Doctoral academic studies – Architecture and Urbanism
COMPULSORY COURSES
**Course:** CONTEMPORARY CONTEXT OF ARCHITECTURE, URBANISM AND CONSTRUCTION  
**Teacher:** Professor Ph.D. Vladan Djokić  
**Type of course:** Compulsory  
**ECTS:** 8  

**Preconditions:**  
Enrolled 1st semester  

**Objectives:**  
The objective of the course is to present students areas within which it is possible to explore the complex and current topics relating to architecture, urban planning and construction. Students are expected to opt for certain topics in the second half of the semester, and study them in accordance with the information that they receive in this course, in other courses that deal with different methodologies, and based on research that will be conducted independently.

**Learning outcomes:**  
Learning outcomes include the ability to demonstrate understanding of the impacts of contemporary built environment - individual buildings, cities, past and contemporary social communities and the broader global issues; history and theory of architecture and urban planning, history of ideas and related disciplines in the arts, cultural studies and architecture, as well as their application in critical debate.

**Course brief:**  

**Theoretical education:**  
Modern thought on settlement/town, building and arts. Philosophy, ideology and politics of a town. Typology and morphology of urban spaces. Culture and town, identity, continuity, tradition, history, belonging, lifestyle, language and communication, symbols, urban culture and cultural pluralism. Economy, interests, property, development, globalization. Arts and construction, development, modernity, aesthetics, language, symbols, perception, experience, psychology. Human rights and democracy. Accessibility, equality, participation. Globalization, economic, technological, ecological, cultural and psycho-anthropological aspects of globalization, global and local values, traditions and identity, and attitude toward change. Sustainable development (economic, environmental and social dimensions of sustainability), sustainable architecture and urban planning, healthy construction, construction in accord with the environment, resources and long-term development prospects.

**Practical education:**  
Practical classes consist of two parts. The first part includes the study of excerpts from selected texts during the semester, while the second part includes a seminar paper which is submitted at the end of the semester in the form of a research map which is a simulation of the process of research topic selection.

**Recommended Literature:**  
Literature is suggested depending on the interests in specific areas relevant to complex subject of architecture, urbanism and construction.

<table>
<thead>
<tr>
<th>Active training classes no.:</th>
<th>Theoretical education: 1</th>
<th>Practical education: 1</th>
<th>Total 2 (1+1)</th>
</tr>
</thead>
</table>

**Teaching methodology:**  
Teaching is a combination of ex-cathedra lectures and discussions with students, while making sure that the topic is current and suitable for scientific research.

**Knowledge evaluation (maximum 100 points):**  
Method of knowledge evaluation can be different: Seminar paper (oral presentation/defense).
<table>
<thead>
<tr>
<th>Course:</th>
<th>STUDY UNIT: GENERAL RESEARCH METHODOLOGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Associate Professor Ph.D. Ljiljana Blagojević, Assistant Professor Ph.D. Marija Maruna, Professor Ph.D. Vladimir Mako, Professor Ph.D. Miodrag Nestorović</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Compulsory / Elective (seminar)</td>
</tr>
<tr>
<td>ECTS:</td>
<td>22 [4+4+4+(10)]</td>
</tr>
</tbody>
</table>

**Preconditions:**
Enrolled 1st semester

**Objectives:**
Study unit is one course, having one final grade acquired by attending three compulsory segments of theoretical instruction and one elective seminar paper.

Objectives of the study unit include the development of scientific capabilities and academic skills in the mastering of a range of research methodology in three main directions of the study program: scientific research in the field of Architecture, scientific research in the field of Urban Planning, and artistic research in the field of Architecture and Urban Planning, as well as the application of theoretical knowledge in the elective seminar paper related to the doctoral dissertation topic.

**Learning outcomes:**
Acquisition of competences and development of skills for: keeping abreast of modern developments in the field of science and profession, critical thinking while using literature and sources, the use of information and communication technologies, research and acquisition of knowledge in the relevant fields, taking a methodological approach to research, and independent research relating to the doctoral dissertation topic.

**Course brief:**

**Theoretical education:**
Theoretical education is obligatory for all students and includes three thematic sub-units:
- Researching methodology in architectural and urban design [4 ECTS],
- Methodology of scientific research in urban planning [4 ECTS],
- Research by design methodology [4 ECTS].

**Practical education:**
Practical education is organized in the form of an elective seminar relating to the doctoral dissertation topic [10 ECTS]:
- scientific seminar paper in the field of Architecture
- research of architectural and urban design
- research of architectural and urban design from the aspect of technology and construction
- scientific seminar paper in the field of Urbanism
- artistic seminar paper in the field of Architecture and urbanism

**Recommended Literature:**

**Active training classes no.:**

| Theoretical education: | 6 | Practical education: | 1 | Total | 7 (3+3)+(0+1) |

**Teaching methodology:**
Ex cathedra lectures, focused discussions, interactive teaching, individual consultations regarding seminar papers and research related to the doctoral dissertation topic.

**Knowledge evaluation (maximum 100 points):**
Continuous work during the semester = 45p
- Researching methodology in architectural and urban design – 15p
- Methodology of scientific research in urban planning – 15p
- Research by design methodology – 15p
Exam = 55p
Elective seminar paper related to the topic of doctoral dissertation: scientific research in the field of Architecture, scientific research in the field of Urbanism, artistic research in the field of Architecture and urbanism,

**Method of knowledge evaluation can be different:**
Presentation of research and design, Seminar paper
<table>
<thead>
<tr>
<th>Course:</th>
<th>STUDIES IN ARCHITECTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Professor Ph.D. Vladimir Mako</td>
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<tr>
<td>Type of course:</td>
<td>Compulsory</td>
</tr>
<tr>
<td>ECTS:</td>
<td>8</td>
</tr>
</tbody>
</table>

Preconditions:
Enrolled 2nd semester

Objectives:
The objective is to instruct students in special research areas of architecture as a complex cognitive structure where creativity, historical, social and cultural content of architectural oeuvre intertwine. In doing so, a special emphasis is placed on the transcultural context of architectural creation, as well as on the interdisciplinary nature of the creative process.

Learning outcomes:
Students should demonstrate knowledge of the complexity of issues that determine an architectural work as a cultural product, as well as recognition of the logic of the dynamics of constant development of creative thought about the social value of architecture and its importance for the development of transcultural society.

Course brief:
The first part of the course (theoretical education) includes the presentation of specific aspects of architectural creation, which can assist students in determining the degree of complexity in the consideration of specific socially and culturally conditioned issues pertaining to architectural creation.

In the second part of the course, each student determines a number of interrelated aspects and problems of architectural creation, which is the basis for further establishment and development of their own cognitive structures related to issues of cultural and social manifestations of architecture. At the same time, special attention is paid to the logical coherence, and cultural and social determinism of the system of thought structured in such a manner.

Recommended Literature:

<table>
<thead>
<tr>
<th>Active training classes no.:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical education:</td>
<td>2</td>
</tr>
<tr>
<td>Practical education:</td>
<td>0</td>
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</table>

Theoretical education: 2 Practical education: 0 Total: 2

Teaching methodology:
Instruction is a combination of ex-cathedra lectures and discussions with students, while making sure that the topic is current and suitable for scientific research. Seminar paper (oral presentation).

Knowledge evaluation (maximum 100 points):
- Attendance = 10p
- Preparations / study of literature and preliminary paper’s content = 30p
- Seminar paper = 60p

Method of knowledge evaluation can be different: Seminar paper, oral colloquia
<table>
<thead>
<tr>
<th>Course:</th>
<th>STUDY UNIT: DISTINCT RESEARCH ISSUES IN ARCHITECTURE AND URBANISM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Professor Ph.D. Branko Mitrović, Research Associate Ph.D. Luka Skansi</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Compulsory / Elective (seminar)</td>
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<tr>
<td>ECTS:</td>
<td>14 [3+3+(8)]</td>
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<tr>
<td>Preconditions:</td>
<td>Enrolled 2nd semester</td>
</tr>
</tbody>
</table>

**Objectives:**
The study unit is one course, having one final grade (maximum 100 credits) acquired by attending two compulsory segments of theoretical education (4.1 Social sciences and humanities; 4.2 Art and technical and technological sciences) and via one elective seminar paper (4.S Elective seminar). The objective of the study unit is the development of scientific capabilities and academic skills in the mastering of a range of thematic and methodological research in three main educational and scientific and educational and artistic fields which include the main research areas at the Faculty of Architecture: Technical and Technological Sciences, Arts, Humanities and Social Sciences, as well as the application of theoretical knowledge in the elective seminar paper related to the doctoral dissertation topic.

**Learning outcomes:**
The course should enable students to articulate scientific arguments and identify the main argumentative positions in the approaches to architecture which are characteristic of modern humanities and social sciences. Furthermore, the course should enable students to articulate the historical contextualization of architecture, to shape their analytical skills in the reading of the architectural structure and to adequately conceptualize their research.

**Course brief:**

**Theoretical education:**
Theoretical education is obligatory for all students and includes two thematic sub-units:
- Social sciences and humanities [3 ECTS],
- Arts and technical and technological sciences [3 ECTS].

**Practical education:**
Practical education is organized in the form of an elective seminar relating to the doctoral dissertation thesis [8 ECTS]:
- Independent scientific research with the scientific research device; research in the field of social sciences and humanities;
- Independent scientific research with the scientific research device; research in order to establish a link between the doctoral dissertation topic and the field of technical and technological sciences.
- Independent research and the use of artistic research device; research in order to establish a link between the doctoral dissertation topic and the field of arts.

**Recommended Literature:**
- Pier Luigi Nervi, Aesthetics and technology in building, Harvard University Press, 1965

<table>
<thead>
<tr>
<th>Active training classes no.:</th>
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<tr>
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</table>

**Teaching methodology:**
Ex cathedra lectures, directed discussion, interactive teaching, individual consultations regarding seminar papers and research related to the doctoral dissertation topic

**Knowledge evaluation (maximum 100 points)**
- Specific researching issues in architecture and urbanism: Social sciences and humanities – 20p
- Specific researching issues in architecture and urbanism: Arts and technical and technological sciences – 20p
Exam = 60p
Seminar paper related to the topic of doctoral dissertation in the field of social sciences and humanities, or related to the topic position in relation to arts or technical and technological sciences.

**Method of knowledge evaluation can be different:**
Presentation of research, colloquia, seminar paper
**Course:** TEXTUALITY OF ARCHITECTURE

**Teacher:** Associate Professor Ph.D. Aleksandar Ignjatović

**Type of course:** Compulsory

**ECTS:** 6

**Preconditions:** Enrolled 3rd semester

**Objectives:**
Introducing students to the foundations of interpretation of architecture and visual arts through two interpretive perspectives: 1) architecture as an indoor and outdoor sign system; 2) architecture as an integral part of the production, exchange and consumption of knowledge in society and ideological construction of identity. The objective is to observe, critically examine and interpret architecture as a textual phenomenon in the diachronic and synchronic perspective and different social and historical contexts.

**Learning outcomes:**
By attending classes in this course, participants should acquire intellectual competencies that will enable them to view architecture and visual culture in the light of the premise that human cognition does not stem directly from reality, but from forms, modalities and languages of its presentation. By attending classes in this course, students should acquire competences for independent textual analysis of architecture and meaningful articulation of their own research.

**Course brief:**

**Theoretical education:**

Explication of contemporary theoretical approaches is used to examine the problem of meaning and interpretation of architecture as a cultural text. The topic and content of the course include two problem areas: 1) analysis of architecture as a specific disciplinary order of knowledge; 2) analysis of architecture as an integral part of processes and practices shaping social reality. The first area includes critical examination of a number of interpretative frameworks inherent in architecture as a discipline: from theory of forms to style and typologies; The second area includes a discursive and textual analysis of architecture and visual culture through the application of semiotics, hermeneutics and discourse analysis.

**Recommended Literature:**

**Active training classes no.:**

<table>
<thead>
<tr>
<th>Theoretical education</th>
<th>Total</th>
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<tbody>
<tr>
<td>2</td>
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<td>0</td>
<td>2 (2+0)</td>
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**Teaching methodology:**

Lectures with discussion

**Knowledge evaluation (maximum 100 points):**
- Seminar paper = 50p
- Oral exam = 50p

**Method of knowledge evaluation can be different:**
- Seminar paper and oral exam
### Course: STUDY UNIT: RESEARCH DISCOURSE

**Teacher:** Principal Research Fellow Ph.D. Petar Bojanić, Associate Professor Ph.D. Mina Petrović, Professor Ph.D. Milan Ristović, Professor Ph.D. Miodrag (Miško) Šuvaković, Principal Research Fellow Ph.D. Miodrag Vujošević

**Type of course:** Compulsory / Elective (seminar)

**ECTS:** 24 [4+4+4+4+4+(4)]

**Preconditions:** Enrolled 2nd semester

**Objectives:**

Study unit: Researching discourse is one course, having one final grade (maximum 100 points) acquired by attending five compulsory segments of theoretical classes (7.1. Philosophy; 7.2. Sociology; 7.3. History; 7.4. Arts; and 7.5. Economics) and via one elective seminar paper (7.S Elective seminar). The objective of the study unit is the development of scientific capabilities and academic skills in the mastering of a range of methodological and theoretical foundations of scientific or artistic research in relation to the interconnected disciplines, as well as the application of the methodological and theoretical knowledge in the elective seminar paper related to the topic of the doctoral dissertation.

**Learning outcomes:**

Development of students’ ability of to understand and critically evaluate philosophical, sociological, historical, and economic aspects of social development, and their links to other aspects of social life. Learning outcomes include the exploration and mastering of the techniques of discourse research of art and their application to the analysis and research of interdisciplinary relationship between art and architecture. Similarly, the course should enable students to conduct independent research in the philosophical, sociological, historical, economic, and artistic discourse related to the topic of the doctoral dissertation.

**Course brief:**

**Theoretical education:**

Theoretical education is obligatory for all students and includes five thematic sub-units:
- Researching discourse: Philosophy [4 ECTS],
- Researching discourse: Sociology [4 ECTS],
- Researching discourse: History [4 ECTS],
- Researching discourse: Art [4 ECTS],
- Researching discourse: Economics [4 ECTS].

