the main categories of the geometric elements and it represents a guide that allows the student to learn the diversity of the architectural forms.

## Seminar contents

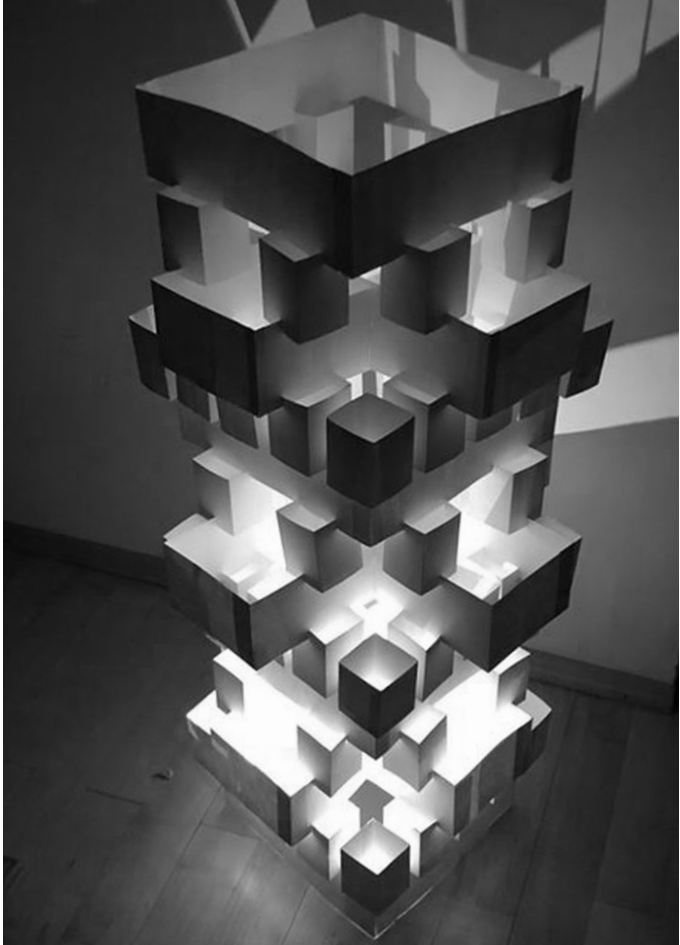
-

## Evaluation

Elaboration of an about 5 pages paperwork on a subject chosen from the courses content, and building a model in relation with the chosen theoretical subject

## Selected bibliography

B. JANE, M. BURRY, *The New Mathematics of Architecture*, Thames & Hudson, 2010  
F. CHING, B. S. ONOUE, D. ZUBERBUHLER, *Building Structures Illustrated*, John Wiley & Sons, 2009 New Jersey  
F. CHING, *Architecture, Form Space and Order*, John Wiley & Sons, New Jersey 1996  
C. DUMITRESCU, *Geometria Formelor Arhitecturale*, editura Politehnica, 2009  
H. ENGEL, *Tragsysteme / Structure Systems*, Second Edition, Hatje Cantz, 2009  
J. BURRY, M. BURRY, *The new Mathematics Of architecture*, Thames & Hudson, 2010  
F. MOUSSAVI, M. KUBO, *The Function of ornament*, Actar, Graduate School of Design, Harvard University, 2006



## Lecture / project contents

- Responsible:  
Assoc. Prof. PhD Arch.  
Dana Sorina Opincariu  
  
e-mail: dana.opincariu@arch.utcluj.ro

C1

Introductory course- The geometry of architectural Forms

C2

The geometry of forms in the history of architecture

C3

Structure in relation with form, the process of creation

C4

Architectural shapes: polyhedrated, folded and made out of thin curved plates

C5

Architectural forms generated by cross-linked structural systems

C6

Architectural forms generated by suspended and pneumatic structures

C7

The geometry of forms in vernacular architecture

C8

The geometry and the perception of architectural space

C9

Geometry and composition in architecture

C10

The geometry of the facade elements of the buildings

C11

The geometry of ornamental elements in architecture

C12

Symbolic geometry in architecture

C13

New trends in architectural forms: advanced architecture

C14

Course of synthesis / colloquium
- 12.00

# THE STUDY OF FORMS AND CLASSICAL ORDERS

Code	13.00
Semester	2
Credits	4
No. of hours/ lecture	2 / week
No. of hours/ seminar	2 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

Responsible:  
Lect. PhD Art. Leonard Vartic

e-mail: leonardvartic@yahoo.co.uk

Teaching team:  
Lect.PhD Arch. Andreea Pop  
Assist. Prof.PhD Arch. Laura Patachi  
Assist. Prof. PhD Arch. Alina Voinea  
PhDs Arch. Verona Musteață

## Objectives

Encouraging creativity while designing the architectural space.  
Understanding the relationship between means of expression and ideas, between subjects and representation, based on the study of the classical architectural language.

## Lecture / project contents

-

## Seminar contents

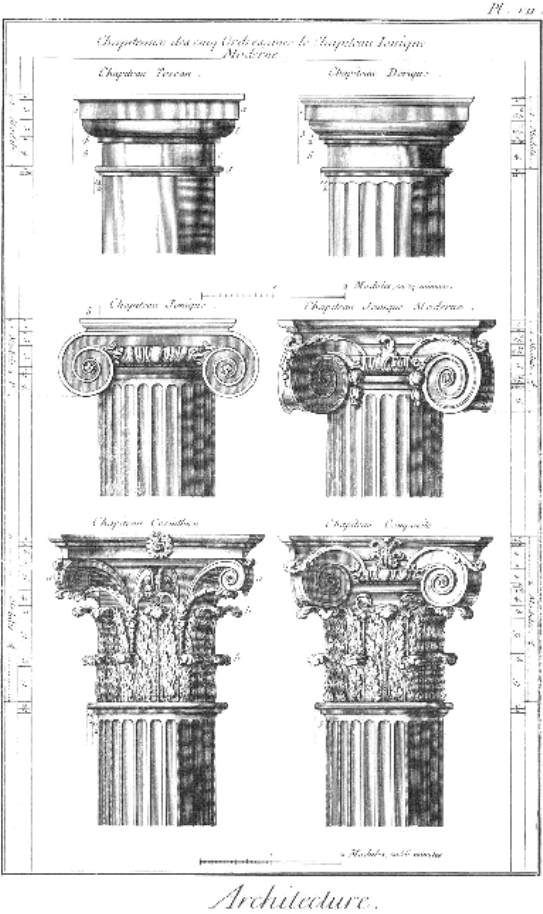
- S1 Creative exercise based on architectural history documentation.
- S2 Creative exercise. Minimalistic volumes.
- S3 Basso-rilievo.
- S4 Creating modular volumes out of paper.
- S5 Creating modular volumes out of wire and rope.
- S6
- S7 Creating modular volumes out of clay.  
Installation. Assembly. Teamwork.  
Compensatory seminar.

## Evaluation

Formative assessment during the semester through regular engagement during the seminar hours.  
Evaluation of final portfolio. min 5p/10

## Selected bibliography

R. ARNHEIM, *Artă și percepția vizuală*, Editura Meridiane, București, 1979  
R. ARNHEIM, *Forța centrului vizual*, Editura Meridiane, București, 1995  
J. BALTRUSAITIS, *Aberații - legende ale formelor*, Ed. Meridiane, București, 1972  
J. BALTRUSAITIS, *Formări, deformări*, Editura Meridiane, București, 1989  
R. BERGER, *Artă și comunicare*, Editura Meridiane, București, 1976  
E. H. GOMBRICH, *Artă și iluzie*, Ed. Meridiane, București, 1973  
D. HOCKNEY, *Secret Knowledge, Rediscovering the lost techniques of the Old Masters*, Editura Thames & Hudson, London, 2001  
R. HUYGHE, *Puterea imaginii*, Ed. Meridiane, București. 1971  
J. ITTEN, *Art de la couleur (édition intégrale)*, Ed. Dessain et Tolra, Paris, 1977  
N. KNOBLER, *Dialogul vizual*, Ed. Meridiane, Bucuresti, 1983



13.00

# ARCHITECTURAL DESIGN STUDIO 2

Code

14.00

Semester

2

Credits

13

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

9 /week

Discipline type

Compulsory

Examination form

Colloquium

- Objectives
- Understanding the spatial layout and function of a dwelling

Deciphering the way of representation of the architectural project

Practicing polychrome drawing technique for the presentation of projects

The study of the interaction between the architectural object and its context

Practicing architectural model building

Responsible

Assoc. Prof. PhD Arch.  
Dana Sorina Opincariu

e-mail:

dana.opincariu@Arch.utcluj.ro

Teaching Team

Assoc. Prof. PhD Arch. Dana Opincariu  
Lect. PhD Arch. Andreea Pop  
Assist. Prof. PhD Arch. Laura Patachi  
Assist. Prof. PhD Arch. PhD Alina Voinea  
Arch. PhD Silviu Borş  
Arch. PhD Răzvan Potîng  
Arch. PhDs Verona Musteață  
Arch. PhDs Adrian Niculaș

- Lecture / project contents
- Minimal holiday house on an imaginary given site.

The project develops according to the design assignment in 3 phases:

1. Gathering data for the project

2. Developing the concept for the project

3. Detailing the solution and project presentation

- Seminar contents
- 
- Evaluation
- The evaluation and the notation of the projects are made by the responsible professors.

Selected bibliography

A. BAHAMON,ed. Houses, *Casas / Häuser. Barcelona:* Könemann, 2005 (517.479)

R. BARRENECHE, *Modern House Three.* London: Phaidon, 2006 (520.549)

C. BROTO, *Architectural design. Houses.* Barcelona: Monsa, 1999 (501.023)

C. BROTO, *Architectural design. New Country Houses.* Barcelona: Monsa, 2001 (501.032)

P. CHUECO, *Urban Houses. Barcelona:* Links, 2008 (531.013)

A. CORCUERA, *Contemporary Houses.* Barcelona: Könemann, 2006 (520.539)

F. IONESCU, și V. NĂSTASE, *Proiectarea Mobilei și Arhitectura Interioarelor.* București: Editura Didactică și Pedagogică, 1970 (160.936)

C. MELHUIISH, *Modern House 2. London: Phaidon,* 2004 (520.548)

NEUFERT. *Manualul Arhitectului: Elemente de proiectare și de construcție.* Miercurea Ciuc: Alutus, 2004 (537.936)

R. PATRULIUS, *Locuința în timp și spațiu.* București: Editura Tehnică, 1975 (207.400)



# ENGLISH LANGUAGE 2

Code	15.10
Semester	2
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	2/week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

Responsible  
Assoc. Prof. PhD. Sanda Paduretu  
e-mail: Sanda.Paduretu@lang.utcluj.ro

### Objectives

Development of language and communication skills in a foreign language for professional use.

Assimilation of the basic lexicon in the fields of interest and related to architecture. Effective use of language and communication skills in foreign languages.

### Lecture / project contents

-

### Seminar contents

1. The forces in a structure. Types of forces. 2. Buildings and structures 3. Architectural styles and house types 4. The elements of the building. Foundations and walls 5. Topographic measurements 6. Construction materials: traditional and modern 7. The seven wonders of the ancient world. Shapes and dimensions 8. Architectural elements: arches and windows 9. Gates and roofs 10. Vaults and domes 11. Styles and ornaments 12. The history of architecture. The first civilizations 13. Architecture in the Middle Ages 14. Gothic style 15. Renaissance in Europe 16. Baroque architecture 17. Industrial era 18. Modern architecture 19. International style 20. Cities of the twentieth century 21. Contemporary architecture 22. Architecture of the future 23-25. World famous constructions I-III 26. The project and its implementation 27. Evaluation – written test.

### Evaluation

1. Written test – 70%
  2. Oral test – 10%
  3. Evaluation during the semester – 20%
- To attend the tests, a presence in min. 80% of the seminars is required

### Selected bibliography

Glendinning, E.H., Technology 1, Oxford University Press, 2007.  
Pădurețu, S. – English for Architecture, Ed. Risoprint, Cluj-Napoca, 2015.  
Ibbotson, M. - Cambridge English for Engineering, Cambridge University Press, 2009.



# FRENCH LANGUAGE 2

Code	15.20
Semester	2
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	2/week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

Development of oral communication skills for professional technical context.

Development of lexical, grammatical and discursive knowledge in technical language.

Developing the knowledge to understand, transmit and evaluate an oral message in a professional technical context.

## Seminar contents

1. The forces in a structure. Types of forces. 2. Buildings and structures 3. Architectural styles and house types 4. The elements of the building. Foundations and walls 5. Topographic measurements 6. Construction materials: traditional and modern 7. The seven wonders of the ancient world. Shapes and dimensions 8. Architectural elements: arches and windows 9. Gates and roofs 10. Vaults and domes 11. Styles and ornaments 12. The history of architecture. The first civilizations 13. Architecture in the Middle Ages 14. Gothic style 15. Renaissance in Europe 16. Baroque architecture 17. Industrial era 18. Modern architecture 19. International style 20. Cities of the twentieth century 21. Contemporary architecture 22. Architecture of the future 23-25. World famous constructions I-III 26. The project and its implementation 27. Evaluation – written test.

## Evaluation

- Written test – 70%
  - Oral test – 10%
  - Evaluation during the semester – 20%
- To attend the tests, a presence in min. 80% of the seminars is required

## Selected bibliography

Forna, Adina-Irina, *Le français pour les étudiants en architecture et en génie civil*, Cluj-Napoca, UTPRESS, 2017.  
Vignozii, Alessandro, *Petites et grandes constructions, avec les illustrations de Giuseppe Arrighi, Giovanni Bernardi, Simone Boni, Lorenzo Cecchi, L.R. Galante, Lorentzo Pieri, Ivan Stalio, Stefano Tartarotti*, traduction Maria Grazzini, La Compagnie du Livre, 1995.  
*Merveilles de l'architecture*, texte original de Brian Williams, adaptation française de Jean Bertrand, Paris, Gründ, coll. « Comprendre », 1993.

Responsible  
Lect. dr. Aurel Bărbîntă

E-mail:  
Aurel.Barbinta@lang.utcluj.ro

## Lecture / project contents

-

15.20

# GERMAN LANGUAGE 2

Code	15.30
Semester	2
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	2/week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

- Objectives**
- Development of oral communication skills for professional technical context.
  - Development of lexical, grammatical and discursive knowledge in technical language.
  - Developing the knowledge to understand, transmit and evaluate an oral message in a professional technical context.

Responsible:	
Asist. CDA Miruna Opris	
E-mail:	
Miruna.Opris@lang.utcluj.ro	

**Lecture / project contents**

-

**Seminar contents**

1. The forces in a structure. Types of forces. 2. Buildings and structures 3. Architectural styles and house types 4. The elements of the building. Foundations and walls 5. Topographic measurements 6. Construction materials: traditional and modern 7. The seven wonders of the ancient world. Shapes and dimensions 8. Architectural elements: arches and windows 9. Gates and roofs 10. Vaults and domes 11. Styles and ornaments 12. The history of architecture. The first civilizations 13. Architecture in the Middle Ages 14. Gothic style 15. Renaissance in Europe 16. Baroque architecture 17. Industrial era 18. Modern architecture 19. International style 20. Cities of the twentieth century 21. Contemporary architecture 22. Architecture of the future 23-25. World famous constructions I-III 26. The project and its implementation 27. Evaluation – written test.

- Evaluation**
- 1. Written test – 70%
  - 2. Oral test – 10%
  - 3. Evaluation during the semester – 20%
- To attend the tests, a presence in min. 80% of the seminars is required

**Selected bibliography**

Dallapiazza/von Jahn/Schönherr - *Tangram. Kursbuch für Deutsch als Fremdsprache*. München: Hueber Verlag, 2002.  
Opris, M. - *Deutsch in Studium und Wissenschaft*, UTPRESS, Cluj-Napoca 1993.



# ITALIAN LANGUAGE 2

Code	15.40
Semester	2
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	2/week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

Responsible:	Conf. Dr. Angelica Căpraru
E-mail:	Angela.Capraru@lang.utcluj.ro

Objectives
Development of oral communication skills for professional technical context.
Development of lexical, grammatical and discursive knowledge in technical language.
Developing the knowledge to understand, transmit and evaluate an oral message in a professional technical context.

Lecture / project contents
-

Seminar contents
1. The forces in a structure. Types of forces. 2. Buildings and structures 3. Architectural styles and house types 4. The elements of the building. Foundations and walls 5. Topographic measurements 6. Construction materials: traditional and modern 7. The seven wonders of the ancient world. Shapes and dimensions 8. Architectural elements: arches and windows 9. Gates and roofs 10. Vaults and domes 11. Styles and ornaments 12. The history of architecture. The first civilizations 13. Architecture in the Middle Ages 14. Gothic style 15. Renaissance in Europe 16. Baroque architecture 17. Industrial era 18. Modern architecture 19. International style 20. Cities of the twentieth century 21. Contemporary architecture 22. Architecture of the future 23-25. World famous constructions I-III 26. The project and its implementation 27. Evaluation – written test.

Evaluation
1. Written test – 70%
2. Oral test – 10%
3. Evaluation during the semester – 20%
To attend the tests, a presence in min. 80% of the seminars is required

Selected bibliography
Căpraru, A. - <i>L italiano per gli ingeneri</i> , UTPRESS, Cluj-Napoca, 2003. La Grassa, M. - <i>L italiano all'università</i> , EdiLingua, Perugia, 2011.

# PHYSICAL EDUCATION 2

Code

16.00

Semester

2

Credits

2

No. of hours/ lecture

-

No. of hours/ seminar

2 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

Colloquium

## Objectives

Development of motor knowledge, skills and abilities. Teaching means and methods for harmonious and balanced physical development. Developing the concept of fair-play in sports and social activities.

## Lecture / project contents

-

## Seminar contents

1. Informing students about the requirements of the discipline. Testing the level of physical ability of students. Accommodating students with physical effort.
2. Teaching basic principles and technics in ball games and swimming.

## Evaluation

A minimum presence of 10/14 seminars is required. The final test consists in completing a series of exercises in a specified order and time.

## Selected bibliography

*Curs de Educație fizică* – Litografiat UTC-N.  
*Dezvoltare fizică generală pentru studenți* – UTC-N.  
*Cultură fizică pentru tineret* – UT.PRESS.



16.00

# PROFESSIONAL PRACTICE 1ST YEAR

Code	17.00
Semester	2
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	24
Discipline type	Compulsory
Examination form	Colloquium

Responsible  
Assoc. Prof. PhD Arch.  
Dana Sorina Opincariu  
  
e-mail: dana.opincariu@arch.utcluj.ro

Teaching Team  
Lect. PhD Arch. Andreea Moțu  
Assist. Prof. PhD Arch. Laura Patachi  
Arch. PhD Silviu Borș  
Arch. PhDs Adrian Niculaș  
Arch. PhDs Marius Păsculescu  
Arch. PhD Răzvan Potîng  
Arch. PhD Alina Voinea

## Objectives

Acquiring the theoretical and practical skills required for a measured survey of an architectural object and its representation principles and techniques. Experimenting with specific architectural surveying tools and understanding the relationship between the purpose and the scale of representation and its specific graphic characteristics.

## Lecture / project contents

A range of different activities, such as workshops, summer schools, site visits, study trips, etc. is offered every year. Having completed the activities, students must elaborate and submit a practice portfolio and present it in the frame of the pratice colloquium. Additionally, students must update their student portfolio with the proj-ects elaborated during the previous two semesters.

## Seminar contents

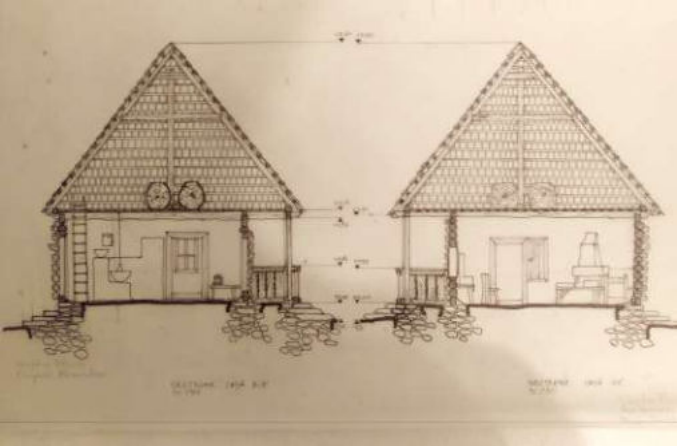
Elaborating a measured survey for an existing architectural object. Students usually work in teams of three to five persons.

## Evaluation

Portofolio assessment including the notes written on the field and final drawings.

## Selected bibliography

F. CHING, Francis D.K., *Architectural Graphics*, John Wiley & Sons, Inc., New York, 2003;  
MILEA, Andreea, POP, Dana, *Despre releveu. Practici de vară în Házsongárd*, U.T.Press, Cluj-Napoca, 2012;  
NEUFERT, Ernst & Peter, *Architects' Data*, Blackwell Science, Oxford, 2000;



17.00

02<sub>year</sub>  
1st semester

# HISTORY OF ARCHITECTURE

## - THE RENAISSANCE

Code **19.00**  
Semester **1**  
Credits **2**  
No. of hours/ lecture **2 / week**  
No. of hours/ seminar -  
No. of hours project -  
Discipline type **Compulsory**  
Examination form **Exam**

Responsible:  
Prof. PhD Arch. Habil. Virgil Pop  
e-mail: arch.virgil.pop@gmail.com

### Objectives

By acquiring general information about the architectural development during the Renaissance, about the famous architects and fundamental notions from this period, students will be able to recognize the particularities of the architectural styles, the geographical area, and to evaluate the quality of the architectural object as well.

### Lecture / project contents

- C1 The beginning of Renaissance
- C2 The works of Brunelleschi
- C3 The works of Alberti
- C4 The early Renaissance in Rome, urban transformations during the late Renaissance
- C5 Villa in the Renaissance period
- C6 The Renaissance architecture in North of Alps and in Transylvania
- C7 Introduction in Baroque
- C8 The late work of Michelangelo Bernini Boromini
- C9 The urban Baroque palaces in Rome
- C10 The transformations of the church during the Baroque period
- C11 The re-use of the Egyptian obelisks during the Baroque period
- C12 The Baroque urban planning in the 17th century
- C13 Baroque in Germany and Hungary
- C14 Baroque in Transylvania and Brancoven style

### Seminar contents

-

### Evaluation

Final exam – written test, min.5p/10.

### Selected bibliography

Synthesis work  
Specific bibliography for each course



19.00



# GEOMETRY OF THE ARCHITECTURAL FORMS

Code

20.00

Semester

1

Credits

3

No. of hours/ lecture

2 / week

No. of hours/ seminar

1 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

## Objectives

The course examines the main categories of the geometric elements and it represents a guide that allows the student to learn the diversity of the architectural forms.

## Seminar contents

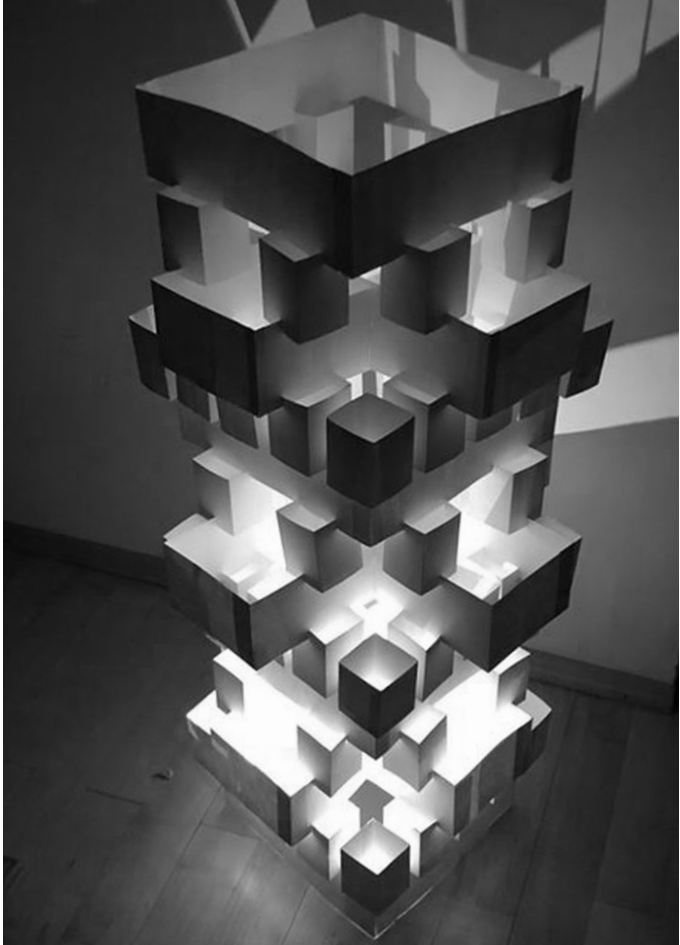
-

## Evaluation

Elaboration of an about 5 pages paperwork on a subject chosen from the courses content, and building a model in relation with the chosen theoretical subject

## Selected bibliography

B. JANE, M. BURRY, *The New Mathematics of Architecture*, Thames & Hudson , 2010  
F. CHING, B. S. ONOUE, D. ZUBERBUHLER, *Building Structures Illustrated* , John Wiley & Sons , 2009 New Jersey  
F. CHING, *Architecture , Form Space and Order* , John Wiley & Sons , New Jersey 1996  
C. DUMITRESCU, *Geometria Formelor Arhitecturale* , editura Politehnica , 2009  
H. ENGEL, *Tragsysteme / Structure Systems*, Second Edition, Hatje Cantz , 2009  
J. BURRY, M. BURRY, *The new Mathematics Of architecture* , Thames & Hudson, 2010  
F. MOUSSAVI, M. KUBO, *The Function of ornament*, Actar, Graduate School of Design, Harvard University, 2006



Responsible:  
Assoc. Prof. PhD Arch.  
Dana Sorina Opincariu  
  
e-mail: dana.opincariu@arch.utcluj.ro

## Lecture / project contents

- C1 Introductory course- The geometry of architectural Forms
- C2 The geometry of forms in the history of architecture
- C3 Structure in relation with form, the process of creation
- C4 Architectural shapes: polyhedrated, folded and made out of thin curved plates
- C5 Architectural forms generated by cross-linked structural systems
- C6 Architectural forms generated by suspended and pneumatic structures
- C7 The geometry of forms in vernacular architecture
- C8 The geometry and the perception of architectural space
- C9 Geometry and composition in architecture
- C10 The geometry of the facade elements of the buildings
- C11 The geometry of ornamental elements in architecture
- C12 Symbolic geometry in architecture
- C13 New trends in architectural forms: advanced architecture
- C14 Course of synthesis / colloquium

# THEORY OF ARCHITECTURE. DWELLING

Code	21.00
Semester	1
Credits	2
No. of hours/ lecture	2
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible  
Prof. PhD Arch. Dana Vais  
  
e-mail: dana.vais@arch.utcluj.ro

## Objectives

The course aims to gather knowledge about the concepts defining the architecture of habitation throughout history, to create understanding the relationship between the architecture of habitation and human lifestyles and to give the ability to address the problematics of contemporary housing.

## Lecture / project contents

- C1 Introduction - The Act of Dwelling as an All-Scales Phenomenon
- C2 Explaining the Forms of Habitat
- C3 Pre-Modern Habitation Models - Primitive, Traditional Rural,
- C4 Vernacular
- C5 Oriental and Mediterranean Models of Habitation
- Western Models of Habitation, from the Middle Ages to the
- C6 Modern Era
- C7 Early Social Housing
- C8 Modern and Contemporary Habitation
- C9 Modern Social Housing
- C10 Housing Typologies and the Functions of the Home
- C11 Psychology, Anthropology and Sociology of Habitation
- C12- Contemporary Social Housing and Housing Policies
- C14 Problematics of Contemporary Housing Architecture

## Seminar contents

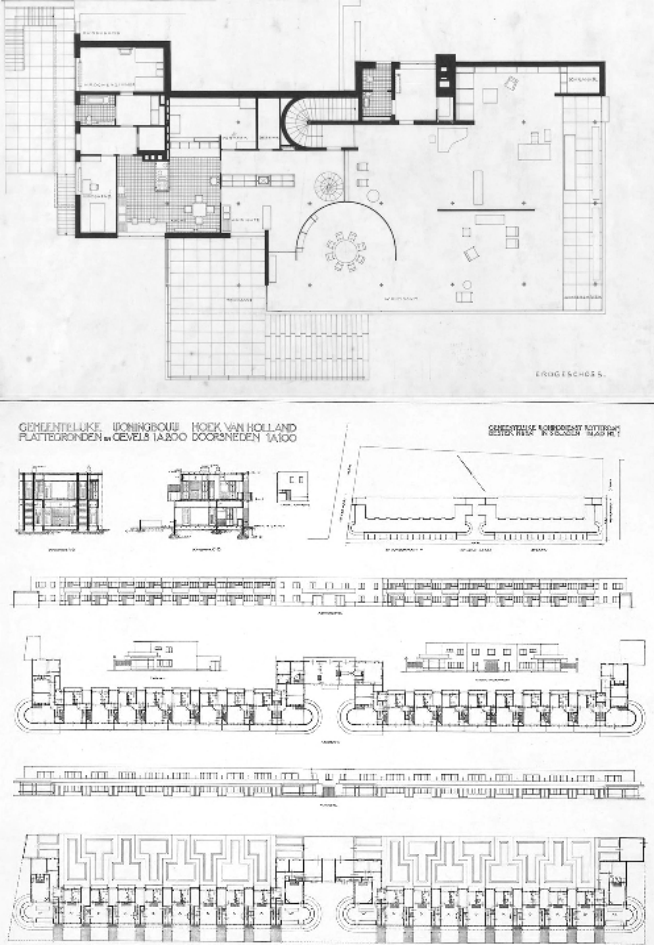
-

## Evaluation

Written exam - essay

## Selected bibliography

D VAIS, *Locuire*, Universitatea Tehnică din Cluj-Napoca, 1997



21.00

# COMPUTER AIDED DESIGN

Code	22.00
Semester	1
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	2 / week
Discipline type	Compulsory
Examination form	Colloquium

Responsible  
Assist. Prof. PhD Arch. Rareş Drăgan

E-mail  
raresv.dragan@gmail.com

Teaching Team  
Arch. Roxana Popescu  
Eng. Adela Lazăr

## Objectives

Offering the students the capacity to express their project ideas, completing the hand drawings and making the graphic representation part easier.

