

INTERNATIONAL BURCH UNIVERSITY
FACULTY OF ENGINEERING AND NATURAL SCIENCES
DEPARTMENT OF ARCHITECTURE



THIRD CYCLE STUDY – PROGRAM SPECIFICATION

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1. DEPARTMENT OF ARCHITECTURE

1.1. INTRODUCTION

Third cycle study program on Department of Architecture presents extension of second cycle study on Faculty of engineering and Information Technologies on International Burch University Sarajevo. Department of architecture has a modern and opened study program considering theory and practice in same time, influence of the EU accession process in country, local impacts and innovative world trends. Program is based on combination of architecture as art as a part of built, social, economic, technic, cultural and traditional environment. Interdisciplinary holistic approach is a core of the Program. In that regards curriculum predicts different courses from elementary disciplines - architectural design, engineering to urban design, conservation of cultural heritage, landscape architecture, interior design, and finally courses related to specific scientific topics. All topic has been chosen based on the evaluation of our delivered Program, current market and economy needs, climate change requirements and responsibilities as a norm of architecture work. Strategic approach presents opportunity for development and exchange the knowledge through more intensive collaboration with other faculties of architecture and departments from Bosnia and Herzegovina, region, Europe and worldwide. Implementation of the program will be support by engagement of many visiting professors from distinguished universities which in same time contribute on teaching quality and student's education. Higher mobility of students and academic staff and many international research projects are chance for making unique and recognizable position in department of architecture inside international level.

1.2. VISION

Vision of the department is to present architecture as a humanistic and professional discipline that synthesizes art and science through intellectual rigor, aesthetic appreciation and technical understanding. Vision of the department becomes visible through the achievements of students, creative work, research, science, and is committed to the highest ideals of the profession of architecture and culture. Department is based on ideal that architecture becomes a reflection of the changes, goals, values advocacy and resources within the society and economic development. Architects play a vital role in determining the status, the interpretation of the values and culture of a specified territory and area.

1.3. MISSION

To create the professionals who are equal in national and international criteria of education; qualified in theory, research and practice areas; design environments which meet esthetic, technique, ecologic, economic, cultural, historical, social, environmental and other necessary requirements; and train professional intellectual and expert architects who are innovative, creative, ethical, have the ability to work in interdisciplinary projects be able to force required positive changes.

2.0 PROGRAM

Third study cycle (PhD) is planned as an upgrade of the first and second study cycle program. Doctoral (PhD) study is implemented in three years and carries 180 credits.

Doctoral study / third cycle

Doctoral studies can choose only qualified candidates who meet the required conditions, and assume that they will be able to meet the program requirements, select a thesis in the area of specialization and provide an original contribution to the discipline of architecture. The most important requirement of doctoral program is clearly defined thesis and sub thesis, specific research methods, the ability to solve a successful result will be a professional and scientific contribution. Doctoral study is a contribution to the technological, social and cultural progress of society that is based on knowledge.

2.1. RESULTS OF THE PROGRAM / THIRD CYCLE

- Intellectual context
- Ability to formulate hypotheses and research questions
- Original research as a contribution within the discipline of architecture
- A high level of communication in written, graphic and verbal forms
- Knowledge in the humanistic and natural sciences / sociology, philosophy, economics, ecology, history of art ... /
- The ability to make project management
- PhD as a contribution to the science and profession
- Ability to expertly manage and coordinate
- Capability of critical analysis, evaluation and synthesis
- Responsibilities to society, environment and economy

2.2. BENEFITS OF THE PROGRAM

International Burch University since its establishment has set itself high goals for education and profiling of personnel. Strategy of development of program is based on innovative methods, high profile academic staff and quality-driven environment. Politics of the program is based on a pluralistic and interdisciplinary approach that is specifically recognized in the curriculum of the second and third cycle and at the same time enables a very broad overview of the various aspects of architecture as a science and art - the technical disciplines and professional profiling and specialization in one of those aspects that can be very narrow - all depending on the choice and preferences of students.

A special advantage of the Department is its international character, which implies different possibilities of international cooperation with similar European and even global institutions, in the study of the second and third cycles will be possible to organize seminars, summer schools, and similar academic programs aimed at "expanding horizons" and the exchange of experiences among young professionals and researchers.