**Practical education:**

Practical education is organized in the form of an elective seminar relating to the doctoral dissertation thesis [4 ECTS]:
- Scientific or artistic seminar paper; independent scientific or artistic research with the application of methodological and theoretical knowledge in the philosophical, sociological, historical, economic, and artistic discourse related to the topic of the doctoral thesis.

**Recommended Literature:**


**Active training classes no.:**

<table>
<thead>
<tr>
<th>Theoretical education:</th>
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</thead>
<tbody>
<tr>
<td>Practical education:</td>
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<tr>
<td>Total</td>
<td>11 (5+5)+(4+1)</td>
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</table>

**Teaching methodology:**

Ex cathedra lectures, directed discussion, interactive teaching, individual consultations regarding seminar papers and research related to the doctoral dissertation topic.

**Knowledge evaluation (maximum 100 points):**

<table>
<thead>
<tr>
<th>Continuous work during the semester = total 5x15=75p</th>
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<tbody>
<tr>
<td>- Researching discourse: Philosophy – 15p</td>
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<tr>
<td>- Researching discourse: Sociology – 15p</td>
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<tr>
<td>- Researching discourse: History – 15p</td>
</tr>
<tr>
<td>- Researching discourse: Art – 15p</td>
</tr>
<tr>
<td>- Researching discourse: Economics – 15p</td>
</tr>
<tr>
<td>Exam = total 25p</td>
</tr>
<tr>
<td>Exam is in the form of elective seminar paper from one of Researching discourse.</td>
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</tbody>
</table>

**Method of knowledge evaluation can be different:**

Presentation of research, seminar paper
### Course Information

<table>
<thead>
<tr>
<th>Course:</th>
<th>THE SCIENCE OF SPACE</th>
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<tbody>
<tr>
<td>Teacher:</td>
<td>Associate Professor Ph.D. Ljiljana Blagojević</td>
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<tr>
<td>Type of course:</td>
<td>Compulsory</td>
</tr>
<tr>
<td>ECTS:</td>
<td>6</td>
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</tbody>
</table>

**Preconditions:**
Enrolled 4th semester

**Objectives:**
Acquisition of the capability of scientific research of architecture from transdisciplinary aspects of space science and unitary theory of space which includes consideration of social and spatial practice, conceptualization and representation of space and the experience of space and the environment. Acquisition of the skill of critical analysis of contemporary processes of space production in parallel with the development of the methodology through the establishment of transdisciplinary research framework.

**Learning outcomes:**
Acquisition of academic skills for the establishment of theoretical foundations and postulates of research problems in relation to the scientific and educational or artistic and educational fields of architecture and urban planning: a technical and technological, social sciences humanities and artistic. Acquisition of the skill of transdisciplinary consideration of the course and the problem and postulates of the broader interpretive perspective of research related to the topic of the doctoral dissertation. Gaining competences for scientific research related to the topic of the doctoral dissertation with a broader methodological focus and theoretical framework that exceed the partial and narrow disciplinary aspects of the topic towards the understanding of the complexity of the relationship of technical, artistic and social processes and spatial practices.

**Course brief:**

**Theoretical education:**
Theoretical education: includes thematic units relating to critical reassessment of modern process of space manufacturing: theory and criticism of space - postmodern, post-Marxist, feminist, postcolonial, post-socialist, etc.; critical theory; theory of practice; practices of everyday life; transdisciplinary approach and method.

**Practical education:**
Practical education includes getting to know issues of, methodology and consultations relating to the writing of scientific criticism or scientific presentation and seminar paper in preparation for the publication of an article related to the topic of the doctoral dissertation in a scientific journal as a condition for the defense of the doctoral dissertation.

**Recommended Literature:**

**Active training classes no.:**
<table>
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<th>Theoretical education:</th>
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<tbody>
<tr>
<td>Practical education:</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2 (1+1)</td>
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</tbody>
</table>

**Teaching methodology:**
Lectures and directed discussion, students’ presentations of individual research and discussion, seminar

**Knowledge evaluation (maximum 100 points):**
- Continuous work during the semester = 50p
  - Regular attendance and active participation in the instruction = 10p
  - Presentation of research = 20p
  - Scientific critical review = 20p
- Exam – seminar paper = 50p

**Method of knowledge evaluation can be different:**
Regular attendance and active participation in the instruction, presentation of research, scientific critical review, seminar paper
Course: CONTEMPORARY URBAN STUDIES
Teacher: Associate Professor Ph.D. Aleksandra Stupar
Type of course: Compulsory
ECTS: 6

Preconditions: Enrolled 4th semester

Objectives:
Introduction to contemporary trends in the study of cities, urban society, their transformation and development. Emphasizing the multidisciplinary approach to topics relating to urban phenomena, understanding of spatial-functional relations that occur at different levels, and are linked to the social, economic and environmental problems of metropolitan areas.

Learning outcomes:
Acquisition of the necessary critical knowledge and competencies related to the contemporary city and its phenomena. By using the latest knowledge relating to urban studies, students are introduced to the complex link between the basic ideas, concepts and theories related to urban development and urban society, and encouraged to multilayered discernment of the relationship the city-society-architecture-institutions and introduced to the meaningful link with related disciplines - urban sociology, urban anthropology, urban history and urban economy.

Course brief:
**Theoretical education:**
Teaching is focused on understanding of the city and metropolitan regions, as well as a number of processes that accompany their development and transformation. The historical perspectives, as well as the latest trends that are generated by the process of globalization are used as a starting point for studying the phenomena in a contemporary city –from the distribution of power and growing inequality, control mechanisms, management and exploitation of urban space, to problems related to urban systems, social dynamics, identity and institutions.

**Practical education:**
The analysis of urban phenomena identified in the selected polygon/ case study, based on a multidisciplinary approach. The focus of the perception of problems is placed on the sociological, anthropological, historical, planning, environmental and economic aspects, as well as on the link between various spatial, functional and social levels.

Recommended Literature:

Active training classes no.: Theoretical education: 1 Total 1 Practical education: 1 2 (1+1)

Teaching methodology: lectures, interactive teaching

Knowledge evaluation (maximum 100 points) Presentation of seminar thesis = 30p Seminar paper = 70p

Method of knowledge evaluation can be different: Presentation of seminar thesis, seminar paper
Course: METHODOLOGY AND PHILOSOPHY OF ARCHITECTURAL AND URBAN DESIGN

Teacher: Professor Zoran Lazović

Type of course: Compulsory

ECTS: 6

Preconditions: Enrolled 4th semester

Objectives:
The consideration of the profession and the process of architectural and urban planning design in relation to contemporary developments within the discipline in the world, the cultural and historical perspective, the dominant philosophical discourses of certain periods and dynamic and diverse socio-political context. The objectives of the study of the methodology of architectural and urban planning design are the following: to view architectural and urban planning design as a broader cultural discourse; to highlight the subtle differences in various approaches; to examine their importance for high-quality contemporary architecture.

Learning outcomes:
Developing skills for the comprehension, understanding and coping with complex architectural-cultural-artistic discourses through the activation of critical thinking, creative judgment, innovative approach and formulation of appropriate methodological foundations of the approach to outlined topics. Students acquire competences by developing and improving the capacity for collecting relevant information, defining problems, logical reasoning and critical thinking aimed at identifying, preparing and formulating their interest in the research object.

Course brief:
Theoretical education:
The program is based on devising methods of comparative critical analysis, which is used in scientific research as a tool to detect implicit and explicit intentions and authorship positions in the design of the built environment. The analytical process starts from the elaboration of a system of categories, comparatively examining certain architectural categories and their varieties as expressions and embodiments of different historical conditions, authorship concepts, attitudes towards nature or context, use, attitudes towards socio-economic conditions or conditions of production.

Practical education:
Independent research study oriented towards the chosen field, thematically defined in relation to the chosen research problem. The research focus can vary: from ethics (deontology, utilitarianism, etc.), ontology (Subject of Architecture), to epistemology of architectural design, all related to the authorship position and the creative process in architecture.

Recommended Literature:
− Dijalogi sa arhitektama: priredili Petar Bojanić i Vladan Đokić, AF Beograd, 2011,
− Teorija arhitekture i urbanizma: priredili Petar Bojanić i Vladan Đokić, AF Beograd, 2009,
− Šuvaković, Miško, Erjavec, Ales, grupa autora. 2009. Figure u pokretu: Savremena zapadna estetika, filozofija i teorija umetnosti, Beograd: Atoča.
− Šuvaković, Miško. 2011, Pojmovnik teorije umetnosti, Beograd: Orion Art.

Active training classes no.:

<table>
<thead>
<tr>
<th>Theoretical education</th>
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<tbody>
<tr>
<td>Practical education</td>
<td>1</td>
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</table>

Teaching methodology:

Lectures and seminars, participation of guest lecturers and architects creators.

Knowledge evaluation (maximum 100 points):
− Presentation of seminar thesis = 30p
− Seminar paper = 70p

Method of knowledge evaluation can be different:
− Presentation of seminar thesis, seminar paper
STUDY UNIT: General Research Methodology
### Course:
STUDY UNIT: GENERAL RESEARCH METHODOLOGY – Methodology of research of architectural and urban design

### Teacher:
Associate Professor Ph.D. Ljiljan Blagojević

### Type of course:
Compulsory

### ECTS:
4

### Preconditions:
Enrolled 1st semester

### Objectives:
Compulsory course aimed at the development of scientific capabilities and academic skills in the mastering of a range of scientific research methodologies in the field of Architecture. The broader objective is to keep abreast of modern developments in the research theory and methodology in educational and scientific fields of architecture and urban planning, which are comparable to the corresponding courses in the programs of the European Higher Education Area. An additional objective is to train the students for critical reading of scientific literature, for formulation of research questions, for applying methodology to formulate original research, themes, problems and research hypotheses related to the topic of the doctoral dissertation.

### Learning outcomes:
Acquisition of competences and development of skills for: keeping abreast of modern developments in the field of science and profession, critical thinking while using literature and sources, the use of information and communication technologies, research and acquisition of knowledge in the relevant fields, taking a methodological approach to research, and independent research relating to the doctoral dissertation topic.

### Course brief:

#### Theoretical education:
Theoretical education deals with the methodology of scientific research of architectural and urban planning design, through the following thematic units: critical reading and use of sources and literature, methodological frameworks of research (qualitative, quantitative, experimental, correlational, interpretive-historical, etc.), and methods (case studies, analytical procedures, combined methods), logical argumentation and interpretative constructs. Theoretical education takes up 20% of contact hours, and it includes thematic units dealing with the methodology of scientific research, technological and constructional aspects of architectural design, such as: the methods of modeling and simulations, experiments, etc., and techniques for their implementation.

#### Recommended Literature:

### Active training classes no.:

<table>
<thead>
<tr>
<th>Theoretical education</th>
<th>Practical education</th>
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<tbody>
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<td>1+1</td>
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<td>Total</td>
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### Teaching methodology:
Ex-cathedra lectures, focused discussions, interactive teaching

### Knowledge evaluation (maximum 100 points):
15p (out of 45p)

### Method of knowledge evaluation can be different:
Presentation of research and design, seminar paper
<table>
<thead>
<tr>
<th>Course:</th>
<th>STUDY UNIT: GENERAL RESEARCH METHODOLOGY – Methodology of scientific research in urban planning</th>
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<tbody>
<tr>
<td>Teacher:</td>
<td>Assistant Professor Ph.D. Marija Maruna</td>
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<td>Type of course:</td>
<td>Compulsory</td>
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<tr>
<td>ECTS:</td>
<td>4</td>
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Preconditions:
- Enrolled 1st semester

Objectives:
The basic goal is the development of scientific capabilities and academic skills in the mastering of a range of scientific research methodologies in the field of urban planning. The objectives of the course include:
- enabling students to define the research agenda in the field of urban planning,
- critical analysis of research methods of social sciences applied to the field of urban planning,
- introduction to the basic stages of the research project,
- overview of research methodology: quantitative and qualitative methods,
- selection of methods for assessing the research project quality.

Students apply methodological knowledge through practical classes at the seminar of their choice related to the topic of the doctoral dissertation.

Learning outcomes:
Acquisition of competence and development of the ability for:
- scientific research, compilation and critical analysis of scientific texts,
- identification of links between theoretical principles and applied research techniques,
- developing the skills of defining the research project,
- conducting research by using quantitative and qualitative methods,
- an understanding of the ethical and social aspects of the research process,
- setting a methodologically based approach to research and independent research related to the topic of the doctoral dissertation.

Course brief:
**Theoretical education:**
the logic of scientific research in the field of urban planning, selection of current topics and issues, mastering of the art of preparation of a research project, the techniques of measurement and analysis as well as the exploration of ethical issues related to the study of social phenomena.

**Recommended Literature:**

<table>
<thead>
<tr>
<th>Active training classes no.:</th>
<th>Total</th>
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<tbody>
<tr>
<td>Theoretical education:</td>
<td>1+1</td>
</tr>
<tr>
<td>Practical education:</td>
<td>0</td>
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</table>

<table>
<thead>
<tr>
<th>Teaching methodology:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex-cathedra lectures, focused discussions, interactive teaching</td>
</tr>
</tbody>
</table>

| Knowledge evaluation (maximum 100 points): | 15p (out of 45p) |
| Method of knowledge evaluation can be different: | Presentation of research and design, seminar paper |
### Course: STUDY UNIT: GENERAL RESEARCH METHODOLOGY – Research by design methodology

<table>
<thead>
<tr>
<th>Teacher:</th>
<th>Professor Ph.D. Vladimir Mako</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of course:</td>
<td>Compulsory</td>
</tr>
<tr>
<td>ECTS:</td>
<td>4</td>
</tr>
<tr>
<td>Preconditions:</td>
<td>Enrolled 1st semester</td>
</tr>
</tbody>
</table>

**Objectives:**
The basic goal is the development of scientific capabilities and academic skills in the mastering of a range of artistic research methodologies in the field of architecture and urban planning—AandU. The broader objective is to keep abreast of modern developments in the educational and artistic field of architecture and urban planning, which are comparable to the corresponding courses in the programs of the European Higher Education Area. An additional objective is to train the students for critical formulation of research questions, for applying methodology to formulate original research related to the topic of the doctoral dissertation. Students apply methodological knowledge through practical classes at the seminar of their choice related to the topic of the doctoral dissertation.