## Lecture / project contents

Phase 1:  
Presenting the model and the working mode in Allplan.  
2D representation in Allplan  
3D representation in Allplan: building structure and reference plans, foundations, floors and stairs  
3D representation in Allplan: walls, pillars, windows, doors and carpentry  
3D representation in Allplan: plans, roof plans, roofing  
Architectural representation in Allplan: plans, sections, facades, renderings  
Phase 2:  
Presenting the model and the working mode in ArchiCad.  
2D representation in ArchiCad.  
3D representation in ArchiCad: building structure and reference plans, foundations, floors and stairs  
3D representation in ArchiCad: walls, pillars, windows, doors and carpentry  
3D representation in ArchiCad: plans, roof plans, roofing  
Architectural representation in ArchiCad: plans, sections, facades, renderings

## Seminar contents

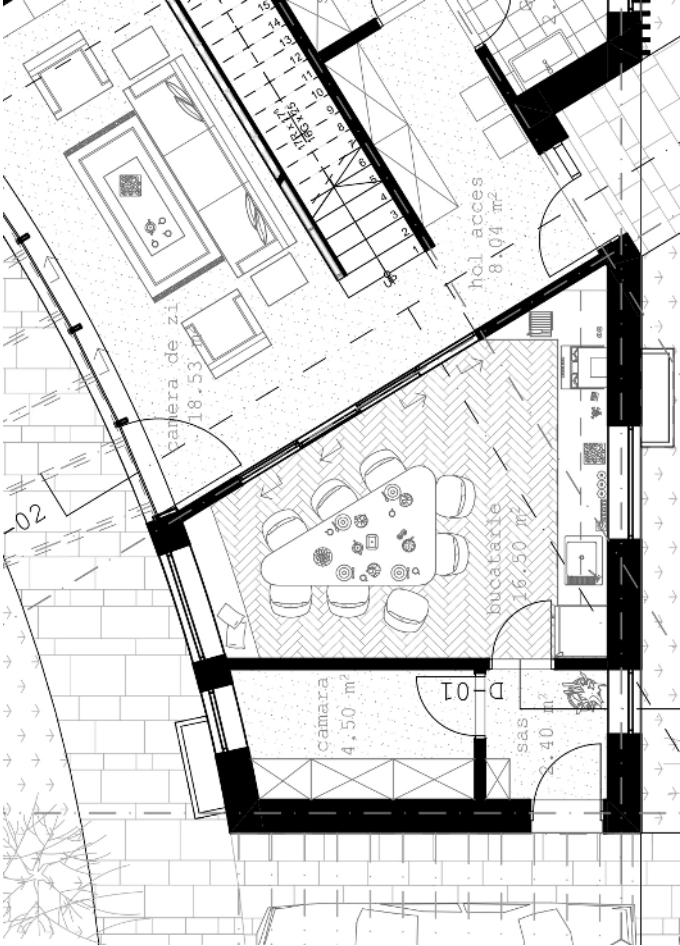
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## Evaluation

The final grade is the average between Phase 1 and Phase 2

## Selected bibliography

Graphisoft ArchiCAD 22 Reference Guide; Graphisoft (in limba romana pe [www.consoft.ro](http://www.consoft.ro))  
GDL Cookbook 4.0; David Nicholson-Cole; Marmelade Graphics, Nottingham; 2007  
Allplan 2018 Tutorial de arhitectură © Nemetschek Allplan GmbH, Munich, 2018  
Computer Graphics; D. Dayton Reuter, ASLA; Allworth Press; New York; 2002  
GDL Cookbook 4.0; D. NICHOLSON-COLE; Marmelade Graphics, Nottingham; 2007



22.00

# CONSTRUCTION ELEMENTS

Code

23.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

## Objectives

Knowing the construction elements and their way of representation through architectural drawing.

## Lecture / project contents

- C1
- Introduction
- C2
- Constructions with bearing structure
- C3
- Construction of masonry
- C4
- The overall concept of the masonry constructions
- C5
- The construction in relation with the ground
- C6
- Insulating the construction against soil moisture
- C7
- Horizontal structural elements for masonry and reinforced concrete construction
- C8
- Reinforced concrete construction
- C9
- Traditional and modern wooden constructions
- C10
- Roofs
- C11
- Metal structures
- C12
- The structure of the masonry, reinforced concrete, wooden and metal walls
- C13
- Prefabricated wooden and reinforced concrete constructions

## Seminar contents

- S1
- B+GF+FF building, masonry construction, technical representation in plan
- S2
- Section and elevation for the same building
- S3
- Characteristic element intersections, documentation
- S4
- Roof framing: plan and section
- S5
- Construction detail

## Evaluation

Theoretical written exam(50%) and practical assisted work during seminar hours(50%).

## Selected bibliography

D. HARDT, *Proiectarea detaliilor pentru constructii*, Ed. Tehnica, Bucuresti, 1974.  
E. NEUFERT, *Manualul arhitectului, Elemente de proiectare si de constructie*, Ed. Alutus, Miercurea Ciuc, 2004  
R. VITTONI, *Manuel de la construction*, Ed. Presses polytechniques et universitaires romandes,Lausanne, 1999  
F. D. K. Ching, *Building Construction Illustrated*, Ed. John Wiley&Sons,2001  
M. C. TORRICELLI, R. DEL NORD, P. FELLI, *Materiali e tecnologie dell'architettura*, Ed. Laterza, 2004  
R.CRISAN, *Constructii din lemn*, an 2, Ed.3, 2006  
R. CRISAN, *Constructii din zidarie si beton armat*, Ed.Universitara „Ion Mincu”, Bucuresti 2012  
R. CRISAN, *Constructii din otel*, Ed. Universitara „Ion Mincu” Bucuresti 20011





# STRUCTURAL MECHANICS

## Objectives

Learning the main notions and principles from the mechanics of structures in order to successfully approach the technical disciplines in the following semesters.  
Developing an intuitive understanding of the state of efforts, tensions and deformations of a structural element under external loads.  
Applying the basic principles of structural mechanics at an elementary level in order to dimension and verify different structural elements.

## Seminar contents

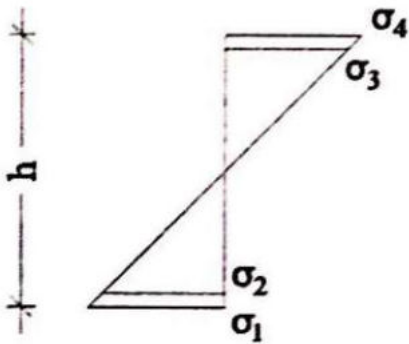
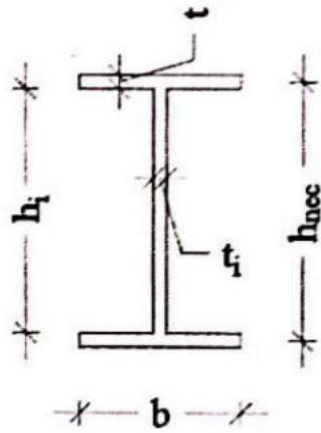
- S1 High structures made out of paper
- S2 Fundamental concepts
- S3 Actions, loads, forces and moments
- S4 Equations of stability. Calculation of reactions
- S5 Effort charts 1
- S6 Effort charts 2
- S7 Lattice beams
- S8 Determining the properties of elements
- S9 Dimensioning the axial stressed elements
- S10 Dimensioning the bending stressed elements
- S11 Dimensioning the stressed elements
- S12 Verifying the elements
- S13 Building a paper structure
- S14 The general way of analyzing an element

## Evaluation

Written exam

## Selected bibliography

- A. CIMPEANU, *Bazele mecanicii structurilor*, Editura U.T. PRES. Cluj-Napoca 2002  
P. GARRISON, *Basic Structures for Engineers and Architects*, Blackwell Publishing, 2005  
R. DABBY, *Structure for Architects*, John Wiley & Sons, 2012





# FUNDAMENTALS OF ARCHITECTURAL DESIGN

Code

25.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Colloquim

## Objectives

The course intends to present, study and acquire the ability to work with technical documents specific to the field of architectural design, the ability to accurately draft the components of architectural blueprints and the ability to properly determine and design spaces, in accordance with the technical requirements agreed upon by the Romanian legislation in force.

## Seminar contents



## Evaluation

written test - 50 minutes

## Selected bibliography

A selection of Romanian laws, regulations, guides in force.

## Lecture / project contents

- C1 Areas and building heights
- C2 Z coordinates, floor area ratio and building-to-land ratio
- C3 Symbols and principles of architectural drawings
- C4 Roof geometry
- C5 Stairs and ramps 01
- C6 Stairs and ramps 02
- C7 Bathrooms and sanitary groups
- C8 Home spaces - the legal basis
- C9 Home spaces - day spaces and night spaces
- C10 Home spaces - kitchens and attics
- C11 Civil protection shelters
- C12 Constructions for parking lots
- C13 Fire safety of constructions
- C14 Evaluation

Responsible:  
Lect. PhD Arch. Dana Julean  
  
e-mail: [dana.julean@arch.utcluj.ro](mailto:dana.julean@arch.utcluj.ro)

25.00

# ARCHITECTURAL DESIGN STUDIO 3

Code	26
Semester	1
Credits	13
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	11 / week
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

- Transforming a set of conditions into spatial solution through architectural design.
- Project thinking and project research.
- Simulating the conditions of a real project, communicating through the project, on phases and stimulating the adoption of decisions through critical analysis.

## Lecture / project contents

Project subject: Country house / city house - comparative project during the semester  
It aims to explore locations and capturing information. Desk top ocumentation, to create an architectural concept fo the two contexts (rural and urban): presentation and evaluation, to develop the architectural concepts

## Seminar contents

-

## Evaluation

The evaluation and the notation of the projects are made by the responsible professors

## Selected bibliography

OZALID, *Locuințe*, ed. Emilia Țugui, București  
Grupul de lucru Rural, *Ghid de integrare în specificul rural*, OAR,  
G. MINKE, *Construind cu pământ*, Simetria, București  
M. GAUSA, *Housing*, ACTAR, Barcelona



26.00

02<sub>year</sub>  
2nd semester

# HISTORY OF ARCHITECTURE - BAROQUE

Code **27.00**

Semester **2**

Credits **2**

No. of hours/ lecture **2 / week**

No. of hours/ seminar -

No. of hours project -

Discipline type **Compulsory**

Examination form **Exam**

## Objectives

By acquiring general information about the architectural development during the Baroque, about the famous architects and fundamental notions from this period, students will be able to recognize the particularities of the architectural styles, the geographical area, and to evaluate the quality of the architectural object as well.

## Lecture / project contents

- C1 The beginning of Renaissance
- C2 The works of Bruneschi
- C3 The works of Alberti
- C4 The early Renaissance in Rome, urban transformations during the late Renaissance
- C5 Villa in the Renaissance period
- C6 The Renaissance architecture in North of Alps and in Transylvania
- C7 Introduction in Baroque
- C8 The late work of Michelangelo Bernini Boromini
- C9 The urban Baroque palaces in Rome
- C10 The transformations of the church during the Baroque period
- C11 The re-use of the Egyptian obelisks during the Baroque period
- C12 The Baroque urban planning in the 17th century
- C13 Baroque in Germany and Hungary
- C14 Baroque in Transylvania and Brancoven style

## Seminar contents

-

## Evaluation

Final exam – written test, min.5p/10.

## Selected bibliography

Synthesis work  
Specific bibliography for each course



27.00

# RESIDENTIAL PLANNING

Code	28.00
Semester	2
Credits	3
No. of hours/ lecture	2
No. of hours/ seminar	1
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Assoc. Prof. PhD Arch.  
Octav Silviu Olănescu  
  
e-mail: octav.olanescu@arch.utcluj.ro

## Objectives

Developing theoretical, methodological and practical abilities in urban residential and urban planning areas.

## Lecture / project contents

- C1 Introduction
- C2 The urban residencial in recent history
- C3 The urban residential in the rationalist urban planning
- C4 The recalibration of attitudes towards urban residential (user/ inhabitant/pedestrian)
- C5 The constituent units of the environment built within the urban residential area (typologies)
- C6 The problems of urban design within the urban residential area
- C7 The problems of sustainability design within the urban residential area
- C8 The problems of communication design within the urban residential area
- C9 Principles for a 21st Century urban residential
- C10 Urban Residential in Romania for the last 25 years
- C11 Conclusions. Recap

## Seminar contents

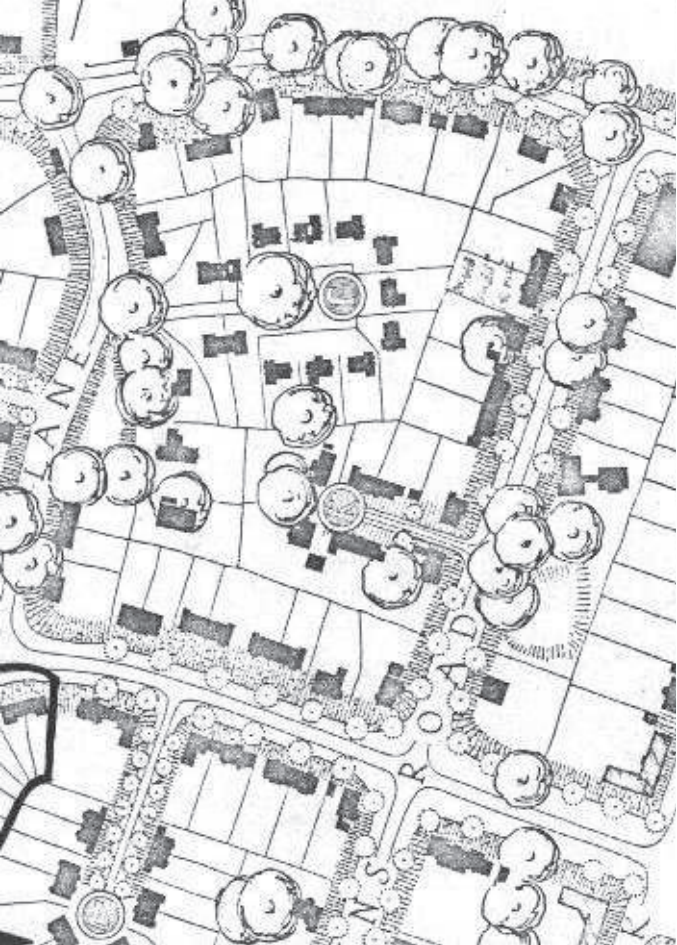
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## Evaluation

Written exam and 10-15 minute tests with questions from the previous course at the beginning of every course.

## Selected bibliography

C. ALEXANDER, et. al., (1977), *A Pattern Language*, Ed. Oxford University Press, New York  
M. CARMONA, S. TIESDELL, (editori), (2007), *Urban Design Reader*, Ed. Architectural Press /3 3  
M. CARMONA, T. HEATH, T. OC, S. TIESDELL, (2003), *Public Spaces – Urban Spaces, The Dimensions of Urban Design*, Ed. Architectural Press, Oxford  
P. GEDDES, (1915), *Cities in Evolution*, Ed. Williams & Norgate, Londra  
P. HALL, (2002), *Cities Of Tomorrow – Third Edition*, Ed. Blackwell Publishing, Oxford  
S. LEWIS, (2005), *Front to Back – a design agenda for urban housing*, Architectural Press - Elsevier  
E. PĂNESCU, (coordonator proiect), (2011), *Cluj-Napoca în Proiecte, 50 de Ani 1960-2010*, Ed. Imprimeria Ardealul, Cluj-Napoca  
P. STOLLARD, (editor), (1991), *Crime Prevention Through Housing Design*, Ed. Chapman & Hall, Londra  
G. TOWERS, (2005), *An Introduction to Urban Housing Design – At Home in the City*, Architectural Press



28.00



# DETAILS IN ARCHITECTURE 1

Code

29.00

Semester

2

Credits

4

No. of hours/ lecture

2 / week

No. of hours/ seminar

2 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

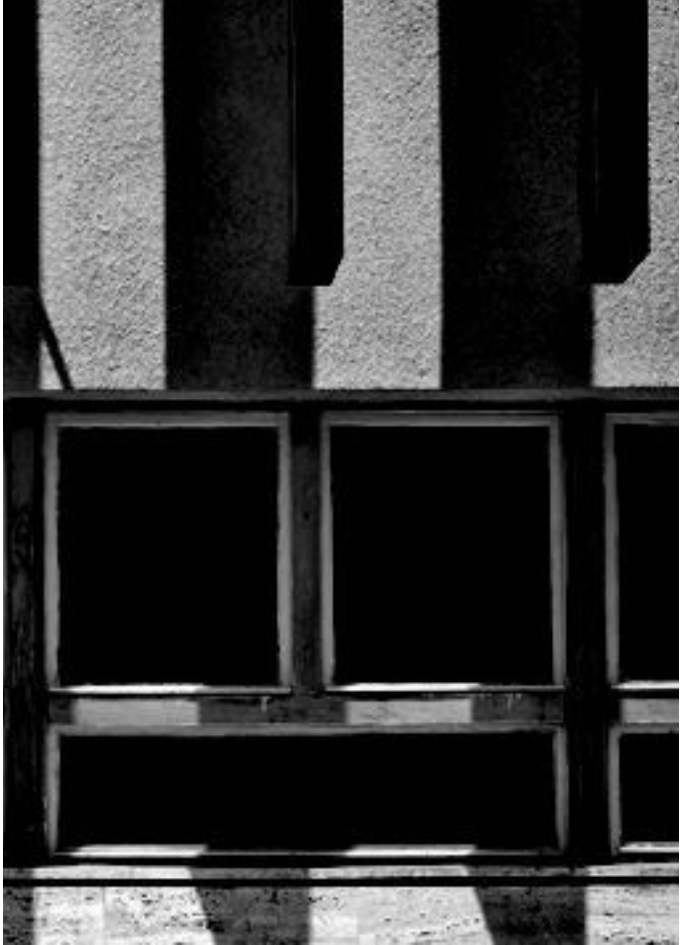
Exam

## Objectives

-

## Seminar contents

-



Responsible:  
Lect. PhD Arch. Silviu Aldea

e-mail: silviu.aldea@arch.utcluj.ro

## Lecture / project contents

- C1 Introduction
- C2 Foundations and elevations
- C3 Vertical structural elements
- C4 Horizontal structural elements
- C5 Frameworks
- C6 Wall finish works
- C7 Interior compartments
- C8 Joineries
- C9 Floors
- C10 Stairs
- C11 Complex details 1
- C12 Complex details 2
- C13 New technologies compared to traditional technologies

## Evaluation

Written exam, or minumum two 8 grades (for each compulsory work during the semester).

## Selected bibliography

D. HARDT, *Proiectarea detaliilor de finisaj*, Vol I, Ed.Tehnică, București, 1973  
D. HARDT, *Proiectarea detaliilor de finisaj*, Vol II, Ed.Tehnică, București, 1974  
A. STAN, *Finisaj - Volumul 1,2*, Institutul de Arhitectură “Ion Mincu”, București, 1979  
E. NEUFERT, *Les elements des projets de construction*, Paris, Dunod, 1992  
Note de curs

29.00

# URBAN DESIGN FOUNDATION

Code **30.00**  
Semester **2**  
Credits **2**  
No. of hours/ lecture **2 / week**  
No. of hours/ seminar -  
No. of hours project -  
Discipline type **Compulsory**  
Examination form **Colloquium**

Responsible:  
Assist. Prof. PhD Arch. Alice Oprică  
  
e-mail: [alice.oprica@arch.utcluj.ro](mailto:alice.oprica@arch.utcluj.ro)

## Objectives

The main purpose is to provide specific knowledge to understanding the operational urban intervention.

## Lecture / project contents

- C1 Introduction
- C2 Local community planning tools in Romania
- C3 The analysis and synthesis of the existing situation. Measuring
- C4 plan, action plan, local scheme
- C5 Organizing plots and lots
- C6 Organizing the traffic area
- C7 Organizing public urban spaces. The markets
- C8 Organizing the green area of the city
- C9 Organizing the built area of the city
- C10 Detailed urban design  
Urban planning representations

## Seminar contents

-

## Evaluation

Written exam

## Selected bibliography

I.D. YEANG, *Urban Design Compendium* Vol 1, Vol 2.  
D. PRINZ, *Stadtebauliches Entwerfen* Vol. 1  
D. PRINZ, *Stadtebauliches Gestalten* Vol. 2  
National Association of City Transportation Officials, *Urban Street Design Guide*  
Catalog BNA editia 2018, Sectiunea Spațiul public incluziv Catalog BNA editiile 2016, 2014, 2012, Secțiunea Arhitectura spațiului public și urbanismul Catalog European 14, European 13, European 12, European 11, European 10  
LEGEA nr. 350 / 2001 privind amenajarea teritoriului și urbanismul PUG Cluj si RLU, in vigoare pentru diferite localități din Județul Cluj Ghid privind Metodologia de Elaborare și Conținutul-Cadru al Planului Urbanistic de Detaliu  
*Ghid privind Metodologia de Elaborare și Conținutul-Cadru al Planului Urbanistic Zonal*  
*Ghid privind Metodologia de Elaborare și Conținutul-Cadru al Planului Urbanistic General*



# 30.00

# INTERIOR DESIGN

Code

31.00

Semester

2

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Colloquium

Responsible:  
Lect. PhD. Arch. Paul Moldovan  
  
e-mail: paul.moldovan@arh.utcluj.ro

## Objectives

- Initiation into the issue of architectural space ambiances
- Assimilation of knowledge about the elements of the architectural space involved in the creation of ambiances
- Defining an architectural space through the prism of ambience: spatial, compositional relations, chromatic, textural relations, physical and mental comfort.

## Lecture / project contents

- C1 Introduction
- C2 Ambient components of the architectural space
- C3 Perception and psychoplastic elements
- C4 The ambient composition in the interior and exterior architectural space
- C5 Light and color in Architecture
- C6 Methods of activating environmental stimuli
- C7 Perceptual structure and behavior in the architectural environment
- C8 Ambient characteristics of the private architectural space
- C9 The environments of the public architectural space - interior and exterior
- C10 Sustainability and environmental principles in architecture
- C11 The ambiance of the scenographic space - the performance space
- C12 Ambient characteristics of architectural spaces in history - Comfort
- C13 Ambient Design Project - conceptualization analysis, stages
- C14 Trends and concepts in contemporary space environments

## Seminar contents

-

## Evaluation

Completion of a work with a theoretical documentary part and a drawn part.

## Selected bibliography

Ionescu F., Nastase V., Furniture Design and Interior Architecture, Didactic and Pedagogical Ed, Bucharest - 1970 [quota 5: 160,931, 6 copies]  
Michelis P.A., Aesthetics of architecture, Meridiane, 1982 [number 4:353,866, 4 copies]  
Tangaz T., The Interior Design Course, Thames & Hudson, 2006, 2018 [quota 1: 537,932, 1 copy]  
Jurov C., Ambient Architecture, Capitel, 2006  
Koolhaas, R. (2014). Elements of Architecture. Venezia: Marsilio  
Phaidon, The Design Book, 2013



31.00

# ART HISTORY

Code	32.00
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible  
Assoc. Prof. PhD Arch. Cristina Purcar  
  
e-mail: cristina.purcar@arch.utcluj.ro

## Objectives

Art history's basic notions, techniques, periods, genres and personalities are discussed, aiming at broadening students' horizon towards the other forms of artistic expression, forming an educated gaze, developing critical skills and a multi-layered understanding of the space-image relationship.

## Lecture / project contents

- C1 Materials and techniques: mural painting
- C2 Materials and techniques: tempera/ wood, oil/canvas, gouache
- C3 Materials and techniques: engraving, mozaic, stained glass
- C4 Materials and techniques: photography
- C5 Materials and techniques: sculpture, installation, assemblage
- C6 Composition: images in space
- C7 Composition: the space of the image
- C8 Composition: space as image - perspective
- C9 Genres: history
- C10 Genres: portrait
- C11 Genres: genre
- C12 Genres: landscape
- C13 Genres: still life
- C14 A thematic chronology

## Seminar contents

-

## Evaluation

Formative assessment during the semester through diverse methods with optional participation: short test, case study presentation, dialogue; max 3p/10. Final exam – written test of 8-10 questions; min.5p/10.

## Selected bibliography

Annotated slides provided for every lecture.  
BELL, Julian, *Mirror of the World. A New History of Art*. Thames&Hudson, 2010.  
FARTHING, St. edt., *Art: The Whole Story*. Thames&Hudson, 2018.  
FLEMING, William, *Arts and Ideas*. Wadsworth Publishing, 1994.  
FOSTER H., KRAUSS R., BOIS Y.-A., BUCHLOH B.H.D., *Art since 1900. Modernism. Antimodernism. Postmodernism*, Londra: Thames&Hudson, 2007.  
GOMBRICH E.H., *The Story of Art*. Phaidon Press, 1995.  
PANOFSKY, Erwin, *Perspective as Symbolic Form*. New York: Zone Books, 1991.



32.00



# ARCHITECTURAL DESIGN STUDIO 4

Code	33.00
Semester	2
Credits	13
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	11/ week
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

Transforming a set of conditions into spatial solution through architectural design.  
Simulating the conditions of a real project, communicating through the project, on phases and stimulating the adoption of decisions through critical analysis.

## Lecture / project contents

Project subject: CASA - Students Architecture Contest, realized in partnership with student associations. Living in the community

- Exploring locations and capturing information. Desk top ocumentation
- Creating an architectural concept fo the two contexts (rural and urban): presentation and evaluation
- Developing the architectural concepts
- Final presentation

## Seminar contents

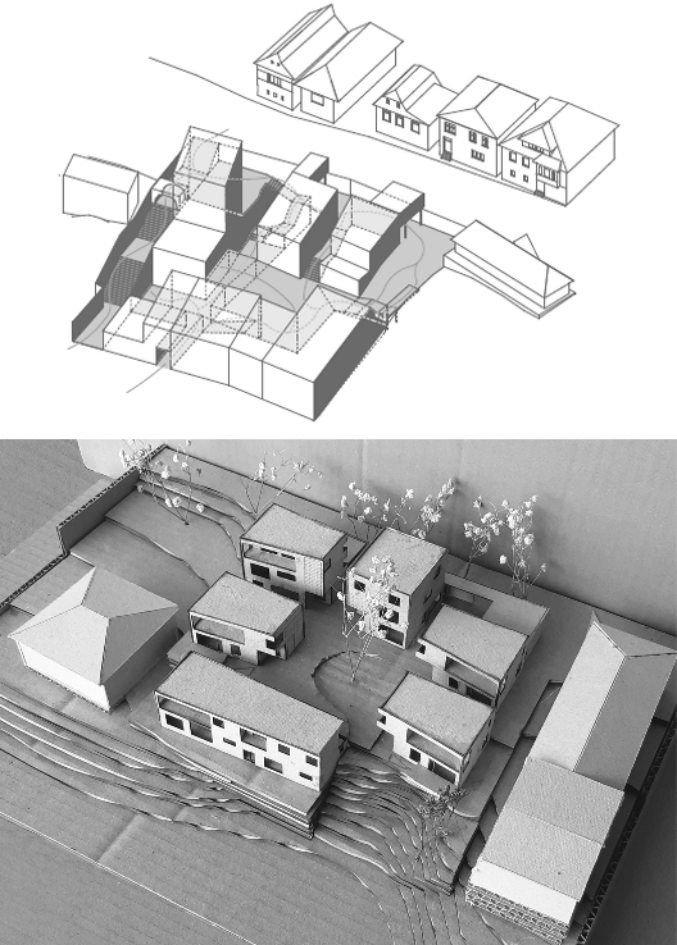
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## Evaluation

The evaluation and the notation of the projects are made by the responsible professors.

## Selected bibliography

OZALID, *Locuințe*, ed. Emilia Țugui, București  
Grupul de lucru Rural, *Ghid de integrare în specificul rural*, OAR  
G. MINKE, *Construind cu pământ*, Simetria, București  
M. GAUSA, *Housing*, ACTAR, Barcelona



33.00



# PROFESSIONAL PRACTICE 2ND YEAR

Code	34.00
Semester	2
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	24
Discipline type	Compulsory
Examination form	Colloquium

Responsible  
Assoc. Prof. PhD Arch. Șerban Țigănaș  
  
e-mail: dragos.tiganas@arch.utcluj.ro

Teaching team  
Assoc. Prof. PhD Arch. Cristina Purcar  
Lect. PhD Arch. Paul Moldovan  
Assist. Prof. PhD Arch. Flavius Muntean  
Arch. PhD Alexandru Sabău  
Arch. PhDs Tiberiu Bucsa  
Arch. PhDs Fabian Luca  
Arch. PhDs Catalin Pop  
Arch. Cristian Urcan

### Objectives

Extending knowledge about the architectural project, the interdisciplinary project and the connection between the project and the construction site.

Learning and practicing the specific vocabulary and arguments of the architecture project.

### Lecture / project contents

A range of different activities, such as workshops, summer schools, site visits, study trips, etc. is offered every year. Having completed the activities, students must elaborate and submit a practice portfolio and present it in the frame of the pratice colloqium. Additionally, students must update their student portfolio with the projects elaborated during the previous two semesters.

### Seminar contents

### Evaluation

The evaluation and the notation of the projects are made by the responsible professors.

### Selected bibliography



34.00

# BASIC DESIGN REGULATIONS

Code	30.00
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	1 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

Responsible:  
dr. arh. Moldovan Silvan Valentin  
  
e-mail: silvan.moldovan@arc.utcluj.ro

## Objectives

The course intends to present, study and acquire the ability to work with technical documents specific to the field of architectural design, the ability to accurately draft the components of architectural blueprints and the ability to properly determine and design spaces, in accordance with the technical requirements agreed upon by the Romanian legislation in force.

## Lecture / project contents

- C1 Introduction
- C2 Territory, cadastre, parcel
- C3 Circulations
- C4 Route, street profile, parking lots
- C5 Intersections, public squares
- C6 Open spaces planted
- C7 Recapitulation and exercises
- C8 Graphical elements
- C9 Urban facilities and functions
- C10 Zoning, regulations, territorial balance
- C11 Site plan
- C12 Placement of buildings on the plot
- C13 Urban aesthetics
- C14 Recapitulation and exercises

## Seminar contents

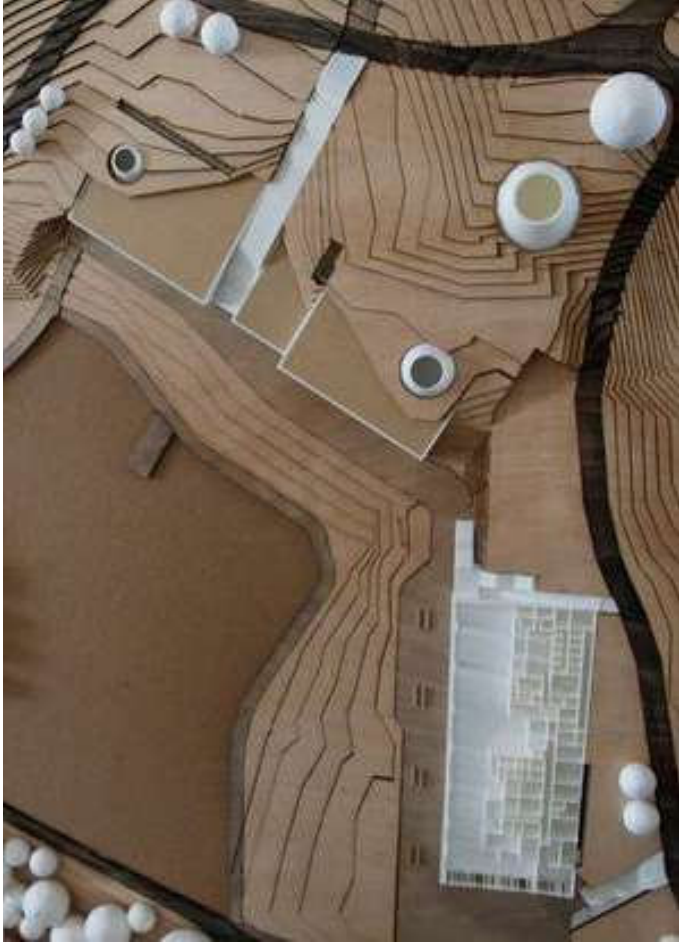
- applied exercises based on topics presented throughout the course

## Evaluation

written test - 50 minutes

## Selected bibliography

A selection of Romanian laws, regulations, guides in force.



30.00

03<sub>year</sub>  
1st semester

# HISTORY OF ARCHITECTURE

## - THE XIXTH CENTURY

Code **35.00**

Semester **1**

Credits **2**

No. of hours/ lecture **2 / week**

No. of hours/ seminar **-**

No. of hours project **-**

Discipline type **Compulsory**

Examination form **Exam**

### Objectives

The course addresses the architectural history of the period c.1750 – c.1890, discussing its major architectural themes, styles and personalities. Each theme departs from and returns to the ‘station’ of a familiar, local or Transylvanian monument, which is thereby positioned within the relevant socio-programmatic, technologic and aesthetic systems of meaning that it signifies.