2.3 PROGRAM LEARNING GOALS

The goal of Ph.D. program in Architecture is to nurture well-versed, intellectually grounded, responsible managers and socially conscious architects, who will have the skills and mindset to propose variety of innovative optimal strategic solutions to the world's toughest challenges. The program aims to equip students with a critical understanding and strategic approach to different updated and advanced methodologies and tools to creative synthetic production with particular focus on emerging clean technologies and innovations of design activity, conceptual or technical. Architectural Ph.D. Program objectives are

- Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines;
- Explore, critically analyze and contribute to broad area of theories of architecture;
- Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking);
- Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.

2.4. PROGRAM LEARNING OUTCOMES

After successfully completing 3rd cycle of studies students should be able to:

- Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of architecture, interior design and urban planning;
- Recognize the importance of the relationship between architectural theory and praxis;
- Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of sustainable architecture;
- Pursue research of significance in the discipline or an interdisciplinary or creative project;
- Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards;
- Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals. (Communication).

3.0.CURRICULUM AND ORGANIZATION OF TEACHING

In the first year of teaching is organized in the form of lectures. Candidates listen to 4 compulsory subjects and two optional. Compulsory courses are devoted to the acquisition of basic knowledge and skills needed for independent scientific research, the study of literature, the study of contemporary phenomena in the field of architecture and urbanism. Students develop semester research papers on specific topics that are often published as articles in scientific journals.

Elective courses that are offered are continuously enriched and theme updated in accordance with new knowledge and interests and research needs of the candidates. The rest of the doctorate in education prevails independent research in terms of - published articles, presentations at congresses, participation in research projects, thesis proposal and defense synopsis, etc. The range of research topics is wide and varied, and includes almost all academic and professional fields architectural and urban planning discipline. Conceptual and methodological approaches to research are equally open and diverse: historiographical, theoretical, phenomenological, systematic, problem, typological, quantitative and analytical, etc.

3.1. PhD dissertation

During the third semester students of doctoral studies suggest the topic of his doctoral thesis, made a synopsis of the dissertation and defend the proposal before the commission issues. After defended the proposal topics, participants prepare his doctoral thesis, which must be presented 3 times, the scheduled times. During the third cycle, candidates are required to publish at least two papers in journals that are indexed in scientifically recognized databases. Upon completion of dissertation work examined by a commission, and the study is completed with the doctoral dissertation defense in front of the members of the commission.

3.1.1. The protocols in the evaluation

Purpose-based learning is to improve the quality of learning and teaching in the Department of Architecture. The main objectives are:

- Quality education of students
- An individual approach to each student
- Students must be able to apply the gained knowledge
- Students should become independent after completing training

Evaluation of doctoral candidates is especially defined for each of the items. The emphasis is definitely put on the proposed research tasks subjects in terms of contributions, methodologies, approaches and contributions to scientific research.

3.1.2. Methods for evaluating, improving the quality and standards of the curriculum

- Annual evaluation of study programs
- Assessment of academic staff
- Implementation and monitoring plan for the promotion of academic staff
- Self-evaluation of members of the academic staff and faculty
- Analyses of satisfaction surveys of students
- External and internal audits of implementing ISO standards
- Analysis of the results of the passing and the average score of students
- Evaluation of staff by students

3.1.3. Mechanisms for review and evaluation of the program of work, the standard outcome

Meetings at the Department of Architecture in June / July where speakers discuss subjects to create the structure, teaching, student performance in the assessment, students' opinions about the quality and to make recommendations for possible changes and improvements. All the below mentioned mechanisms are used in order to establish and maintain the best practices of teaching and learning.

- Annual reports of examiners / additional and fixed / where the comment pass rate, the standards of learning and performance review.
- Questionnaires for the evaluation of teaching.
- Annual Report of Heads of departments including details on admission personnel, changes in the curriculum and teaching quality, student performance as well as further destinations of graduates of Masters of Science.

Indicators of quality and standards:

- the success rate for each cycle for each subject
- students modular assessment
- annual student satisfaction survey
- activities, analyzes, reports of the Standardization and Quality Assurance

3.2. Criterion for admission

The requirements for entrance of students are in accordance with the rules of the International Burch University, and it is to admit every applicant as a potential student will be eligible to enroll in the Department of Architecture.

- **Academic ability**

From all candidates will be sought the possession of proven and potential excellence. Suitable indicator includes two or more academic references, transcript or its equivalence, the statement (at the application form), which explains how the courses are going to help to the further progress of the career of applicants and also their performance in interview is valuated too. Applicant enrolled if he/she provided sufficient evidence, according to the person in charge, to have sufficient academic abilities and commitment to enter the selected program within certain time limits. This includes a sufficient level of knowledge acquired in the first and second cycle of education as the basis for a successful understanding of the courses on the third cycle.