**Learning outcomes:**
Acquisition of competences and development of skills for: keeping abreast of modern developments in the field of science and profession, critical thinking while using literature and sources, the use of information and communication technologies, research and acquisition of knowledge in the relevant fields, taking a methodological approach to research, and independent research relating to the doctoral dissertation topic.

**Course brief:**

*Theoretical education:*
Theoretical education refers to the methodology of the research via a project.

**Recommended Literature:**

**Active training classes no.:**

<table>
<thead>
<tr>
<th>Theoretical education:</th>
<th>Practical education:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1+1</td>
<td>0</td>
<td>2 (1+1)</td>
</tr>
</tbody>
</table>

**Teaching methodology:**
Ex-cathedra lectures, focused discussions, interactive teaching

**Knowledge evaluation (maximum 100 points):**
15p (out of 45p)

**Method of knowledge evaluation can be different:**
Presentation of research and design, seminar paper
### Course: STUDY UNIT: GENERAL RESEARCH METHODOLOGY – ELECTIVE SEMINAR – Methodology of research of architectural and urban design

<table>
<thead>
<tr>
<th>Teacher:</th>
<th>Associate Professor Ph.D. Ljiljana Blagojević</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of course:</td>
<td>Elective</td>
</tr>
<tr>
<td>ECTS:</td>
<td>10</td>
</tr>
</tbody>
</table>

**Preconditions:**
Enrolled 1st semester

**Objectives:**
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students' seminar papers relating to the scientific research in the field of Architecture, related to the topic of the doctoral dissertation.

**Learning outcomes:**
Acquisition of competencies for setting up the methodological framework of students' independent scientific research, of skills for mastering the use of scientific research apparatus, and the ability of independent scientific research related to the topic of the doctoral dissertation.

**Course brief:**
Introducing students to independent scientific research and the use of scientific research apparatus through various types of instruction.

**Recommended Literature:**

Literaturu određuje nastavnik prema individualnim temama seminarskih radova studenata, uz korišćenje osnovne literature sa teorijskog predmeta Metodologija istraživanja arhitektonskog i urbanističkog projektovanja.

**Active training classes no.:**

| Theoretical education: | 0 | Practical education: | 1 | Total | 1 (0+1) |

**Teaching methodology:**
Individual consultations about seminar papers and research related to the topic of the doctoral dissertation

**Knowledge evaluation (maximum 100 points):**
55p – elective seminar paper related to the topic of doctoral dissertation in the scientific module in the field Architecture

**Method of knowledge evaluation can be different:**
Seminar paper
## Course: Study Unit: General Research Methodology – Elective Seminar – Methodology of research of architectural and urban design from technological and structural aspects

<table>
<thead>
<tr>
<th>Teacher:</th>
<th>Professor Ph.D. Miodrag Nestorović</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of course:</td>
<td>Elective</td>
</tr>
<tr>
<td>ECTS:</td>
<td>10</td>
</tr>
<tr>
<td>Preconditions:</td>
<td>Enrolled 1st semester</td>
</tr>
<tr>
<td>Objectives:</td>
<td>Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students’ seminar papers relating to the scientific research in the field of Architecture from the aspect of technology and construction engineering, related to the topic of the doctoral dissertation.</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>Acquisition of competencies for setting up the methodological framework of students’ independent scientific research, of skills for mastering the use of scientific research apparatus and ability of independent scientific research related to the topic of the doctoral dissertation.</td>
</tr>
<tr>
<td>Course brief:</td>
<td>Introducing students to independent scientific research and the use of scientific research apparatus through various types of instruction.</td>
</tr>
</tbody>
</table>

### Recommended Literature:

Literaturu određuje nastavnik prema individualnim temama seminarskih radova studenata, uz korišćenje osnovne literature sa teorijskog predmeta Metodologija istraživanja arhitektonskog i urbanističkog projektovanja sa tehnoloških i konstruktorskih aspekata.

### Active training classes no.:

<table>
<thead>
<tr>
<th>Theoretical education:</th>
<th>0</th>
<th>Practical education:</th>
<th>1</th>
<th>Total</th>
<th>1 (0+1)</th>
</tr>
</thead>
</table>

### Teaching methodology:
Individual consultations about seminar papers and research related to the topic of the doctoral dissertation

### Knowledge evaluation (maximum 100 points)
55p – elective seminar paper related to the topic of doctoral dissertation in the scientific module in the field Architecture

### Method of knowledge evaluation can be different:
Seminar paper
<table>
<thead>
<tr>
<th>Course:</th>
<th>STUDY UNIT: GENERAL RESEARCH METHODOLOGY – ELECTIVE SEMINAR – Methodology of scientific research in urban planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Assistant Professor Ph.D. Marija Maruna</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Elective</td>
</tr>
<tr>
<td>ECTS:</td>
<td>10</td>
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</tbody>
</table>

**Preconditions:**
Enrolled 1st semester

**Objectives:**
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students’ seminar papers relating to the scientific research in the field of Urban Planning, related to the topic of the doctoral dissertation.

**Learning outcomes:**
Acquisition of competencies for setting up the methodological framework of students’ independent scientific research, of skills for mastering the use of scientific research apparatus and ability of independent scientific research related to the topic of the doctoral dissertation.

**Course brief:**
Introducing students to independent scientific research and the use of scientific research apparatus through various types of instruction.

**Recommended Literature:**

Literaturu određuje nastavnik prema individualnim temama seminarskih radova studenata, uz korišćenje osnovne literature sa teorijskog predmeta Metodologija istraživanja u urbanističkom planiranju.

**Active training classes no.:**
| Theoretical education | 0 | Practical education | 1 | Total | 1 (0+1) |

**Teaching methodology:**
Individual consultations about seminar papers and research related to the topic of the doctoral dissertation

**Knowledge evaluation (maximum 100 points):**
55p – elective seminar paper related to the topic of doctoral dissertation in the scientific module in the field Urbanism

**Method of knowledge evaluation can be different:**
Seminar paper
<table>
<thead>
<tr>
<th>Course:</th>
<th>STUDY UNIT: GENERAL RESEARCH METHODOLOGY – ELECTIVE SEMINAR – Research by design methodology</th>
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<tr>
<td>Teacher:</td>
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<tr>
<td>Type of course:</td>
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<tr>
<td>ECTS:</td>
<td>10</td>
</tr>
<tr>
<td>Preconditions:</td>
<td>Enrolled 1st semester</td>
</tr>
</tbody>
</table>

**Objectives:**
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students’ seminar papers relating to the artistic research in the field of Architecture and Urban Planning, related to the topic of the doctoral dissertation.

**Learning outcomes:**
Acquisition of competencies for setting up the methodological framework of students’ independent artistic research, of skills for mastering the use of artistic research apparatus and ability of independent artistic research related to the topic of the doctoral dissertation.

**Course brief:**
Introducing students to independent artistic research and the methodology of research through a project.

**Recommended Literature:**

**Active training classes no.:**
| Theoretical education: | 0 | Practical education: | 1 | Total | 1 (0+1) |

**Teaching methodology:**
- Individual consultations about seminar papers and research related to the topic of the doctoral dissertation

**Knowledge evaluation (maximum 100 points):**
55p – elective seminar paper related to the topic of doctoral dissertation in the art module in the field Architecture and Urbanism

**Method of knowledge evaluation can be different:**
Seminar paper
STUDY UNIT: Distinct Research Issues in Architecture and Urbanism
| Course: | STUDY UNIT: DISTINCT RESEARCH ISSUES IN ARCHITECTURE AND URBANISM – Social sciences and humanities |
| Teacher: | Professor Ph.D. Branko Mitrović |
| Type of course: | Compulsory |
| ECTS: | 3 |

**Preconditions:**
Enrolled 2nd semester

**Objectives:**
The aim of this course is to introduce students of the second semester of doctoral studies having primarily a design education to scientific work or research in the field of social sciences and humanities.

Introduction to research in the field of social sciences and humanities pertaining to architecture which includes introducing students to the major theoretical positions and assumptions of such research. The course includes the relevant debates and positions in social theory, philosophy of history, philosophy and psychology of perception, philosophy of language, epistemology, hermeneutics and aesthetics, historical development, contemporary status of these debates and the perspectives of their implications for architectural theory.

**Learning outcomes:**
The course should enable students to articulate scientific arguments and to identify the main argumentative positions in the approaches to architecture which are characteristic of modern humanities and social sciences.

**Course brief:**

**Theoretical education:**
Theoretical education is carried out through compulsory lectures in thematic areas defined by the following key concepts:

- Architectural theory
- Problems of perception in architecture
- Language, meaning and interpretation in architecture
- The problem of historical explication in the humanities and social sciences.

**Recommended Literature:**

**Active training classes no.:**

| Theoretical education: 1+1 | Practical education: 0 | Total 2 (1+1) |

**Teaching methodology:**
Ex-cathedra lectures, focused discussions, interactive teaching, research related to the topic of the doctoral dissertation

**Knowledge evaluation (maximum 100 points):**
20p (out of 40p)

**Method of knowledge evaluation can be different:**
Presentation of research, colloquia
### Course: DISTINCT RESEARCH ISSUES IN ARCHITECTURE AND URBANISM – Arts and technical and technological sciences

**Teacher:** Research Associate Ph.D. Luka Skansi

**Type of course:** Compulsory

**ECTS:** 3

**Preconditions:** Enrolled 2nd semester

**Objectives:**
Compulsory subject aimed to introduce students to the understanding of development of the notion of modernity in architecture. Students will be introduced to the following concepts: tectonics, the development of historical thought, style, technique, function, structure, environment, and space. These are the concepts that evolved between the 19th and 20th century as the new instruments and new methodologies in architecture and as the new subjects in the conceptualization of architectural thought, and they are the precursors of every architectural project even today.

**Learning outcomes:**
The course should enable students to articulate the historical contextualization of architecture, to shape their analytical skills in the reading of an architectural structure and to adequately conceptualize their research.

### Course brief:

**Theoretical education:**
Theoretical education is carried out through compulsory lectures in the following thematic areas:
- arts and technology in architecture
- history and theory of architecture
- modernity in architecture
- style, structure, function, tectonics, environment
- aesthetics and building technology.

**Recommended Literature:**
- Pier Luigi Nervi, *Aesthetics and technology in building*, Harvard University Press, 1965

**Active training classes no.:**

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<thead>
<tr>
<th>Theoretical education</th>
<th>1+1</th>
<th>Practical education</th>
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<th>Total</th>
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<tr>
<td><strong>Total</strong></td>
<td>2</td>
<td><strong>1+1</strong></td>
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</table>

**Teaching methodology:**
Ex-cathedra lectures, focused discussions, interactive teaching, research related to the topic of the doctoral dissertation

**Knowledge evaluation (maximum 100 points):**
20p (out of 40p)

**Method of knowledge evaluation can be different:**
Presentation of research, colloquia
### Course: STUDY UNIT: DISTINCT RESEARCH ISSUES IN ARCHITECTURE AND URBANISM – ELECTIVE SEMINAR – Social sciences and humanities

#### Teacher:
Professor Ph.D. Branko Mitrović

#### Type of course:
Elective

#### ECTS:
8

#### Preconditions:
Enrolled 2nd semester

#### Objectives:
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students’ seminar papers related to the topic of the doctoral dissertation in the field of social sciences and humanities.

#### Learning outcomes:
Acquisition of competencies for setting up of students’ independent scientific research, of skills for mastering the use of scientific research apparatus, and the ability of independent scientific research related to the topic of the doctoral dissertation. The course should enable students to articulate scientific arguments and to identify the main argumentative positions in the approaches to architecture which are characteristic of modern humanities and social sciences.

#### Course brief:
Introducing students to independent scientific research and the use of scientific research apparatus through various types of instruction.

#### Recommended Literature:

#### Active training classes no.:

<table>
<thead>
<tr>
<th>Theoretical education</th>
<th>Practical education</th>
<th>Total</th>
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<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>1 (0+1)</td>
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</tbody>
</table>

#### Teaching methodology:
Individual consultations about seminar papers and research related to the topic of the doctoral dissertation

#### Knowledge evaluation (maximum 100 points):
Seminar paper related to the scope of doctoral dissertation topic related to social sciences and humanities = 60p

#### Method of knowledge evaluation can be different:
Seminar paper
**Course:**

STUDY UNIT: DISTINCT RESEARCH ISSUES IN ARCHITECTURE AND URBANISM – ELECTIVE SEMINAR – Arts and technical and technological sciences

**Teacher:**

Research Associate Ph.D. Luka Skansi

**Type of course:**

Elective

**ECTS:**

8

**Preconditions:**

Enrolled 2nd semester

**Objectives:**

Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students' seminar papers in order to establish a link between the doctoral dissertation topic and the field of arts or the field of technical and technological sciences.

**Learning outcomes:**

Acquisition of competencies for setting up of students' independent scientific research, of skills for mastering the use of scientific research apparatus, and the ability of independent scientific research related to the topic of the doctoral dissertation.

The course should enable students to articulate the historical contextualization of architecture, to shape their analytical skills in the reading of an architectural structure and to adequately conceptualize their research.

**Course brief:**

Introducing students to independent scientific research and the use of scientific research apparatus through various types of instruction.

**Recommended Literature:**

- Pier Luigi Nervi, *Aesthetics and technology in building*, Harvard University Press, 1965

**Active training classes no.:**

0

**Total**

1 (0+1)

**Teaching methodology:**

Individual consultations about seminar papers and research related to the topic of the doctoral dissertation

**Knowledge evaluation (maximum 100 points):**

Seminar paper related to the scope of doctoral dissertation topic related to arts and technical and technological sciences = 60p

**Method of knowledge evaluation can be different:**

Seminar paper
STUDY UNIT: Research Discourse
Course: STUDY UNIT: RESEARCH DISCOURSE – Philosophy

Teacher: Principal Research Fellow Ph.D. Petar Bojanić

Type of course: Compulsory

ECTS: 4

Preconditions: Enrolled in 3rd semester

Objectives:
Examination of the proximity, intertwining and distances between philosophy and architecture. The intention is to demonstrate that we can find and identify that which belongs to the field of philosophy, or institution of philosophy, in the architectural profession. Starting from the interpretation of the most important architectural figures we search for new inspiration in the “current” philosophy. In addition, the goal is to train students for critical reading of the scientific literature in the field of philosophy, relating to the topic of the doctoral dissertation.