### Lecture / project contents

- C1 Royal Squares. Absolutism. Illuminism. Classicism
- C2 Neo-classical ensembles. Illuminism and reform
- C3 Aristocratic rural residences. Picturesque, archaeology, historic
- C4 relativism  
Architecture and revolution. Utopian projects. Legimising
- C5 monuments. The emergence of national heritage
- C6 Engineers’ architecture. Structural uses of metal. Bridges and  
factories
- C7 Romanticism, nationalism, style. Neoclassicism and Neogothic.  
The United Kingdom, France
- C8 Romanticism, nationalism, style. Neoclassicism and Neogothic.
- C9 Prussia, Bavaria, Greece  
Progressist historicism. Schinkel, Ruskin, Hübsch
- C10 Progressist historicism. Bindesboll, Viollet-le-Duc, Labrouste,
- C11 Paxton
- C12 Haussmannian Paris
- C13 Eclectic Classicism. The extension of the Louvre. The Garnier
- C14 Opera. Semper  
The architecture of commerce. Galleries and grand magasins  
The architecture of commerce. The great exhibitions.  
Secessionism  
Ringstrasse Vienna. Architecture and representation  
Railway stations and universal exhibitions

### Seminar contents

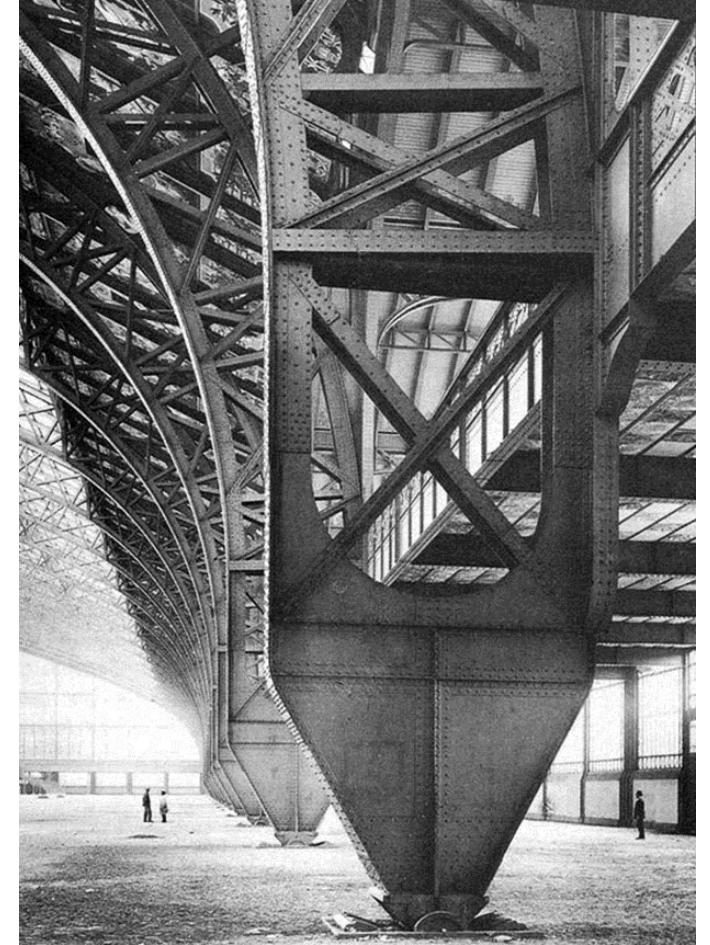
-

### Evaluation

Final exam – written test or thematic essay.

### Selected bibliography

BERGDOLL, Barry. European Architecture 1750-1890. Oxford University Press, 2000.  
FRANCASTEL, Pierre. Art and Technology in the Nineteenth and Twentieth Centuries, NY.  
HITCHCOCK, Henry-Russell. Architecture: Dix-neuvième et vingtième siècles. Bruxelles: Pierre Mardaga, 1981.  
SCHORSKE, Karl. Fin-de-siècle Vienna. Politics and Culture. Vintage, 1980.  
WATKIN, David, MIDDLETON R. Storia Universale dell’ Architettura, Architectura moderna (sec XVIII-XIX). Electa, 1977.  
MIGNOT, Claude. Architecture of the 19th century, 1994.  
\*\*\* Le livre des expositions universelles 1851-1989. Paris: Editions des arts decoratifs Herscher, 1983.



# 35.00



# URBAN STRUCTURES

Code **58.20**  
Semester **2**  
Credits **2**  
No. of hours/ lecture **2 / week**  
No. of hours/ seminar -  
No. of hours project -  
Discipline type **Elective**  
Examination form **Colloquium**

Responsible:  
Assoc. Prof. PhD Arch.  
Vlad Sebastian Rusu  
e-mail: vlad.rusu@arch.utcluj.ro

## Objectives

The course aims to identify and understand the challenges of the architect-urbanist profession in the problems of the dynamics of urban form and structure, to acquire awareness of the importance of the multidisciplinary approach in urban planning and an informed consideration of urban restructuring projects, both in academic urban planning workshops and in future professional work.

## Lecture / project contents

- C1 Course Introduction.
- C2 Urban territory, urbanization process, conditioning and manifestations.
- C3 The system of urban activities within the city.
- C4 Urban morphology, morphological methods of analysis, application of methods of spatial analysis.
- C5 Case study - application of a spatial body analysis method.
- C6 Urban Structure - Definitions, Urban Spatial Structure - Urban Functional Structure.
- C7 Urban texture Limits of urban structure. Structures of structural organization.
- C8 Case studies on urban structure and approaches.
- C9 Phenomenon and urban form - definitions, Dynamics of urban form.
- C10 Urban spatial differentiation - homogeneous space, heterogeneous space, selection in urban space. Case studies.
- C11 Particular value of urban form - character and specificity. Case Study.
- C12 Urban Restructuring - Case Studies.
- C13
- C14

## Seminar contents

-

## Evaluation

Written exam

## Selected bibliography

- S. Kostof , The City Shaped: Urban Patterns and Meanings Trough History, Ed. Paperback, Londra, 2007.
- K. Lynch, G. Hack, Site Planning, Ed. MIT Press, Cambridge, 1984.
- F. Machedon, Metodă de analiză morfologică a Țesuturilor urbane, Ed. U.A.U.I.M., Bucuresti 2006.
- A. Stan, C. Ioniță, Morfologie urbană, Ed. U.A.U.I.M., Bucuresti - 2014.
- Ș. Ghenciulescu, Orașul transparent: limite și locuire, Ed. U.A.U.I.M., Bucuresti - 2008.



36.00



# STRUCTURAL ENGINEERING THEORY 1

Code

36.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Assoc. Prof. PhD Eng. Petru Rus  
  
e-mail: petru.rus@arch.utcluj.ro

### Objectives

Getting familiarized with the behaviour of structural elements and developing the ability to approach a problem intuitively. Acquiring knowledge about structural problems that may arise and obtaining the ability to solve them.

### Lecture / project contents

- C1
- The notions of mechanics and the resistance of materials used during the course, with examples focused on the development of intuition.
- C2
- C3
- Presentations, discussion.  
Designing structures.
  - Limit states
  - The stages of the design process
  - Graphic representation of structures. Schematic drawing of structural elements and links between them.
- C4
- Analysing the behaviour of different types of structures using planar or spatial static schemes. Spatial behaviour of structures. Simplified schematization of some types of structures with the purpose of identifying determining factors in their behaviour.
- C5
- C6
- Construction actions. How to evaluate actions and the transmission of them.  
Numerical application for the evaluation of actions.

### Seminar contents

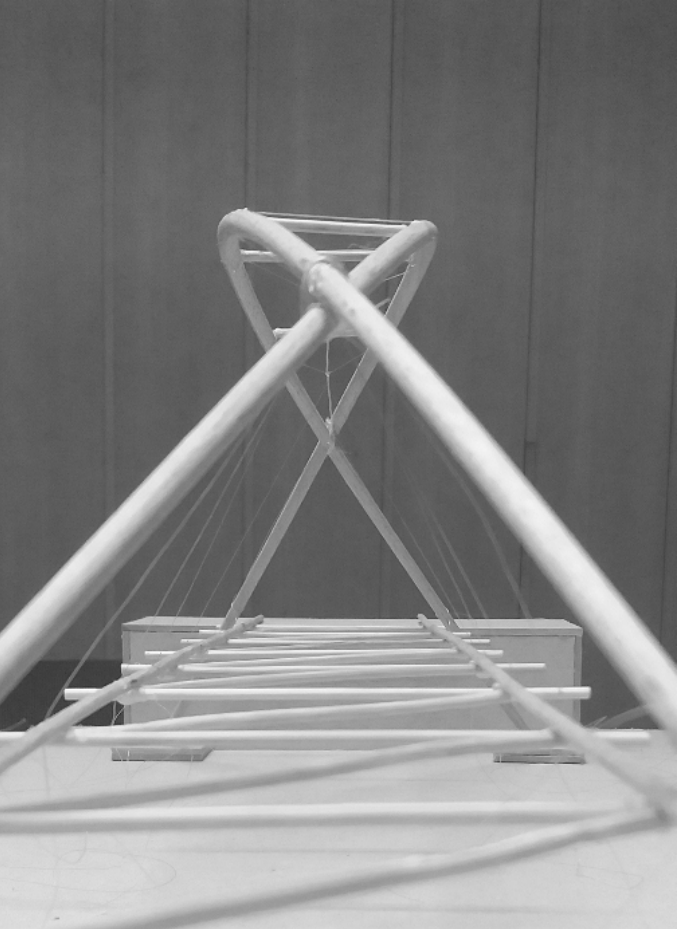
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### Evaluation

Final exam – written test which includes theoretical knowledge (60% of overall grade) and a practical part (40% of overall grade).  
min. 5p/10.

### Selected bibliography

V. BUDIU, *Structuri*, UTCN, 1997



37.00

# DETAILS IN ARCHITECTURE 2

Code

38.00

Semester

1

Credits

4

No. of hours/ lecture

2 / week

No. of hours/ seminar

2 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Lect. PhD Arch. Silviu Aldea

e-mail: silviu.aldea@arch.utcluj.ro

### Objectives

Getting familiarized with different types of building materials and the way they are handled and put to use.

### Lecture / project contents

- C1The importance of architectural details.
- C2Hydro-insulation buildings with basement. The building in relation to the natural ground.
- C3The middle part of a building. Intermediate slab. Floating slab.
- C4Load bearing and non-load bearing partitions. Finishes.
- C5Technical and false ceilings.
- C6Reinforced concrete or metal stairways. Connection with slabs.
- C7Elevations. Thermal insulation. Discontinuities. Woodwork.
- C8Façade 1: ventilated wood façade, ventilated load bearing masonry façade.
- C9Façade 2: metal façade, concrete façade.
- C11Glass façade
- C12Pitched roofs: constructive elements
- C13Flat roof 1: no passage flat roof and walk-on terrace on a reinforced concrete slab
- C14Flat roof 2: metal systems, green roofs.
- Free talk about the themes studied during lecture. Optional presentations from students.

### Seminar contents

Assisted work during seminar hours

### Evaluation

Final exam – written test (architecture detail) min. 5p/10 on each given subject.  
Requires attendance to lectures and seminars.

### Selected bibliography

-D. HARDT, *Proiectarea detaliilor în construcții*, Ed. Tehnica Bucuresti

-D. HARDT, *Proiectarea detaliilor de finisaje*, Ed. Tehnica Bucuresti 3 - GHIDUL ARHITECTULUI vol XIV – PIATRA

-A. MOISESCU, E. SAFTOIU, *Betonul în arhitectură*, Ed. Tehnica Bucuresti 1964

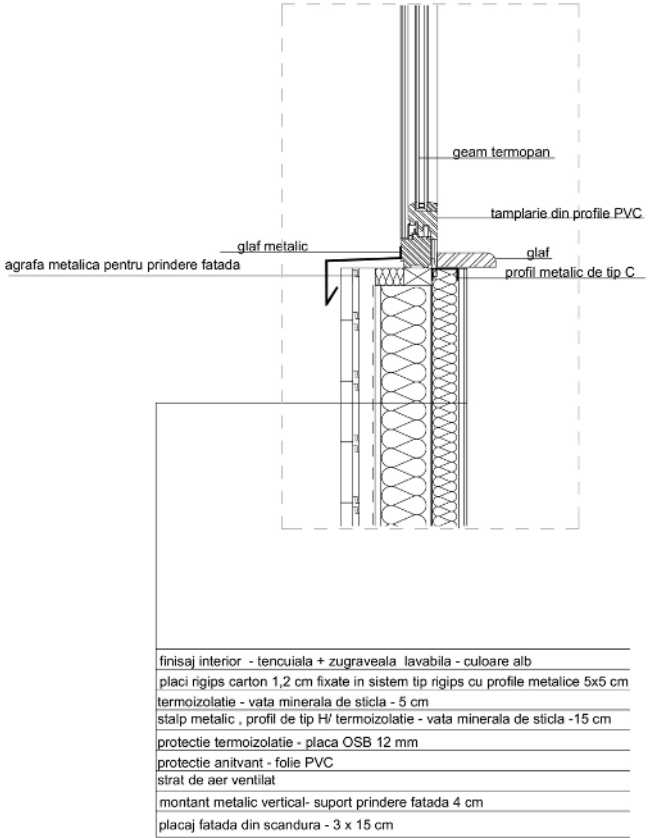
-*Instructiuni tehnice pentru proiectarea constructiilor din beton aparent cu parament natural*-Indicativ C. 122/89 Buletinul Constructiilor nr. 2/1991

-Sinteza documentara nr. 20/1967 – *B.I.T. Executarea constructiilor din betoane aparente*

- Al. STAN – *FINISAJ vol. I si vol. II Inst. De Arhitectura* “ION MINCU” Bucuresti

-*Instructiuni tehnice pentru executarea placajelor* Indicativ C 6-68

-*Catalogul de detalii tip pentru constructii de locuinte si social culturale vol. I,II,III* (Biblioteca UTCN – cod 359.037)



38.00

# HISTORY OF FURNITURE - STYLES

Code	39.00
Semester	1
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Lect. PhD Arch. Andreea Pop

e-mail:  
andreea.pop@arch.utcluj.ro

## Objectives

The course is structured in two parts: the first one dealing with elements of language and composition principles; the second one describing the main historical periods and their correspondences with the furniture field, analyzing the particular technical and decorative methods. This ensures a correct understanding of the evolution of furniture, emphasizing the close connection with the architecture styles, and an appropriate evaluation of valuable pieces of furniture

## Lecture / project contents

- C1 General concepts related to the evolution of furniture and the establishment of the History of Furniture Design discipline
- C2 The ornament (I)
- C3 The ornament (II)
- C4 The ornament (III)
- C5 The evolution of furniture - Neolithic, Mesopotamian and
- C6 Egyptian Furniture
- C7 Furniture in ancient Greece and ancient Rome
- C8 Furniture in the Byzantine Empire and Islamic Space
- C9 Romanic furniture; Gothic furniture
- C10 Renaissance furniture
- C11 Baroque furniture; Régence furniture
- C12 Rococo furniture, oriental influences and techniques
- C13 Furniture in Classicism
- Furniture in the 19th century - Styles, materials, techniques and innovators
- C14 Furniture in the 20th century

## Seminar contents

-

## Evaluation

Exam - questions regarding the content of the 14 courses.

## Selected bibliography

P. PETRESCU, *Specific Ornamental Motifs (Motive ornamentale celebre)*, Ed. Meridiane, București, 1971  
Col.authors, *Art Dictionary.( Dicționar de artă)*,vol I,II, Ed. Meridiane, București,1995,1998  
C. FIELL, *Fiell P. Designing the 21st Century*,Ed. Taschen, Köln, 2002  
A. PĂNOIU, *Old Romanian Furniture (Mobilierul vechi românesc)*, Ed.Meridiane, București, 1975  
E.L. SMITH, *Histoire du mobilier*, Ed.Thames&Hudson, Paris, 1990  
G. KAESZ, *Ismerjük meg a bútorstílusokat*, Ed. Hatter, Budapesta, 1995  
D. VLAD, ed. coord., KATALIN M., ed., A. ARAMĂ, ed. Study Book no.2. *History of Furniture Design. Style Furniture Survey* (Caiet de studiu nr. 2, Istoria Mobilierului, relevee de mobilier stil), Ed. UTPRESS, Cluj-Napoca, 2006  
D. VLAD, ed. coord., A. MOȚU ed., Julean I., ed., Study Book no.3. *History of Furniture Design. Style Furniture Survey. Traditional Furniture Survey* (Stil-Istoria Mobilierului,Caiet de studii nr.3,Relevee de mobilier stil, relevee de mobilier traditional), Ed.UTPRESS, Cluj –Napoca, 2013



39.00

# GLOBAL AND LOCAL IN ARCHITECTURE

Code

40.10

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Elective

Examination form

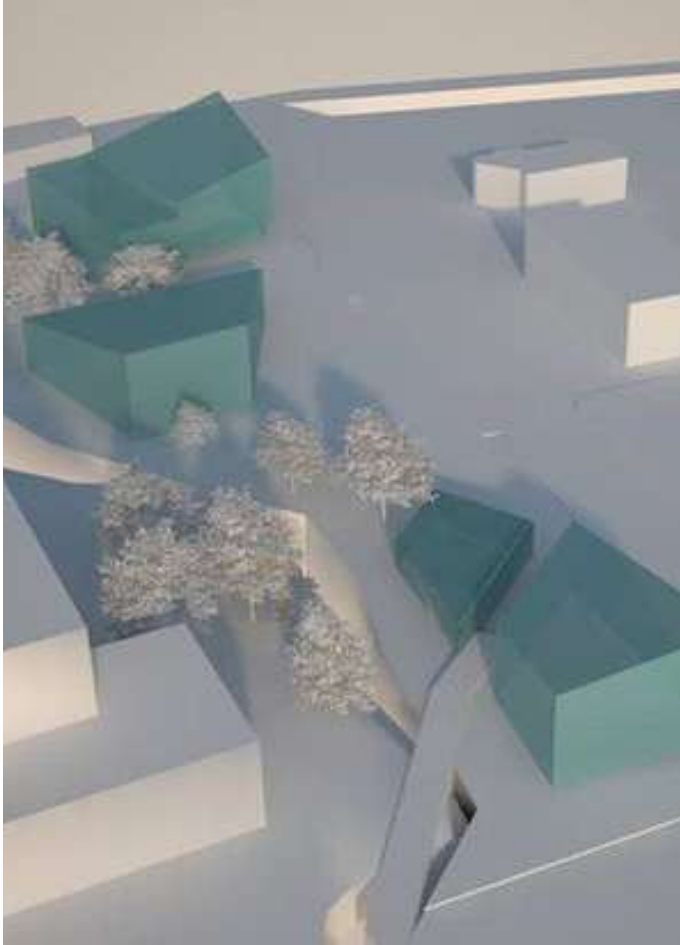
Colloquium

## Objectives

Understanding the process of composing theoretical argumentative essays, contemporary architecture serving as subject.

## Seminar contents

-



## Evaluation

Formative assessment during the semester through diverse methods with optional participation: dialogue; max 1p/10.  
Written test of 2 questions; min.5p/10.

## Selected bibliography

D. VAIS, *Global si local în arhitectura contemporana*, Teorie-Note de curs, anul II, Ed. UT Press, Cluj, 2011 Suplimentar:  
Z. BAUMAN, *Globalization (1999) - transl.: Globalizarea si efectele ei sociale*, Ed. Antet, 1999; Liquid Modernity (2000) - transl: *Modernitatea lichida*, Ed. Antet, 2000  
K. FRAMPTON, *Towards a Critical Regionalism: Six Points for an Architecture of Resistance, in: The Anti-Aesthetic Essays on Post-Modern Culture*, Ed. Hal Foster, Bay Press, 1983, pp. 16-30  
M. LUPU, *Școli naționale în arhitectură [National Schools in Architecture]*, Ed. Tehnica, București,1977  
C. NORBERG-SCHULZ, *Genius Loci*, Ed, Mardaga, 1981; *Existence, Space, Architecture*, London, 1971  
R. KOOLHAAS (with AMO-OMA, &&&), *Content*, Taschen, 2004; (with OMA and Bruce MAU), *S, M, I, XL*, The Monacelli Press, New York, 1995  
R. VENTURI, S. BROWN, I. STEVEN: *Lecția Las Vegas* (traducerea cărții Learning from Las Vegas, Ed. Universitară Ion MIncu, București 2017

Responsible:  
Lect. PhD Arch. Adriana Măgerușan

e-mail:  
adriana\_magerusan@yahoo.com

## Lecture / project contents

- C1 Introduction.
- C2 Representation through architecture.
- C3 Japan.
- C4 Netherlands.
- C5 Romania and the local aspect.
- C6 Romania and contemporary architecture.
- C7 Judged and unjudged globalising.
- C8 Rem Koolhaas.
- C9 Americanization.
- C10 Contextualism.
- C11 The Bilbao Effect.
- C12 Translocal networks.
- C13 Architecture as an action mechanism.
- C14 Recapitulation.

# SPACE PERCEPTION AND CONFIGURATION

Code	40.20
Semester	1
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

Responsible:  
Lect. PhD Arch. Dana Julean  
  
e-mail: dana.julean@arch.utcluj.ro

## Objectives

The course intends to seek and formulate a theory of space perception. Thus, it will focus on identifying the theoretical foundations of spatial perception and representation. A minute definition of the concepts will provide an analytical device that can then be used to understand the particular instances of architectural space. Therefor, the creator of space will be endowed with new theoretical tools in order to substantiate, argue and support future solutions.

## Lecture / project contents

- C1 Introduction
- C2 The principles of perception
- C3 Personal space
- C4 The boundaries of space - the space of boundaries
- C5 Space and its meanings
- C6 From space to place and back
- C7 The inclusive place
- C8 The exclusive place
- C9 Architecture and fear
- C10 Spatial phobias
- C11 Failed architecture
- C12 "Cathedrals of Culture" - film screening
- C13 Recapitulation and conclusions
- C14 Evaluation

## Seminar contents

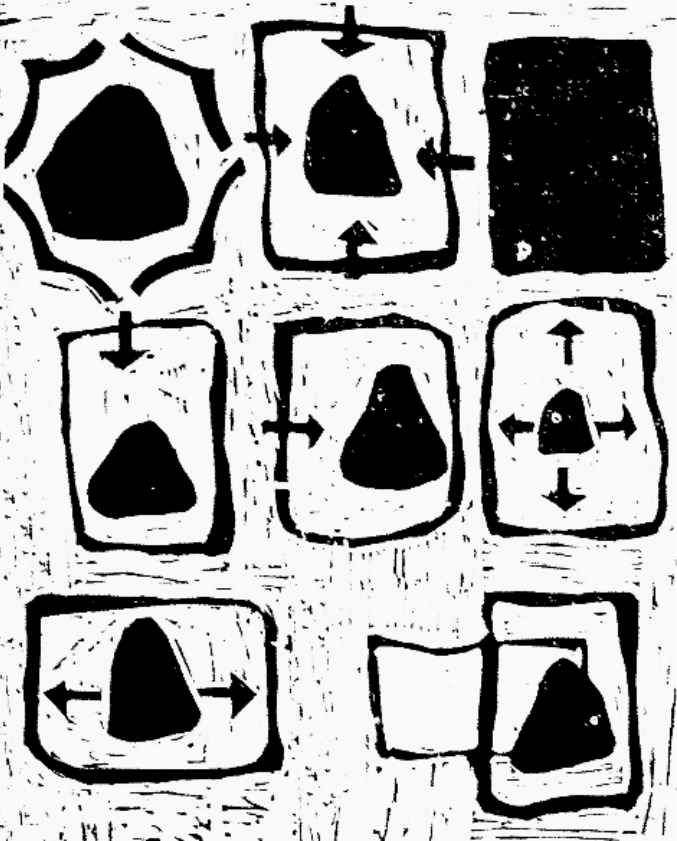
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## Evaluation

written paper - 50 minutes

## Selected bibliography

ARNHEIM, Rudolf. *Arta și percepție vizuală - o psihologie a văzului creator*. Trad. Florin Ionescu, București: Editura Meridiane, 1979.  
ARNHEIM, Rudolf. *The Dynamics of Architectural Form*, Berkley & Los Angeles, Londra: University of California Press, 1977.  
de BOTTON, Alain. *Arhitectura fericirii*, București: Editura Vellant, 2009.  
GAVRELIUC, Alin. *Psihologie interculturală: repere teoretice și diagnoze românești*, Iași: Polirom, 2011.  
MICLEA, Mircea. *Psihologie cognitivă - Modele teoretico-experimentale*, Iași: Polirom, 2003.  
PIAGET, Jean; INHELDER, Bärbel. *The Child's Conception of Space*. Trad. F.J. LANGDON; J.L. LUNZER, Londra: Routledge & Kegan Paul Ltd, 1971.  
POP, Dana. *Despre percepția spațiului în arhitectură*, București: Paideia, 2015.  
POP, Dana. *Arhitectură, percepție și frică*, București: Paideia, 2016.





# SPECIALISED DESIGN - URBANISATION

Code	41.00
Semester	1
Credits	3
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	3 / week
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

Acquiring knowledge about urban design and the skills required further during the professional life.

## Lecture / project contents

Restructuring an urban residential area:  
Phase 1 - Analysis of the existing situation  
Phase 2 - Designing a guideline scheme and phasing out the intervention  
Phase 3 - Completion of the urban planning project

## Seminar contents

-

## Evaluation

The evaluation and the notation of the projects are made by the responsible professors.

## Selected bibliography

Ghid privind metodologia de elaborare și conținutul cadru al planului urbanistic zonal, MLPAT, București, 2000.  
Legislație privind urbanismul, Matrix Rom, București, 2005.  
Colecția de reviste de specialitate din biblioteca FAU si UTCN.  
Bell, Simon, Elements of Visual Design in the Landscape, Spon Press, London and New York, 2004. English Partnerships and the Housing Corporation, Urban Design Compendium, Volumele 1 și 2, 2007.  
Mangin D., Panerai Ph., Proiect urbain, Ed. Parenthesès, Marseilles 1999.  
Ministerul Lucrărilor Publice și Amenajării Teritoriului, Ghid privind reglementarea dezvoltării urbane prin operațiuni de parcelare și reparcelare a terenurilor introduse in intravilan, iunie 2002.  
Mozas, Javier, Density: new collective housing, a+t Ediciones, 2006.  
O'rourke, Juliana ed., Place Making. Celebrating Quality and Innovation in Urban Design.



Responsible  
Lect. PhD Arch. Silivan Moldovan

e-mail  
silivan.moldovan@arch.utcluj.ro

Teaching Team  
Prof. PhD Arch. Iancu Adrian  
Assoc. Prof. PhD Arch. Andreea Milea  
Lect. PhD Arch. Dragoș Dascălu  
Assist. Prof. PhD Arch. Alice Oprică  
Assist. Prof. PhD Arch. Mihai Racu  
Arch. Rodica Codoreanu  
Arch. Alexandra Vancea

41.00

# ARCHITECTURAL DESIGN STUDIO 5

Code

42.00

Semester

1

Credits

13

No. of hours/ lecture

-

No. of hours/ seminar

-

No. of hours project

11 / week

Discipline type

Compulsory

Examination form

Colloquium

Responsible  
Assoc. Prof. PhD Arch. Paul Mutică

e-mail  
paul.mutica@arch.utcluj.ro

Teaching team  
Assoc. Prof. PhD Arch. Paul Mutică  
Lect. PhD Arch. Smaranda Todoran  
Lect. PhD Arch. Adriana Măgeruşan  
Assist. Prof. PhD Arch. Andrei Kiss  
PhD Arch. Alexandru Fleşeriu  
Arch. PhDs Ştefania Boca  
Arch. PhDs Romeo Cuc  
Arch. PhDs M Moldovan

**Objectives**

Acquiring the ability to develop an architectural project on a complex programme, in close connection to an urban site, based on in-depth contextual analyses.

**Lecture / project contents**

Exploring, analysing and documenting potential sites for an office - hub for creative industries. Defining the most oportune site and elaborating the architectural project, tackling integration, programmatic, spatial, structural and ambiental aspects.

**Seminar contents**

-

**Evaluation**

The evaluation and the notation of the projects are made by the responsible professors.

**Selected bibliography**

-Archdaily, Detail, Arhitectura, Zeppelin, igloo etc.;  
-E. Neufert, *Manualul arhitectului*- elemente de proiectare si de constructie, Alutus S.A., Miercurea Ciuc, 2004;  
-G. VAIS, *Programe de arhitectura*, UT Press, 2008



42.00

03<sub>year</sub>  
2nd semester

# HISTORY OF ARCHITECTURE - MODERN AND CONTEMPORARY PERIODS

Code

43.00

Semester

2

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible

Prof. PhD Arch. Dana Vais

e-mail:

dana.vais@arch.utcluj.ro

## Objectives

The aims of the course is understanding the emergence and evolution of architectural modernity, to gain the ability to make value judgments about the architectural products of recent history and to gather knowledge about the 20th Century architecture and urbanism.

## Lecture / project contents

- C1The styles of 1900 / Horta, Guimard, Gaudi, Van de Velde / A.Perret / T.Garnier
- C2Ch. Rennie-Mackintosh/ Secession / Loos
- C3German Expressionism / Dutch Expresionism / De Stijl
- C4Behrens / Bauhaus / Gropius / Mies van der Rohe
- C5Futurism / Russian Constructivism
- C6Le Corbusier
- C7Frank Lloyd Wright / Art Deco
- C8Postwar Functionalism / Aalto / Brutalism
- C9Architecture-sculpture / Niemeyer
- C10Architecture-structure / Megastructures / Metabolism / High-tech
- C11Postmodernism
- C13Deconstructivism / Minimalism
- C14Contemporary trends
- An overall perspective on the 20th Century architecture

## Seminar contents

-

## Evaluation

Written exam - essay

## Selected bibliography

- K. FRAMPTON, *Modern Architecture. A Critical History*, Thames and Hudson, 1992 (third edition)
- W. J. R. CURTIS, *Modern Architecture since 1900*, Phaidon Press, 1996
- J. L. COHEN, *The Future of Architecture since 1889*, Phaidon, 2012
- M. TAFURI, *Francesco Dal Co, Architettura Contemporanea*, Electa, 1976



43.00

# BUILDING TYPES

Code

44.00

Semester

2

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

## Objectives

Basic notions about functionality in architecture that aim at broadening students' horizon, forming an educated gaze used later during the professional life and further years of study.

## Seminar contents

-

## Evaluation

Final exam – written test; includes theoretical knowledge (50% of overall grade) and a practical part (50% of overall grade). min. 5p/10.  
Requires attendance to lectures.

## Selected bibliography

-*Architectural Design: Design Hotels*, Links, Barcelona 1999-2000\*  
-*Architectural Design: New Working Spaces*, Links, Barcelona 1999-2000\*  
-L. ALLEGRET, *Musées*, Ed.du Moniteur, Paris 1989/1992 (vol.I și II)\*  
-R. ALOI, *Architetture per lo spettacolo*, Ulrico Hoepli Editore, Milano 1958  
-M. Z. BOULET, & C. MOISSINAC, & F. SOULIGNAC, *Auditoriums*, Editions du Moniteur, Paris 1990\*  
-G. BRAGHIERI, *Aldo Rossi*, Zürich, München,London 1993\*  
-S. CANTACUZINO, RE/ARCHITECTURE, *Old Buildings/New Uses*, Thames and Hudson, 1989\*  
-A. COOLS, *Les lieux de travail, architectures spécialisées*, Presses Universitaires de Bruxelles 1984  
-L. GÁDOROS, *Középületek tervezése*, Tankönyvkiadó, Budapest 1981  
-A. IOTZU, *Teatrul, act de creație arhitecturală*, Ed. Tehnică, București 1981  
-C. LĂZĂRESCU, *Construcții hoteliere*, Ed.Tehnică, Bucuresti 1971



44.00

Responsible:  
Assoc. Prof. PhD Arch. Șerban Țigănaș

e-mail:  
dragos.tiganas@arch.utcluj.ro

## Lecture / project contents

- C1 Introductory notions: subject matter, defining the basic notions, defining the functional model;
- C2 Administrative buildings: offices, local government - townhalls, credit institutions, justice;
- C3 Public catering buildings: restaurants, snack bars, bars and confections;
- C4 Tourism buildings: hotels, motels, cottages, shelters and camps;
- C5 Entertainment building: theatres and cinemas;
- C6 Library buildings: libraries, mediatheques and archives;
- C7 Buildings for museums;



# STRUCTURAL ENGINEERING THEORY 2

Code

45.00

Semester

2

Credits

4

No. of hours/ lecture

2 / week

No. of hours/ seminar

2 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible

Assoc. Prof. PhD Eng. Nicolae Socaciu

e-mail: nicolae.socaciu@arch.utcluj.ro

- Objectives
- Acquiring the necessary knowledge for designing correct and economical structures.