- **Requirement for English proficiency**

Applicants whose native language is not English must be accompanied by an internationally recognized certificate of English language. The candidate is expected to meet the following criteria: For the IELTS test, minimum score must be fifth, TOEFL test, minimum result 450 and for computer based test 200 points.

4.0. III CYCLE (PhD)

1. Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 601	Methodology of conducting a scientific research	3	0	6
ARC xxx	Elective I	3	0	6
ARC xxx	Elective II	3	0	6
ARC xxx	Elective III	3	0	6
ARC 693	Seminar I	0	3	6
Total		12	3	30

2. Semester				
CODE	COURSE NAME	T	P	ECTS
ARC xxx	Elective IV	3	0	6
ARC xxx	Elective V	3	0	6
ARC xxx	Elective VI	3	0	6
ARC xxx	Elective VII	3	0	6
ARC 694	Seminar II	0	3	6
Total		12	3	30

3. Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 695	PhD Dissertation I	0	0	30
Total		0	0	30

4. Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 696	PhD Dissertation II	0	0	30
Total		0	0	30

5. Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 697	PhD Dissertation III	0	0	30
Total		0	0	30

6. Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 698	PhD Dissertation IV	0	0	30
Total		0	0	30

COURSES

COURSES				
CODE	COURSE NAME	T	P	ECTS
ARC 601	Methodology of conducting a scientific research	3	0	6
ARC 615	Theory, Process And Formal Language In Architectural Design	3	0	6
ARC 616	Popular culture and topography of identity	3	0	6
ARC 617	Architecture of information society	3	0	6
ARC 622	20th Century Architecture of the World	3	0	6
ARC 628	Stone in Architecture and Architectural Conservation	3	0	6
ARC 618	Constructive logics of space	3	0	6
ARC 619	Architectural form	3	0	6
ARC 608	Performance of Buildings Elements under Environmental Effects	3	0	6
ARC 611	Composite Building Materials and Design Principles	3	0	6
ARC 605	Construction Economics	3	0	6
ARC 620	Phenomena of modern architecture in library spaces	3	0	6
ARC 602	Critical Path Analysis in Project Management	3	0	6
ARC 621	Urban Ecology	3	0	6
ARC 606	Information Systems in Construction Projects Management	3	0	6
ARC 627	Methodology of conducting conservation and restoration projects	3	0	6
ARC 665	Introduction to contemporary theoretical aspects	3	0	6
ARC 668	Islamic art and architecture	3	0	6
ARC 669	Criticism in Architecture	3	0	6
ARC 603	Quantitative Decision Making Techniques in Construction Management	3	0	6
ARC 613	Sustainable urban development	3	0	6
ARC 623	Modular and Flexible Architecture	1	2	6
ARC 624	Emergent Sustainable Natural Materials Technologies	1	2	6
ARC 625	Tentative Identities of City: Globalization and Culture	3	0	6
ARC 626	Art, Architecture, and Urbanism in Dialogue	3	0	6
ARC 630	Anthropology of Architecture	3	0	6
ARC 631	Living Unit Design	3	0	6
ARC 632	Aesthetics of Architecture	3	0	6
ARC 633	Principles of Project Monitoring and Evaluation	3	0	6
ARC 634	Archi-texts of Space and Place	3	0	6
ARC 693	Seminar I	0	3	6
ARC 694	Seminar II	0	3	6
ARC 695	PhD Dissertation I	0	0	30
ARC 696	PhD Dissertation II	0	0	30
ARC 697	PhD Dissertation III	0	0	30
ARC 698	PhD Dissertation IV	0	0	30