Learning outcomes:
Understanding of the social context and awareness of philosophy, politics, and ethics in relation to architecture. Learning outcomes also include helping students to research literature in the field of philosophy, and independent research in philosophical discourse, relating to the topic of the doctoral dissertation.

Course brief:

Theoretical education:
Ex-cathedra lectures: Elements of theoretical and philosophical discourse. Terminology, method of application, interpretation and meaning. Levels of knowledge: from the universal philosophical idea to the theoretical principle in architecture. Poetics of creation in architecture and art. Manner of interpretation of a certain philosophical attitude in architecture. Case analysis.

Recommended Literature:

Active training classes no.:

<table>
<thead>
<tr>
<th>Theoretical education</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>1+1</td>
<td>2 (1+1)</td>
</tr>
</tbody>
</table>

Teaching methodology:
Lectures and discussions

Knowledge evaluation (maximum 100 points)
Continuous work during the semester = 15p (out of 75)

Method of knowledge evaluation can be different:
Presentation of research
| Course: | STUDY UNIT: RESEARCH DISCOURSE – Sociology |
| Teacher: | Associate Professor Ph.D. Mina Petrović |
| Type of course: | Compulsory |
| ECTS: | 4 |

Preconditions: Enrolled in 3rd semester

Objectives: Introducing students to the key theoretical and methodological approaches to the research of space in sociology, and the specific social processes and conditions in modern cities.

Learning outcomes: Developing the students’ ability to understand and critically evaluate the social aspects of socio-spatial development and modern urban reality.

Course brief:

**Theoretical education:**
The concept of space is seen as a social construct and as a relational category. The spatial twist in social sciences and sociology is highlighted, and an overview of the main stages of social development and transformations of space-town is provided. Analysis of theoretical concepts of Lefebvre (social production of space through the triad: representations of space, representational space and spatial practice), Castells (space of flows concept, information society and city), Harvey (circulation of surplus value and the time-space compression, social justice and the city), Brenner and regulation approach (rescaling of power, transformation of models of city governance and its identity) Bourdieu (application of the concepts of habitus, field, and symbolic capital and practice in the research of space) and Woolcock (social capital and city governance).

**Practical education:**
The practical part of the course includes the operationalization of the concepts considered, with special emphasis on the transformation of post-socialist cities. Students practice so as to be able to define the concept of specific research topics and in that regard to define the goals and hypotheses of feasible research. Feasible topics relating to the commercialization, tourification of cities, distinction of residential models, dualization and fragmentation of cities, gender based mobility and others. Specific content of practical classes is profiled in accordance with the interest of participants.

Recommended Literature:

<table>
<thead>
<tr>
<th>Active training classes no.:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical education: 1+1</td>
<td>2 (1+1)</td>
</tr>
<tr>
<td>Practical education:</td>
<td>0</td>
</tr>
</tbody>
</table>

Teaching methodology:
Interactive lectures, presentations, discussions, focus groups.

Knowledge evaluation (maximum 100 points): 15p (out of 75)

Method of knowledge evaluation can be different:
| Course: | STUDY UNIT: RESEARCH DISCOURSE – History |
| Teacher: | Professor Ph.D. Milan Ristović |
| Type of course: | Compulsory |
| ECTS: | 4 |

Preconditions:
Enrolled in 3rd semester

Objectives:
Introduction to the general historical framework of the political, social and cultural history of the 20th century; To enable historical contextualization of phenomena and processes which influenced the changes in the various fields of human activities, including architecture and its development and changes.

Learning outcomes:
Via lectures and work on certain, selected topics candidates should acquire knowledge about the phenomena and processes in the 20th century which should enable the candidates to assess them analytically, and also for this knowledge as a part of critical instrumentarium to be included and used in other study areas. Therefore, the main objective would be to develop critical and scientific thinking through this course.

Course brief:

**Theoretical education:**
The course includes a discussion of the main processes of political, social and cultural history of the 20th century, primarily in Europe, with reference to other parts of the world. The course is formally divided into the following chronological periods: the First World War, Interwar World, Second World War, Cold War World and Post-Cold War Era. These periods correspond to certain problem units (society, economy, culture, ideology). In addition, basic methodological issues in the field of historiography will be considered.

Special attention, among other things, is dedicated to considerations of mutual influences of political and ideological trends on social change, and to intertwining with culture and art (the impact of ideology on artistic trends, the emergence of the avant-garde and its fate in totalitarian regimes, culture and its trends as a global phenomenon, etc.).

**Practical education:**
Through a discussion of selected examples from a particular historical period (or depending on the possibility to visit historical archives, museums, etc.), and discussions of independent works on selected topics, candidates will be further introduced not only to factography and the foundations of historical processes, but also to the application historical methodology.

Recommended Literature:

Active training classes no.:
| Theoretical education: | 1+1 |
| Practical education: | 0 |
| Total | 2 (1+1) |

Teaching methodology:
Lectures, exercises, panel discussions.

Knowledge evaluation (maximum 100 points): 15p (out of 75)

Method of knowledge evaluation can be different:
<table>
<thead>
<tr>
<th>Course:</th>
<th>STUDY UNIT: RESEARCH DISCOURSE – Arts</th>
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</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Professor Ph.D. Miodrag (Miško) Šuvaković</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Compulsory</td>
</tr>
<tr>
<td>ECTS:</td>
<td>4</td>
</tr>
</tbody>
</table>

**Preconditions:**
Enrolled in 3rd semester

**Objectives:**
The objective is to study discourse analysis as the general method of humanities (art theory, theory of architecture, art history, history of architecture, general humanities) and the application of discourse analysis in the visual arts, new media art and performance arts, and interdisciplinary relations between art and architecture. Scientific research of architecture as art, of the artistic in architecture, the role of architectural design in contemporary art should stem from the discursive analysis of interdisciplinary relationships between art and architecture.

**Learning outcomes:**
Learning outcomes include the exploration and mastering of the techniques of discourse analysis of art and their application to the analysis and research of interdisciplinary relationships between art and architecture by using necessary reference interpretation techniques based in contemporary humanities. Candidates should be able to present the results of their research on the arts, i.e. the interdisciplinary relationships between art and architecture, orally or in writing. Candidates should become familiar with contemporary theoretical interpretations of art.

**Course brief:**

**Theoretical education:**
The course is structured into:

**Practical education:**
1-10. Analysis and discussion of examples from contemporary art and architecture. Discussion between teachers and students. Setting up of the theoretical project on the basis of discourse analysis of art.

**Recommended Literature:**
- M. Šuvaković, A. Erjavec, (eds), *Figure u pokretu – Savremena zapadna estetika, filozofija i teorija umetnosti*, Atoča, 2009.

**Knowledge evaluation (maximum 100 points)**

<table>
<thead>
<tr>
<th>Theoretical education:</th>
<th>1+1</th>
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<tbody>
<tr>
<td>Practical education:</td>
<td>0</td>
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</table>

Total: 2 (1+1)

**Teaching methodology:**
Lectures and projections. Discussions of the given problem. Setting up and finalization of the theoretical project for the seminar paper.

**Method of knowledge evaluation can be different:**
Seminar paper
NOTE: M. Vujosevic's proposal: For certain very specific economic topics, additional guest lecturers, at most three, should be invited.

Course brief:

**Theoretical education:**

- General economic categories: economic rationality and other types of rationality
- Strategic research, opinion and management: basic concepts and the situation in the Republic of Serbia
- Economic, sustainable and other development
- Developmental reality of the Republic of Serbia and development prospects of the Republic of Serbia in the expected "extended Europeanization outside the European Union and, with its limited assistance, in the conditions of extended crisis"
- The recent European approaches to development management: economic, social and territorial cohesion
- Economic development, spatial order and national spatial strategy: basic concepts and the spatial strategy of the Republic of Serbia
- Economic capital and territorial capital of an area: the basic concepts and situation in the Republic of Serbia
- The regional governance issue: a new European regionalism and regionalization in the Republic of Serbia
- Construction land management: basic concepts of land use policy of the Republic of Serbia
- Economic policy: basic concepts of the economic policy of the Republic of Serbia
- Investment policy: basic concepts of the investment policy of the Republic of Serbia

**Practical education:**

Each of these theoretical topics will be discussed at practical classes as well, the better to familiarize students, through discussions and other communication and interaction, with the analog operational or analytical concepts that are used in specific situations. Selection of particular topics will depend, firstly, on the interest of students, and secondly, on the available specific research material.

**Recommended Literature:**

- M. Andelkovic (ur.), *Biodiverzitet na početku novog mileniijuma, Srpska akademija nauka i umetnosti/SANU, Beograd, 2005.*

**Active training classes no.:**

| Theoretical education: | 1+1 | Total | Practical education: | 0 | 2 (1+1) |

**Teaching methodology:**

Lectures, exercises, panel discussions, etc.

**Knowledge evaluation (maximum 100 points):**

15p (out of 75)

**Method of knowledge evaluation can be different:**
<table>
<thead>
<tr>
<th>Course:</th>
<th>STUDY UNIT: RESEARCH DISCOURSE – ELECTIVE SEMINAR – Philosophy</th>
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<tbody>
<tr>
<td>Teacher:</td>
<td>Principal Research Fellow Ph.D. Petar Bojanić</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Elective</td>
</tr>
<tr>
<td>ECTS:</td>
<td>4</td>
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</table>

**Preconditions:**
Enrolled in 3rd semester

**Objectives:**
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students' seminar papers.

**Learning outcomes:**
Acquisition of competencies for setting up the methodological framework of independent scientific or artistic students' research in relation to the philosophical discourse of research, of skills for mastering the use of research apparatus, and the ability of independent research relating to the topic of the doctoral dissertation.

**Course brief:**
Discussion, research, analysis of examples and compilation of a seminar paper.

**Recommended Literature:**

Literaturu o dređuje nastavnik prema individualnim temama seminarskih radova studenata, uz korišćenje osnovne literature sa teorijskog predmeta Diskurs istraživanja: Filozofija.

<table>
<thead>
<tr>
<th>Active training classes no.:</th>
<th>Total</th>
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<tbody>
<tr>
<td>Theoretical education:</td>
<td>0</td>
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<tr>
<td>Practical education:</td>
<td>1</td>
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</tbody>
</table>

### 1 (0+1)

**Teaching methodology:**
Setting up and finalization of the theoretical project for the seminar paper.

**Knowledge evaluation (maximum 100 points)**
Elective seminar from Study unit = 25p

**Method of knowledge evaluation can be different:**
Seminar paper
| Course: STUDY UNIT: RESEARCH DISCOURSE – ELECTIVE SEMINAR – Sociology |
|---|---|
| Teacher: | Associate Professor Ph.D. Mina Petrović |
| Type of course: | Elective |
| ECTS: | 4 |
| Preconditions: | Enrolled in 3rd semester |

**Objectives:**
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students’ seminar papers.

**Learning outcomes:**
Acquisition of competencies for setting up the methodological framework of independent scientific or artistic research in relation to the sociological discourse research, of skills for mastering the use of research apparatus, and the ability of independent research relating to the topic of the doctoral dissertation.

**Course brief:**
Discussion, research, analysis of examples and compilation of a seminar paper.

**Recommended Literature:**

Literaturnu određuje nastavnik prema individualnim temama seminarskih radova studenata, uz korišćenje osnovne literature sa teorijskog predmeta Diskurs istraživanja: Sociologija.

**Active training classes no.:**
| Theoretical education: | 0 | Practical education: | 1 | Total: | 1 (0+1) |

**Teaching methodology:**
Setting up and finalization of the theoretical project for the seminar paper.

**Knowledge evaluation (maximum 100 points):**
Elective seminar from Study unit = 25p

**Method of knowledge evaluation can be different:**
Seminar paper
Course: STUDY UNIT: RESEARCH DISCOURSE – ELECTIVE SEMINAR – History
Teacher: Professor Ph.D. Milan Ristović
Type of course: Elective
ECTS: 4

Preconditions:
Enrolled in 3rd semester

Objectives:
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students' seminar papers.

Learning outcomes:
Acquisition of competencies for setting up the methodological framework of independent scientific or artistic research in relation to the sociological discourse research, of skills for mastering the use of research apparatus, and the ability of independent research relating to the topic of the doctoral dissertation.

Course brief:
Discussion, research, analysis of examples and compilation of a seminar paper.

Recommended Literature:
- Literaturu određuje nastavnik prema individualnim temama seminarskih radova studenata, uz korišćenje osnovne literature sa teorijskog predmeta Diskurs istraživanja: Istorija.

Active training classes no.: Total
Theoretical education: 0 Practical education: 1 1 (0+1)

Teaching methodology:
Setting up and finalization of the theoretical project for the seminar paper.

Knowledge evaluation (maximum 100 points)
Elective seminar from Study unit = 25p

Method of knowledge evaluation can be different: Seminar paper
**Course:** STUDY UNIT: RESEARCH DISCOURSE – ELECTIVE SEMINAR – Arts  
**Teacher:** Professor Ph.D. Miodrag (Miško) Šuvaković  
**Type of course:** Elective  
**ECTS:** 4  

**Preconditions:**  
Enrolled in 3rd semester  

**Objectives:**  
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students’ seminar papers.

**Learning outcomes:**  
Acquisition of competencies for setting up the methodological framework of independent scientific or artistic research in relation to the sociological discourse research, of skills for mastering the use of research apparatus, and the ability of independent research relating to the topic of the doctoral dissertation.

**Course brief:**  
Discussion, research, analysis of examples and compilation of a seminar paper.

**Recommended Literature:**  
- M. Šuvaković, A. Erjavec, (eds), Figure u pokretu – Savremena zapadna estetika, filozofija i teorija umetnosti, Atoča, 2009.  
- M. Šuvaković, Pojmovnik teorije umetnosti, Orion Art, 2012.  
- M. Šuvaković, Diskurzivna analiza, Orion Art, 2011.