Developing an optimal appreciation of the size of the elements.

Choosing the adequate materials for the structural elements.

- Lecture / project contents
- C1 Loads evaluation

C2 Calculation methods for constructions

C3 Reinforced concrete elements: deformations, behaviour

C4 Reinforced concrete elements: slabs

C5 Reinforced concrete elements: beams

C6 Reinforced concrete elements: columns

C7 Precompressed elements

C8 Metal elements: deformations, behaviour

C9 Metal elements: solid core beams

C10 Metal elements: columns

C11 Metal elements: lattice girders

C12 Lattice girders and arches

C13 Reinforced concrete structural walls, foundations

C14 Wood elements

- Seminar contents
- S1 Evaluation of actions in constructions

S2 Determining the efforts in the dimensioned elements

S3 Predimensioning of reinforced concrete slabs

S4 Predimensioning of flat plate slabs

S5 Predimensioning of main beams

S6 Predimensioning of secondary concrete beams

S7 Predimensioning of concrete columns

S8 Problem solving: reinforced concrete warehouse

S9 Predimensioning of metal purlins

S10 Predimensioning of main metal beams (simple and composed)

S11 Predimensioning of metal trusses

S12 Predimensioning of metal columns

S13 Problem solving: metal warehouse

S14 Predimensioning of wood elements

- Evaluation
- Written Test – Theoretical knowledge – 50 %

Written Test – Problem solving - 50 %

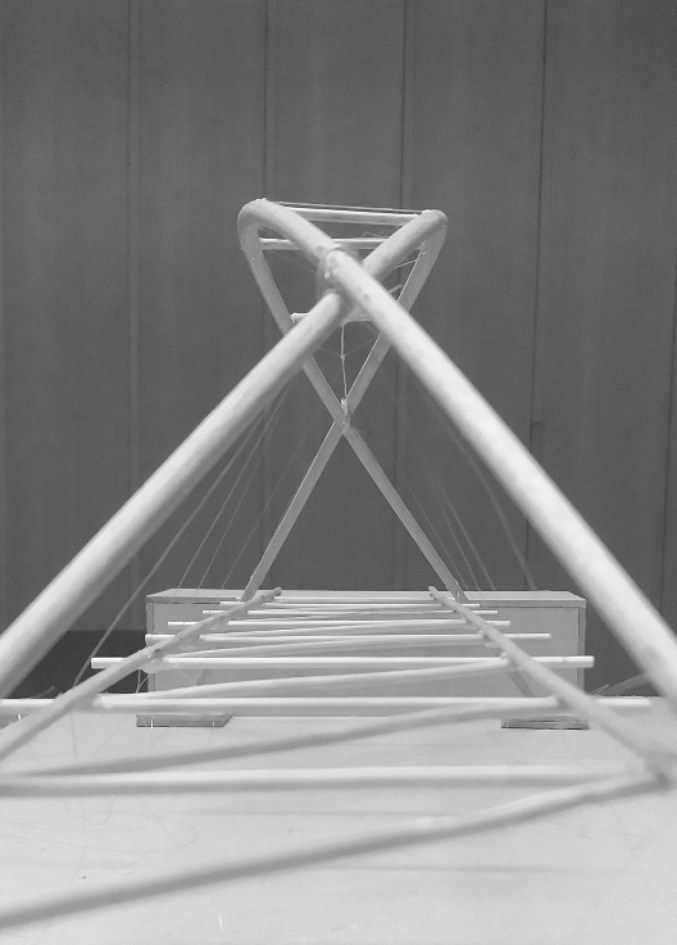
Selected bibliography

Moga, P, Gutiu, S, Moga, C. *Elemente structurale din oțel: bazele proiectării* (U.T. Press, Cluj-Napoca, 2015).

Hangan, M. *Construcții din beton armat* (Ed. Tehnică, 1963).

Dalban, C. *Construcții metalice* (Editura Didactica si Pedagogica, 1976).

Negoita, A. *Construcții civile* (Editura Didactica si Pedagogica, 1976).



# BUILDING SERVICES

Code	46.00
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible  
Lect. PhD. Eng. Tania Rus

e-mail  
tania.rus@insta.utcluj.ro

## Objectives

Acquiring the necessary knowledge for conceiving architectural projects with a high awareness of the contemporary needs, requirements and technologies available in terms of building servicing.

Understanding the impact of building service integration in architecture.

Becoming familiar with state-of-the-art building service systems and technologies and their spatial implications.

## Lecture / project contents

- C1-2 The quality of indoor environment: thermal comfort, health and hygiene comfort, air quality, lighting,
- C3 acoustics
- C4-5 Heating installations
- C6-8 Ventilation, air-conditioning and refrigeration
- C9-11 installations
- C12 Sanitary installations
- C13 Electrical installations
- C14 Gas supply installations
- Equipment and installations for renewable energy sources
- The role of installations in the sustainable development of buildings and cities

## Seminar contents

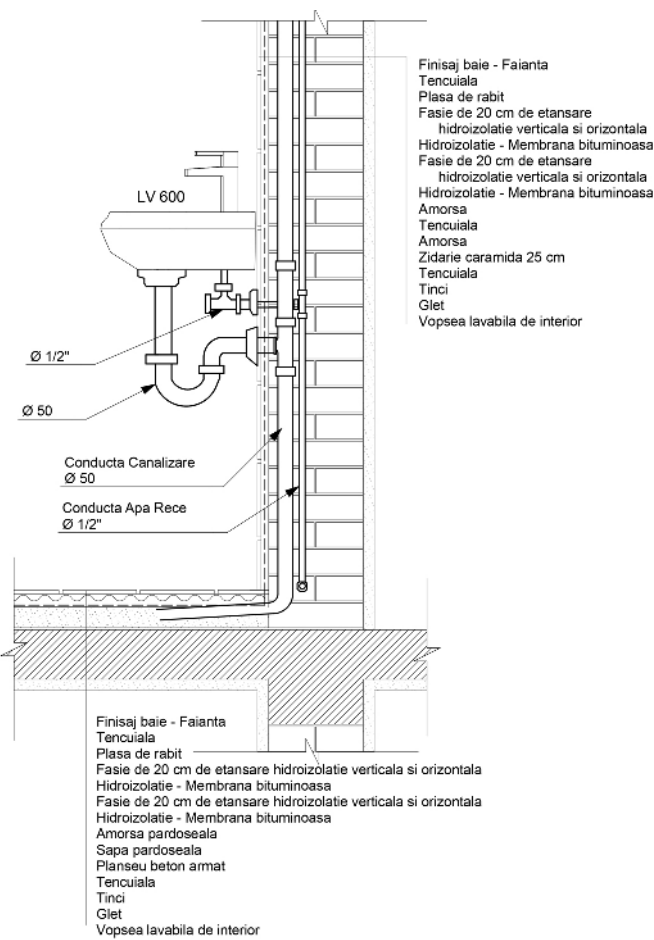
-

## Evaluation

Written Test – 100%.

## Selected bibliography

Enciclopedia tehnică de instalații – Instalații de încălzire (Cap. 4-6), Ed. Artenco, București, 2010.  
Enciclopedia tehnică de instalații – Instalații de ventilare și climatizare (Cap. 5-8), Ed. Artenco, București, 2010.  
Enciclopedia tehnică de instalații – Instalații sanitare (Cap. 2-6), Ed. Artenco, București, 2010.  
Enciclopedia tehnică de instalații – Instalații electrice și automatizare (Cap. 3-6), Ed. Artenco, București, 2010.



46.00

# FURNITURE DESIGN TECHNIQUES

Code

47.00

Semester

2

Credits

3

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

1 / week

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Lect. PhD Arch. Andreea Pop  
  
e-mail: andreea.pop@arch.utcluj.ro

## Objectives

The course presents the basic notions regarding the function, dimension, and structure in furniture design, highlighting the aesthetic aspects, the connection between material, structure and aesthetic expression, the relations between furniture and the space in which it is located.

## Lecture / project contents

- C1 Brief evolution of furniture design, materials, moments of professional separation. The furniture design project
- C2 Anthropometry and ergonomics.
- C3 Furniture design structure and construction
- C4 Furniture components construction.
- C5 Wood material. Concepts of responsible forest management
- C6 Wood essences - main features and examples.
- C7 Storage furniture I
- C8 Storage furniture II
- C9 Supporting furniture I
- C10 Supporting furniture II
- C11 Sleeping furniture
- C12 Furniture for various activities I
- C13 Furniture for various activities II
- C14 Furniture made of other materials

## Seminar contents

-

## Evaluation

Colloquium - questions regarding the content of the 14 courses, individual papers

## Selected bibliography

-CH. FIELL ,P. FIELL, *Designing the 21st Century*, Taschen, Köln, 2002  
-N. GIBBS, *The Wood Handbook*, Quarto, London, 2005  
-F. IONESCU ,V. NĂSTASE, *Furniture Design and Interior Architecture* (Proiectarea mobilei și arhitectura interioarelor), București,1970  
-K. MURADIN BAYER, *Furniture structure and construction* ( course ), UTPRESS,Cluj – Napoca,1992  
-J. PANERO, M. ZELNIK, *Las dimensiones humanas en los espacios interior.*, Estándares antropométricos, 7th edition, G. Gili, Barcelona, 1996  
-D. VLAD, (ed. coord.), A. Moțu, (ed.), I. Julean, (ed.). *Study Book no.3. History of Furniture Design. Style Furniture Survey. Traditional Furniture Survey (Stil-Istoria Mobilierului,Caiet de studii nr.3,Relevee de mobilier stil, relevee de mobilier traditional)*, Ed.UTPRESS, Cluj –Napoca, 2013



47.00

# URBAN MOBILITY

Code	<b>48.10</b>
Semester	<b>2</b>
Credits	<b>2</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	-
No. of hours project	-
Discipline type	<b>Elective</b>
Examination form	<b>Colloquium</b>

Responsible:  
Assoc. Prof. PhD Arch.  
Vlad Sebastian Rusu

e-mail: vlad.rusu@arch.utcluj.ro

## Objectives

The course aims at identifying and understanding the challenges of the architect - urbanist profession in the issues of urban mobility. It raises awareness of the importance of urban mobility within the contemporary city and fosters an understanding of the conditioning between mobility and urban development, students gaining knowledge of the general notions of sustainable urban mobility, built on the principles of integration, participation and continuous evaluation, in order to meet people needs in terms of increasing the quality of life in cities and surroundings; students also acquire notions of classifying and arranging urban traffic within the contemporary city.

## Lecture / project contents

- C1 Mobility and the challenges of urban space
- C2 Effective management principles of transport and urban mobility. Integrated transport strategies
- C3 Interurban traffic. The Roadway. Railway
- C4 Urban traffic. Urban traffic. Urban traffic network
- C5 Urban transport systems. Public transport. Classifications
- C6 Street, space for coexistence of different types of mobility
- C7 Restructuring urban spaces reserved for urban traffic
- C8 Intersections and markets. General notions
- C9 Organization of movement. Special-purpose traffic squares
- C10 Square structure
- C11 Urban planning of streets. Ways of approaching urban street space based on the speed of travel
- C12 Urban planning of squares, in line with sustainable urban mobility principles
- C13 Places of quality, level of detail
- C14 Walls and sitting arrangements in accordance with sustainable urban mobility principles

## Seminar contents

-

## Evaluation

Verification of knowledge gained through synthesis topics.

## Selected bibliography

- J. Gehl - Orașe pentru oameni, Editura Igloomed, București 2012.
- Primăria Londrei - Transport for London. Central London. Congestion Charging. Impacts Monitoring. Sixth Annual Report. Transport for London & Central London Partnership, 2008.
- Primăria Copenhaga. Copenhagen City of Cyclists - Bicycle account 2008, Copenhaga: Primăria Copenhaga, 2009.
- Gehl Architects - Towards a Fine City for People - Public Spaces - Public Life - London 2004.
- London: Transport for London & Central London Partnership, 2004.
- R. Laurian - Urbanismul, Editura Tehnică, București, 1965.
- C. Lăzărescu - Urbanismul în România - Editura Tehnică, București, 1974.
- Mobilitate urbană, Observatorul Urban București, Buletin U.A.R., nr. 19/2014, București, 2014.



# 48.10



# HISTORY OF FURNITURE IN THE 20TH CENTURY

Code	48.20
Semester	2
Credits	2
No. of hours/ lecture	2
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

Responsible  
Assoc. Prof. PhD Arch. Dorina Vlad  
  
e-mail: dorinavlad@yahoo.com

## Objectives

The course's purpose is to broaden the perspective on the History of Furniture, for students who are interested in the domain, through the presentation of additional information regarding the specific artistic tendencies and their followers in the field, from the beginning of the 20th century, until the beginning of the 21st. This is accomplished in form of examples that highlight the connection between furniture design, and the creative work connected to the scientific, technical, artistic development of society.

## Lecture / project contents

- C1 Furniture fairs and exhibitions
- C2 Science, art and technology at the end of the nineteenth and early twentieth centuries
- C3 Science, art and technology in the twentieth century
- C4 1900 Art - arts, architecture, furniture (definition, history, directions)
- C5 Art Deco '- context, furniture (protagonists and works)
- C6 Modern Current
- C7 30s - 40s (premises, countries, authors)
- C8 The '50s
- C9 Pop Art
- C10 Scandinavian Furniture Design ( premises, countries, authors, trends)
- C11 Design in Germany
- C12 Design in Italy
- C13 Trends in the design of the last decades of the 20th century and the beginning of the 21st century
- \* Variable theme

## Seminar contents

-

## Evaluation

Colloquium - questions regarding the content of the 14 courses, individual papers

## Selected bibliography

- M. BYERS, *The Design Enciclopedia*, Ed. MOMA, 2004
- M. BYERS, *New Chairs*, Ed. Chronicle Books, San Francisco, 2006
- Col. authors. *Art at the Turn of the Millennium*, Ed. Taschen, Köln, 1999
- Col. authors. *Bauhaus*, Ed. Könemann, Köln, 2000 · Col. authors. *Art Dictionary*.( Dicționar de artă), vol.I,II,Ed. Meridiane, Bucuresti, 1995, 1998
- A. DUNCAN, *Art Deco*, Ed. Thames & Hudson, Londra, 1977
- FIELL Ch.,FIELL P. *Designing the 21st Century*, Ed. Taschen, Köln, 2002
- FIELL Ch.,FIELL P. *Scandinavian Design*, Ed. Taschen, Köln, 2002
- FIELL Ch.,FIELL P. *1000 Chairs*, Ed. Taschen, Köln, 1991
- SMITH E.L. *Histoire du mobilier* , Ed. Thames & Hudson, Paris, 1990
- RASHID K. *I Want to Change the World*, Ed. Universe, New York, 2001



# 48.20



# ARCHITECTURAL LIGHTING

Code

48.30

Semester

2

Credits

2

No. of hours/ lecture

2

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Elective

Examination form

Colloquium

## Objectives

- photometric and colorimetric quantities
- lighting equipment - lamps, lighting devices, provision
- public architectural and urban lighting
- lighting control

## Seminar contents

-

## Evaluation

Colloquium

## Lecture / project contents

- C1

Light in architecture
- C2

Introductory notes on lighting technology
- C3

Electric lamps - Incandescent lamp, fluorescent lamp, discharge
- C4-5

lamps, LEDs
- C6

The design of lighting devices.
- C7

Natural lighting
- C8

Integration into the building architecture. Sustainable lighting
- C9

Dialux calculation program
- C10

SR EN 12464. SR EN 1838
- C11

SR EN 15193
- C12

Realization of a lighting design concept
- C13

Control systems - DALI, DMX. Building integration
- C14

Recycling of lighting devices. Contaminated waste is disposed of. Electrical networks
- The future of lighting

## Selected bibliography

UTC-N library:  
Tregenza, P. Wilson, M., Daylighting: architecture and lighting design, Routledge, 2019, dimension: 1:54  
Pop Florin - coord. general, Sustainable urbanization: renewable energy resources, green constructions”, integrated waste management: qualification manual: postgraduate study program training and continuous professional development, Cluj-Napoca 2010, rate 1: 538,301  
Installation engineer’s manual, Electric volume, Artecno, Bucharest 2010 SR EN 12464, 1838 and 15193 standards

Other libraries  
Steffy, G, Architectural Lightning Design, John Wiley & Sons, 2012  
Moran, N, Performance Lightning, A&C Black Publishers



48.30

# ARCHITECTURAL DESIGN STUDIO 6

Code	49.00
Semester	2
Credits	13
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	11 / week
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

Acquiring the ability to develop an architectural project on a complex programme, in close connection to an urban site, based on in-depth contextual analyses.

## Lecture / project contents

Exploring, analysing and documenting potential sites for a mixed urban programme, combining collective housing, commerce and (semi-) public space. Defining the most oportune site and elaborating the architectural project, tackling integration, programmatic, spatial, structural and interior design aspects.

## Seminar contents

-

## Evaluation

The evaluation and the notation of the projects are made by the responsible professors.

## Selected bibliography

- Archdaily, Detail, Arhitectura, Zeppelin, igloo etc.;
- E. Neufert, *Manualul arhitectului*- elemente de proiectare si de constructie, Alutus S.A., Miercurea Ciuc, 2004;
- G. VAIS, *Programe de arhitectura*, UT Press, 2008



49.00

# PROFESSIONAL PRACTICE 3RD YEAR

Code	50.00
Semester	2
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	24
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

Knowing the different building materials and techniques. Introducing the students into the construction site execution. Elaborating a paper work that synthesizes the observations and elaborating architectural details on the construction site.

## Seminar contents

-

## Evaluation

The activity will be evaluated by the responsible teachers.

## Selected bibliography



Responsible  
Assoc. Prof. PhD Arch. Paul Mutică

e-mail  
paul.mutica@arch.utcluj.ro

Teaching team  
Assoc. Prof. PhD Arch. Paul Mutică  
Lect. PhD Arch. Smaranda Todoran  
Lect. PhD Arch. Adriana Măgerușan  
Assist. Prof. PhD Arch. Andrei Kiss  
PhD Arch. Alexandru Fleșeriu  
Arch. PhDs Ștefania Boca  
Arch. PhDs Romeo Cuc  
Arch. Radu Roșca

## Lecture / project contents

A range of different activities, such as workshops, summer schools, site visits, study trips, etc. is offered every year. Having completed the activities, students must elaborate and submit a practice portfolio and present it in the frame of the practice colloquium. Additionally, students must update their student portfolio with the projects elaborated during the previous two semesters.

50.00

04<sub>year</sub>  
1st semester

# PARAMETRIC DESIGN

Code	49.10
Semester	1
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

Responsible:  
Assist. Prof. PhD Arch. Andrei Kiss

e-mail: andrei.kiss@me.com

## Objectives

Theoretical and practical acquisition of knowledge specific to the parametric design in architecture.  
Acquisition of the theoretical principles specific to the parametric design.  
Integration of design and algorithmic thinking into architectural design flows.  
Developing computer-aided design skills in Rhinoceros 3D - McNeel Roberts & Associates.

## Lecture / project contents

- C1 Introduction. Definitions: design, parametric, parametric design. (2 hours)
- C2 Theoretical framing of the parametric design in the scientific field (4 hours)
- C3 Interactive Architecture I
- C4 Interactive Architecture II
- C5 Organic Paradigm I
- C6 Organic Paradigm II
- C7 Philosophy in Formation of Form I
- C8 Philosophy in Formation of Form II
- C9 Digital Morphogenesis I
- C10 Digital Morphogenesis II
- C11 Experiments in digital space I
- C12 Experiments in digital space II
- C13 Contemporary examples I
- C14 Contemporary examples II

## Seminar contents

-

## Evaluation

Colloquium - Cumulative sequential assessment during the semester

## Selected bibliography

A. MENGES, S. AHLQUIST, *Computational Design Thinking*, John Wiley and Sons Ltd. Publication (2011) (OBLIGATORIE)  
M. DELANDA, *Deleuze and the Use of the Genetic Algorithm in Architecture* N. Leach, ed. Architectural Design (2002), 71(7), pp.117–120.  
M. DELANDA, *Immanence and Transcendence in the Genesis of Form*. South Atlantic Quarterly (1997), 96(3), pp.499–514.  
M. DELANDA, *Intensive science and virtual philosophy*, London: Continuum International Publishing Group. (2002)  
M. DELANDA, *Material Elegance*. Architectural Design (2007), 77(1), pp.18–23.  
M. DELANDA, *Philosophies of design, The Case of Modeling Software*. Verb - Architecture Boogazine (2001), pp.129–142.  
G. DELEUZE, & F. GUATTARI, *A thousand plateaus: capitalism and schizophrenia*, Minneapolis: Continuum International Publishing Group (2004).



# 49.10



# AMBIENTAL DESIGN

Code	49.20
Semester	1
Credits	2
No. of hours/ lecture	28
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

Responsible:  
Lect. PhD Arch. Dana Sorina Opincariu

e-mail: dana.opincariu@arch.utcluj.ro

## Objectives

The course aims the initiation in the field of environmental architectural space, the Assimilation of knowledge about the elements of the architectural space involved in creating the ambience. With this course it is aimed to set the stages of realization of an Environmental Design project, to analysis of an existing architectural space from the point of view of the environment: spatial relations, compositional relations, chromatic relations, texture, conditions of physical and psychic comfort. The stages of the Environmental Design project are followed.

## Lecture / project contents

- C1 Introduction to the Architectural Space Ambience.
- C2 The environmental components of the architectural space.
- C3 The perception and the psychoplastic elements
- C4 The ambient composition in the interior and exterior architectural space.
- C6 Light and color in Architecture.
- C7 Methods of activating environmental stimuli.
- C8 Perceptual structure and behavior in the architectural environment.
- C9 Ambient characteristics of the private architectural space
- C10 The ambience of the public architectural space
- C11 Sustainability and architectural ambience principles.
- C12 The ambience of the scenic space - the space of the show.
- C13 Environmental features of architectural spaces in history
- C14 Environmental Design Project - conceptualization analysis, stages.  
Trends and concepts in the context of contemporary space.

## Seminar contents

-

## Evaluation

Carrying out a paper with a theoretical part and a practical part - drawing, on a theme chosen from the themes presented at the course.

## Selected bibliography

- G. AICHIEI, *Frumosul dincolo de arta*, Meridian
- M. BEAZLEY, *Colour Healing Home*, Octopus Publishing Group, Great Britain, 2000 e-1988
- G. BROADBENT, R. BUNT, T. LORENS, *Semnificatie si Comportament in mediul Consstruit*, Ed Tehnica – Bucuresti-1985
- F. IONESCU, V. NASTASE, *Proiectarea Mobilei si Arhitectura Interioarelor*, Ed didactica si Pedagogica , Bucuresti - 1970
- C. JUROV, *Arhitectura Ambientelor*, Capitel-2006
- N. KNOBLER, *Dialogul vizual*, Meridiane-1983
- R. KOOLHAS & CO, *15 books – floor, wall, ceiling, roof, door, window, faade, balcony, corridor, fireplace, toilet, stair, escalator, elevator, ramp*
- P. A. MICHELIS, *Estetica arhitecturii*, Meridiane-1982
- M. MITTON, *Interior Design – Visual Representation*, Wiley 2012



49.20

# ARCHITECTURAL DESIGN

Code

49.30

Semester

1

Credits

2

No. of hours/ lecture

28

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Elective

Examination form

Colloquium

## Objectives

Acquiring theoretical knowledge in design and design practice.  
Assimilation of the theoretical knowledge regarding evolution and the main theories in the field of design.  
The ability to recognize design elements that can improve the design process specific to the architect.

## Seminar contents

-



## Evaluation

Written exam with 5 questions, rated from 1 to 9, 1 point ex officio. Points for additional activity, accumulated over the semester, contribute to the final mark.

## Selected bibliography

-R. Zamfir, M. Moldovan, Introducere in design, Editura U.T.PRES, Cluj-Napoca, 2002, ISBN 973-8335-68-X  
-D. Popescu, Principiile formei în product design Editura U.T.PRES, Cluj-Napoca, 2007, ISBN 978-973-662-312-7  
-D. Dabner, Design grafic. Principiile si practica designului grafic, Rao Books, Bucuresti, 2006, ISBN 973-717-042-3  
-H. A. Simon, The Science of Design: Creating the Artificial, Design Issues Vol. 4, No. 1/2, pp. 67-82  
-T. Fry, Design Beyond the Limits, 2011  
-V. Margolin, The Politics of the Artificial: Essays on Design and Design Studies, University Of Chicago Press, Chicago, USA, 2002, ISBN-13: 978-0226505046  
-A. A. Moles, The crisis of functionalism, Ulm 19/20, 1968  
-M. Vitta, The Meaning of Design, Design Issues, Vol. 2, No. 2 (1985), pp. 3-8  
-T. Parsons, Thinking: Objects, Contemporary Approaches to Product Design (AVA Academia Advanced), Juli 2009

Responsible:  
Lect. PhD Arch. Silivan Moldovan

e-mail: silivan.moldovan@arch.utcluj.ro

## Lecture / project contents

- C1 Introduction
- C2 History of design
- C3 The basics of perception - function vs. Form
- C4 Christology, psychoanalytic theories of stimulating creativity
- C5 The stages of the creation process
- C6 Semiotic and morphology
- C7 The role of technology in the development of design
- C8 The influence of marketing and marketing study on design
- C9 Marketing and social ethics
- C10 Advertising and advertising graphics
- C11 Brand, visual identity, style unit and their role on the perception of architectural space
- C12 Design of architecture between details - furniture, carpentry, staircase as a sculptural element, access, etc.
- C13 Architecture and architectural space - treated as a design object
- C14 Urban design and environment

# HISTORY OF ROMANIAN ARCHITECTURE

Code

50.00

Semester

1

Credits

4

No. of hours/ lecture

4 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Prof. PhD Arch. Virgil Pop

e-mail: arh.virgil.pop@gmail.com

## Objectives

The course aims to get knowledge and understanding of the history of architecture on the territory of Romania. Through selected case-studies, the lectures present the evolution of architecture in its contemporary socio-cultural context, the styles, remarkable architects and prevailing theoretical notions.

## Lecture / project contents

- C1 Antiquity Architecture in Dacia and Dobrogea
- C2 Early fortifications in Transylvania
- C3 Gothic
- C4 Development of settlements during the XIII-XV centuries
- C5 Medieval housing
- C6 Reformation and urban modernization
- C7 Fortifications and Castles
- C8 The Age of Stefan the Great
- C9 Architecture in Wallachia in XV-XVIIth century
- C10 Urban Baroque Architecture
- C11 The provincial Baroque
- C12 Neoclassicism and Romanticism in Transylvania
- C13 1900 national schools and architecture
- C14 Pre- and post-war Modernism

## Seminar contents

The seminars consist in aplicative assignments, whereby students learn to read a historic monument in its complex temporal and spatial evolution, preparing architectural drawings which highlight the building's successive transfozrmations. Transylvanian mediaeval and early-modern churches, in urban and rural contexts are often selected as case studies, each student working on a different monument.

## Evaluation

Written exam about and evaluation of the seminar assignements.W

## Selected bibliography

Ionescu, Grigore. Arhitectura pe teritoriul Romaniei de-a lungul veacurilor. Bucuresti: Ed. Academiei, R.S.R., 1982.

Ionescu, Grigore. Istoria arhitecturii românești, din cele mai vechi timpuri până la 1900. Bucuresti: Cartea românească: 1987.

Niedermeier, Paul. Siebenbürgische Städte. Forschungen zur städtebaulichen und architektonischen Entwicklung von Handwerksorten zwischen dem 12. und 16. Jahrhundert. Bucuresti: Editura Kriterion, 1979.

Niedermeier, Paul. Städte, Dörfer, Baudenkmäler. Studien zur Siedlungs- und Baugeschichte Siebenbürgens. Köln - Weimar - Viena: Böhlau, 2008.

Virgil. Istoria artei feudale în strile române. Bucuresti: Editura Academiei R.P.R., 1959.

\* Revista sITA - studies in History and Theory of Architecture: <https://sita.uauim.ro/>



50.00



# THEORIES AND DOCTRINES IN CONTEMPORARY ARCHITECTURE

Code

51.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Lect. PhD Arch.  
Todoran Smaranda Maria

e-mail:  
arh.smaranda.todoran@gmail.com

## Objectives

The course aims to spread knowledge and understanding of contemporary architectural speeches, to form a basic architectural culture for understanding the contemporary architectural landscape, to form a culture of architectural theory for the understanding of contemporary evolutions and to give the ability to make comparisons, critically analyze, and formulate views on contemporary themes.

## Lecture / project contents

- C1 Introductory course. The notion of architectural theory. 70s.
  - C2 Critics of modernism: Venturi, Rossi and Taffuri, IUAV and Peter
  - C3 Eisenman.
  - C4 The 70s. Critics of modernism: the crisis of meaning.
  - C5 From critics of modernism to early postmodernism. Charles
  - C6 Jencks.
  - C7 Modernism resists! SOM, Frei Otto, “British Renaissance
  - C8 Post-modernism resists! Manifestations of post-modernism in
  - C9 the 80s. New definitions. Opponents. 2 particular cases: Merida
  - C10 and Venice
  - C11 The golden age of the theory. French post-structuralism.
  - C12 From Derrida to Deleuze. Geometry and autonomy.
  - C13 Pragmatism and the “post-theory” period. OMA. Netherlands
  - C14 Minimalism. Materiality and effects. Neomodernism
- Minimalism is. Phenomenological architecture.  
Sustainability and future of theory  
Discussions.

## Seminar contents

-

## Evaluation

During the course, in the form of 6 tests.  
At the end of the course, a text / architectural works analysis paper will be delivered  
In session, a minimum of 8 points in a + c will pass an exam.

## Selected bibliography

- H. F. Mallgrave, D. J. Goodman, An Introduction to Architectural Theory: 1968 to the Present, Wiley-Blackwell, 2011
- Additional:
- Theorizing a New Agenda for Architecture: an Anthology of Architectural Theory 1965-1995. Kate Nesbitt, ed. New York, NY: Princeton -Architectural Press, 1996.
- Architecture theory since 1968. K Michael Hays, ed. Cambridge, MA; London: MIT Press, 1998.



51.00

Code	52.00
Semester	1
Credits	2
No. of hours/ lecture	2/week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Lect. PhD Arch. Dragos Dascalu  
  
e-mail: Dragos.Dascalu@arch.utcluj.ro

Objectives

All human action is localized. Therefore, there is clearly a link between built spaces and human activities. The Sociology course aims to present some of these links, thus broadening the student's understanding of architectural and urban planning processes. It aims to offer a brief presentation of different concepts related to space and society. Starting from the fact that architecture and urban planning are social actions (they always have an effect on others), and the architect is a social actor, the course offers a toolbox of concepts and methods in order to understand some possible social effects of the architects' work.