Literaturu određuje nastavnik prema individualnim temama seminarskih radova studenata, uz korišćenje osnovne literature sa teorijskog predmeta Diskurs istržavanja: Umetnost.

**Active training classes no.:**  
**Theoretical education:** 0  
**Practical education:** 1  
**Total:** 1 (0+1)

**Teaching methodology:**  
Setting up and finalization of the theoretical project for the seminar paper.

**Knowledge evaluation (maximum 100 points):**  
Elective seminar from Study unit = 25p

**Method of knowledge evaluation can be different:**  
Seminar paper
**Course:** Study Unit: Research Discourse – Elective Seminar – Economy  
**Teacher:** Principal Research Fellow Ph.D. Miodrag Vujošević  
**Type of course:** Elective  
**ECTS:** 4

**Preconditions:**  
Enrolled in 3rd semester

**Objectives:**  
Elective course which is aimed at the application of knowledge and methodological frameworks of theoretical education through students' seminar papers.

**Learning outcomes:**  
Acquisition of competencies for setting up the methodological framework of independent scientific or artistic research in relation to the sociological discourse research, of skills for mastering the use of research apparatus, and the ability of independent research relating to the topic of the doctoral dissertation.

**Course brief:**  
Discussion, research, analysis of examples and compilation of a seminar paper.

**Recommended Literature:**  
- B. Waterhout, The institutionalisation of European spatial planning, IOS Press BV, Amsterdam, 2008  

Literaturu određuje nastavnik prema individualnim temama seminarskih radova studenata, uz korišćenje osnovne literature sa teorijskog predmeta Diskurs istraživanja: Ekonomija.

**Active training classes no.:**  
Total** Theoretical education:** 0 **Practical education:** 1 1 (0+1)

**Teaching methodology:**  
Setting up and finalization of the theoretical project for the seminar paper.

**Knowledge evaluation (maximum 100 points):**  
Elective seminar from Study unit = 25p

**Method of knowledge evaluation can be different:**  
Seminar paper
ELECTIVE COURSES
Research seminar
**Course:** RESEARCH SEMINAR – ARCHITECTURE: CONTEMPORARY ARCHITECTURE  

**Teacher:** Associate Professor Ph.D. Ljilja Blagojević  

**Type of course:** Elective  

**ECTS:** 8  

**Preconditions:** Enrolled 4th semester  

**Objectives:** The main objective of the course is the acquisition of competencies for defining the thematic framework and topic of the doctoral dissertation which is relevant from the perspective of the global academic community and comparable with the relevant topics addressed in the programs of the European Higher Education Area. An additional objective is to acquire the competences to publicly announce the research results and to conduct a structured scientific discussion.  

**Learning outcomes:** The acquisition of competences for research in contemporary architecture in the comparative perspective of a scientific field in the world; keeping abreast of modern trends and scientific periodicals in the field with respect to the determination of the research subject and problem, defining the research questions, hypotheses and methodology; and acquisition of knowledge needed for the comparative study of contemporary architecture in Serbia in relation to the global perspective, trends and processes. Development of competences and skills for public oral presentation of one's own research with the use of information and communication technologies. Development of the competences needed to conduct structured scientific discussion and polemics.  

**Course brief:**  

**Theoretical education:** Thematic units that address comparative history and theory of modern and contemporary architecture in the world and in Serbia and the wider region of former Yugoslavia.  

**Practical education:** Practical education includes instruction and consultations regarding the writing and communication of scientific research, which can be applied for participation in scientific conferences in the country and abroad. Practical simulations of the presentation of research results at a scientific gathering via presentations and scientific discussions among the group of students attending the course, with the teacher as a facilitator.  

**Recommended Literature:**  

**Active training classes no.:** Total  

| Theoretical education | 1 | Practical education | 1 | **2 (1+1)** |

**Teaching methodology:** Lectures, interactive practical classes and a seminar  

**Knowledge evaluation (maximum 100 points):**  
- Continuous work during the semester = 50p  
- Regular attendance and active participation in the instruction = 10p  
- Presentation of research = 40p  
- Exam – seminar paper = 50p  
- seminar paper = 40p  
- Oral presentation = 10p  

**Method of knowledge evaluation can be different:** Presentation of project, seminar paper, oral presentation
Course: RESEARCH SEMINAR — ARCHITECTURE: ARCHITECTURE AND POLITICS

Teacher: Associate Professor Ph.D. Aleksandar Ignjatović

Type of course: Elective

ECTS: 8

Preconditions: Enrolled 4th semester

Objectives: Introduction to the research problem leading to the PhD thesis, acquisition of knowledge and critical analysis of the ideological content and political role of architecture in different historical and social contexts. The specific objective is to acquire knowledge about the political roles of architecture and visual culture at the time of the constitution of the modern European societies in the context of ideology of nationalism and modern imperialism. These findings contribute significantly to the theoretical study of the historicization of the relationship between architecture, society and political discourse.

Learning outcomes: By attending classes at the seminar, participants should acquire critical knowledge and intellectual competencies that will enable them to view architecture as an integral part of the ideological production of knowledge, construction of social identities, as well as of the shaping and functioning of political discourse. By attending classes at the course, participants should acquire the capacity to independently analyze and draw conclusions about the relationship between architecture, the visual and policies, and to implement them in their own theoretical works.

Course brief:

Theoretical education:
Diachronic and synchronic analysis of the relationship between political power, ideology and architecture from ancient Greece to modern times. Classes at the course include two intertwined perspectives. The first is based on the research of the roles of architecture as a discipline and as an agent of ideology, and includes critical research and historicization of the problem of style, form and iconography. The second perspective involves the question of architecture as the content of ideology and political roles of architecture, primarily in the context of modern imperialism and nationalism.

Practical education:
Diachronic and synchronic analysis of a number of selected examples: architecture as a discipline that includes specific instances of style, form, structure and typology; the position of architecture as an autonomous domain and architecture as an ideological practice; question of architecture and political ideology; question of architecture and political legitimation, and architecture and political propaganda.

Recommended Literature:

<table>
<thead>
<tr>
<th>Active training classes no.:</th>
<th>Theoretical education:</th>
<th>Practical education:</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>2 (1+1)</td>
</tr>
</tbody>
</table>

Teaching methodology:
Lectures and seminars

Knowledge evaluation (maximum 100 points)
- Seminar paper = 70p
- Oral presentation = 30p

Method of knowledge evaluation can be different:
- Seminar paper, oral presentation
Course: RESEARCH SEMINAR – ARCHITECTURE: PRESERVATION AND REVITALIZATION OF ARCHITECTURAL HERITAGE

Teacher: Associate Professor Ph.D. Mirjana Roter Blagojević

Type of course: Elective

ECTS: 8

Preconditions: Enrolled 4th semester

Objectives:
Introduction to the research problem leading to the PhD thesis. In addition, the goal is to familiarize students with the general history and international theoretical foundations, recommendations, principles and concepts in the study area and protection of cultural heritage. In addition, students are introduced to modern scientific methodologies of study, research, documenting, evaluation, technical protection and presentation of architectural heritage. The ultimate goal is for the students to acquire research competences necessary for scientific research in this area, as well as the competences to apply modern theoretical concepts, principles and methodologies of protection and revitalization of cultural and architectural heritage through specific topics and examples.

Learning outcomes:
Knowledge and understanding of the history and theory of research, evaluation, protection and revitalization of cultural and architectural heritage. Knowledge of scientific methodology and how to adequately apply it to specific problems and issues in the field of protection and revitalization of architectural heritage. Ability to understand scientific literature; research of sources and documents; define and analyze the subject, problems, goals, scientific hypotheses and research methods; including independent conclusion-making and critical valorization of the results achieved and the possibility of their application to concrete examples in practice.

Course brief:
Theoretical education:
Theories of the study and conservation of architectural heritage through history. Contemporary international charters and regulations in the field of preservation of cultural assets and architectural heritage. UNESCO and the World Cultural Heritage Site. Modern concepts and theories of architectural heritage. Problems and methods of research, documentation and evaluation. Presentation and revitalization of cultural and architectural heritage in the context of sustainable development.

Practical education:
Collecting materials and literature related to a particular research topic and problem, defining the theoretical framework, field research, analyzing the collected material, defining the approach to protection and revitalization through a case study, writing textual explanations and drafting attachments.

Recommended Literature:
− Brandi, Č. Teorija restauracije. (Beograd: Generalna direkcija za saradnju u razvoju ministarstva spoljnih poslova Italije, Ministarstvo kulture republike Srbije, 2007).
− Evropske konvencije i preporuke u oblasti kulturnog nasleđa. (Kotor: EXPEDITIO, Centar za održivi prostorni razvoj – Kotor, 2005).
− Filden, B., Jokilehto, J. Smjernice za upravljanje područjima svjetskog kulturnog nasleđa. (Kotor: Ministarstvo kulture i medija republike Crne Gore, projektor – Centar za kulturno nasleđe, 2005).

Active training classes no.: 2 (1+1)

Teaching methodology:
Lectures and discussion or mentoring. Consultations regarding the preparation of the seminar paper.

Knowledge evaluation (maximum 100 points)
Activity in instruction (short paper) = 30p
Final paper = 60p
Oral presentation = 10p

Method of knowledge evaluation can be different: Written paper, oral presentation
### Course: RESEARCH SEMINAR – ARCHITECTURE: ARCHITECTURE – TECHNOLOGY – ENVIRONMENT

**Teacher:** Professor Ph.D. Aleksandra Krstić-Furundžić

**Type of course:** Elective

**ECTS:** 8

**Preconditions:** Enrolled 4th semester

### Objectives:

The objective of the course is to present and stay abreast of modern world trends, the profession and science in developing sustainable relationships architecture-materials-technology-environment, to examine the impact of technology on the development of architectural thought and in this context on the science-based integrative design strategies used to achieve a high level of comfort, resource conservation and environmental protection, meet the needs and challenges of the new visual expression, understand the impact of the relationship architecture-nature on the development of concepts of adaptive, energy-efficient and dynamic architectural structures and components of their materialization. The goal is to define scientifically sound research topics, problems and issues which indicate the way and lead to research within a doctoral dissertation.

### Learning outcomes:

The outcome of acquired general and specific competences and knowledge is the defining of a doctoral dissertation topic. Acquisition of the ability to identify and evaluate findings in order to qualify for interdisciplinary research, the ability to base one's own actions on science using innovative, technical competences in the application of design and construction techniques and understanding of their development; acquisition of specific knowledge about physical problems and technologies, as well as about the functions of buildings that are intended to ensure the internal conditions of comfort and climate protection by using natural resources, and in this regard, the acquisition of skills for science-based assessment and planning of technologies of materialization of architectural structures.

### Course brief:

**Theoretical education:**

- The impact of market, social and economic conditions on the development of modern construction technology; Sustainable relationship architecture-materials-technology-environment; Impacts of new materials and technology on the design, construction and renovation of buildings; Integrative design: The introduction of environmental and energy parameters in the design and construction of buildings; The technological aspect of the designing of the envelope as the function of heat gain, the regulation of heat, natural lighting and ventilation; Renewable energy and architecture; Concepts of flexible, adaptable and dynamic, and envelope-structure of architectural structures and materials, and components of their materialization.

**Practical education:**

- Thematic case studies on the basis of scientifically defined parameters and criteria in order to acquire the skill of defining and proving of assumptions, estimating results in terms of contribution to the development of technology and the improvement of the internal and external environment, with the aim to assess the key elements of a doctoral dissertation.

### Recommended Literature:


### Knowledge evaluation (maximum 100 points):

<table>
<thead>
<tr>
<th>Thematic case studies (during semester)</th>
<th>50p</th>
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</thead>
<tbody>
<tr>
<td>Exam (presentation of project or seminar)</td>
<td>50p</td>
</tr>
</tbody>
</table>

### Active training classes no.:

| Theoretical education | 1 | Practical education | 1 | Total 2 (1+1) |

### Teaching methodology:

Teaching is a combination of various types of work: Theoretical education – ex cathedra lectures, the study of literature and practical instruction - presentation and analysis of cases from the national and foreign practice (case studies) and mentoring.

### Method of knowledge evaluation can be different:

- Presentation of case studies, project or seminar
<table>
<thead>
<tr>
<th>Course:</th>
<th>RESEARCH SEMINAR – ARCHITECTURE: CONSTRUCTION TECHNOLOGY, UTILITIES AND MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Professor Ph.D. Lidija Djokić</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Elective</td>
</tr>
<tr>
<td>ECTS:</td>
<td>8</td>
</tr>
<tr>
<td>Preconditions:</td>
<td>Enrolled 4th semester</td>
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</table>

**Objectives:**
Introduction to the research problem leading to the PhD thesis, recognizing the importance and impact of technology of construction, installations and management in architecture. Understanding the process of project implementation in its entirety, as well as stages of preparation, design, implementation, exploitation and maintenance. The study of the ways in which costs are generated and classified, and how the value on the project is gained, taking into account the interests of investors and all other participants in the project.

Analysis of modern technologies in the field of lighting and their contribution to architecture and urban environment. Understanding energy efficient solutions and their importance.

**Learning outcomes:**
The ability to understand the importance of construction technology, installations and management as the function of quality of the created space. Understanding the possibilities and limitations of modern technologies, as well as the importance of energy savings. Mastering the issues of economic and financial aspects of design and construction in accordance with applicable legislation and procedures for the efficient management of investment projects.

**Course brief:**

*Theoretical education:*
Explanation of the basic concepts. The objectives of the development of construction technology, installations and management. The impact of social, economic, social and market conditions. Analysis of modern building process, supervision, quality control, and other activities related to the process of construction of architectural structures.

The importance of urban lighting, in the scope of applicability and energy efficiency. Light pollution.

Energy and economic aspects.

*Practical education:*
Program postulate and analysis of that aspect of the field which leads to individual research, and an introduction to research relating to the future doctoral dissertation topic. The analysis, which may involve both energy and economic aspect, is expected to yield practical, scientifically valid results, which will be the contribution to individual research related to the future doctoral dissertation topic.

Results of the analysis are presented along with a discussion and critique.

Finally, the practical analysis and the concluding observations are submitted in the form of a seminar paper.

**Recommended Literature:**

**Active training classes no.:**

<table>
<thead>
<tr>
<th>Theoretical education</th>
<th>Practical education</th>
<th>Total</th>
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<td>1</td>
<td>1</td>
<td>2 (1+1)</td>
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</tbody>
</table>

**Teaching methodology:**
Lectures and discussions.

**Knowledge evaluation (maximum 100 points):**
Programme set and analysis of practical results (during semester) = 40p
Final paper – seminar paper with concluding elaboration = 70p

**Method of knowledge evaluation can be different:**
Presentation of project (in the course of semester) and seminar paper (final)
<table>
<thead>
<tr>
<th>Course:</th>
<th>RESEARCH SEMINAR – ARCHITECTURE: SPECIFIC ISSUES OF ARCHITECTURAL STRUCTURES</th>
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</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Associate Professor Ph.D. Nenad Sekularac</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Elective</td>
</tr>
<tr>
<td>ECTS:</td>
<td>8</td>
</tr>
<tr>
<td>Preconditions:</td>
<td>Enrolled 4th semester</td>
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</tbody>
</table>

**Objectives:**
Consideration of the various possibilities for structural solutions in order to find optimal structural solutions for an architectural structure. Solving practical and theoretical problems in the field of architectural engineering. Training students to adopt and implement new knowledge in the field of construction statics on concrete examples of architectural structures, for the purpose of rational application of the structural system. The acquisition and improvement of knowledge about the application of modern principles of structural solutions during the rehabilitation and reconstruction of buildings. The objective is to acquire scientific capabilities, critical thinking and academic skills, as well as to develop creative skills of students and to master specific practical engineering skills to independently lead original and scientifically relevant research in the field of architectural engineering.

**Learning outcomes:**
Research in the field of architectural engineering, in order for students to acquire adequate skills to select and make the final decision on the field of thematic research of the doctoral dissertation.

**Course brief:**

**Theoretical education:**
The impact of construction on architectural form. Impact of an architectural structure on a structural solution. Impacts of form and function of the structure on the selection of structural solutions in the design, reconstruction and rehabilitation of buildings. The interaction of structural solutions and materialization of the structural element. The issue of reconstruction and rehabilitation of buildings, presented through the methods of structural repair of buildings, research in terms of statics and structural protection, materialization and details.

**Practical education:**
Students conduct their research through verification and expansion of the knowledge gained at lectures in the field of architectural construction engineering. Introduction into the research process. Various forms of research depending on specific topics comprise the sub-content area of research, which a student is interested in and which directly contributes to his research within further specialized classes and the preparation of his doctoral dissertation. This research includes: an analysis of literature, analysis of previous research in this area, the study of archival materials, methods of observation in the field, with the aim of acquiring new knowledge about the issues that the student are dealing with in researching a particular problem. This research is carried out in order to adequately choose and make the final decision on the topic of the doctoral dissertation.

**Recommended Literature:**
- Carbonara Giovanni, 2009, Atlante del Restauro architettonico, Utet Scienze Tecniche,
- B. Zevi, Manuale del restauro architettonico, 2008, Mancosu Editore
- Stefania Franceschi, Leonardo Germani, Manuale operativo per il restauro architettonico, 2010, DEI

Literature will be prepared by the teacher.

<table>
<thead>
<tr>
<th>Theoretical education:</th>
<th>1</th>
<th>Practical education:</th>
<th>1</th>
<th>Total</th>
<th>2 (1+1)</th>
</tr>
</thead>
</table>

**Teaching methodology:**
Instruction includes various forms of work such as ex-cathedra lectures, interactive teaching methods, introduction into the research process, discussions with the active participation of students; independent research coordinated by the mentor, case studies, seminar papers, consultations. Active participation of students in the educational process is understood.

**Knowledge evaluation (maximum 100 points):**
Activity in instruction + short thematic papers = 30p
Final seminar paper = 70p

**Method of knowledge evaluation can be different:**
Specified thematic papers and final seminar paper
<table>
<thead>
<tr>
<th>Course:</th>
<th>RESEARCH SEMINAR – ARCHITECTURE: STRUCTURAL SYSTEMS AND SPATIAL STRUCTURES IN ARCHITECTURE</th>
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</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Professor Ph.D. Miodrag Nestorović</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Elective</td>
</tr>
<tr>
<td>ECTS:</td>
<td>8</td>
</tr>
<tr>
<td>Preconditions:</td>
<td>Enrolled 4th semester</td>
</tr>
<tr>
<td>Objectives:</td>
<td>The objective is to familiarize students with the theoretical foundations of complex issues of structural systems and spatial structures in architecture, research methods, including the techniques of their analysis, selection and design – construction. In addition, the goal is to train students to conduct research in this area: for the selection and use of information and resources, identification and formulation of research problems, definition of the research hypothesis, the definition of adequate methodology for testing hypotheses, organization of findings, presentation of research results and writing a scientific paper.</td>
</tr>
<tr>
<td>Learning outcomes:</td>
<td>The student acquires the following general and course-specific skills: technical knowledge of systems theories and methods; he/she is trained to understand the design procedures and to reconcile divergent factors in the process of creating solutions; creatively approaches a problem and during his/her work gets acquainted with many factors related to the problem of construction; manipulates models and performances; learns to solve specific problems using scientific methods and advanced technologies, as well as to integrate the acquired knowledge and skills in various fields in order to apply them in the context of architectural profession.</td>
</tr>
</tbody>
</table>
| Course brief: | **Theoretical education:** Individual chapters of the curriculum include schematic presentation and analysis which include: (1) the evolution of ideas in the field of individual systems; (2) methods of generating; (3) systems theory; (4) methods for diagnosis of stress-strain behavior of the system; (5) the study of static, structural, design and economic characteristics of individual structural systems; (6) selection methods; (7) coordinated process of simultaneous architectural and structural formation of a building.  
**Practical education:** Include the verification of theoretical assumptions via the work on the terms of reference in the field of structural systems and spatial structures. During the work the principles and methods that enable the generation, construction, analysis and evaluation of the system through the implementation of the process of developing non-conventional, optimized, economically and physically feasible large span structures or high buildings in limited design conditions will be developed and tested. |
| Recommended Literature: | Depending on the defined research thesis to be agreed with the teacher.  
| Active training classes no.: | Total |
| Theoretical education: | 1 | 2 (1+1) |
| Practical education: | 1 |
| Teaching methodology: | Theoretical education is carried out through ex cathedra lectures with discussions. Practical classes involve research via a project in the field of structural systems and spatial structures. Consultations for the elaboration of design concept. |
| Knowledge evaluation (maximum 100 points): | Presentation of project = 100p |
| Method of knowledge evaluation can be different: | Presentation of project |
Course: RESEARCH SEMINAR – URBANISM: URBAN MORPHOLOGY AND TYPOLOGY

Teacher: Professor Ph.D. Vladan Djokić

Type of course: Elective

ECTS: 8

Preconditions: Enrolled 4th semester

Objectives:
Introduction to the research problem leading to the PhD thesis - the improvement of scientific competences and academic skills, alignment of the topic with contemporary directions of development of the discipline in the world, promotion of the multidisciplinary approach to contemporary topics dealing with the phenomena of morphology and typology of urban spaces.

Learning outcomes:
The seminar allows students to acquire the necessary critical knowledge and intellectual competences with which they will be able to independently solve theoretical problems in their area. Using the latest knowledge on morphological characteristics of urban space, students are introduced to the thematic research leading to the PhD thesis; they develop critical thinking and the ability to communicate at a professional level.

Course brief:

Theoretical education:
Classes at the seminar are focused on the understanding of the phenomena of morphology and typology of the city, as well as on a number of processes that accompany their development and transformation. Morphological characteristics of urban areas and their interdependence with functional characteristics, as well as their cultural context, are the subject of complex considerations, while students are enabled to identify and define their own interests in a given subject area. The overall phenomenon of the structure of a city is observed morphogenetically or within the historical continuity of its creation, development and change through time.

Practical education:
Independent research consists of the making of theoretical assumptions and their practical verification on a specific polygon. Theoretical assumptions are typological and morphological rules which establish principles and guidelines for urban planning and architectural compositional solution of a selected polygon. The selected polygon is a spatially functional unit which has the characteristics of unity and which includes different morphological and typological elements of built structures and open spaces.

Recommended Literature:

Active training classes no.: Total
Theoretical education: 1 1
Practical education: 1 2 (1+1)

Teaching methodology:
Lectures and seminars

Knowledge evaluation (maximum 100 points)
Presentation of seminar thesis = 30p
Seminar paper = 70p

Method of knowledge evaluation can be different:
Presentation of seminar thesis, seminar paper
Course: RESEARCH SEMINAR – URBANISM: URBAN STUDIES

Teacher: Associate Professor Ph.D. Aleksandra Stupar

Type of course: Elective

ECTS: 8

Preconditions: Enrolled 4th semester

Objectives:
Introduction to the research problem leading to the PhD thesis - the improvement of scientific competences and academic skills, alignment of the topic with contemporary directions of development of the discipline in the world, promotion of the multidisciplinary approach to contemporary topics dealing with urban phenomena and clear definition of the relations between the identified elements of the dynamic development of cities and urban regions and urban society.

Learning outcomes:
The seminar allows students to acquire the necessary critical knowledge and intellectual competences with which they will be able to independently solve theoretical problems in their area. Using the latest knowledge on urban studies, students are introduced to the thematic research leading to the PhD thesis; they develop critical thinking and the ability to communicate at a professional level.

Course brief:

Theoretical education:
Classes at the seminar are focused at the understanding of the city and the metropolitan region, as well as of a number of processes accompanying their development and transformation. Historical perspective, as well as the latest trends related to the field of urban studies are viewed through the most important ideas, concepts and theories related to urban development and urban society, while the students are enabled to identify and define their own interest in a given subject area, to establish relations between the relevant aspects and disciplines and to apply an adequate methodology in accordance with the objectives of their research.

Practical education:
Independent research which is based on a multidisciplinary and interdisciplinary approach to the selected problem, with the application of appropriate scientific methods and procedures. The focus can be placed on the sociological, anthropological, historical, the planning, environmental or economic aspects of a selected urban phenomenon, while the end result can be theoretical and / or applied.

Recommended Literature:

Active training classes no.:

Theoretical education: 1
Practical education: 1
Total: 2 (1+1)

Teaching methodology:
Lectures and seminars

Knowledge evaluation (maximum 100 points):
Presentation of seminar thesis = 30p
Seminar paper = 70p

Method of knowledge evaluation can be different:
Presentation of seminar thesis, seminar paper
Course: RESEARCH SEMINAR – ARCHITECTURE AND URBANISM: ARCHITECTURAL DESIGN

Teacher: Professor Zoran Lazović

Type of course: Elective

ECTS: 8

Preconditions: Enrolled 4th semester

Objectives: The seminar allows students to improve and upgrade previously acquired scientific, theoretical and research skills and knowledge in order to prepare them for thematic research preceding their PhD thesis. The syllabus is aligned with the modern trends in certain disciplines in the field of architectural design, focus-oriented toward methodology, artistic research and experimentation in architecture in order to understand the process of design and develop critical thinking.

Learning outcomes: The seminar anticipates the development of independent methodological knowledge through the process of designing, while studying its effects on the transformation and changes of the object itself or its context (physical and/or social). Using the most modern methodological platforms related to architectural design, students are trained to recognize and solve theoretical and design problems in the project (determined project) independently and for empirical verification of the results achieved in the design process (the context is determined, and the project is variable). The learning outcome presupposes a highly developed capacity of students to independently conduct theoretical and methodological research into the area of architectural design, for the purpose of creating authentic and affirmative theoretical and methodological platforms necessary for thematic research and compilation of a doctoral dissertation.

Course brief: Theoretical education:
The syllabus is directed towards the theoretical and methodological understanding and resolution of problems in the process of architectural design. Teaching includes inter/ multi/ trans-disciplinary studies in the field of architecture, art, philosophy, technology and biotechnology, in the light of modern developments of architectural theory and practice. Architectural design is seen through the relationships between the most important ideas, concepts, theories and methodological platforms in the field of architecture and contemporary art, social phenomena, technological innovation, i.e. the natural-environmental aspects. Architectural concepts, strategies and tactics in the design process, and relations such as architectural form and function, purpose and architectural program, physical and social context and infrastructure, and their (dis)agreement with various discourses of other areas are reviewed at the epistemological level. The question of the "new" in architecture, the question of the origins of architectural creation, and the question of the author’s position in the contemporary context are examined at the meta-theoretical level.

Practical education: Independent research study oriented towards the chosen field, thematically defined in relation to the chosen research problem. The research focus can vary: from the theoretical, methodological, to the experimental or something in between and directed to the theoretical/applicative direction.

Recommended Literature:
− Christopher, Alexander. 2002-2005. The Nature of Order (Book 1, 2, 3, 4), Center for Environmental Structure.
− Šuvaković, Miško, Erjavec,Aleš, grupa autora. 2009. Figure u pokretu: Savremena zapadna estetika, filozofija i teorija umetnosti, Beograd: Atoča.

Active training classes no.: 2 (1+1)

Teaching methodology: Lectures and seminars, participation of guest lecturers professors and architects

Knowledge evaluation (maximum 100 points)
Presentation of seminar thesis = 30p
Seminar paper = 70p

Method of knowledge evaluation can be different: Presentation of seminar thesis, seminar paper
Course: RESEARCH SEMINAR – ARCHITECTURE: SOCIO – CULTURAL CONTEXT OF ARCHITECTURAL PRODUCTION: AESTHETIC READINGS

Teacher: Professor Ph.D. Vladimir Mako

Type of course: Elective

ECTS: 8

Preconditions: Enrolled 4th semester

Objectives:
The main objective is the introduction to the research problem leading to the PhD thesis. In addition, the objective is for the students to master the knowledge in the field of contemporary aesthetic concepts, including the recognition of their importance in the study of socio-cultural conditionality of the latest trends in architecture. It is important to direct students to study specific areas in architecture that will introduce them to those spheres of action in architecture that will be the area of their final work on the PhD thesis.