Lecture / project contents

- C1 Introduction: What is sociology?
- C2 Architectural determinism (Determinism(s) , Utopia,
- C3 The Phalanstery Paradigm, The dangers of architectural determinism).
- C4 Power and the Production of Space (Discipline and
- C5 Normalization,Controlling society by controlling its space, Social space – Physical space, “(Social) space is a (social) product”)
- C6 The architect’s social role in the XXIst Century
- C7 Community and Society
- C8 Public / Public Space – the space of society
- C9 Community / Commons – common space
- C10 Urban ecology. The Chicago School.
- C11 The two Romanias – historical overview – 1918 – 2000
- C12 The two Romanias– Today - Demographical Model, Economical Model, Value system.
- C13 The two Romanias – Magnet Cities (opportunities and issues)  
The two Romanias – Small towns and Rural areas (opportunities and issues)
- C14 Sociological methods of research

Seminar contents

-

Evaluation

Written exam – short argumentative essay related to a current social problem related to urban planning or architectural processes.  
Critical essay or book review.  
Final grade = 0.4 x essay/review + 0.6 x exam

Selected bibliography

-S. Arnstein, A Ladder of Citizen Participation, American Institute of Planning Journal(1969) , vol.35, nr.4, pp.216 – 224  
-P. Blundell Jones, D. Petrescu, J. Till, Architecture and Participation, Oxon, New York: Taylor and Francis(2005)  
-R. Boudon,F. Bourricaud, A Critical Dictionary of Sociology, Chicago: Routledge (1989) [1977]  
-P. Bourdieu, (editor), La Misere du Monde, Paris:Editions du Seuil (1993)  
-M. Broady, Social Theory in Architectural Design In: Gutman, R. (ed.) People and Buildings, London, New York: Basic Books (1972), pp.170-185  
-V. Buchli, An Archeology of Socialism, Oxford, New York: Berg (1999)  
-R. Burdett, D. Deyan Sudjic (eds.). Living in the Endless City. The Urban Age Project by the London School of Economics and Deutsche -Bank’s Alfred Herrhausen Society. London. Phaidon Press.  
-D. Collin, Marile notiuni filozofice. 2. Societatea, puterea, statul, Iasi: Institutul European (1999) [1997]  
-A. Giddens, The Constitution of Society. Outline of a Theory of Structuration, Cambridge, Oxford: Polity Press (1984)





# INTERIOR ARCHITECTURE

Code

53.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Colloquium

Responsible:  
Lect. PhD Arch.  
Paul Mihai Moldovan

e-mail:  
paul.moldovan@arch.utcluj.ro

## Objectives

The course aims learning the basic elements in the design process in the field of Architecture (interior), to gain knowledge of the evolution of the term Architect in relation to the evolution of the profession and the architecture education for the understanding of the contemporary context of Architecture (interior), to study of the different architectural elements (and specific finishes) and their relations, characteristics of these elements and specific execution techniques, to study of furniture elements involved in space planning inside, to follow the role of sanitary installations (IS), thermal (IT), electrical (IE) and ventilation (IV) in the design of the interior architectural space and to follow the role of catalog and decorative objects in interior design.

## Lecture / project contents

- C1
- The evolution of the architect profession in relation to the architecture education
- C2
- Introduction to interior architecture
- C3
- Furniture (in the context of the interior space)
- C4
- Flooring. (in the context of the interior space)
- C5
- Walls. (in the context of the interior space)
- C6
- Gaps. (doors, windows, voids, etc. in the context of the interior space)
- C7
- Ceilings. (in the context of the interior space)
- C8
- Connections. (plinths, scaffolds, etc. in the context of the interior space)
- C9
- Hygiene and maintenance spaces.
- C10
- Horizontal and vertical movements. (in the context of the interior space)
- C11
- Plumbing (IS), thermal (IT), electrical (IE) and ventilation (IV). (in the context of the interior space)
- C12
- Choice of catalog elements in the interior architectural space.
- C13
- Choice of decorative elements in the interior architectural space
- C14
- Interior Architecture Project: Stages. Transverse conclusion

## Seminar contents

-

## Evaluation

Ability to assimilate, understand and synthesize the notions taught / discussed at the course, Accuracy of information, The correctness of the terms, Structure of the work, quality of expression.

## Selected bibliography

-G. ACHITEI, *Frumosul dincolo de art.* Bucuresti: Meridiane (1988)  
-F. O. BANKS, *Modern eclectic.* Londra: Octopus Publishing, Group Limited. (2001)  
-K. E. BARZMAN, *The Florentine Academy and the Early, Modern State: The Discipline of Disegno.*, Cambridge: Cambridge University Press.(2000)  
-J. BAUDRILLARD, *Sistemul obiectelor.* Bucuresti: Echincox. (1996)  
-B. BERGDOLL, *Bauhaus Multiplied: Paradoxes of Modernity.* (pp.10-21).New-York: The Museum of Modern Art (2009)  
-L. CALLEBAT, (Dir.) . *Histoire de l'architecte.* Paris: Flammarion. (1998)  
-F.A. CERVER, *Interior design atlas.* Köln: Konemann Inc. (2000)  
-F.A. CERVER, *Interior Design Atlas.* Konemann. (2005)



53.00

# SPECIALISED DESIGN - INTERIOR DESIGN

Code	54.00
Semester	1
Credits	2
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	2 / week
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

The project aims at the transformation a set of conditions into a spatial solution through the design process. It also targets the development of a specific professional culture, offering students a coherent system for the analysis of the interior architectural space. Moreover, the discipline provides a theoretic platform addressing the architectural project strategies, both during the formative years as well as within professional practice.

## Lecture / project contents

- C1 Architecture project in a real-world context.  
Urban Hotel Room - Indoor Architecture Project
- C2 Explore location and capture information. Desktop Documentation.
- C3 Achieving concept of interior architecture, communication and evaluation.
- C4 Developing interior architecture concepts.  
Representation - the adequacy of speech and representation to the essence of the proposal.

## Seminar contents

Individual and group discussions based on arguments and references. Crits, didactic and peer review. Comparative arguments.

## Evaluation

Evaluation and notation of projects by the teaching staff.

## Selected bibliography

Domus, Italia: Periodice de arhitectura, arhitectura de interior si design.  
Detail, Germania: Periodice de arhitectura si arhitectura de interior.  
E. Croquis, Spania: Periodice de arhitectura si arhitectura de interior.



54.00

# SPECIALIZED DESIGN - STRUCTURE AND FACILITIES

Code	55.00
Semester	1
Credits	3
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	3 / week
Discipline type	Compulsory
Examination form	Project

Responsible:	Lect PhD Eng. Radu Hulea
e-mail:	radu.hulea@arch.utcluj.ro
Teaching team	
Assoc.Prof. PhD Eng.	Petre Rus
Lect. PhD Eng.	Radu Hulea
	PhD Eng. Lidia Lupan
Lect. PhD Eng.	Calin Ciugudean
Lect. PhD Eng.	Adriana Hadarean
Assist. Prof. PhD Eng.	Constantin Cilibiu

## Objectives

The course aims the acquiring the knowledge needed to design buildings with the right and economic structure as well as electrical, thermal and sanitary installations, the ability to analyze in parallel the architectural requirements, the requirements of building the resistance structure, the installations and some details related to them, when designing a building, the pre-dimensioning elements of a resistance structure and the election and positioning of elements of Electrical, Thermal and Sanitary Plants, Assembly of Enclosures for a Building.

## Lecture / project contents

-

## Seminar contents

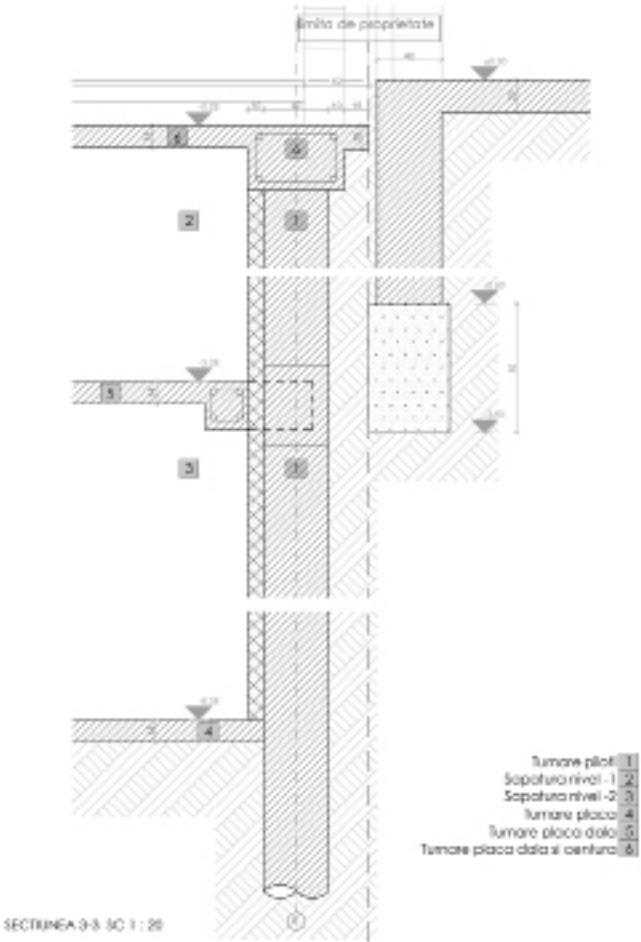
- S1. Analysis of the structure of the spaces of the designed building
- S2. Pre-dimensioning a slab, a beam, a column, and a foundation.
- S3. Drawing up a layout plan of a floor plan, foundation plan, and foundation details.
- S4. The representation of the sanitary-technical installations, of the thermal installations and of the electrical installation related to the structure studied at the structures.
- S5. Details of trails, with sections on facades, planes and roof planes.

## Evaluation

Quality of computational notes, timetables and activity during the semester.  
The evaluation of the quality of the project at the specialties: structure, electrical, thermal, sanitary installations.

## Selected bibliography

*Notele de curs de la disciplinele de specialitate*  
*Normativele specifice problemelor abordate.*  
*Reviste de specialitate*  
*Desen tehnic de instalatii. Autor: Conf.dr.ing. Felicia Olariu, Sef lucr.dr.ing. Carmen Marza, Litoral UTCN, Cluj-Napoca, 1996.*



55.00

# DESIGN SYNTHESIS STUDIO 1

Code	56.00
Semester	1
Credits	13.0
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	10 / week
Discipline type	Compulsory
Examination form	Colloquium

Responsible:  
Assoc.Prof. PhD Arch.  
Octav Silviu Olănescu

e-mail:  
octav.olanescu@arch.utcluj.ro

Lect. PhD Arch. Silivan Moldovan  
Lect. PhD Arch. Silviu Aldea  
Teach. Assist. PhD Arch. Rareș Drăgan  
Teach. Assist. PhD Arch. Alice Oprică  
Arch. PhDs C Sisak  
**Arch. PhDs C Urcan**  
Arch. Andrei Bacoșcă  
Arch. Csaba Lázár  
Lect. PhD Eng. Petru Rus  
Lect. PhD Eng. I Kirizsan  
Lect. PhD Eng. Radu Hulea

## Objectives

O1 - Developing students' competencies in the field of architectural design by applying the design methodology to the themes of plurivalent programs.  
O2 - The elaboration of a complex architectural project, as the final stage of an interdisciplinary process, started with the urbanism project. Detailing the architectural object by enumerating a project concept, establishing neighborhood relations with a proposed urban context, functional, structural and spatial solution according to the design theme and the norms in force.

## Lecture / project contents

Different public building types, such as offices, hotels, mediatheques etc. on complex urban sites.

## Seminar contents

Architectural project: Exposition, applications, individual corrections, corrections in the collective, evaluation of the projects with public support.

## Evaluation

Seminar: According to the design theme and the Regulation for Discipline Design Synthesis IV.

## Selected bibliography

-E. Neufert, *Manualul arhitectului - elemente de proiectare si de constructie*, Alutus S.A., Miercurea Ciuc, 2004.  
-D. Littlefield, *Metric Handbook- Planning and Design Data*, 3rd Edition, Elsevier, Oxford, 2008.  
-G. Vais, *Programe de arhitectura*, UT Press, Cluj-Napoca, 2008.  
-Reviste de arhitectura existente în Biblioteca facultati: *El Croquis*, *The Architectural Review*, *Detail s.a.*  
-Surse internet: *Archdaily.com*, *Architizer.com*, *Divisare.com s.a.*



56.00

04<sub>year</sub>  
2nd semester



# SPECIAL STRUCTURES

Code	57.10
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

Responsible:  
Assoc. Prof. PhD Eng. Petru Rus  
e-mail: petru.rus@arch.utcluj.ro

### Objectives

The course aims the developing the capacity to analyze the behavior of structures for performing buildings. Developing the ability to intuitively approach the significant aspects that define the behavior of the building, to gain knowledge of the relevant aspects of the behavior of performing structures under load, to present the particularities of static compliance specific to performing structures, to raise the questions of how to optimize the resistance structure and to present the form-structure relationship.

### Lecture / project contents

Principles of approximate determination of the requirements in the elements of a structural assembly using the external static scheme  
Structures for high buildings.  
High grounded ground floor structures:  
Functional, mechanical and structural criteria  
Structural features of suspended roofs.  
Suspended roofs stabilized with reinforced  
Roofing with pretensioned network cables  
Roofing of cable farms.  
Roofs with combined systems  
Stay cable sistems.  
Roofs of pre-stressed or leaked membranes.  
Retractable structures.  
Problems of the compliance of the marginal support structures  
Arched structures  
Structural assemblies with thin curved plates directly on foundations  
Structural assemblies with thin curved plates resting on intermediate  
Implications for overall conception  
Functional, mechanical and deterministic criteria  
Cut, pyramid, faceted systems.

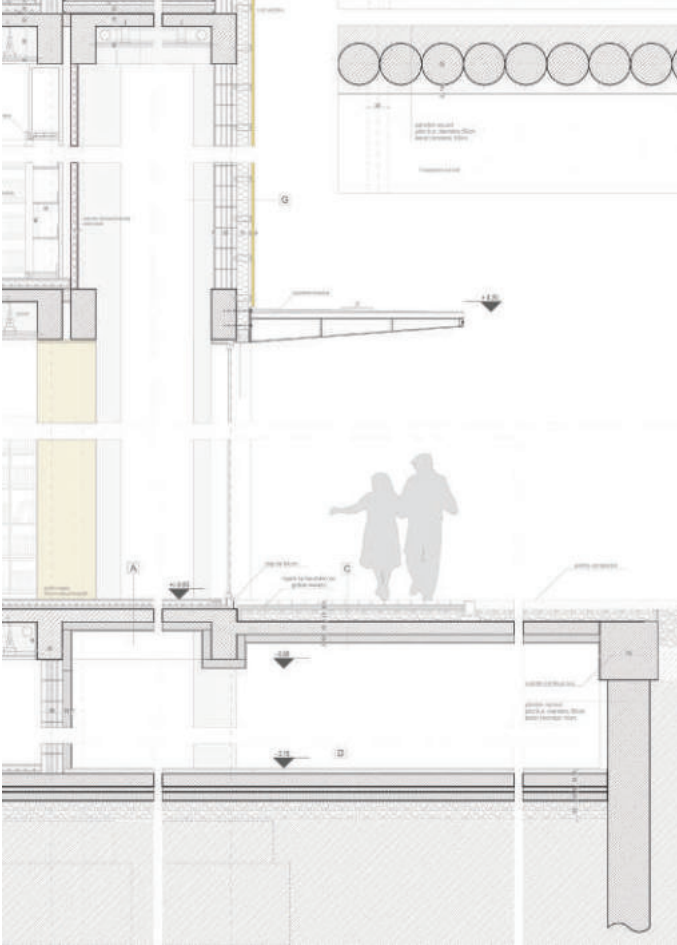
### Seminar contents

### Evaluation

Analysis of two topics of theory and related practical aspects.

### Selected bibliography

Kopenetz, Ludovic, Catarig, Alexandru. Teoria structurilor usoare cu cabluri si membrane, Cluj-Napoca: U.T.Press, 2006.  
Kopenetz Ludovic, Pârv Bianca Roxana, Introducere în teoria structurilor înalte și a structurilor cu deschideri mari, Cluj-Napoca: U.T.Press, 2014.  
Stoica, Daniel. Construcții civile : probleme și soluții moderne. București: Matrix Rom, 2014.



57.10

# BUILDING PATHOLOGY AND THERAPY

Code **57.20**

Semester **2**

Credits **2**

No. of hours/ lecture **2 / week**

No. of hours/ seminar -

No. of hours project -

Discipline type **Elective**

Examination form **Colloquium**

## Objectives

The course aims to create the ability to rehabilitate or modify the function of a construction, to analysis of the factors that caused degradation and to get knowledge of technical solutions necessary for the maintenance, repair or consolidation of building elements.

## Lecture / project contents

- C1 Maintenance and repair of buildings.
- C2 Accidents and damage in construction.
- C3 Building expertise.
- C4 Methods for consolidation of structures in masonry, reinforced concrete, metal and wood.

## Seminar contents

-

## Evaluation

Cours - Notes on topics : Written exam

## Selected bibliography

- N. Socaciu, Patologia si terapeutica constructiilor. UTCN, 1999.
- S. Tologea, Probleme privind patologia si terapeutica constructiilor. ET Buc. 1976.
- C. Nistor, s.a. Consolidarea si intretinerea constructiilor. ET Buc. 1991.
- G. Arsene s.a. Solutii de consolidare a constructiilor avariate de cutremure. ET Buc. 1997.
- Journal articles.



# 57.20

Responsible:  
Assoc. Prof. PhD Arch. Socaciu Nicolae

e-mail: nicolae.socaciu@arch.utcluj.ro

# REHABILITATION AND RESTORATION OF HISTORICAL STRUCTURES

Code

Semester

Credits

No. of hours/ lecture

No. of hours/ seminar

No. of hours project

Discipline type

Examination form

57.30

2

2

2 / week

-

-

Compulsory

Colloquium

Responsible:  
Lect. PhD Eng. Imola Kirizsàn

e-mail: Imola.Kirizsan@arch.utcluj.ro

## Objectives

The course aims to ensure the knowledge needed to identify load bearing structures in historical buildings, the study of resistance and stability, but also of preserving heritage value, to gain knowledge of the main tools for investigating monuments and the specific role of the architect in their use, to get knowledge of the construction of bearing structures in historical buildings, to present materials used in historical structures and technologies for building historical structures. Types of interventions for monuments, historical buildings and to get knowledge of the protection of historical monuments in Romania and internationally.

## Lecture / project contents

- C1 Defining Course Objectives. Terminology presentation specific
- C2 Structural bearing subassemblies
- C3 Historical roofs
- C4 Historical floors and arcades
- C5 Historical support systems
- C6 Historical foundations
- C7 Assemblies of historic bearing structures
- C8 Ground floor assemblies of historic bearing structures
- C9 Storied floor assemblies of historic bearing structures
- C10 Types of interventions
- C11 Intervention on historical roofs
- C12 Intervention on historical floors and arcades
- C13 Intervention on historical support systems
- C14 Intervention on historical foundations

## Seminar contents

-

## Evaluation

Active attendance at the course Presentations  
Project 1 and Project 2.  
Colloquium - two checks in written form or a paper / essay.

## Selected bibliography

- M. MITTAG, Baukonstruktionslehre / Gütersloh, C. Bertelsmann Verlag, 1952 Evaluation and Strengthening of Existing Masonry structures Bagneux, Rilem publications SARL, Proceedings (Pro 3), Edited by L. Binda and. C. Modena, 2002
- B. SZABÓ, H. MANIU, I. KIRIZSÁN, I. KIRIZSÁN, Conformarea mecanică a structurilor portante istorice \* A történeti tartószerkezetek mechanikai kialakítása \* Mechanical conformation of historic load-bearing structures, Cluj-N., Ed. UTILITAS, 2003
- B. SZABÓ, Dicționar ilustrat de structuri portante istorice Cluj-N., Ed. UTILITAS, 2004
- B. SZABÓ, I. KIRIZSÁN, Dicționar ilustrat de șarpante istorice Cluj-N., Ed. UTILITAS, 2011
- Y. M. FROIDEVAUX, Techniques de l'architecture ancienne – construction et restauration/ Liège, Solédi, 1985
- F. W. B. CHARLES, M. CHARLES, Conservation of Timber Buildings , Shaftesbury, Donhead Publishing Ltd., 1998



57.30

# URBAN COMPOSITION

Code	58.10
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

## Objectives

The course aims to get knowledge of the formal aspects to be considered in city planning and planning, of the elements that make up the city, of compositional principles, of urban compositional models and to develop a specific professional culture by analyzing examples of traditional, modern and contemporary practice.

## Lecture / project contents

- C1 Getting Started
- C2 Form and space
- C3 Compositional principles
- C4 The organic model
- C5 The grid pattern
- C6 The diagrammatic model
- C7 The monumental model
- C8 Urban silhouette
- C9 Public space: the market
- C10 Public space: street
- C11 Public space: the park
- C12 Urban divisions
- C13 The city's limit
- C14 COLLOQUIUM

## Seminar contents

-

## Evaluation

Written verification during the semester, oral verification, within the course, of individual studies, oral verification at the colloquium of individual studies completed only at the end of the semester

## Selected bibliography

- F. D. K. CHING, Architecture: form, space & order (Van Nostrand Reinhold, 1979)
- J. GEHL, Orașe pentru oameni (Igloo Media, București, 2012)
- J. GEHL, Viață între clădiri. Utilizările spațiului public (Igloo Media, București, 2011)
- J. GEHL, B. SVARRE, Cum se studiază viața urbană (Igloo Media, București, 2015)
- K. LYNCH, Imaginea orașului (Revista URBANISMUL, București, 2012)
- K. LYNCH, A Theory of Good City Form (MIT Press, Cambridge MA and London 1981)
- S. KOSTOF, The City Assembled: Elements of Urban Form through History (Thames & Hudson, 2005)
- S. KOSTOF, The City Shaped: Urban Patterns and Meanings Through History (Thames & Hudson, 1999)
- R. KRIER, Town Spaces: Contemporary Interpretations in Traditional Urbanism (Birkhäuser- Publishers for Architecture, Basel Berlin Boston, 2006)



Responsible:  
Assoc. Prof. PhD Arch. Andreea Milea

e-mail: andreea.milea@gmail.com

58.10



# URBAN STRUCTURES

Code	<b>58.20</b>
Semester	<b>2</b>
Credits	<b>2</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	-
No. of hours project	-
Discipline type	<b>Elective</b>
Examination form	<b>Colloquium</b>

Responsible:  
Assoc. Prof. PhD Arch.  
Vlad Sebastian Rusu

e-mail: vlad.rusu@arch.utcluj.ro

## Objectives

The course aims to identify and understand the challenges of the architect-urbanist profession in the problems of the dynamics of urban form and structure, to acquire awareness of the importance of the multidisciplinary approach in urban planning and an informed consideration of urban restructuring projects, both in academic urban planning workshops and in future professional work.

## Lecture / project contents

- C1 Course Introduction.
- C2 Urban territory, urbanization process, conditioning and manifestations.
- C3 The system of urban activities within the city.
- C4 Urban morphology, morphological methods of analysis, application of methods of spatial analysis.
- C5 Case study - application of a spatial body analysis method.
- C6 Urban Structure - Definitions, Urban Spatial Structure - Urban
- C7 Functional Structure.
- C8 Urban texture Limits of urban structure. Structures of structural organization.
- C9 Case studies on urban structure and approaches.
- C10 Phenomenon and urban form - definitions, Dynamics of urban form.
- C11 Urban spatial differentiation - homogeneous space,
- C12 heterogeneous space, selection in urban space. Case studies.
- C13 Particular value of urban form - character and specificity. Case Study.
- C14 Urban Restructuring - Case Studies.

## Seminar contents

-

## Evaluation

Written exam

## Selected bibliography

- S. Kostof , The City Shaped: Urban Patterns and Meanings Trough History, Ed. Paperback, Londra, 2007.
- K. Lynch, G. Hack, Site Planning, Ed. MIT Press, Cambridge, 1984.
- F. Machedon, Metodă de analiză morfologică a ţesuturilor urbane, Ed. U.A.U.I.M., Bucuresti 2006.
- A. Stan, C. Ioniţă, Morfologie urbană, Ed. U.A.U.I.M., Bucuresti - 2014.
- Ş. Ghenciulescu, Oraşul transparent: limite şi locuire, Ed. U.A.U.I.M., Bucuresti - 2008.



# 58.20



# DIGITAL FABRICATION

Code	58.30
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

## Objectives

The course aims providing comprehensive background about the principles, phases, methods and techniques of digital fabrication, in its multiple relations with the field of architecture.

Responsible:  
to be specified

e-mail:

## Lecture / project contents

- C1 Introduction
- C2 Systems, machines and instruments
- C3 Algorythms
- C4 Morphogenesis
- C5 Forming
- C6 Tessalating
- C7 Folding
- C8 Principles of digital fabrication
- C9 Rapid prototyping
- C10 3D scanning
- C11 Further case-studies
- C12 Theorising digital fabrication
- C13 Conclusions
- C14 Colloquium

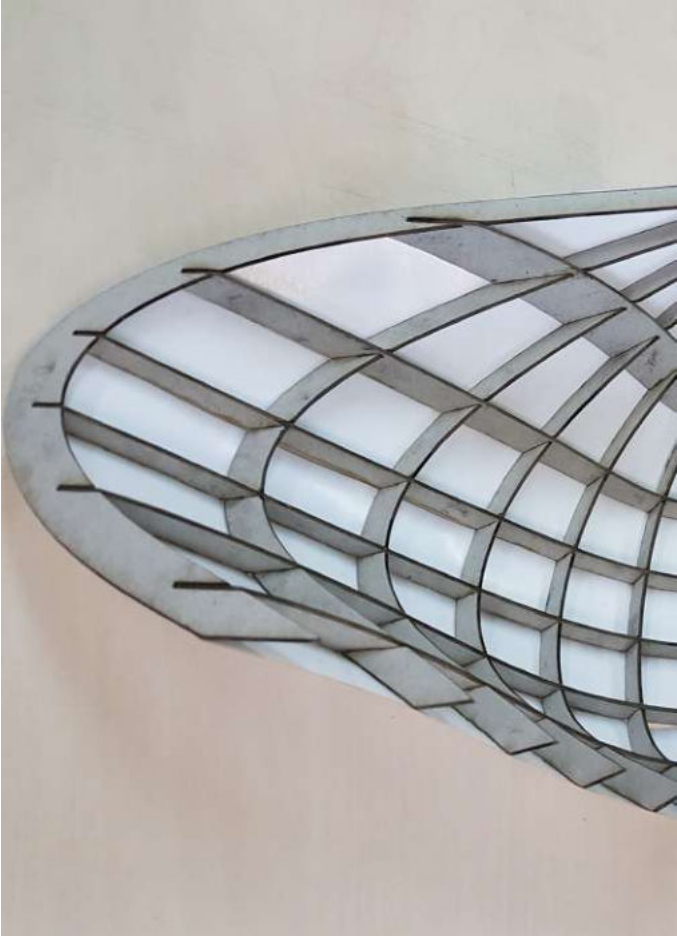
## Seminar contents

## Evaluation

Written exam

## Selected bibliography

Caneparo, Luca. Digital Fabrication in Architecture, Engineering and Construction. Dordrecht: Springer, 2014.  
Available on-line at: <https://www.springer.com/gp/book/9789400771369>.  
Dunn, Nick. Digital Fabrication in Architecture. Londra: Laurence King Publishing Ltd, 2012.  
Iwamoto, Lisa Dlgital Fabrications: Architectural and Material Techniques. New York: Princeton Architectural Press, 2009.



58.30

# RESTORATION OF HISTORIC BUILDINGS

Code	59.00
Semester	2
Credits	2
No. of hours/ lecture	2/week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Lect. PhD Arch. Andreea Milea

e-mail: andreea.milea@gmail.com

### Objectives

The course aims the awareness of the importance of protecting and capitalizing on historical monuments. Study of various aspects of restoration of historical monuments, the Assimilation of monument and restoration concepts, knowledge of the factors that can aggravate monuments, knowledge of research undertaken to restore monuments, knowledge of the categories of restoration work, knowledge of constructive systems and traditional building materials, conservation techniques, and repairs needed in historical building interventions, developing of a specific professional culture by analyzing examples of traditional, modern and contemporary practice.

### Lecture / project contents

- C1 Introduction
- C2 The notion of monument and its evolution
- C3 The notion of restoration and its evolution
- C4 Aggression of the environment on monuments  
Human aggression on monuments
- C5 Researches related to restoration work
- C6 Categories of restoration work: Part I
- C7 Categories of restoration work: Part II  
Construction systems and historical building materials:  
masonry and plastering
- C8 Construction systems and historical building materials: roofs,  
floors, floors, exterior pavements
- C10 Construction systems and historical building materials: doors,  
windows, stairs
- C11 Construction systems and historical building materials:  
wooden constructions
- C13 Restoration of urban space
- C14 Restoration of historic gardens

### Seminar contents

-

### Evaluation

Course: written verification during the semester, studies developed according to topics announced at the end of each course and presented orally within the time available

### Selected bibliography

- J. ASHURST, Practical Building Conservation: English Heritage Technical Handbook. Vol. 1: Stone Masonry. Vol. 2: Brick, Terracotta and Earth. Vol. 3: Mortars, Plasters and Renders. Vol. 4: Metals. Vol. 5: Wood, Glass and Resins and Technical Bibliography (Ashgate Publishing Limited, Aldershot, 2005)
- F. CHOAY, Alegoria patrimoniului (Simetria, București, 1998)
- G. CURINSCHI VORONA, Arhitectură Urbanism Restaurare (Editura Tehnică, București, 1996)
- J. HÜLSEMANN, Casa țărănească săsească din Transilvania. Ghid pentru restaurarea caselor vechi (Simetria, Sibiu, 2014)
- A. MILEA, D. POP, Despre relevu. Practici de vară în Házsongárd (U.T.Press, Cluj-Napoca, 2012)
- V. POP, Istoria conservării (U.T. Press, Cluj-Napoca, 2002)
- B. SZABÓ, Introducere în teoria reabilitării structurilor de rezistență istorice (Utilitas, Cluj-Napoca, 1998)
- Caietele restaurării: colecția 2013-2017



59.00

# STRUCTURAL ENGINEERING THEORY 3

Code	60.00
Semester	2
Credits	4
No. of hours/ lecture	2 / week
No. of hours/ seminar	2 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

## Objectives

The course aims acquiring the knowledge needed to construct bearing structures in terms of mechanical strength and stability, understanding the impact of resistance and stability requirements in architectural design, acquiring compliance and sizing criteria for elements, subassemblies, simple, reinforced and prestressed concrete structure assemblies, metal, wood, masonry, to gain knowledge of the behavioral particularities of the bearing structure in frames, diaphragms or dual structures. It is followed to gain mastery of specialized terms and representations, to master simple methods of pre-dimensioning structural elements and acquisition of specific properties of different materials used in bearing structures and assimilation of technologies for carrying the load bearing structures.

## Lecture / project contents

- C1 Recapitulation / Introduction
- C2 Roof structures. Underbody assemblies.
- C3 Planing subassemblies. Flat planes.
- C4 Carrier support subassemblies.
- C5 Foundation subassemblies. Foundations, Elevations
- C6 Steps of structural structure synthesis.
- C7 Upper and large openings ground floor assemblies
- C8 Bottom grounded structures
- C9 Hinged Structure Assemblies
- Recapitulation

## Seminar contents

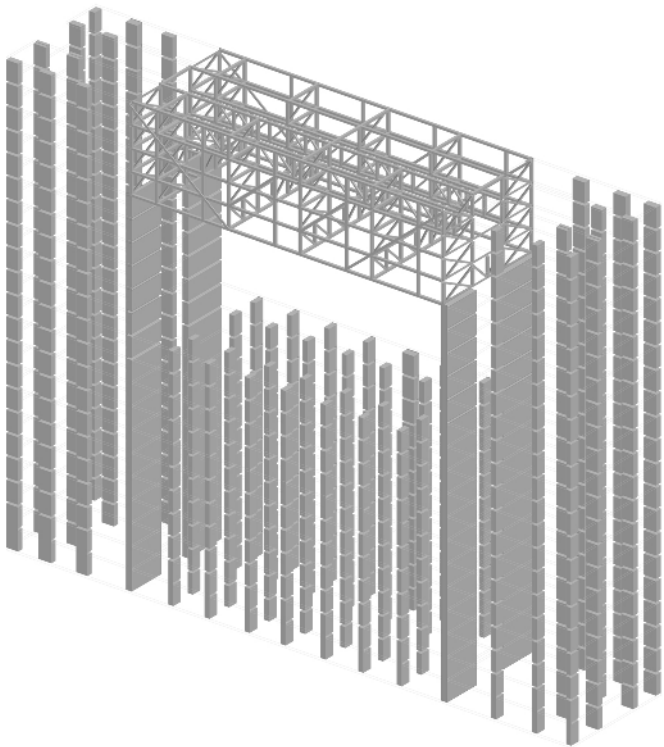
- S01 - Construction systems of roofs, roof structures
- S02 - Systems of floor plans
- S03 - Constructive systems of support subassemblies
- S04 - Presentation of simple methods of pre-dimensioning of the floors and the roof
- S05 - Starting from the architectural part of a building simple, small, it is proposed to design the appropriate resistance structure, using masonry, wood and / or concrete materials, taking into account site conditions.
- S06 - Structural interventions on existing buildings. Warehouse issues.