Learning outcomes:
Students should demonstrate the ability to identify and read aesthetic values of architecture, and their socio-cultural determinism, as well. It is also essential to develop the ability to apply the acquired knowledge in the process of critical analysis of the values of modern concepts in architecture, and other important issues contributing to the wider scientific and creative approach to action in the field of architecture, as well.

Course brief:

Theoretical education:
the selection of relevant examples from the fields of architecture and demonstrative, aesthetic analysis of the context of their socio-cultural significance and development. The context of the comparative analysis of examples belonging to different cultural matrices is underlined, which indicates the importance of transcultural aesthetic context of contemporary architectural practices.

Practical education:
where students choose topics, areas and examples on which to directly study the issues relevant to the acquisition of specific knowledge in the defined fields.

Recommended Literature:
− Jerry Palmer, Mo Dodson, Design and Aesthetics, Routledge, London 1996
− Charles Jencks, Karl Kropf, Theories and Manifestoes of Contemporary Architecture, Wiley-Academy, Chichester 2007
− Vladimir Mako, Estetika-Arhitektura, knj. 1 i 2, Orion Art i Arhitektonske fakultet Univerziteta u Beogradu, Beograd 2009

Active training classes no.:

<table>
<thead>
<tr>
<th>Theoretical education</th>
<th>Practical education</th>
<th>Total</th>
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<tr>
<td>1</td>
<td>1</td>
<td>2 (1+1)</td>
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</table>

Teaching methodology:
Instruction is a combination of ex-cathedra presentations and discussions with students, while making sure that the topic is current and suitable for scientific research. Seminar paper (oral presentation)

Knowledge evaluation (maximum 100 points):

<table>
<thead>
<tr>
<th>Attendance</th>
<th>Preparations / study of literature and preliminary paper’s content</th>
<th>Seminar paper</th>
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<tbody>
<tr>
<td>10p</td>
<td>30p</td>
<td>60p</td>
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</table>

Method of knowledge evaluation can be different:
Oral presentation of seminar paper (oral colloquia)
ELECTIVE COURSES
<table>
<thead>
<tr>
<th>Course:</th>
<th>ON ARCHITECTURAL SPACE – CULTURE OF ARCHITECTURAL LANDSCAPE</th>
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</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Associate Professor Ph.D. Dragana Vasiljević Tomić</td>
</tr>
<tr>
<td>Type of course:</td>
<td>Elective</td>
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<tr>
<td>ECTS:</td>
<td>8</td>
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<tr>
<td>Preconditions:</td>
<td>Enrolled in current semester</td>
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</table>

**Objectives:**
Introducing students to the phenomenon of space: introducing them to different phenomena which in addition to the shaping suggest ways of establishing and transformation of ecological, functional, artistic, cultural and social values of space. Lectures include the following topics: landscapes and human ecology, socio-cultural behavioral factors, landscape aesthetics and artistic principles in planning and design. Special attention is devoted to ecology, culture, and history. The aim is for candidates to be able to conceptually, thematically and methodologically harmonize the level of teaching with the nature of architectural design. The focus is on textual interpretation of the content or the design problem, and work on its formulation via the material thematic study units.

**Learning outcomes:**
Adequate knowledge of the history and theory of architecture and related arts, technology and social sciences. Application of relevant theoretical concepts to the design. Knowledge of the visual arts as influential for the quality of the architectural design, creative application of the visual arts and their importance and influence on architecture, creative application of similar works in the design process, in terms of their conceptualization and representation. Understanding of the relationship between man and object and between objects and their environment, and the need to transform the building and the spaces between them according to human needs and scale.

**Course brief:**

**Theoretical education:**
About architectural space, real space, space in thought, case study, character of architectural landscape, geometry and architecture, culture of color, color and environment, color in space, light and color in the treatment of architectural topics.

**Practical education:**
Lectures and exercises in accordance with thematic units of the curriculum.

**Recommended Literature:**
- Focillon h., *Vie de formes*, Pariz, Presses universitaires de France, 1964

**Knowledge evaluation (maximum 100 points)**

<table>
<thead>
<tr>
<th>Theoretical education</th>
<th>1</th>
<th>Practical education</th>
<th>1</th>
<th>Total</th>
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<tbody>
<tr>
<td>Activity during semester = 30p</td>
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<tr>
<td>Seminar paper (theoretical part) = 30p</td>
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<tr>
<td>Lecture (practical part) = 30p</td>
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<tr>
<td>Teacher’s impression = 30p</td>
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**Method of knowledge evaluation can be different:**
Seminar, final exam: written exam or presentation of project
<table>
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<tr>
<th>Course:</th>
<th>METHODICAL PRACTICUM</th>
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<tbody>
<tr>
<td>Teacher:</td>
<td>Assistant Professor Ph.D. Vladimir Milenković</td>
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<tr>
<td>Type of course:</td>
<td>Elective</td>
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<td>ECTS:</td>
<td>8</td>
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<tr>
<td>Preconditions:</td>
<td>Enrolled in current semester</td>
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</table>

**Objectives:**
Developing skills for systematization of methodological knowledge and participation in the process of teaching and/or for facilitating the acquisition of the curriculum, and then understanding the ways of thinking and intelligence of those that the technical and methodological sense of education concerns. The aim is to train candidates for the conceptual, thematic and methodological formulation of the design process. In this regard, the focus is on textual interpretation of the methodological content of the design problem, being the material of the thematic study unit.

**Learning outcomes:**
The starting point is the assumption that there is no universal method that can literally solve one or more problems. Therefore, for successful education process it is significant to create certain automatisms and adopt the so-called cerebral localization and visualization of knowledge, which can be applied as skills to accomplish new tasks. Methodological guidelines affect the logical concluding that moves from the general to the particular and from the particular to the general, and in this sense the methodical practicum represents the functional interpretation of the selected thematic study unit.

**Course brief:**

**Theoretical education:**
Discursivity and method, case study, instrumentalization of polyvalence, spiral design, meta-materiality, abstraction as a process, intuition as a method, paradoxes of incidence of methods, disappearance of architecture

**Practical education:**
Lectures and exercises in accordance with thematic units of the curriculum

**Recommended Literature:**

**Active training classes no.:**
| Theoretical education | 1 | Practical education | 1 | Total 2 (1+1) |

**Teaching methodology:**
Mentoring, lectures, presentations, examination.

**Knowledge evaluation (maximum 100 points):**
- Activity during semester = 30p
- Seminar paper (theoretical part) = 30p
- Lecture (practical part) = 30p
- Teacher’s impression = 10p

**Method of knowledge evaluation can be different:**
Presentations and seminar paper
### Course: DESIGN RESEARCH

**Teacher:** Assistant Professor Ph.D. Djordje Stojanović

**Type of course:** Elective

**ECTS:** 8

**Preconditions:** Portfolio of research-oriented (developed, graphical and textual) works; enrolled in current semester

**Objectives:**
1. Understanding the relationship between theory and practice of architectural design.
2. Enhancing the theoretical knowledge in the field of architectural design.
3. Understanding the complex links between social, economic, environmental and technological factors and instruments of design activity.
4. Assessment of values of different designing approaches in relation to the contemporary challenges of the profession.

**Learning outcomes:**
1. Development of analytical skills and research methods in the field of architectural design.
2. Development of critical thinking.
3. Development of the ability of abstraction and broadening the field of action in the field of architectural design.
4. Understanding of the role of prototype models in architectural design and research.

**Course brief:**

**Theoretical education:**
- Overview of different theoretical models in the texts of contemporary architectural theory and consideration of the possibility of their translation into design models.
- Overview of different aspects of research through a project.
- Introduction to the research methodology in the field of architectural design and various roles of the model in the process of architectural design that allow the inclusion of knowledge from other areas in the framework of architecture.

**Practical education:**
- Development of material-based experiments and prototype models.
- The study of the principles of design, construction and materialization of architectural structures.

**Recommended Literature:**

**Active training classes no.:**

<table>
<thead>
<tr>
<th>Theoretical education</th>
<th>Practical education</th>
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<td>1</td>
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<td>2 (1+1)</td>
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</table>

**Teaching methodology:**
- Series of lectures and discussion on theoretical models
- Series of student presentations and discussions on the relationship between the theoretical and design models
- Practical work on the project (making of prototype models)

**Knowledge evaluation (maximum 100 points):**
- Activity during semester (participation in discussions) = 20p
- Seminar paper = 30p
- Project = 40p
- Oral exam (final presentation of project) = 10p

**Method of knowledge evaluation can be different:**
- Presentation of project and seminar paper
<table>
<thead>
<tr>
<th>Course:</th>
<th>CULTURE AND THE CITY</th>
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</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Assistant Professor Ph.D. Ana Nikezić</td>
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<tr>
<td>Type of course:</td>
<td>Elective</td>
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<td>ECTS:</td>
<td>8</td>
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</table>

**Preconditions:**
Enrolled in current semester

**Objectives:**
Enabling students to understand the complex relationships and mechanisms between culture and city in the conditions of modern life. It is a contemporary context in which culture and city are seen as multidimensional, complex and dynamic phenomena. The relationship between culture and the city is examined analytically and critically, and revealed via the different thematic frameworks from culture as a daily practice of living and lifestyle, through culture as a driver of regeneration, to the impact of technology on the process of globalization and virtualization of culture and society in general.

**Learning outcomes:**
Introduction to the mechanisms of the relationship between culture and the city. Training for critical argumentation. Understanding of the complex structure of their relationship. Training for research in the local context.

**Course brief:**

**Theoretical education:**
- Modern city and modern culture
- Elite and mass culture - commercialization of culture and consumerism
- Popular culture - everyday life, lifestyle and housing
- Technology and information society - globalization of the city and virtualization of culture
- Cultural spaces and spaces for culture - limits and fields
- Culture and regeneration - culture and public art, cultural industries, subculture, shopping mall, ...
- Fluid life – identity of “urbanites”

**Practical education:**
Independent research (applied method depends on the chosen topic)

**Recommended Literature:**

**Active training classes no.:**
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<tr>
<th>Theoretical education:</th>
<th>Practical education:</th>
<th>Total</th>
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<td>1</td>
<td>2 (1+1)</td>
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</table>

**Teaching methodology:**
Discussions on the proposed topic and specific literature outlined for each subject area.

**Knowledge evaluation (maximum 100 points):**
- Activity during semester is evaluated via active participation in discussions.
- Small tasks (3 elaborations on 2A4 sheets) = 30p
- Participation in discussions = 10p
- Large paper – seminar paper (max. 2500words) = 30p

**Method of knowledge evaluation can be different:**
- Essays, seminar paper
Course: CULTURAL CONTEXTS OF ARCHITECTURAL HERITAGE

Teacher: Assistant Professor Ph.D. Gordana Milošević Jevtić

Type of course: Elective

ECTS: 8

Preconditions: Enrolled in current semester

Objectives: The elective course Cultural Contexts of Architectural Heritage is aimed at introducing doctoral students to the concept of cultural history and its impact on the formation of certain postulates in the history and theory of architecture during the development of the architectural heritage, as well as short-term and long-term impacts of the cultural and historical background on the development of architectural form and style.

Learning outcomes: Learning outcomes include the mastering of the methodology of analysis of individual work, evaluation of its architecture and place in the general history of architecture. The synthesis of the results for several individual works based on the history of styles and history of construction. Taking of general stands that form the foundation of the theory of architecture.

Course brief:

THEORETICAL EDUCATION:
Theoretical education will be conducted through open discussion and thematic areas related to the following thematic units: architectural heritage and cultural context; socio-cultural aspects of the historical architecture; the traditional approach to the study of the architectural heritage; a critical attitude towards traditional theories of architecture; centers and provinces in the architectural heritage; the question of authenticity in historical architecture and damnatio architecture; auxiliary disciplines in the research of architecture.

PRACTICAL EDUCATION:
The research process which is conducted through a selected example of historical architecture

Recommended Literature:
- P. Braun, Telo i društvo, CLIO 212.
- Istorija, Leksikon pojmov (priredio Rihard van Dilmen), CLIO 2010.
- Ž. Dibi, Umetnost i društvo u srednjem veku, CLIO 2001.
- Ž. L. Gof, Da li je Evropa stvorena u srednjem veku, CLIO 2010.

Active training classes no.: Total
Theoretical education: 1 2 (1+1)
Practical education: 1

Teaching methodology:
Interactive communication and focused thematic discussion, in order to excite students’ personal interests and master the research process in the field of architectural heritage.

Knowledge evaluation (maximum 100 points)

Activity during semester = 10p
Written part:
Concept (selection of topic and methodological approach) = 10p
Adequate interpretation and level of synthesis of selected theme = 20p
Capacity of self-drawn conclusions = 20p
Applied literature = 10p
Oral presentation:
Capacity of consistent oral presentation = 30p

Method of knowledge evaluation can be different: Seminar paper and oral presentation
<table>
<thead>
<tr>
<th>Course:</th>
<th>URBAN PATTERNS</th>
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<tbody>
<tr>
<td>Teacher:</td>
<td>Associate Professor Ph.D. Aleksandra Djukić</td>
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<tr>
<td>Type of course:</td>
<td>Elective</td>
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<td>ECTS:</td>
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**Preconditions:**
Enrolled in current semester

**Objectives:**
Critical analysis and understanding of the genesis, development and transformation of urban forms. Acquisition of knowledge about the cultural, natural and man-made conditions of urban form, the mutual relations between man and the physical and natural environment in an urban environment. Training for independent research.

**Learning outcomes:**
Ability to develop analytical and critical thinking and understanding and to apply knowledge in practice; ability to identify and evaluate ideas and information; ability to identify and appropriately use sources of relevant information and identify and use found tools; ability to prepare, process, interpret and present data using appropriate qualitative and quantitative techniques.

**Course brief:**

**Theoretical education:**
- Morphogenesis and transformation of urban forms; the cultural conditioning of urban forms; climate changes and urban forms; identity, human scale, visual perception; the sociocultural context and psychological dependence of urban patterns design.

**Practical education:**
- The study of morphogenesis and transformation of urban forms in a specific area (case study), typology of urban forms; establishing criteria for evaluation in relation to the socio-cultural, natural and man-made conditions; production of codes for the proposal of future transformation of urban forms in relation to the selected criteria.