## Evaluation

Cours: Final written and oral examination (minimum grade 5)  
Seminar: Continuous tests. (minimum mark 5)

## Selected bibliography

- Al. Cișmigiu: Teoria structurilor. Note de curs ed. I.A.I.M. București 1978;
- V. Gioncu, Teoria structurilor. Note de curs ed. I.P. Timișoara 1979;
- M. Mihailescu, Construcții din beton armat și precomprimat ed. I.P. Cluj-N. 1983;
- N. Hawkes, Structures. The way things are built. Ed. Macmillan New York, 1990;
- F. Ching, C. Adams, Building construction illustrated, Van Nostrand Reinhold New York, 1991;
- F. Ching, A visual dictionary of Architecture, Van Nostrand Reinhold New York, 1994;
- B. Szabó, Teoria structurilor. vol. I. Elemente structurale; ed. Utilitas Cluj-N. 1997;
- M. Crisan, Statica formelor construite. Note de curs 2009-2010, ed. UAIM, București, 2010
- B. Szabó, Elemente și structuri de beton armat ed. I.P. Cluj-N., 1985
- R. Crișan, Construcții din lemn, ed. UAIM, București, 2003
- R. Crișan, Construcții din oțel, ed. UAIM, București, 2003



60.00

# CONSTRUCTION AND URBAN ENVIRONMENT PHISYCS

Code

61.00

Semester

2

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:

Lect. PhD Arch.

Ioana Madalina Moldovan

e-mail:

ioana.Muresanu@ccm.utcluj.ro

Objectives

The course aims the developing skills in the areas of hygrothermics, acoustics and natural lighting in support of professional training, the assimilation of the theoretical knowledge regarding the basic notions in the field of building physics and the ability to perform preliminary calculations in the areas of hygrothermics, acoustics and natural lighting.

- Lecture / project contents

C1

Introduction. Overview - Objectives of the course and course.

C2

Current issues of hygrothermics, acoustics and natural lighting

C3

Thermal comfort. Thermal transfer. Condensation. Thermal bridges.

C4

Practical Course: .

C5

Practical course: Verification of the degree of thermal

C6

protection.

C7

Practical Course: Calculation of water vapor diffusion

C8

Practical course: The annual heat demand of a building Q.

C9

Acoustics. General. Sound - propagation. Sound absorption.

C10

Sound insulation. Materials and structures.

C11

Indoor and outdoor acoustic protection. Examples.

C12

Natural light in architecture.

C13

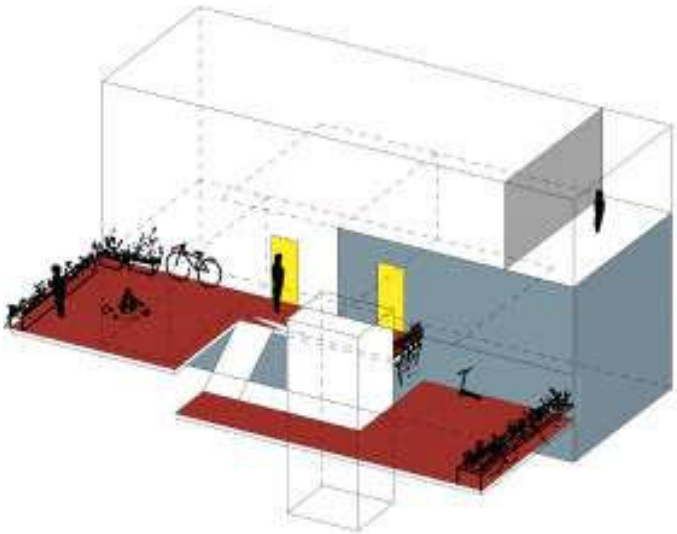
Shadow diagram. Projection chart. The shadow mask. Selective comfort of the sun, made with the projection diagram and the shadow mask.

C14

Complex examples: Intelligent constructions. Intelligent enveloping elements.

Seminar contents

-



Evaluation

Written test and support

-Solving three theory points

-Solving a calculation example

Selected bibliography

-H. Andreica, C. Munteanu, I. Muresanu , L. Moga, R. Tamas-Gavrea, Constructii civile, Ed. U.T.Press, Cluj-Napoca, 2009;

-E. Comsa, I. Moga, Constructii cvile – Higrotermica si acustica cladirilor, vol. 2, Ed. U.T.C.-N., Cluj-Napoca, 1992;

-M. Stan, Acustica pentru arhitecti, Ed.Fundatiei Romania de Maine, Bucuresti, 2009;

-V. Focsa, Higrotermica si acustica cladirilor, Ed. Didactica si Pedagogica, Bucuresti, 1975;

-R. Pana, Teorie, metoda si tehnologie in protectia acustica, Ed. Universitara Ion Mincu, Bucuresti, 2008;

-D. Vernescu, A. Ene, Insoirea si iluminarea naturala in arhitectura si urbanism, Ed. Tehnica, Bucuresti, 1977;

-m. Mierlita, G. Vasilescu, Iluminarea naturala si artificiala la cladirile civile si de productie, Ed. Tehnica, Bucuresti, 1984;

-Standarde, normative sireglementari tehnice specifice.



# SPECIALISED DESIGN

## - URBAN DESIGN 2

Code	<b>62.00</b>
Semester	<b>2</b>
Credits	<b>2</b>
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	<b>3 / week</b>
Discipline type	<b>Compulsory</b>
Examination form	<b>Colloquium</b>

### Objectives

It is aimed to aquire the knowledge, skills, abilities and skills necessary for the architect whose professional activity is also exercised in the field of urban planning, to familiarize through the project with the methods, conventions and normative acts involved in the design of residential areas at the PUZ level (Zonal Urban Plan), to elaborate of the urban planning project of a residential area at differentiated scales: 1: 2000 - 1: 500, to relate to the existing normative framework on urban planning and its application within the project, to familiarize with the roles of the different actors involved in the elaboration of an urbanistic project.

### Lecture / project contents

One semester project in three phases:

Urban Restructuring

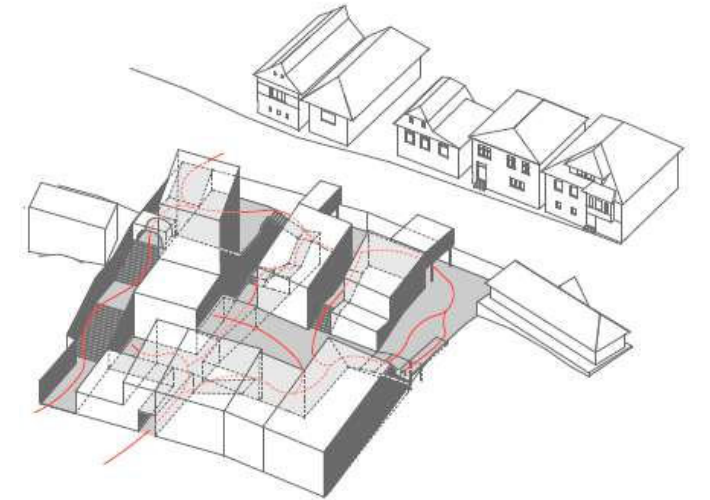
Phase 1 - Analysis of the existing situation and making a documentary map

Phase 2 - Designing a guideline scheme and phasing out the intervention

Phase 3 - Detail and completion of the urban planning project

### Seminar contents

-



### Evaluation

Applications: According to the design theme and the design regulations at the faculty level.  
Oral support of the project, in its various intermediate phases and in the final one.

### Selected bibliography

-Ghid privind metodologia de elaborare și conținutul cadru al planului urbanistic zonal, MLPAT, București, 2000.  
-Legislație privind urbanismul, Matrix Rom, București, 2005.  
-S. Bell, Elements of Visual Design in the Landscape, Spon Press, London and New York, 2004.  
-English Partnerships and the Housing Corporation, Urban Design Compendium, Volumele 1 și 2, 2007.  
-D. Mangin, PH. Panerai, Projet urbain, Ed. Parenthesès, Marseilles 1999.  
-Ministerul Lucrărilor Publice și Amenajării Teritoriului, Ghid privind reglementarea dezvoltării urbane prin operațiuni de parcelare și reparcelare a terenurilor introduse in intravilan, iunie 2002.  
-J. Mozas, Density: new collective housing, a+t Ediciones, 2006.  
-J. O'rourke, ed., Place Making. Celebrating Quality and Innovation in Urban Design, RUDI (Resource for Urban Design Information) și Academy of Urbanism, London, 2009.

62.00

Responsible:  
Assoc. Prof. PhD Arch. Octav Silviu  
Olănescu

e-mail:  
octav.olanescu@arch.utcluj.ro

Coordinators:  
Prof. PhD Arch. Iancu Adrian  
Lect. PhD Arch. Silivan Moldovan  
Teach. Assist. PhD Arch. Alice Florean  
Teach. Assist. PhD Arch. R areș Drăgan  
Arch. Rodica Codoreanu  
Arch. Lucian Simu  
Arch. Călin Spănu



# DESIGN SYNTHESIS STUDIO 2

Code	63.00
Semester	2
Credits	13
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	12 / week
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

The studios aims to develop students' competencies in the field of architectural design by applying the design methodology to the themes of plurivalent programs, to elaborate of a complex architectural project, as the final stage of an interdisciplinary process, started with the urbanism project. Detailing the architectural object by enumerating a project concept, establishing neighborhood relations with a proposed urban context, functional, structural and spatial solution according to the design theme and the norms in force.

## Lecture / project contents

Architectural project: Exposition, applications, individual corrections, corrections in the collective, evaluation with public support of the projects.

## Seminar contents

-

## Evaluation

Seminar/ architectural project : - According to the design theme and the Regulation for Discipline Design Synthesis IV : - Project Support Assessment

## Selected bibliography

- E. Neufert, Manualul arhitectului - elemente de proiectare și de construcție, Alutus S.A., Miercurea Ciuc, 2004.
- D. Littlefield, Metric Handbook- Planning and Design Data, 3rd Edition, Elsevier,Oxford, 2008.
- G. Vais, Programe de arhitectură, UT Press, Cluj-Napoca, 2008.
- Reviste de arhitectură existente în Biblioteca facultății: El Croquis, The Architectural Review, Detail ș.a.
- Surse internet: Archdaily.com, Architizer.com, Divisare.com ș.a.



63.00

# PROFESSIONAL PRACTICE 4TH YEAR

Code	64.00
Semester	2
Credits	3
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	30
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

The course aims to gain the ability to interact with the architect at all levels of the profession, to understand the steps to design a project, to identify the stages of scientific material development and to understand the amplitude of efforts to develop cultural or scientific events.

## Lecture / project contents

Workshops, working groups, conferences, projects, events.  
The practical activity provides students with the opportunity of applying and developing the in-school-acquired abilities and knowledge base in the frame of real projects, programmes, workshops, events and / or publications, thus enabling them to develop interction skills at a diverse range of professional levels.

Additionally, students must update their student portfolio with the projects elaborated during the previous two semesters.

## Seminar contents

-

## Evaluation

The evaluation will be based on the degree of involvement in the proposed activities.

## Selected bibliography

Standards for performance criteria specific to stairs and ramps for pedestrian traffic in buildings: Bucharest: Fast Print, 2004.  
Norms regarding the design of civil buildings from the point of view of the safety requirement in operation: Indicative: NP 068-02, Bucharest: Fast Print, 2006.  
J. FLEMING, H. HONOR, The Penguin Dictionary of Architecture, London: Penguin Books, 1966.  
VITRUVIUS, M. POLLIO, The Ten Books on Architecture / Vitruvius Pollio; translated by Morris Hicky Morgan, 1960.



64.00

05<sub>year</sub>  
1st semester

# CONTEMPORARY CITIES

Code

65.10

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Elective

Examination form

Colloquium

Responsible:  
Lect. PhD Arch. Silivan Moldovan

e-mail: silivan.moldovan@arch.utcluj.ro

## Objectives

The course aims to give knowledge and understanding of specific concepts, theories and basic methods in contemporary urban planning and their appropriate use in professional communication. Understanding the way of conceiving the contemporary urban space - as a space of a community with specific identity, the result of a historical becoming. Understands how specific historical, geographical, economic, social, and cultural aspects influence the genesis and evolution of the contemporary city, to analyse the elements specific to the existing urban framework and to carry out sequential analysis studies of a street (recognizing the specific human perception of urban space on the pedestrian scale) in the global context of the city.

## Lecture / project contents

- C1

Introductory course, presentation of the discipline.
- C2

Ways to analyze urban landscape and qualitative analysis
- C3

The maps of urbanism and how they have influenced the
- C4

city's image.
- C5

Evolution of concepts of spatial organization of cities –
- C6

examples.
- C7

Urban density issues.
- C8

Utopias and Distopias - The Upper Community Future  
imagined versus reality.
- C9

High Buildings in the Contemporary City Context.
- C10

Policies for Compact Towns and Mega Cities (Problems and  
Solutions).
- C11

Functions of the city, central area of the city, iconic landmarks,  
public space.
- C12

Sustainability, globalization and neoliberalism. The city's  
image and its relation to the valuable elements of the context  
(soil, water, lighting, urban ventilation and urban silhouette).
- C13

Urbanism in free zones or former industrial areas – examples.
- C14

Interventions in areas of historic value.  
Submission of additional topics and Conclusions

## Seminar contents

-

## Evaluation

Written exam with 5 questions, rated from 1 to 9, 1 point ex officio. Points for additional activity, accumulated over the semester, contribute to the final mark.

## Selected bibliography

- K. Lynch, Imaginea Oraşului, Registrul Urbaniştilor din România,2012
- Choay F., L'urbanisme - Utopies et réalités, Ed. du Seuil, Paris 1965
- Panerai Ph., Chastex J., Depaule J-C., Forme urbaine - de l'ilot à la barre, Ed. Dunod, Paris 1977
- Panerai Ph., Depaule J-C, Demorgeon M., Analyse Urbaine, Parentheses Editions, 1999
- K. Spiro, The City Shaped - Urban Patterns and Meanings Through HistoryThames and Hudson Ltd, London 1991 Hall Peter - Oraşele de mâine, Ed. All Educational, Bucureşti 1999
- D. Thomas, The modern city revisited, Spon Press, N.Y 2000
- Harouel J. L., Istoria urbanismului, Ed. Meridiane Bucureşti 2000
- Cantacuzino G.M., Despre o estetică a reconstrucţiei, Ed. Paideea, Bucureşti 2001
- Benevolo L., Orasul in istoria Europei, Ed.Polirom Iasi 2003
- Agachi M.I.M., Clujul modern - aspecte urbanistice, UTPress Cluj Napoca 2004



# HUMAN SETTLEMENT STRATEGIES

Code

65.20

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Elective

Examination form

Colloquium

Responsible:  
Teach. Assist. PhD Arch. Rareș Dragan

e-mail: raresv.dragan@gmail.com

## Objectives

- O1. Acquiring theoretical knowledge about the existence and role of regional / national / European strategies and planning.
- O2. Understanding the impact of implementing a plan over a period of time on a territory.
- O3. Identifying bodies responsible for the implementation and implementation of urban strategies and policies.
- O4. Identifying good practice in European territory.
- O5. Understanding the macro levels of regional, national and European strategic planning and planning.
- O6. Developing strategic thinking.

## Lecture / project contents

- C1 Introductory course
- C2 Legislative framework
- C3 Territorial Development Strategy of Romania
- C4 National Planning Plan – PATN
- C5 Area Planning Plan – PATZ
- C6 Planning of the county territory – PATJ
- C7 Urban Strategic Planning
- C8 Mobility and urban remodeling – Cluj
- C9 European dimension - US space strategy and development policies
- C10 Regional development strategies. Good Practices. Case studies.
- C11 Promotion and regional competition - ExpoREAL; Mipim
- C12 Urbanization and Quality of Life
- C13 Sustainable Urbanization

## Seminar contents

-

## Evaluation

Cours: active presence at the course or written exam - 8-10 questions ability to get a grade during the semester - attention and vision questions at the end of the course.

## Selected bibliography

- L. Inaăși, Planificarea strategică urbană - un model, București , Ed. Universitară Ion Mincu, 2014
- Strategia de dezvoltare strategică a României, Quattro design, iunie 2014
- Enhanced Spatial Planning as a precondition for sustainable Urban Development, Raport Banca Mondială, 2013
- Legea 350/6 iulie 2001 cu completările ulterioare
- Negulescu, M.H., Practica urbanistică de remodelare sustenabilă a mobilității, București, Ed. Universitară Ion Mincu, 2011
- Negulescu, M.H., Mobilitate și formă urbană, București, Ed. Universitară Ion Mincu, 2011
- Minea, E.M., Suport curs: Urbanism și amenajarea teritoriului, UBB, 2012
- Stoian I., Calciu D., Orașul posibil, Ed. Tact, 2012
- Montgomery C., Orașul fericit, trad. M. Zîpiși, București, Ed. Igloo, 2017





# URBAN STRATEGY AND POLICY

Code	<b>65.30</b>
Semester	<b>1</b>
Credits	<b>2</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	-
No. of hours project	-
Discipline type	<b>Elective</b>
Examination form	<b>Colloquium</b>

Responsible:  
Teach. Assist. PhD Arch. Mihai Racu

e-mail: mihai.racu.arh@gmail.com

## Objectives

The course seeks to achieve a comprehensive approach that allows the development of sustainable urban, economic, social, political and spatial urban policies and strategies, general understanding of political theories and possible applications in the context of urban development, the ability to place major development initiatives in different development cultures and socio-economic agendas, understanding the role of public and private actors in formal and informal urban development processes, prospects for substantiating decisions in strategic phases, pre-design for urban development initiatives and the ability to relate urban policies with spatial results at different scales.

## Lecture / project contents

- C1 Introduction. Motivation, history, concepts, definitions.
- C2 Urban strategies and policies in Romania:
- C3 Urban strategies and policies in Romania:
- C4 Fundamental planning decisions:
- C5 Comprehensive planning - top-down and bottom-up approach to urban planning; Communities -Developing the Social Capital Index.
- C6 Collaborative planning; Citizens' participation; Public consultations.
- C7 Utilitarianism, Equitable Planning, Egalitarianism, New Realism, Incrementalism
- C8 Strategic Planning - Copenhagen, London, New York; Sustainability.
- C10 Principles of the urban economy. Economic impact of patrimony and urban planning decisions.
- C11 Fundamental planning decisions. Analysis methods.
- C12 Case studies.
- C13 Presentation of essays and open discussions.
- C14 Case studies. Recapitulation.

## Seminar contents

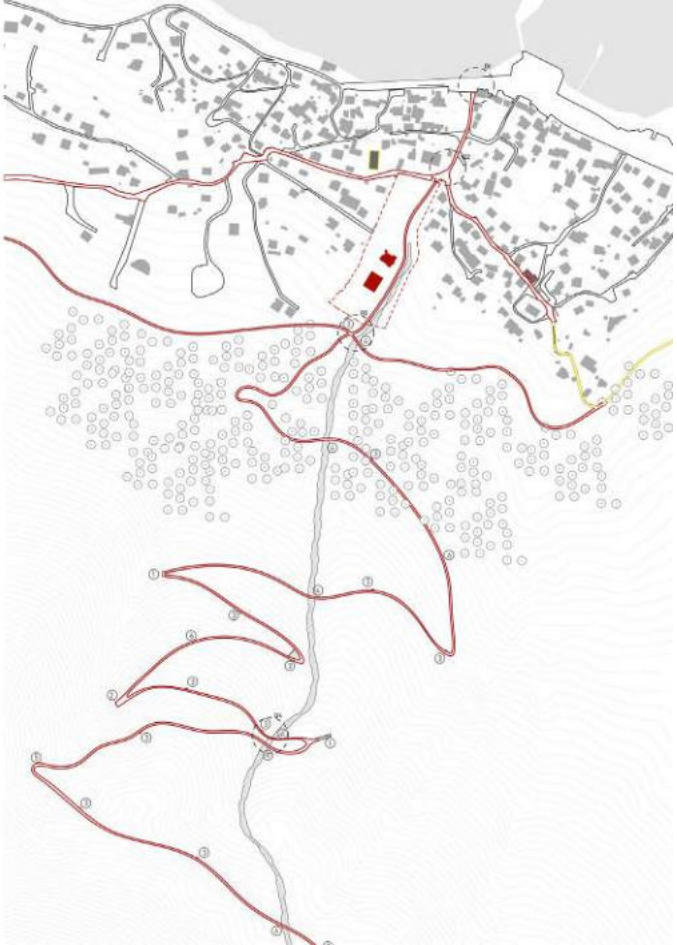
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## Evaluation

Minimum examination grade 5 and an essay of 5000 words (analytical ability, personal interpretation, originality, creativity)  
Written exam + essay

## Selected bibliography

-Strategia de dezvoltare teritoriala a Romaniei (sursa: <http://www.mdrap.ro/dezvoltare-teritoriala/-2979>)  
-Zona Metropolitana Urbana si Strategii de Dezvoltare a Zonei Metropolitane Cluj-Napoca (sursa: <http://www.cjcluj.ro/zona-metropolitana-urbana/>)  
-Strategia de dezvoltare a municipiului Cluj-Napoca (sursa: <http://cmpg.ro/wp-content/uploads/2015/05/strategie-cluj-napoca-2014-2020.pdf>)  
-Fainstein, Susan S. (1999). Can we make Cities we want? In The Urban Moment, ed. Sophie Body-Gendrot and Robert Beauregard. Thousand Oaks: Sage.  
-Kymlicka, Will. (2002). Contemporary Political Philosophy: An Introduction. 2nd ed. OUP Oxford.  
-B. R. and R. Philipp (2011) Living in the Urban Age. in Ricky Burdett and Deyan Sudjic (eds.). Living in the Endless City. The Urban Age Project by the London School of Economics and Deutsche Bank's Alfred Herrhausen Society. London. Phaidon Press.



65.30

# ARTS AND ARCHITECTURE

Code	66.10
Semester	1
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

## Objectives

The course proposes to familiarize with contemporary and contemporary art concepts and personalities selected from the perspective of a significant relationship to the problems of architecture. Without a strictly chronological thread, the course highlights the confluences, both spatially and materially, and conceptually, of the current themes of architectural creation and modern and contemporary artistic creation. The aim is to stimulate the formation of a critical view that will allow the future architect to participate in an informed, responsible and relevant way in the contemporary public sphere, including by collaborating with artists. The case studies discussed highlight the location of architecture in the cultural complex of the present, aiming at sensitizing the students to the other forms of artistic expression.

## Lecture / project contents

- C1 The painters of the city: a short history of modern painting
- C2 The city of the artists
- C3 Object and space. Object and place
- C4 Beyond the object. Art and ecology
- C5 Action, activism, participation: Dada&Surrealist practices
- C6 “Critical Spatial Practices”
- C7 Photography and architecture
- C8 Ar[t]hitecture on paper: architectural graphics and utopia
- C9 Virtual reality in contemporary art: augmented reality, smellscapes, soundscapes
- C10 Memory and public space: contemporary memorials
- C11 Home: contemporary artistic exploration of domesticity
- C12 Workshop, gallery, museum: curatorial practices and institutional critique
- C13 Artist-architect collaborations
- C14 Colloquium

Responsible:  
Assoc. Prof. PhD Arch. Cristina Purcar  
  
e-mail: cristina.purcar@arch.utcluj.ro

## Seminar contents

-

## Evaluation

Evaluation along the way through various methods: short test, case study presentation, dialogue; Colloquium in the last week of the semester: choice between the written test and the presentation of a case study.

## Selected bibliography

FOSTER H., KRAUSS R., BOIS Y.-A., BUCHLOH B.H.D. Art since 1900. Modernism. Antimodernism. Postmodernism, Londra: Thames&Hudson, 2007.  
FERNIE J. Two Minds: Artists and Architects in Collaboration, Michigan: Black Dog, 2006.  
GOMPERTZ W. O istorie a artei moderne, București: Polirom, 2014.  
RACZ I. Art and the Home: Comfort, Alienation and the Everyday, I.B.Tauris, 2015.  
RENDELL J. Art and architecture. A place between, I.B.Tauris, 2006.  
WALLACE I.L. și WENDL N. (eds.). Contemporary Art About Architecture: A Strange Utility, Ashgate Publishing, Ltd., 2013.  
WALTHER I.F.(ed.). Art of the 20th Century. Painting. Sculpture.New Media.Photography, Taschen, 2005.



# PSYCHOLOGY OF FORM AND SHAPE

Code

66.20

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Elective

Examination form

Colloquium

Responsible:  
Lect PhD Art. Leonard Vartic

e-mail: leonardvartic@yahoo.co.uk

## Objectives

The lecture intends working on a relative and volatile consensus about the psyche in general and the human in particular. It develops a series of reflexive considerations of collaboration of human intention with a context considered in its intention (nature), of the continuous repositioning of the human subject in relation to the fragility and transformality of its objectualization. The didactic collaboration circumscribed to the course aims at a nuance of the excessive steep decision of overly technical formal taxation due to the abundance of the computer / computer projection and the revelation of some constants that, have the potential to help configure a place by proposing architectural identity.

## Lecture / project contents

- C1
- Form, formalization; forms: content and periphery / core and contour
- C2
- Psychic, uniqueness or dispersion
- C3
- Matter, substance, principle, condition, phenomenon
- C4
- Dynamics, increases / decreases, dilatations / contractions, scatter / coagulation
- C5
- Color and shape / shape and (in) light; mental psychological "mimetic realism" or imitative psyche
- C6
- Space: volume , shape, substance, geometry
- C7
- Form time, psi. evolutionary / psi. involutive
- C8
- Psycho-formal travel-psychological geography
- C9
- Useful and useless / pragmatic and utopian
- C10
- Psycho-formal / automatism technologies, experiences, norms, laws, rules, standards
- C11
- Word and form / words and mockings
- C12
- Beautiful - ugly, good - bad, allowed - prohibited, psycho - formal duplications
- C13
- Drawing between precision and ephemerality OM, ephemerism and (or) perennality, form and (or) life
- C14
- (party)

## Seminar contents

-

## Evaluation

Elaborated work during the semestre - cooperation assumed with the evidence of a specific formal-identifying management and the immanence of its inhibited reactivation in relation to the prescription of a marginality.

## Selected bibliography

- Antoine de Saint Exupery, (2011) Micul Print, Ed. Rao Bucuresti
- C. N. Shulz, (1979) Genius Loci: Towards a Phenomenology of Architecture, Ed. Rizzoli New York
- G. M. Cantacuzino, (1977) Izvoare si popasuri, Ed. Eminescu Bucuresti
- G. Bachelard, (2003) Poetica spatiului, Ed. Paralela 45
- J. Krishnamurti, Eliberarea de cunoscut, Ed. Herald Bucuresti
- J. Krishnamurti, Unica Revolutie, Ed. Herald Bucuresti
- P. Blake, (1979) God`s own junkyard, Ed. Holt, Rinehard and Winston New York



# ANTHROPOLOGY. CULTURAL PSYCHOLOGY

Code

66.30

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Elective

Examination form

Colloquium

## Objectives

The course of Cultural Anthropology has as its main direction the development of culture and everything it represents. It wants to deepen the knowledge about some areas related to architecture as well as the revelation of the interrelationship between them and a possible innovative architectural expression based on a valid symbolic language. Thelectures present lifestyles different than ours, specific to other cultures and their treatment by comparison, highlighting the idea that these lifestyles determine highly different paths for architectural design.

## Lecture / project contents

- C1
- Introductory notions - definition, fields of anthropology examples. Methods and techniques of research
- C2
- Beginnings of cultural anthropology. Culture - Concept and Problem
- C3
- Art Anthropology - visual representations, and their symbolism. Linguistic Anthropology - Language and Culture.
- C4
- Magic. Anthropology of myths and religions.
- C5
- Psychology, sociobiology
- C6
- Categories of society: family, kinship, politics and economics. Issues of race and ethnicity
- C7
- Man and his needs as a principle of the architectural approach
- C8
- Rhythm and measure in architecture
- C9
- Anthropology of space and anthropology of living
- C10
- Vernacular architecture. Rural model and urban model to live
- C11
- The city for people. garden from anthropological perspective
- C12
- Problems and directions in contemporary architecture
- C13
- Student support for the papers and their evaluation

## Seminar contents

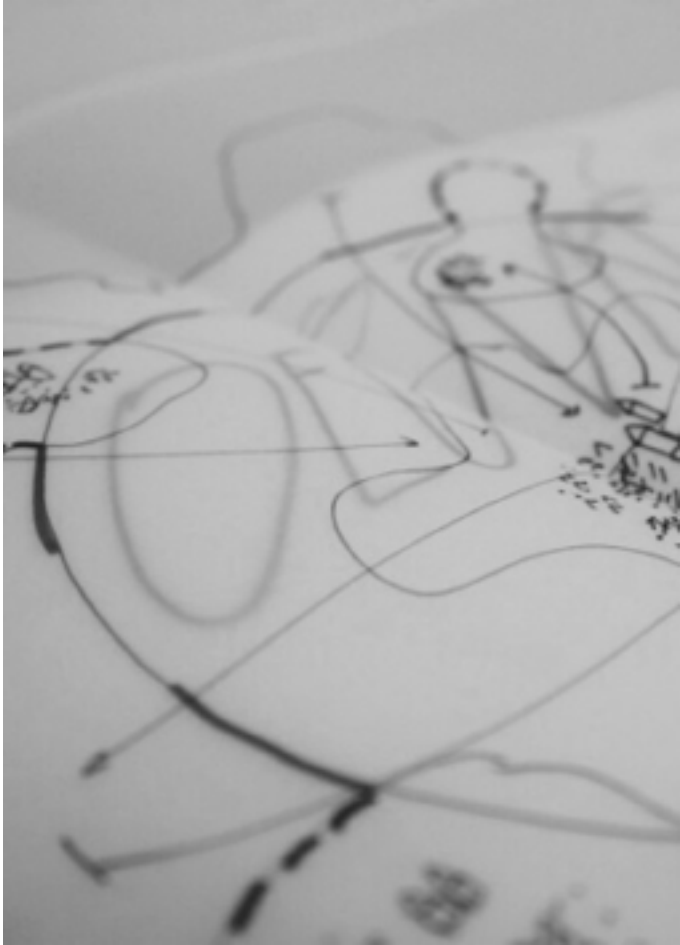
-

## Evaluation

Grid type test, 9 questions of 1p, plus 1p ex officio with the possibility of relieving by presenting a report to colleagues.

## Selected bibliography

- A. MiHu, Antropologie culturală, 2001, Ed. Dacia, Cluj-Napoca
- P. Mutică, Antropologie culturală, 2013, UT Press, Cluj-Napoca
- M. Coman, Introducere în antropologia culturală. Mitul și ritul, 2008, Ed. Polirom, Iași
- Hall, Edward T., The Hidden Dimension, (1969)1990, Anchor Books, New York
- Leach, Edmund, Social Anthropology, 1982, William Collins Sons and Co. Ltd, Glasgow
- C. Levi-Strauss, Antropologia structurala, 1978, Ed.politică, București
- V. Mihăilescu, Antropologie. Cinci introduceri, 2009, Ed. Polirom, Iași
- V. Mihăilescu (coord.), Etnografii urbane. Cotidianul văzut de aproape, 2009, Ed. Polirom, Iași
- G. Troc, Postmodernismul în antropologia culturală, 2006, Ed. Polirom, Iași
- Internet resources:
- <https://www.ted.com/talks>





# URBAN MANAGEMENT, LEGISLATION, AND ZONING CODES

Code

67.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

## Objectives

Students acquire legislation knowlwdge specific to the field of architecture and urban planning. The course is aimed at the acquisition of notions on the understanding, the interpretation and the application of law, regulations, guidelines or norms in projects, as well as at the assimilation of urban management concepts.