**Recommended Literature:**

**Active training classes no.:**
Total
Theoretical education: 1  Practical education: 1  Total 2 (1+1)

**Teaching methodology:**
Teaching is carried out through interactive and multimedia lectures (ex-cathedra, discussion, polls), independent student research during the semester (use of recommended literature), elaboration of acquired knowledge and its presentations (a paper during the semester and term paper at the end of the semester).

**Knowledge evaluation (maximum 100 points):**
- Pre-exam requirements = 40p
- Exam (seminar paper) = 60p

**Method of knowledge evaluation can be different:**
- Presentation of research, seminar paper
Course: CONTEXTUAL ARCHITECTURE
Teacher: Professor Ph.D. Eva Vaništa Lazarević
Type of course: Elective
ECTS: 8

Preconditions:
Enrolled in current semester

Objectives:
Creating interactive relationships, learning the ways of thinking and professional activation based on examples and models, good role models; good knowledge of the subject matter; encouraging critical observation, eloquence and intellectual width.

Learning outcomes:
Finding and determination - through the proposed parameters – of principles and guidelines that are used in the field.

Course brief:
**Theoretical education:**
The course brief refers to the consideration of contextual aspects in architecture and urban planning: finding and verification of contextual effects on architecture and urban planning, in the broadest sense of the word: urban planning and planning aspect of the problem of the new in the old - newly interpolated elements of cities and their design, environmental, economic aspect, with special emphasis on the social impact that is viewed as gentrification of cities.

Efforts to develop a research and critical spirit in students, their literacy, and the skill to recognize harmony and good relations within good design, and knowledge of literature and new tendencies are particularly valued.

**Recommended Literature:**

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<tr>
<th>Active training classes no.:</th>
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<td>Theoretical education:</td>
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<td>Practical education:</td>
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Teaching methodology:
Ex cathedra lectures, consultative-interactive debates and PP presentations by students – depending on the number of students

Knowledge evaluation (maximum 100 points)

Method of knowledge evaluation can be different: Seminar paper
Course: COGNITIVE PROCESSES OF URBAN PLANNING OF SUSTAINABLE DEVELOPMENT
Teacher: Assistant Professor Ph.D. Ksenija Lalović
Type of course: Elective
ECTS: 8

Preconditions:
Enrolled in current semester

Objectives:
The main objective of this course is to introduce doctoral students to the core of the modern theoretical and disciplinary discourse on the nature and essence of cognitive processes in the context of development planning and management necessary for achieving sustainability. In addition, the aim is for the candidates to develop their research skills for active involvement in the current global disciplinary process of redefining the conceptual foundations of information support to sustainable urban development, and operational abilities of candidates to contribute to the improvement of urban planning practice.

Learning outcomes:
The course should contribute to a better understanding of: - the complexity, dynamism and unstructuredness of the management/planning problems whose efficient and effective resolution entails a socially sensitive choice, - the current post-paradigmatic period of critical analysis of the essence of planning/management of spatial development, a discipline positioned in the overlapping of social sciences and humanities and technical and technological sciences, which underlines the necessity to review the theoretical and conceptual elements of the IT support to urban development in the context of modern disciplinary trends and standards of sustainability, - current theoretical approaches that significantly affect conceptualization and operationalization of cognitive processes in urban and spatial planning of a context. Candidates should acquire knowledge and skills of: - identifying information needs for sustainable urban development in the context of global and European development processes, - application of analytical methods of identification and articulation of the structuring of knowledge in urban planning in accordance with the principles of the requirements for IT support to sustainable development, - recognition and application of modern ICT tools based on GIS technologies in the field of planning and management of sustainable urban development.

Course brief:
Theoretical education:
A post-positivism philosophical approach, as a critique of both: - ontological/nature of reality, and - epistemological/cognitive positivist position, which has long been present in the research in the field of planning and management of spatial development, which in the modern discourse emphasizes the acceptance of cultural and value components of spatial development, - Knowledge in the planning and management of sustainable urban development: the inclusion of the complexity of the reality required by international standards and paradigms of management/planning of sustainable urban development by relying on integral theory, - Information and cognitive strategy of knowledge development for sustainable urban development planning, - Implementation of modern ICT for the development of evolutionary intelligence of the integral city, - Conceptual model of territorial information systems to support sustainable urban development.

Practical education:
include a focused research of the identified problem of the practice of urban planning/management in order to recognize the essential nature of cognitive processes necessary for its effective and efficient resolution, through critical and logical relating to contemporary theoretical discourse, developed concepts and information strategies.

Recommended Literature:
- Lalović, K. (2013), Model teritorijalnih informacionih sistema za podršku održivom urbanom razvoju Srbije, Arhitektonski fakultet univerziteta u Beogradu, Beograd

Active training classes no.:
Total
Theoretical education: 1
Practical education: 1
2 (1+1)

Teaching methodology:
Lectures, debate, mentored research

Knowledge evaluation (maximum 100 points)
Seminar paper = 100p

Method of knowledge evaluation can be different:
Seminar paper
<table>
<thead>
<tr>
<th>Course:</th>
<th>CONTEMPORARY TREATMENT OF MATERIALS IN ARCHITECTURE</th>
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<tbody>
<tr>
<td>Teacher:</td>
<td>Associate Professor Ph.D. Ana Radivojević</td>
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<tr>
<td>Type of course:</td>
<td>Elective</td>
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<td>ECTS:</td>
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**Preconditions:**
Enrolled in current semester

**Objectives:**
Consideration of the various aspects and problems related to the application of materials in architecture taking into account the variability and dynamics of the time which we live in, the complexity of requirements the construction materials should meet and the consequential complexity of the methodology for the selection and evaluation of their application. The objective is also to examine the role of materials in contemporary architectural and construction creation in the following frameworks and relations: innovation, technology, ecology, evolution, tradition, history.

**Learning outcomes:**
Understanding the complex role of materials in contemporary architectural practice in terms of different treatments and problems related to the application of materials in modern frameworks, from innovation, implementation and potentials of new materials, to completely different, modern approaches to the application of compatible materials in the conservation of historical monuments. Acquisition of the ability to apply acquired knowledge on specific research problems, as well as the understanding of the role and place of architecture among other scientific disciplines that deal with issues of materials.

**Course brief:**

**Theoretical education:**

**Practical education:**
Students’ research in order to expand the knowledge acquired at lectures through various forms of independent and group research, which, depending on specific topics, students’ affinity and chosen sub-content research area, may include an analysis of the given literature and searching for analog and complementary examples in the relevant scientific literature, research of archival materials, research in the field and the like.

**Recommended Literature:**
- textbook – selection of texts

**Active training classes no.:**
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<th>Theoretical education:</th>
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<tr>
<td>Practical education:</td>
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**Teaching methodology:**
Ex-cathedra lectures, seminars and discussions with the active participation of students; consultations

**Knowledge evaluation (maximum 100 points):**
Activity in instruction + short thematic papers = 30p
Final seminar paper = 70p

**Method of knowledge evaluation can be different:**
Thematic papers and final seminar paper
**Course:** FUNCTIONAL AND FORMAL POTENTIALS OF WOOD IN CONTEMPORARY ARCHITECTURE  
**Teacher:** Associate Professor Ph.D. Jelena Ivanović Şekularac  
**Type of course:** Elective  
**ECTS:** 8  

**Preconditions:** Enrolled in current semester  

**Objectives:** Complex analysis and expansion of knowledge about the possibilities, reasons and limitations of the application of timber and timber products in contemporary architectural practice and creating the foundation for a more extensive and appropriate use. Acquisition of new knowledge and principles of design and construction of the primary structure out of timber, and the structure envelope using timber as the cladding element, by applying modern technical and technological solutions. Studies on the relationship between timber and timber products as the elements of the cladding of the interior and exterior, and other building materials applied in traditional and contemporary architecture, with a focus on functional, formative and artistic possibilities of timber. The objective of the course is the acquisition of scientific capabilities and academic skills, development of students' creative skills and their mastering of specific practical skills in the field of architectural design, materials and building physics.  

**Learning outcomes:** The world trend of re-application of timber and timber products as the materials for the construction and cladding of architectural structures is not only due to the compliance with aesthetic, artistic and design requirements, and seeking of inspiration in the return to tradition and nature, but also due to its environmental, economic and energy feasibility and integration into the modern trends of sustainable development and application of modern technical and technological solutions in the production of materials. Learning outcomes include the acquisition of skills to apply the acquired knowledge to specific problems addressed by the research and doctoral studies, which knowledge is necessary in order to successfully prepare the doctoral dissertation, and is related to the materialization of the architectural object.  

**Course brief:**  
**Theoretical education:** The nature of the material and its application. The influence of traditional architecture on contemporary architectural works, - To build in a spirit of regionalism. Aesthetic, artistic, formative and functional potential of timber as the primary structure and cladding element in modern architecture. Possibilities and limitations of the application of timber in modern architecture. The requirements of modern construction and application of timber and timber-based products in response to them. Timber and timber products as the primary structure and cladding element in combination with other materials.  

**Practical education:** Practical classes are carried out through students’ research, individual or group, depending on the affinity of the student. The knowledge acquired at lectures is verified and broadened through research, and the research topic itself represents a sub-content research area which the student is interested in and which directly contributes to his/her research in further specialized teaching and preparation of the doctoral dissertation. This research includes: an analysis of literature, analysis of previous research in this area with the systematization of the obtained data, methods of observation in the field in order to acquire knowledge about the problem he/she is researching and the like.  

**Recommended Literature:**  
- Herzog, Natterer, etc., 2004., Timber Construction Manual, Birkhäuser, Basel,  
- Natterer, Herzog, Volz, 1991., Holzbau Atlas, Rudolf Müller, Köln,  

**Active training classes no.:**  
| Theoretical education: | 1 | Practical education: | 1 | Total | 2 (1+1) |  

**Teaching methodology:**  
Ex-cathedra lectures, case studies, interactive teaching methods, students’ active participation in the discussions, preparation of seminar papers and consultations.  

**Knowledge evaluation (maximum 100 points):**  
Activity in instruction + short seminar related papers = 30p  
Final seminar paper = 70p  

**Method of knowledge evaluation can be different:** Thematic papers and final seminar paper
Course: IMPACT OF ADVANCED TECHNOLOGIES ON THE ARCHITECTURE OF CONTEMPORARY GLASS FACADE AND MEDIA FAÇADE

Teacher: Assistant Professor Ph.D. Jasna Čikić Tovarović

Type of course: Elective

ECTS: 8

Preconditions: Enrolled in current semester

Objectives: To thoroughly introduce students to the latest scientific developments in the field of advanced materials, the impact of new technology on the architecture of modern glass facade and media facade. Research of special problems of design and constructions of glass and media facade. Acquisition of the ability to stay abreast of modern developments in the field of facade. The development of critical thinking about the potentials and challenges in the creation of the identity of object architecture through digital media. Acquisition of scientific and creative skills which can be used to implement new technologies in the field of facades.

Learning outcomes: Acquisition of competence in the field of modern glass and media facade. Establishment of foundations for a better understanding of the creative potential of advanced facades. Research of technical possibilities of integrating information (virtual, immaterial) and architectural systems.

Course brief:


Practical education: Students' research in order to improve the knowledge acquired at lectures through various forms of independent research which, depending on the specific topic and sub-content research area, includes the analysis of examples in the relevant scientific literature, systematization of different systems and structures, as well as the understanding of the complex theories about the impact of new materials and technologies on the concept of modern facades.

Recommended Literature:
- Patterson Mic, Structural Glass Facades and Enclosures, Yohn Wiley, 2011.

Active training classes no.: Total
Theoretical education: 1 1
Practical education: 1 2 (1+1)

Teaching methodology:
Ex-cathedra lectures, seminars and discussions with the active participation of students; consultations

Knowledge evaluation (maximum 100 points)
Activity in instruction + short thematic papers = 30p
Final seminar paper = 70p

Method of knowledge evaluation can be different: Seminar paper
### Course:
**GREEN AND ENERGY-EFFICIENT ARCHITECTURE**

### Teacher:
**Professor Ph.D. Milica Jovanović Popović**

### Type of course:
Elective

### ECTS:
8

### Preconditions:
Enrolled in current semester

### Objectives:
The field of energy efficiency and ecological construction today are the focus of entire human community due to climate changes that have been proven to be a consequence of human action and uncontrolled environmental pollution. Since currently constructed structures consume about 40% of the energy produced, it is essential that architects acquire the necessary scientific knowledge to define strategies and actions in the field of architecture and urban planning with the aim of reducing energy consumption and greenhouse gases emissions, and thus influence the development architectural and urban planning professions.

### Learning outcomes:
It is expected that students will become experts in the scientific field of architecture and urban planning with the ability to observe far-reaching consequences of global changes and their links to architecture. At the same time, learning outcomes should include the mastering of scientific knowledge and techniques that shall impact further research and strategic action, the establishment of research centers as well as the functioning of the economy and everyday practice. Such profile should be able to correspond with foreign scientists and experts, and contribute to the resolution of global environmental pollution and climate change problems.

### Course brief:

#### Theoretical education:
Theoretical education will introduce candidates to energy efficient and green architecture with the accent on the interdisciplinary nature of the field and the necessity of coordination with other scientific fields.

#### Practical education:
Practical classes will be carried out through research with the use of laboratory equipment which enables the understanding of the interactive link between architectural objects and the environment in which they are constructed as the impact of decision-making in the field of architecture and urban planning on environmental pollution.

### Recommended Literature:
- Klaus Daniels: Tehnologija ekološkog građenja, Jasen,Beograd 2009.
- Uputstva za korišćenje laboratorijske opreme
- Sertifikacioni sistemi , uputstva

### Active training classes no.:

<table>
<thead>
<tr>
<th>Theoretical education</th>
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<td>1</td>
<td>2 (1+1)</td>
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### Knowledge evaluation (maximum 100 points)

- Active participation in theoretical education = 15p
- Active participation in practical education = 15p
- Final seminar paper = 70p

### Method of knowledge evaluation can be different:
Seminar paper, including results from both theoretical and practical education