## Lecture / project contents

- C1
- Introduction. Purpose of the course. - presentation of the idea and the intended path. Key elements addressed during case studies.
- C2
- Legislation in the field of building authorization I
- C3
- Legislation in the field of building authorization II
- C4
- Legislation in the field of building authorization III
- C5
- Legislation in the field of architecture I
- C6
- Legislation in the field of architecture II
- C7
- Legislation in the field of architecture II
- C8
- Legislation in urban planning I
- C9
- Legislation in urban planning II
- C10
- Legislation in urban planning II
- C11
- Urban management I
- C12
- Urban management II
- C13
- Urban management II
- C14
- Review / Relief Test

## Seminar contents

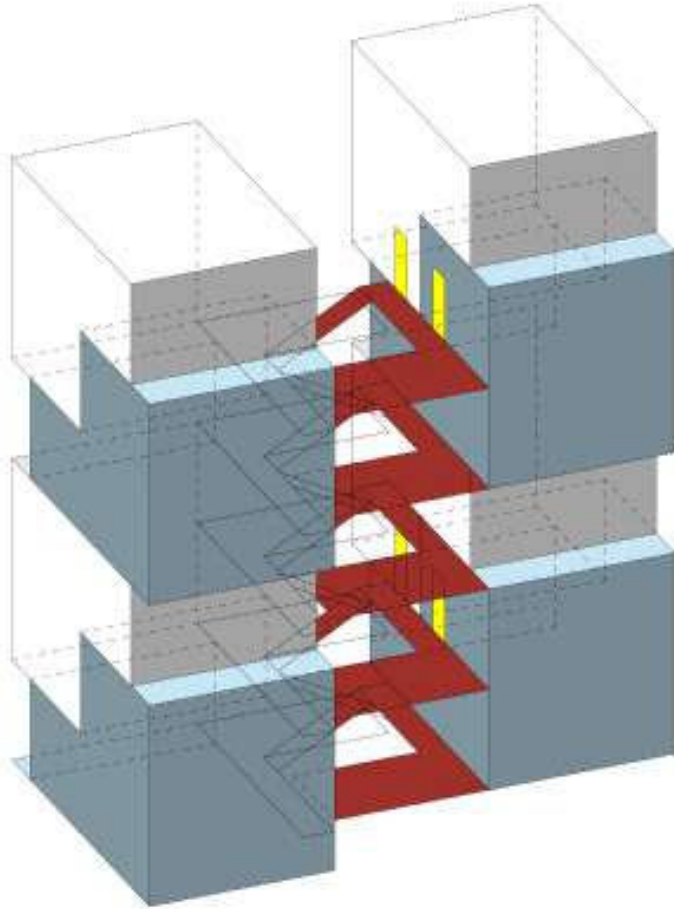
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## Evaluation

Written exam (test) - Possibility of assessment during the semester.

## Selected bibliography

- Regulamente urbane / Iancu, Adrian, UTPRESS, Cluj-Napoca, 2012
- Urbanism in Cluj-Napoca / Iancu, Adrian, UTPRESS, Cluj-Napoca, 2012
- Codul Civil.
- Legea nr. 350/2001 privind amenajarea teritoriului și urbanismul, publicată in Monitorul Oficial al Romaniei, Partea I, nr. 373 din 10 iulie 2001, cu modificările ulterioare.
- Legea nr.50/1991 privind autorizarea executării lucrărilor de construcții, republicată in Monitorul Oficial al Romaniei, -Partea I, nr. 933 din 13 octombrie 2004, cu modificările ulterioare.
- Legea nr. 18/1991 privind fondul funciar, republicată in Monitorul Oficial al Romaniei, Partea I, nr. 1 din 5 ianuarie 1998, cu modificările și completările ulterioare.
- Legea nr. 215/2001 - Legea administrației publice locale, publicată in Monitorul Oficial al Romaniei, Partea I,nr. 204 din 23 aprilie 2001, cu modificările și completările ulterioare.



67.00



# ARCHITECTURAL COMPOSITION

Code	<b>68.00</b>
Semester	<b>1</b>
Credits	<b>2</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	-
No. of hours project	-
Discipline type	<b>Compulsory</b>
Examination form	<b>Exam</b>

Responsible:  
Lect. PhD Arch.  
Smaranda Maria Todoran

e-mail:  
arh.smaranda.todoran@gmail.com

## Objectives

The course aims to provide the skills to address a problem of architectural theory from a critical and polemical perspective, to give the ability to formulate original points of view in relation to consecrated themes; the ability to interrogate them, to give the ability to grasp the importance of different cultural phenomena in the process of architectural creation and to develop the capacity to critically evaluate a speech / an architectural work.

## Lecture / project contents

- C1 Introductory course. Composition - between set of rules and artistic and architectural discours
- C2 Modernity and post-modernity. Contemporary context. The themes of contemporary discourse
- C3 The theme of memory in architecture. Text studies
- C4 The theme of memory in architecture in interviews and exhibitions
- C5 The theme of memory in architecture. Examples of projects - case studies
- C6 The theme of memory in architecture. Examples of projects - case studies. Interpretations
- C7 The theme of nature and ecology. Studies of texts and exhibitions
- C8 The theme of nature and ecology. Case Study
- C9 Utopia. Text studies
- C10 Contemporary Discourse: Phenomenology
- C11 Contemporary Discourse: Autonomy of Architecture
- C12 Modes of Communication in Contemporary Architecture
- C13 Recapitulative course
- C14 Discussions. Tests

## Seminar contents

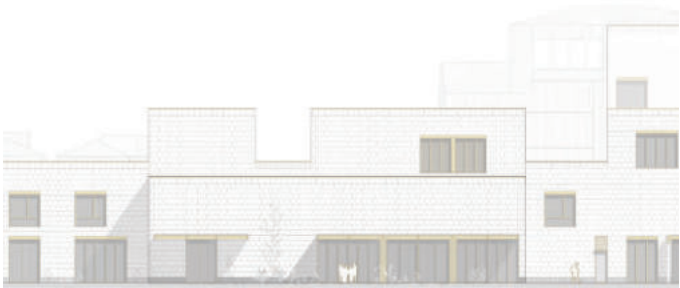
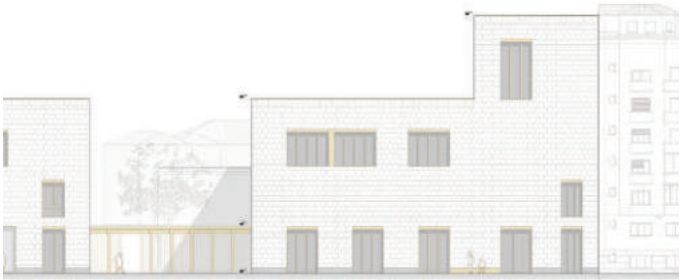
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## Evaluation

Written test: ability to analyze a given text; the ability to write a synthesis text  
- based on the information received at the course.  
Evaluation methods: 60-minute exam.

## Selected bibliography

- Courses 3-6: Aloïs Riegl, "The Modern Cult of Monuments: Its Character and Its Origin," trad. Kurt W. Forster și D. Ghirardo, în Oppositions, n. 25 (Fall 1982), pp. 21-51 (extrase traduse).
- J. Baudrillard, Le système des objets, Paris: Gallimard, 1968 (extrase traduse).
- Convenția privind protecția patrimoniului mondial, cultural și natural, adoptată de Conferința generală a Organizației Națiunilor Unite pentru Educație, Știință și Cultură la 16 noiembrie 1972.
- P. Ricoeur, La memoire, l„histoire, l„oubli, Paris: Ed. du Seuil, 2000. Rem Koolhaas, Cronocaos, August 2010 – catalog de expoziție.
- Courses 7-8: G. Clément „Le tiers pasage". In: Gilles Clément. Textes en copyleft. [Online]. 2004 [Consultat în 5 aprilie 2011] Disponibil: <http://www.gillesClément.com/cat-copylefttextes-tit-Textes-en-copyleft>.
- J. Baudrillard, J. Nouvel, Obiecte singulare, București: Paideia, 2005.
- B. Tschumi, „The Pleasure of Architecture". ed. New York, NY: Princeton Architectural Press, 1996.



68.00

# LANDSCAPE ARCHITECTURE

Code

69.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Assoc. Prof. PhD Arch. Andreea Milea

e-mail: Andreea.Milea@arch.utcluj.ro

## Objectives

The course aims to integrate the awareness of the importance for man of maintaining the relationship with nature and presence of the areas planted in human settlements. It studies the various aspects of the arrangement of the parks and gardens, in order to raise the awareness of the relationship between the human habitat and the climate, to provide knowledge of representative examples of gardens and parks, international and national, both historical and contemporary, as well as knowledge of component elements and compositional principles of landscaping and to present the peculiarities of representing landscape design.

## Lecture / project contents

- C1 Getting Started. Human habitat and climate
- C2 Historical styles of landscaping gardens and parks: Part I
- C3 Historical styles of landscaping gardens and parks: Part II
- C4 The appearance of the public park and the definition of green urban space
- C5 Green spaces: roles, assignment, types, sizing and organization
- C6 Components and principles of composition of landscaping: Part I
- C7 Components and principles of composition of landscaping: Part I
- C8 Land
- C9 Water
- C10 Vegetation: Part I
- C11 Vegetation: Part II
- C12 Circulation
- C13 Utility and decorative constructions
- C14 Representation of landscape design

## Seminar contents

-

## Evaluation

Each student opts for the evaluation method / methods that will apply to him / her.

## Selected bibliography

AMIDON, Jane: Moving Horizons, The Landscape Architecture of Kathryn Gustafson and Partners (Birkhäuser – Publishers for Architecture, Basel, 2005).

GIROT, Christophe, The Course of Landscape Architecture. A History of our Designs on the Natural World, from Prehistory to the Present (Thames & Hudson Ltd, London, 2016).

ILIESCU, Ana-Felicia: Arhitectură peisageră (Editura Ceres, București, 2003).

LAE: Landscape Architecture Europe: Fieldwork (Birkhäuser – Publishers for Architecture, Basel, 2006).

LAE: Landscape Architecture Europe: On Site (Birkhäuser – Publishers for Architecture, Basel, Boston, Berlin, 2009)

RICHARDSON, Tim (ed.): The Garden Book (Phaidon Press, London, New York, 2003).

SIMONDS, John Ormsbee, STARKE, Barry W.: Landscape Architecture, A Manual of Environmental Planning and Design (McGraw-Hill, New York, Chicago, San Francisco, Lisbon, Madrid, Mexico City, Milan, New Delhi, San Juan, Seoul, Singapore, Sydney, Toronto, 2006).



69.00

# NEW TECHNOLOGIES IN ARCHITECTURE

Code

70.00

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Compulsory

Examination form

Exam

Responsible:  
Assoc. Prof. PhD Arch. Paul Mutica

e-mail: paulmutica@yahoo.com

### Objectives

The main goal is to understand and form a minimal baggage of technical knowledge about the latest trends in contemporary architecture. Also, the course aims to understanding the sustainable dimension in the architecture of the last decades, to accumulate through case studies innovative constructive examples of state-of-the-art technologies and to create the premises for research and future trends in the field.

### Lecture / project contents

- C1 Introduction. The Importance of New Technologies
- C2 Principles of sustainability, sustainability and flexibility of contemporary architecture
- C3 Reinterpretations of vernacular architecture through recent technologies
- C4 Special technologies - vertical structures. Skyscrapers
- C5 Special technologies - structures with extreme openings
- C6 Special technologies - megastructures. Artificial islands, subjugation and use of forces of nature
- C7 Special Technologies - Smart House. BMS. From smart building to smart city
- C8 Old materials, new technologies I
- C9 Old materials, new technologies II
- C10 Special materials  
Case studies I
- C11 Case studies II
- C12 Starhitec and development of new design technologies
- C13 Architects and development of new construction technologies
- C14 The Future of Technology in Architecture and Construction

### Seminar contents

-

### Evaluation

The test has 9 grid and 1p questions from the office. Also, students can present to colleagues a technology principle and case studies for a maximum of 2p in the final grade.

### Selected bibliography

Addington, Michelle; Shodek, Daniel, Smart Materials and New Technologies for Architecture and Design Professions, 2005, Oxford: Architectural Press.

Bauer, Michael; Möhle, Peter; Schwartz, Michael, Green Building - Guidebook for Sustainable Architecture, 2010, London: Springer.

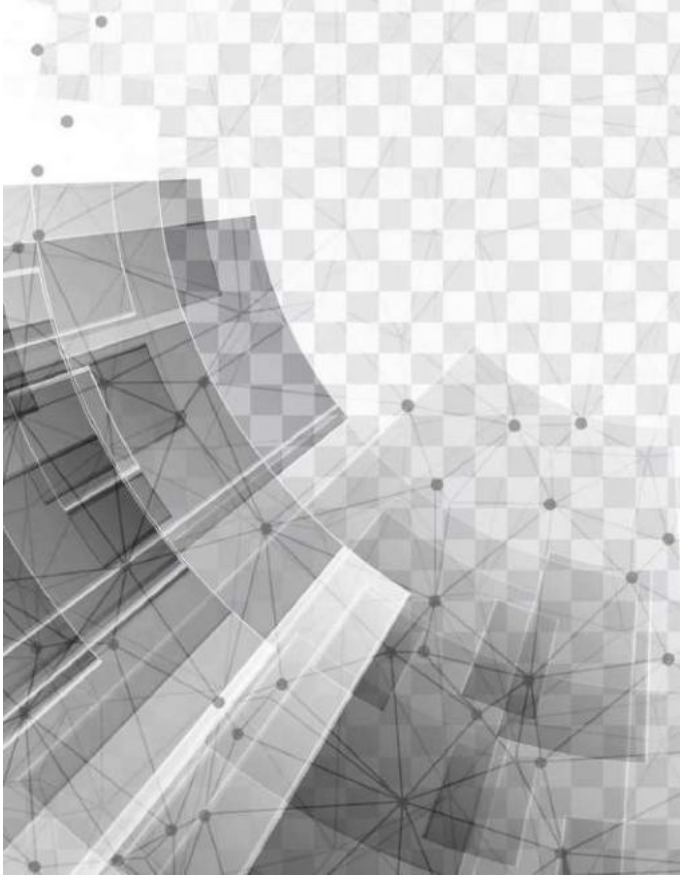
Hebel, Dirk E.; Wisniewska, Marta H.; Heisel, Felix, Building From Waste. Recovered Materials in Architecture and Construction. 2014, Basel: Birkhauser.

Lally, Sean (ed.), Energies. New Material Boundaries, 2009, Architectural Design vol. 79, no. 3.

Leidecker, Sylvia, Nanomaterials in Architecture, Interior Architecture and Design, 2008, Basel: Birkhauser.

Ritter, Alex, Smart Materials in Architecture, Interior Architecture & Design, 2007, Basel: Birkhauser.

Sassi, Paola, Strategies for Sustainable Architecture, 2006, New York: Taylor & Francis Inc. SB05, Sustainable Building Design Book, 2005, Tokyo.



70.00

# SPECIALISED DESIGN STUDIO - URBAN DESIGN 3

Code	71.00
Semester	1
Credits	4
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	3 / week
Discipline type	Compulsory
Examination form	Project

## Objectives

Specialized urban planning is a compulsory exercise for understanding the interdependence between buildings - architectural objects and the surrounding environment, the urban context (construction, landscape, society) and for the social and cultural impact of the created ensemble.

Project in 3 phases: Designing a representative urban space in Cluj Napoca:

Phase 1 - Analysis of the existing situation and presentation of two options. Sc.1: 2000

Phase 2 - Variants of urban planning

Phase 3 - The project itself. Urban planning. Sc.1 :1000

## Lecture / project contents

Responsible:  
Assoc. Prof. PhD Arch.  
Vlad Sebastian Rusu

e-mail: vlad.rusu@arch.utcluj.ro

Teaching team  
Assoc.Prof. PhD Arch. Octav Olănescu  
Lect. PhD Arch. Dragoș Dascălu  
Assist. Prof. PhD Arch. Mihai Racu  
Assist. Prof. PhD Arch. Daniel Șerban  
Arch. Florin Dascălu  
Arch. Benjamin Kohl  
Arch. Nicolae Milășan

## Seminar contents

- S1 Urban Renovation. Collective work. Duration
- S2 Intermediate corrections on students' sketches. Correction to the panel. Interim recording
- S3 Phase 2 - Variants of urban planning - two proposals  
Intermediate corrections of sketches made by the student. General panel correction. Interim recording. Identifying completions needed for final project delivery
- S4 Phase 3 - The project itself

## Evaluation

Phases have different weights.  
Phase 1 - 3 points, Phase 2 - 2 points, Phase3 - 5 points. Each stage is scored from 1 to 9, 1 point is granted ex officio; the notes F1, F2, F3 result.

## Selected bibliography

Laurian R., Probleme de estetica oraselor, Ed. Tehnica Bucuresti, 1962.  
Curinschi G., Centrele istorice ale oraselor, Ed. Tehnica Bucuresti ,1967.  
Lazarescu C. (sub conducerea), Urbanismul în Romania, Ed. Tehnica Bucuresti ,1977.  
Enache M., Urbanismul britanic contemporan, Ed. Tehnica Bucuresti, 1979.  
Mangin D., Panerai Ph. Projet urbain, Ed. Parenthesès, Marseilles ,1999.  
Ghid privind metodologia de elaborare si con\_inutul cadru al planului urbanistic zonal, MLPAT, Bucuresti, 2000.  
Legisla\_ie privind urbanismul, Matrix Rom, Bucuresti 2005.  
Machedon Florin, Metode de analiza morfologica a tesuturilor urbane, Ed.Univ. „Ion Mincu” Bucuresti, 2006.  
Choay Francoise, Pentru o antropologie a spatiului, revista Urbanismul, Bucuresti, 2011.



71.00



# DESIGN SYNTHESIS STUDIO 3

Code

Semester

Credits

No. of hours/ lecture

No. of hours/ seminar

No. of hours project

Discipline type

Examination form

72.00

1

14

-

-

12 / week

Compulsory

Project

Responsible:

Assoc. Prof. PhD Arch.

Vlad Sebastian Rusu

e-mail: vlad.rusu@arch.utcluj.ro

Teaching team

Assoc. Prof. PhD Arch. Vlad S. Rusu

Assoc. Prof. PhD Arch. Gheorghe Vais

Lect. PhD Arch. Dragoş Dascălu

Assist. Prof. PhD Arch. Mihai Racu

Assist. Prof. PhD Arch. Daniel Şerban

Arch. Florin Dascăl

Arch. Benjamin Kohl

Arch. Nicolae Milăşan

Lect. PhD Eng. Petru Rus

Lect. PhD Eng. Radu Hulea

Lect. PhD Eng. Lidia Maria Lupan

## Objectives

The course aims at developing students' competencies in the field of architectural design by applying the design methodology to the themes of plurivalent programs and the elaboration of a complex architectural project, as the final stage of an interdisciplinary process, started with the urbanism project. Detailing the architectural object by creating a project concept, establishing neighborhood relations with a proposed urban context, functional, structural and spatial solution according to the design theme and the norms in force.

## Lecture / project contents

## Seminar contents

Exposition, applications, individual and collective crits, projects evaluation with public support.

## Evaluation

Architectural Project : According to the design theme and the Regulation for Discipline Synthesis Design for Year V. Project Support Assessment.

## Selected bibliography

Ernst Neufert, Manualul arhitectului - elemente de proiectare şi de construcţie, Alutus S.A., Miercurea Ciuc, 2004.  
David Littlefield, Metric Handbook- Planning and Design Data, 3rd Edition, Elsevier,Oxford, 2008.  
Gheorghe Vais, Programe de arhitectură, UT Press, Cluj-Napoca, 2008.  
Adrian Iancu, Teodora Balan, Andrei Nejur, Vlad Rusu, Szende Szentesi, Smaranda Todoran, Calin Spanu, Povestea unui proiect, UT Press, Cluj-Napoca, 2012.  
Reviste de arhitectură existente în Biblioteca facultăţii: El Croquis, The Architectural Review, Detail ş.a.  
Surse internet: Archdaily.com, Architizer.com, Divisare.com ş.a.



72.00



05<sub>year</sub>  
2nd semester

# URBAN MOBILITY

Code	<b>73.10</b>
Semester	<b>2</b>
Credits	<b>2</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	-
No. of hours project	-
Discipline type	<b>Elective</b>
Examination form	<b>Colloquium</b>

Responsible:  
Assoc. Prof. PhD Arch.  
Vlad Sebastian Rusu

e-mail: vlad.rusu@arch.utcluj.ro

## Objectives

The course aims at identifying and understanding the challenges of the architect - urbanist profession in the issues of urban mobility. It raises awareness of the importance of urban mobility within the contemporary city and fosters an understanding of the conditioning between mobility and urban development, students gaining knowledge of the general notions of sustainable urban mobility, built on the principles of integration, participation and continuous evaluation, in order to meet people needs in terms of increasing the quality of life in cities and surroundings; students also acquire notions of classifying and arranging urban traffic within the contemporary city.

## Lecture / project contents

- C1 Mobility and the challenges of urban space
- C2 Effective management principles of transport and urban mobility. Integrated transport strategies
- C3 Interurban traffic. The Roadway. Railway
- C4 Urban traffic. Urban traffic. Urban traffic network
- C5 Urban transport systems. Public transport. Classifications
- C6 Street, space for coexistence of different types of mobility
- C7 Restructuring urban spaces reserved for urban traffic
- C8 Intersections and markets. General notions
- C9 Organization of movement. Special-purpose traffic squares
- C10 Square structure
- C11 Urban planning of streets. Ways of approaching urban street space based on the speed of travel
- C12 Urban planning of squares, in line with sustainable urban mobility principles
- C13 Places of quality, level of detail
- C14 Walls and sitting arrangements in accordance with sustainable urban mobility principles

## Seminar contents

-

## Evaluation

Verification of knowledge gained through synthesis topics.

## Selected bibliography

- J. Gehl - Orașe pentru oameni, Editura Igloomedia, București 2012.
- Primăria Londrei - Transport for London. Central London. Congestion Charging. Impacts Monitoring. Sixth Annual Report. Transport for London & Central London Partnership, 2008.
- Primăria Copenhaga. Copenhagen City of Cyclists - Bicycle account 2008, Copenhaga: Primăria Copenhaga, 2009.
- Gehl Architects - Towards a Fine City for People - Public Spaces - Public Life - London 2004.
- London: Transport for London & Central London Partnership, 2004.
- R. Laurian - Urbanismul, Editura Tehnică, București, 1965.
- C. Lăzărescu - Urbanismul în România - Editura Tehnică, București, 1974.
- Mobilitate urbană, Observatorul Urban București, Buletin U.A.R., nr. 19/2014, București, 2014.



# LOCAL ORDINANCE

Code **73.20**  
Semester **2**  
Credits **2**  
No. of hours/ lecture **2 / week**  
No. of hours/ seminar -  
No. of hours project -  
Discipline type **Elective**  
Examination form **Colloquium**

Responsible:  
Prof. PhD Arch. Adrian Iancu  
e-mail: arhimobil@gmail.com

## Objectives

The course aims for the students to acquire notions of urban regulations, to learn outcomes of understanding, interpreting and applying urban regulations for future architects and to integrate notions on the implementation and / or drafting of urban regulations for future urban planners.

## Lecture / project contents

- C1 Introduction. Purpose of the course. Key elements addressed through case studies
- C2 General Urbanism Regulation (RGU) in conjunction with other legislative acts
- C3 Annexes to the General Town Planning Regulation
- C4 Percentage of land occupancy
- C5 Coefficient of land use
- C6 How to draw up Local Urban Planning Regulations
- C7 Main elements addressed in the drafting of the Regulations related to the general urban planning plans of the localities
- C8 Updating Urban Regulations. Case study for Cluj-Napoca Urban Specific Regulations. Examples. Problems and applications
- C10 Implementation of Urban Regulations in Urban Planning
- C11 Involvement of key actors in relation to Urban Regulations
- C12 Urban regulations as tools for the management and self-regulation of urban processes
- C13 The way of interaction of the local or county administration
- C14 Case study for the elaboration of the Regulation for a Territorial Reference Unit

## Seminar contents

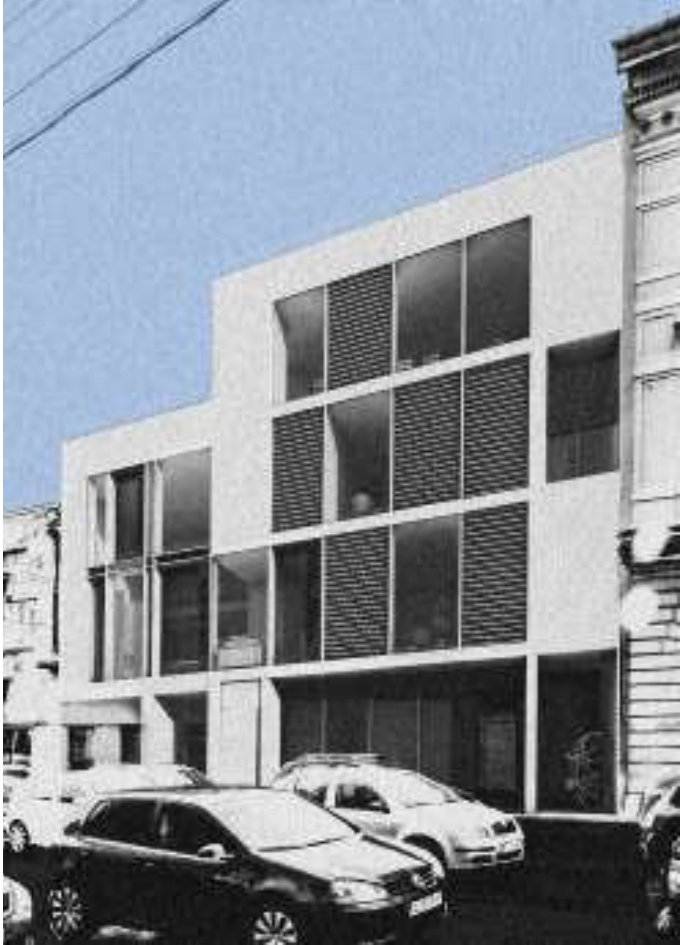
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## Evaluation

Colloquium - written - Possibility to relieve works during the semester.

## Selected bibliography

- A. IANCU, Regulamente urbane, UTPRESS, Cluj-Napoca, 2012.
- A. IANCU, Urbansim in Cluj-Napoca, UTPRESS, Cluj-Napoca, 2012.



# 73.20

# AESTHETICS IN ARCHITECTURE

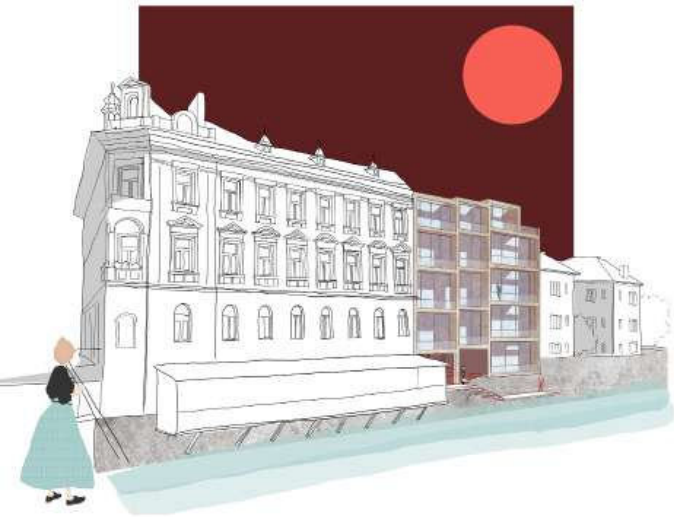
Code	<b>74.10</b>
Semester	<b>2</b>
Credits	<b>2</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	-
No. of hours project	-
Discipline type	<b>Elective</b>
Examination form	<b>Colloquium</b>

## Objectives

The main purpose of the lecture is to understand and develop a value system that can underpin esthetic value judgments of an object of architecture or art. The course is meant to determine the differences between stylistic and beautiful ideals of architecture and the object that transcends the limits of its times, it focuses on the aesthetics of architecture but emphasizing common traits between the interpretation of architecture and other arts and it formulates common language elements with other arts.

## Seminar contents

-



Responsible:  
Assoc. Prof. PhD Arch. Paul Mutica

e-mail: paulmutica@yahoo.com

## Lecture / project contents

- C1. Introduction and history
- C2. Architecture philosophy and human needs
- C3. Psychology of architecture and creativity
- C4. Harmony and the theory of chaos
- C5. Numerology of beauty
- C6. Case studies. From nature to urban tissue
- C7. Attitudes and directions
- C8. Compositional rules. Proportion and rhythm
- C9. Architectural metamorphoses
- C10. Beautiful and sublime. The limbic domain
- C11. The patrimony problem
- C12. Architecture as an anesthetic
- C13. The Problem of Architecture and Contemporary Art

## Evaluation

Written test which will have 9 grid and 1p questions from the office. The possibility of increasing the grade through the activity of the course. - Written test

## Selected bibliography

- M. Moldovan, Estetică, 1993, Ed. Univ. Tehnice Cluj-Napoca, Biblioteca Centrală.
- Aldersey-Williams, H., Zoomorphic: New Animal Architecture, 2003, London: Laurence King Publ.
- R. Arnheim, Artă și percepție vizuală - o psihologie a văzului creator. Trad. Florin Ionescu, 1979, București, Ed. Meridiane.
- A. DE Botton, Arhitectura fericirii, 2009, București, Ed. Vellant.
- A. Carlson, Aesthetics and the Environment: The Appreciation of Nature, Art and Architecture, 2000, London: Routledge.
- R. Laurian, Probleme de estetica orașelor, 1962, București, Ed. Tehnică.
- N. Leach, Anestetica. Arhitectura ca anestezic, 1999, București, Ed. Paideia.
- Mallgrave, Harry Francis, The Architect's Brain: Neuroscience, Creativity and Architecture, 2010, Wiley Blackwell.
- Michelis, P.A., Estetica arhitecturii, 1983, București, Ed. Meridiane.

74.10

# HISTORICAL BUILDING TYPES

Code	74.20
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

## Objectives

The course aims providing knowledge of the Transylvanian architectural heritage built during the period 1867-1918, to offer notions of the time-specific planimetric composition systems, to explain functional schemes as reflections of institutional organization and to develop knowledge of the architectural language specific to Eclecticism and Secessionism in Transylvania, related to European models.

## Lecture / project contents

- C1 Modernization of historical Transylvania and new architectural programs
- C2 Buildings for local government: prefectures and townhalls  
Administrative buildings: courthouse, financial headquarters
- C3 Finance buildings: banks, insurance companies
- C4 Buildings for secondary education: state and confessional
- C5 gymnasiums and high-schools  
Curricula for university education
- C6 Health buildings: comitaten hospitals and national hospitals
- C7 Library buildings (Library of Transylvania University and
- C8 Museum in Cluj)  
Buildings for social entertainment: theaters; Cluj theaters
- C9 Museum buildings
- C10 Tourism buildings: hotels and spa facilities
- C11 Landscape Architecture (Central Park of Cluj)
- C12 Architects who worked in Transylvania during the studied
- C13 period
- C14 Colloquium

## Seminar contents

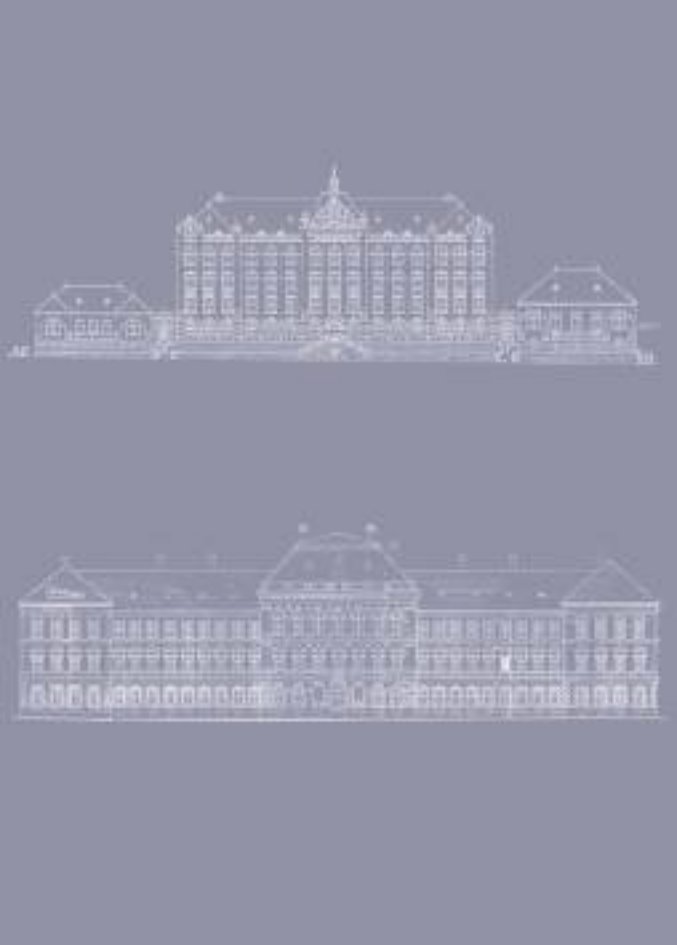
-

## Evaluation

Final research work (15 pages) on a course topic.  
Assessment of the work by specific criteria.

## Selected bibliography

- AGACHI Ioana M., Clujul modern-aspecte urbanistice, UTPress, Cluj-Napoca, 2004.
- BENKÖ M., Probleme urbanistice ale oraşului Cluj în prima jumătate al secolului XIX în Studii şi cercetări de istoria artei. seria arta plastică, XIV, 1967, nr.2, pag.237-243.
- BISZTRAY G., SZÁBÓ T. Attila, TAMÁS Lajos, Erdély Magyar Egyeteme. Az Erdély Egyetemi gondolat és a M. Kir. Ferenc József Tudományegyetem Története, Az Erdély Tódomásos Intézet Kiadása, Kolozsvár, 1941.
- FLOREA F., Facultatea de Medicină, şcoala medicală clujeană şi spitalele din Cluj (1500-2000), Casa Cărţii de Ştiinţă, Cluj-Napoca, 2004.
- GERLE J., KOVÁCS A., MAKOVECZ I, A századforduló Magyar Építészete, Szépirodalmi Könyvkiadó, Budapest, 1990.
- HOFFMANN Hans-Christoph, Die Theaterbauten von Fellner und Helmer, Prestel-Verlag, München, 1966.
- JANOVICS Jenő, A Hunyadi téri színfáz, Korunk Baráti Társaság Komp-Press Kiadó, Kolozsvár, 2001.
- VAIS Gh., Clujul eclectic. Programe de arhitectură în perioada dualistă (1867-1918), UTPress, Cluj, 2009.





# COMPARATIVE ARCHITECTURE

Code	<b>74.30</b>
Semester	<b>2</b>
Credits	<b>2</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	-
No. of hours project	-
Discipline type	<b>Elective</b>
Examination form	<b>Colloquium</b>

Responsible:  
Assoc. Prof. PhD Habil. Arch.  
Dan-Ionuț Julean

e-mail: ionut.julean@arch.utcluj.ro

## Objectives

The main goal of this course is to explore and develop the professional horizon of the students, thus allowing them to enhance their abilities to understand the evolution of the architectural phenomenon through a comparative approach (identifying and comparing common motifs and features from different geographical, cultural and / or historical settings, always relating them to a specific origin, discussing their configuration, spatiality, structure, materials, décor / ornamentations, meaning, symbol, and image).

The course will discuss architecture (in general) – and the architectural object (in particular) – linking it to a set of values which surpasses its own social, cultural, political, economic and geographical context, emphasizing its values, meanings, the importance of architectural masterpieces or landmarks, placing them in a single, common framework of world culture.

## Lecture / project contents

- C1 An Introduction to Comparative Architecture
- C2 The Origins of Architectural Comparatism
- C3 The Main Categories of Comparative Architecture (part 1)
- C4 The Main Categories of Comparative Architecture (part 2)
- C5 The Main Categories of Comparative Architecture (part 3)
- C6 The Main Categories of Comparative Architecture (part 4)
- C7 The Main Categories of Comparative Architecture (part 5)
- C8 The Main Categories of Comparative Architecture (part 6)
- C9 The Main Categories of Comparative Architecture (part 7)
- C10 The Methodology of the Comparative Approach in Architecture
- C11 Case Studies of the Comparative Approach in Architecture
- C12 The Comparative Approach as Means of Scientific Research  
The Architectural Morphology of a Building
- C13 Architecture and Other Arts. Architecture in Literature
- C14 Comparative Architecture – a Conclusion

## Seminar contents

-

## Evaluation

Written paper (academic argumentative essay) or an architectural model of a literary-architectural experiment, or cumulative argumentative opinions stated during class (minimum 8).

## Selected bibliography

CURINSCHI VORONA, Gheorghe. Introducere în arhitectura comparată. București: Editura Tehnică, 1991.  
FLETCHER, Banister, Sir. A History of Architecture on the Comparative Method. London: B.T. Batsford and New York: C. Scribner's Sons, 1896.



# 74.30

# RESEARCH IN ARCHITECTURE

Code	<b>75.00</b>
Semester	<b>2</b>
Credits	<b>2</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	-
No. of hours project	-
Discipline type	<b>Compulsory</b>
Examination form	<b>Exam</b>

## Objectives

The course aims developing the ability to plan, conduct and pre-sent research in the field of architecture. It discusses the methodology of scientific research, the methodology of architectural and urban planning research as well as research-ethics issues, through theoretical notions and concrete case-studies, engaging student participation.

## Seminar contents

-

## Evaluation

Exam: research project exercise + ongoing participation. On-going formative assessment and evaluation possibility through student case study presentations in class.

## Selected bibliography

Archer B. "The Nature of Reserch", în: Co-design, interdisciplinary journal of design, January 1995, pp. 6-13.  
Borden I., Rüedi Ray K. The Dissertation. An Architecture Student Handbook, Architectural Press, Oxford, 2006.  
Eco U. Cum se face o teză de licență, Ed. Polirom, Iași, 2006.  
Groat L., Wang D. Architectural Research Methods, John Wiley and Sons, New York, 2002.  
Heynen H. "Research in Architecture: a Contested Domain", în: European Association for Architectural Education Bulletin, Special Issue 2006, pp. 47-54.  
Lucas R. Research Methods for Architecture, Laurence King Publisher, London, 2016.  
Vais D. Cercetare în arhitectură, UT Press, Cluj, 2015.  
Vais D. Etica cercetării în arhitectură, UT Press, Cluj, 2018.



75.00

Responsible:  
Prof. PhD Arch. Dana Vais  
  
e-mail: dana.vais@arch.utcluj.ro

## Lecture / project contents

### I. Architectural research theory

What is architectural research  
Research methods in architecture  
Research and project

### II.The practice of research

How to write a research project; how to write a publishable work  
Dissertation thesis in architecture  
Ethics of research

### III. Case Studies

Presentations of ongoing research

# MARKETING AND COMMUNICATION IN ARCHITECTURE

Code	<b>76.00</b>
Semester	<b>2</b>
Credits	<b>3</b>
No. of hours/ lecture	<b>2 / week</b>
No. of hours/ seminar	<b>2 / week</b>
No. of hours project	-
Discipline type	<b>Compulsory</b>
Examination form	<b>Exam</b>

Responsible:  
Assoc. Prof. PhD Arch. Șerban Țigănaș  
  
e-mail: dragos.tiganas@arch.utcluj.ro

### Objectives

The course aims developing performative communication in Romanian in a diverse range of professional situations. It addresses the theoretical approach to verbal and non-verbal communication, effective use of language skills. It intends supporting and developing convincing expression of a point of view on a given issue; it fosters individual and team communication skills on different hierarchical levels and the aquisition of techniques for writing texts that highlight the meaning attributed to professional experiences or events.

### Lecture / project contents

- C1 Architects and communication
- C2 To whom do we address?
- C3 What do we communicate?
- C4 How do we communicate?
- C5 How do you make a visual communication?
- C6. Personal marketing for architects
- C7 Vision, Mission and Values
- C8 Text communication
- C9 Internet communication
- C10 One-on-one or direct communication
- C11 Start on his own as an architect
- C12 How to avoid errors
- C13 Communication of students

### Seminar contents

- 1. Communicating architecture
- 2. Specific discursive structures
- 3. Models and discourse elaboration phases
- 4. Presentation as habit
- 5. Presentation strategies
- 6. Narrating images
- 7,8. Oral project presentation
- 9. Elements of scientific writing
- 10. Communication and technology mediation
- 11. Negotiation as communication act
- 12. Informative and persuasive. Rhetorics
- 13. Ethical dilemmas in architectural communiction
- 14. Team communication

### Evaluation

Methods of evaluation:  
Oral support - 50.00 %  
Role exercises - 50.00 %

### Selected bibliography

Cialdini, Robert B., Psihologia Persuasiunii, Ed. Business Tech, 2008.  
D'Iribarne, P., Chevrier, S., Segal, A. H. J-P and Tréguer-Felten, G. "Interpersonal Communication" in Cross-Cultural Management Revisited. A Qualitative Approach, Oxford University Press, 2020.  
Hopkins, Claude C., Scientific Advertising, Fq Classics, 2007.  
Ju, I. "Marketing Communication" in Heath a.o. (Eds.), The International Encyclopedia of Strategic Communication, 2018.  
McKinsey, D., Strategic Storytelling: How to Create Persuasive Business Presentations, Kindle Edition, 2014.  
Mucchielli, A. Arta de a comunica. Metode, forme și psihologia situațiilor de comunicare, Polirom, Iași, 2005.  
Ogilvy, D., Confesiunile-Unui-Om-de-Publicitate, Humanitas, 2009.  
Robbins, A. Personal Power; Nightingale-Conant Corporation, 1992.  
Seiwert L.J., Gay,F. ABC-ul Personalității; 2nd edition, Hardcover,, 2012



76.00

# URBAN ECOLOGY AND URBAN NETWORKS

Code	77.00
Semester	2
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

### Objectives

The course targets the development of theoretical, methodological and practical skills for an ecological perspective in the field of spatial planning. It also offers theoretical and methodological knowledge from the perspective of urban ecology, in order to generate and develop theoretical and analytical skills for urban and territorial functions from the perspective urban ecology and to familiarize oneself with the specifics of work in inter- and inter-team teams multidisciplinary.

### Lecture / project contents

- C1 Introduction. The Evolution of the Man-Nature Relationship
- C2 Sustainable development
- C3 Ecology and built environment
- C4 Ecological theories with implications in the built environment
- C5 Urban ecosystem
- C6 Natural landscape - built landscape
- C8 Urban Ecology - Conflicts I
- C9 Urban Ecology - Conflicts II
- C10 Natural systems in the city I
- C11 Natural systems in the city II
- C12 Human structures. Green spaces, corridors, systems
- C13 Sustainable management of municipal networks
- C14 Case Studies. Conclusions

### Seminar contents

-

### Evaluation

Written papper – 100 %

### Selected bibliography

ALBERTI M. (2008), *Advances in Urban Ecology: Integrating Humans and Ecological Processes in Urban Ecosystems*, Ed. Springer, New York.

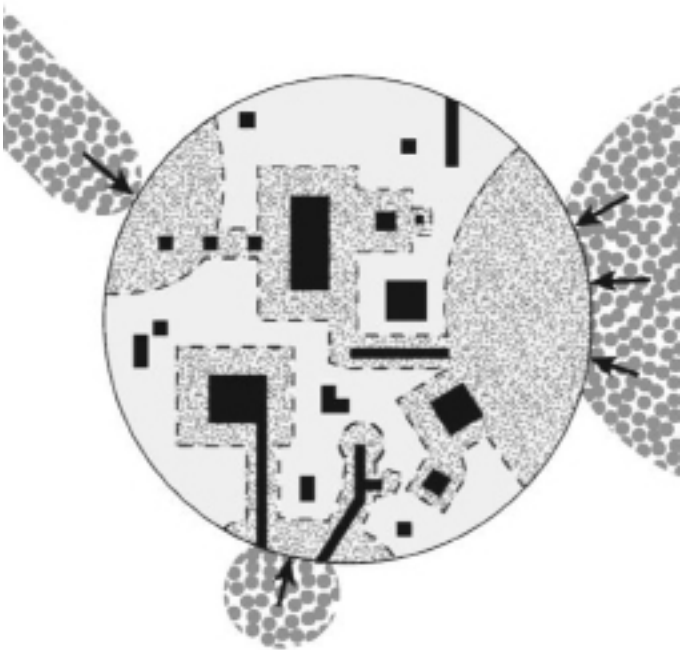
BERKOWITZ A.M., C. H. Nilon, K. S. Hollweg (editori), (2003), *Understanding Urban Ecosystems*, Ed. Springer, New York.

DRAMSTAD W., J. D. Olson, Richard T. T. Forman, (1996), *Landscape Ecology Principles in Landscape Architecture and Land-Use Planning*, Ed. Island Press, Washington D.C.

FORMAN, Richard T. T., (2008), *Urban Regions: Ecology and Planning Beyond the City*, Ed. Cambridge University Press.

FORMAN, R. T. T., (2014), *Urban Ecology: Science of cities*, Ed. Cambridge University Press.

HALL P., (2002), *Cities Of Tomorrow – Third Edition*, Ed. Blackwell Publishing, Oxford.



77.00



# SPECIALISED DESIGN - LANDSCAPE DESIGN

Code **78.00**

Semester **2**

Credits **2**

No. of hours/ lecture -

No. of hours/ seminar -

No. of hours project **3 / week**

Discipline type **Compulsory**

Examination form **Project**

## Objectives

This project aims at further developing and applying the theoretical knowledge gained in the frame of the Landscape architecture course, during the 1st semester of the Vth year.

## Lecture / project contents

Through project work, students practice the particular aspects which interfere in the field of landscape architecture, documenting, analysing and characterising a site in view of developing a landscape design proposal for a specific, real site. The project tackles different scales of landscape design, downscaling the study from the masterplan to the details.

## Seminar contents

Starting from a given site within the city for the purpose landscaping, students will go through the following stages in project development:

- documentary + landscape analyses, followed by conclusions on the possibilities of intervention + imagining a fitting concept
- setting up drawings (possibly mock-ups) of the arrangements themselves
- detailing some of the proposed arrangements.

## Evaluation

Every stage will receive a vote, from 1 to10. The final vote of the project will be calculated by the formula: documentary and concept 25%, drafting the project

## Selected bibliography

AMIDON, Jane: Moving Horizons, The Landscape Architecture of Kathryn Gustafson and Partners (Birkhäuser – Publishers for Architecture, Basel, 2005).  
GIROT, Christophe, The Course of Landscape Architecture. A History of our Designs on the Natural World, from Prehistory to the Present (Thames & Hudson Ltd, London, 2016).  
ILIESCU, Ana-Felicia: Arhitectură peisageră (Editura Ceres, București, 2003).  
KOVÁCS, Kázmér: Peisaj cu grădină și casă (Simetria, București, 2011).  
LAE: Landscape Architecture Europe: Fieldwork (Birkhäuser – Publishers for Architecture, Basel, 2006).  
LAE: Landscape Architecture Europe: On Site (Birkhäuser – Publishers for Architecture, Basel, Boston, Berlin, 2009).  
RICHARDSON, Tim (ed.): The Garden Book (Phaidon Press, London, New York, 2003).



# 78.00



# DESIGN SYNTHESIS STUDIO 4

Code

79.00

Semester

2

Credits

14

No. of hours/ lecture

-

No. of hours/ seminar

-

No. of hours project

12 / week

Discipline type

Compulsory

Examination form

Project

Responsible:

Assoc. Prof. PhD Arch.  
Vlad Sebastian Rusu

e-mail:

vlad.rusu@arch.utcluj.ro

Teaching team

Assoc. Prof. PhD Arch. Vlad S. Rusu  
Assoc. Prof. PhD Arch. Gheorghe Vais  
Lect. PhD Arch. Dragoş Dascălu  
Assist. Prof. PhD Arch. Mihai Racu  
Assist. Prof. PhD Arch. Daniel Şerban  
Arch. Florin Dascălu  
Arch. Benjamin Kohl  
Arch. Nicolae Milăşan  
Lect. PhD Eng. Petru Rus  
Lect. PhD Eng. Radu Hulea  
Lect. PhD Eng. Lidia Maria Lupan

Objectives

The project aims at developing student competencies in architectural design, through the synthetic study of urban and architectural solutions for a site located within the protected area of Cluj-Napoca.

Lecture / project contents

A complex architectural project is elaborated during the entire semester, conditioned by the existence of an architectural and urban heritage, by the creation and presentation of an integrated architectural-urban concept, the graphic representation and the public defense of the project.

Seminar contents

Architectural project: exhibition, applications, individual and collective crits, public presentation and evaluation.

Evaluation

Final work evaluation with public presentation.

Selected bibliography

Ernst Neufert, Manualul arhitectului - elemente de proiectare şi de construcţie, Alutus S.A., Miercurea Ciuc, 2004.  
David Littlefield, Metric Handbook- Planning and Design Data, 3rd Edition, Elsevier,Oxford, 2008.  
Gheorghe Vais, Programe de arhitectură, UT Press, Cluj-Napoca, 2008.  
Adrian Iancu, Teodora Balan, Andrei Nejur, Vlad Rusu, Szende Szentesi, Smaranda Todoran, Calin Spanu, Povestea unui proiect, UT Press, Cluj-Napoca, 2012.  
Architectural journals from the TUCN library: El Croquis, The Architectural Review, Detail a.o.  
Internet: Archdaily.com, Architizer.com, Divisare.com a.o.



79.00

# PROFESSIONAL PRACTICE 5TH YEAR

Code	80.00
Semester	2
Credits	3
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	30
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

Developing skills in architectural design applied to concrete activities in a design office.

## Lecture / project contents

The students research and select possible sites and topics for their graduation projects, in dialog with their supervisors.

## Seminar contents

-

## Evaluation

According to specific requirements to each Design Office and practice regulations from the Faculty of Architecture and Urban Planning.

## Selected bibliography

Specific to each activity that students undertake in the design offices.



80.00

06<sub>year</sub>  
1st semester

# PROFESSIONAL PRACTICE 6TH YEAR

Code	81.00
Semester	1
Credits	22
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	400
Discipline type	Compulsory
Examination form	Colloquium

## Objectives

Preparing for practice within the frame of a real architecture office.

Updating the student portfolio with the projects elaborated during the previous two semesters.

## Lecture / project contents

At the beginning of the internship a Convention for Practical activity is signed by the Faculty of Architecture and Urban Planning, the host architecture office and the student.

The Practical Activity 6 takes place during 10 weeks in an architecture office, under the supervision of an architect that must be a member of the Romanian Architects Order (OAR).

## Seminar contents

At the end of the internship, the students will hand in a file containing:

- Evaluation form, filled-un and signed by the intership supervisor
- Internship notebook, set up by the student
- Portfolio, A4 format, containnig the drawn and written work of the student, signed and stamped by the supervisor, specifying the precise role of the student for each included piece of work (drawn, designed etc.).

## Evaluation

The grade offered by the practice tutor is only advisory. The final grade will be determined by the evaluation teachers.

## Selected bibliography

It will be determined by each office according to the practice theme.



81.00

# DESIGN SYNTHESIS STUDIO 5

Code	82.00
Semester	1
Credits	6
No. of hours/ lecture	-
No. of hours/ seminar	4 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Project

Responsible:	T. Asist. PhD Arch. Teodora STANCIU
E-mail:	teodora.balan@arch.utcluj.ro

## Objectives

Developing competencies in the design of architecture with concrete application for the subject of pre-diploma and dissertation.

## Lecture / project contents

Will be set by the diploma tutor and communicated to the student at the beginning of the semester. The design activity goes on under supervision of the selected diploma and dissertation tutor, who will monitor the student’s attendance weekly and his/her progress during the process.

The students will work on:

Elaborating a design brief to support their pre-diploma and diploma projects;

Setting up a documentation file that informs the development of their projects, including at least 20 case-studies, relevant for the chosen topic;

Identifying two adequate sites on which to develop the design brief set-up for the pre-diploma;

Developing conceptual projects, according to the same design brief, for each of the two identified sites.

## Seminar contents

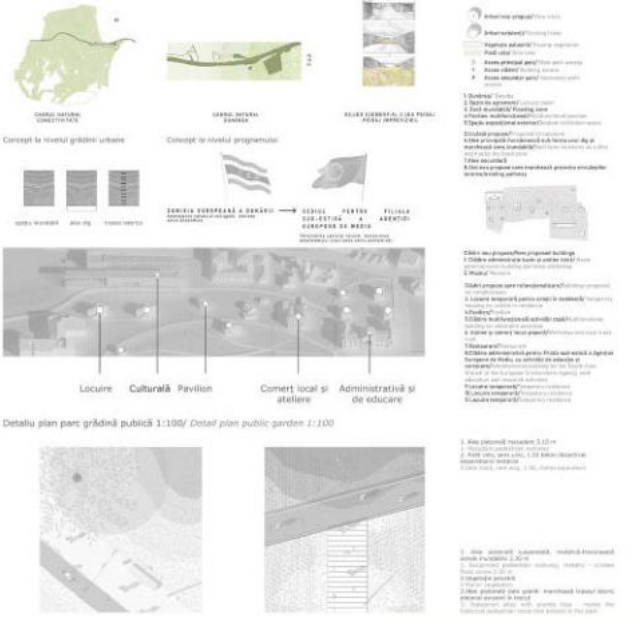
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## Evaluation

Architectural project is evaluated by the pre-diploma jury. The jury decides whether and which of the two conceptual solutions may be further developed for the diploma project.

## Selected bibliography

Manualul arhitectului: elemente de proiectare si de constructie / Peter si Cornelius Neufert, Lugwig Neff, Corinna Franken – Miercurea Ciuc; Alutus, 2004  
Programe de arhitectura / Vais, Gheorghe, Editura tehnica UTC-N, 1998 3.  
Specific for each student, according to the topics chosen for their individual projects.



82.00



# ENGLISH LANGUAGE

Code	83.10
Semester	1
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

## Objectives

The course aims developing the students' oral communication skills within professional technical contexts. The topics include

- developing specialised lexical, grammar and discursive skills
- developing the ability of understanding, communicating and evaluating a message within a technical professional context

## Seminar contents

-

## Evaluation

Colloquium

## Selected bibliography

Pădurețu, Sanda, *English for Architecture*, Ed. Risoprint, 2015.



# FRENCH LANGUAGE

Code

83.20

Semester

1

Credits

2

No. of hours/ lecture

2 / week

No. of hours/ seminar

-

No. of hours project

-

Discipline type

Elective

Examination form

Colloquium

Objectives

The course aims developing the students' oral communication skills within professional technical contexts. The topics include

- developing specialised lexical, grammar and discursive skills
- developing the ability of understanding, communicating and evaluating a message within a technical professional context

Seminar contents

-

Responsible:

Lect. dr. Aurel Bărbîntă

E-mail:

Aurel.Barbinta@lang.utcluj.ro

Lecture / project contents

Conversation  
Improvement of writing, reading, speaking and understanding skills  
Wroking in pairs and in teams  
Personal coordinates  
Curriculum vitae  
Professional communication  
Personal agenda  
Culture and civilisation elements

Evaluation

Colloquium.

Selected bibliography

Cilianu, Lascu, C. - *Franceza pentru afaceri* – Ed. Teora, Bucureşti,1999.

# GERMAN LANGUAGE

Code	83.30
Semester	1
Credits	2
No. of hours/ lecture	2 / week
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Elective
Examination form	Colloquium

**Objectives**

The course aims developing the students' oral communication skills within professional technical contexts. The topics include

- developing specialised lexical, grammar and discursive skills
- developing the ability of understanding, communicating and evaluating a message within a technical professional context

**Seminar contents**

-

Responsible:
Asist. CDA Miruna Opris
E-mail:
Miruna.Opris@lang.utcluj.ro

**Lecture / project contents**

Conversation  
Improvement of writing, reading, speaking and understanding skills  
Wroking in pairs and in teams  
Personal coordinates  
Curriculum vitae  
Professional communication  
Personal agenda  
Culture and civilisation elements

**Evaluation**

Colloquium.

**Selected bibliography**

Opris, M., *Deuthsch in Studium und Wissenschaft*, UTPRESS, Cluj-Napoca, 1999.

06<sub>year</sub>  
2nd semester

# DISSERTATION PROJECT

Code

84.00

Semester

2

Credits

14

No. of hours/ lecture

-

No. of hours/ seminar

5 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

Colloquium

Responsible:  
Prof. PhD Arch. Virgil Pop

E-mail:  
arh.virgil.pop@gmail.com

**Objectives**

Elaboration of the dissertation for the final examination.

**Lecture / project contents**

Elaboration of an extended research paper, on a topic established together with the student's tutor and connected to the student's diploma project. The dissertation shows the graduating student's ability of conducting research in architecture, of communicating his/ her research process and findings through academic writing.

**Seminar contents**

Will be set by the diploma and dissertation tutors and communicated to the supervised students at the beginning of the semester.

**Evaluation**

The evaluation will be made by the diploma tutor.

**Selected bibliography**

It will be determined by each tutor according to the subject of the diploma project, together with the student.



84.00



# GRADUATION PROJECT

Code	85.00
Semester	2
Credits	14
No. of hours/ lecture	-
No. of hours/ seminar	5 / week
No. of hours project	-
Discipline type	Compulsory
Examination form	Colloquium

Responsible:  
Assoc. Prof. PhD Arch. Șerban Țigănaș

E-mail:  
dragos.tiganas@arch.utcluj.ro

### Objectives

Preparing for the final examination.

### Lecture / project contents

Elaboration of a complex architectural project, on a site and theme established together with the student's tutor , validated through the “pre-diploma” defense. The project shows the graduating student's ability of conducting the in-depth fundamentation and elaboration of architectural and urban planning projects, of convincingly communicating their research and design process, as well as results, via a range of project media.

### Seminar contents

Will be set by the diploma and dissertation tutors and communicated to the supervised students at the beginning of the semester.

### Evaluation

The evaluation will be made by the diploma tutor.

### Selected bibliography

It will be determined by each tutor according to the subject of the diploma project, together with the student.



85.00

# ADVICE IN TECHNOLOGY AND STRUCTURES

Code

86

Semester

2

Credits

-

No. of hours/ lecture

-

No. of hours/ seminar

2 / week

No. of hours project

-

Discipline type

Compulsory

Examination form

Colloquium

Responsible:  
Lect. PhD Eng. Imola Kirizsan

e-mail: Imola.Kirizsan@arch.utcluj.ro

## Objectives

The course seeks to integrate and to apply the already acquired knowledge in structural theory, architectural technology, installations for a concrete (exact) project - the project of the diploma elaborated individually.

## Lecture / project contents

Structural and technical elaboration of the diploma project, in consultancy with the structural experts teaching the discipline.

## Seminar contents

Presenting the architectural solution approved by the pre-diploma committee.  
Analysis of the site, the architectural program through the perspective of architectural and constructive conception.  
Elaborating the structural system, choosing the materials in the case of superstructure and infrastructure. Finalizing the constructive and structural concept.  
Choosing the execution techniques and technologies. Implementing the results of the activity in plans, sections, details.

## Evaluation

The evaluation will be made by the structural consultant.

## Selected bibliography

Presenting the architectural and constructive concept (week7). Presenting the plans, the sections (2) and a printed architectural detail.



86.00

# MASTER THESIS DEFENSE

Code	103
Semester	2
Credits	10
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Prof. PhD Arch. Virgil Pop

E-mail:  
[arh.virgil.pop@gmail.com](mailto:arh.virgil.pop@gmail.com)

## Objectives

Defense of the dissertation paper, involving the submission of the work, to be read by the dissertaion jury prior to the oral presentation.

## Lecture / project contents

An extended research paper, on a topic established together with the student's tutor and connected to the student's diploma project. The dissertation shows the graduating student's ability of conducting research in architecture, of communicating his / her research process and findings through academic writing. A written work of c.12 000 words is handed in and defended via an oral and visual discourse delivered in front of the jury, as well as via answers to the possible jury questions.

## Seminar contents

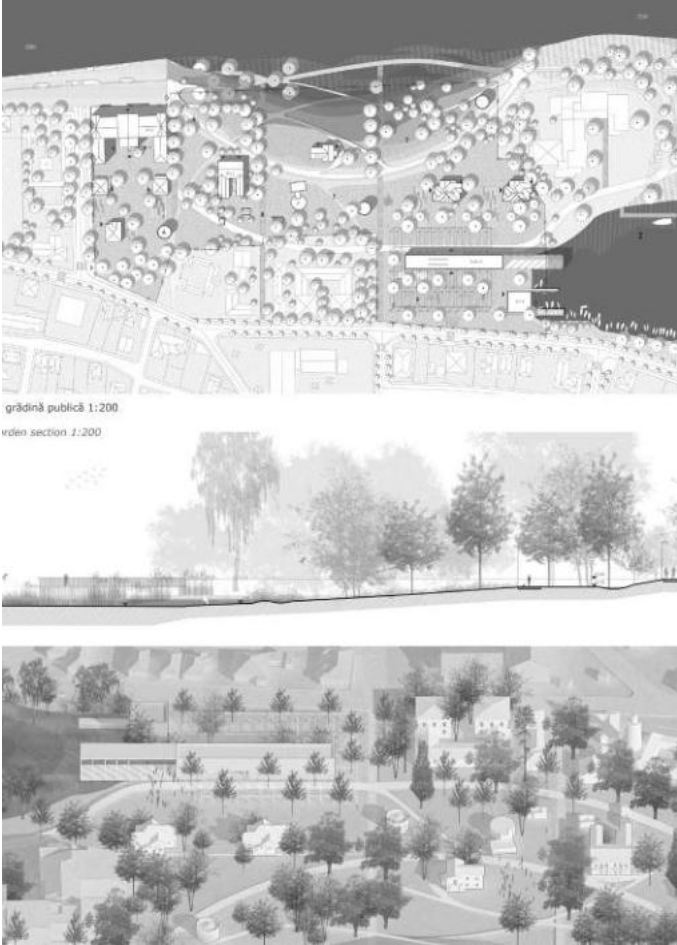
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## Evaluation

By the dissertation jury, including external invited members.

## Selected bibliography

-



103.00

# BSc THESIS DEFENSE

Code	104
Semester	2
Credits	10
No. of hours/ lecture	-
No. of hours/ seminar	-
No. of hours project	-
Discipline type	Compulsory
Examination form	Exam

Responsible:  
Assoc. Prof. PhD Arch. Șerban Țigănaș

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## Objectives

Defense of the diploma project, involving the submission of the work, pre-viewed by the diploma jury prior to the oral presentation.

## Lecture / project contents

A complex architectural project, on a site and theme established together with the student's tutor, validated through the "pre-diploma". The project shows the graduating student's ability of conducting the in-depth fundamentation and elaboration of architectural and urban planning projects, of convincingly communicating their research and design process, as well as results, via a range of project media.

## Seminar contents

-

## Evaluation

By the dissertation jury, including external and international invited members.

## Selected bibliography

-



104.00

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