5.0. COURSE DISCRIPTION

Course Code: ARC 601	Course Name: METHODOLOGY OF CONDUCTING SCIENTIFIC RESEARCH			
Level: PhD	Year: 1	Semester: 1	ECTS Credits: 6	
Status: Mandatory	Hours/Week: 3+0		Total Hours: 45	
Course Description	The study of quantitative and qualitative research methods commonly used in architectural studies. This is an introductory course in research methods.			
Course Objectives	<p>Develop an understanding and appreciation of quantitative and qualitative research methods are important for the successful resolution of a specific research question. Develop an understanding of the principles and processes involved in the development and resolution of specific research questions. Develop core competencies for writing a research proposal. Develop a solid background in basic statistics and data analysis.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	Identification of problems, Formulation of hypothesis, Sampling, Design research, Data collection and collection strategy, Validity, reliability and other problems of measurement, Valuation techniques and data management methods applied in the study, Qualitative Data Analysis, Non-parametric data analysis, Factor analysis, Methodology research, Application.			
Teaching Methods Description	Interactive lectures Discussion Group work Presentations			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	10 %
	Presentation	40 %	Final Exam	50 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Demonstrate a systematic and critical understanding of theories and principles • Creative use of contemporary theories, processes and tools for developing and evaluating solutions to problems and product design • Actively chance to take part in personal training and progress in taking responsibility, in terms of life-long learning and progress • Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of architecture, interior design and urban planning; • Recognize the importance of the relationship between architectural theory and praxis; • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of sustainable architecture; • Pursue research of significance in the discipline or an interdisciplinary or creative project; • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; <p>Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals. (Communication).</p>			
Prerequisite Course(s) (if any)	None			
Language of Instruction	English			

Mandatory Literature	Russey, W. E., Ebel, H. F., & Bliefert, C. (2006). How to write a successful science thesis. The concise guide for students. Weinheim: Wiley-VCH.		
Recommended Literature	<ol style="list-style-type: none"> 1. The Research Methods Knowledge Base by William Trochim & James P. Donnelly [1]. Available free online at http://www.socialresearchmethods.net/kb/ 2. Research Methods and Statistics: A Critical Thinking Approach by Sherri L. Jackson [2]. 3. The Lady Tasting Tea: How Statistics Revolutionized Science in the Twentieth Century by David Salsburg [3]. 4. Miller, Delbert C. and Neil J. Salkind. 2002. Handbook of Research Design and Social Measurement. Thousand Oaks, CA: Sage Publications. Some sections are on-line, others may be xeroxed. You may want to purchase this as a general reference work, but examine it first. 5. Sekaran, U. 2003. Research methods for business: A skill building approach, 4th ed. New Jersey:John Wiley and Sons, Inc. <p>Babbie, Earl, The Practice of Social Research, 11th edition, Thomson 2007.</p>		
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	40
Seminar / Presentation	1	20	80
Total Workload			190
ECTS Credit (Total Workload / 25)			7.5

Course Code: ARC 619		Course Name: ARCHITECTURAL FORM		
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The subject examines the theme of architectural form as a system, which consists of several elements in the environmental conditions and contains many relationships and processes. This description is intended to be on it edified authentic architectural scientific discourse. It points to the abstract art and the specific nature of architectural forms from whose duplicity and opposition abstract - concrete resulting dichotomy scientific interpretations of architectural forms.			
Course Objectives	<p>Through the discourse of architectural form as a material, spatial and event system, the candidate gets a glimpse of the authentic, the architectural aspects of the theoretical issues of architecture and built the foundation for systemic axiological discourse on architectural forms.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	<p>Architectural form as a system System elements and interrelationships of elements The dual nature of architectural form Methodological, axiological and other dichotomies that follow from such The genesis of architectural forms Normative environment and the creative eros Procédé architectural concept and term Concept - an instrument in the process of formation of architectural forms that the normative environment organized frameworks creative process. Five functional systems architectural artistry Representative role external image Layers architectural images Picture an event in - emphasizes the diversity of internal and external images of architectural form. Architectural artistry is specified as an event Draft axiology in architecture - Values architectural forms gather around its system elements as creative eros effect in emergency and repressive normative frameworks. Explores the difference between lateral and authentic (Visual, spatial, tectonic) architectural value. Explore methods of creating value and expressive modes record values of architectural form in architectural illustration.</p>			
Teaching Methods Description	Lectures and seminars are held to the teaching unit. Lectures will be conducted with a slide show, and seminars are conducted in the form of discourse or individual.			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	20 %
	Presentation	30 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Understand the concepts of candidates belonging to the fundamental concept that is architectural form as a system, and the current architectural events • Effectively present research according to the contemporary practices in visual, written, and oral formats and various digital media • Recognize how the design process affects or is affected by social, cultural, environmental, economic, and ethical dimensions • Critically analyze current practice in architectural design and urban planning 			

	<ul style="list-style-type: none"> • Implement sophisticated social and ethical sensibilities in the architectural design process • Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of architecture, interior design and urban planning; <p>Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals.</p>		
Prerequisite Course(s) (if any)			
Language of Instruction	English		
Mandatory Literature			
Recommended Literature	<p>Alexander, Christopher: A Pattern Language : Oxford University Press, New York, 1977. Bachelard, Gaston: Poetika prostora, Kultura, Beograd, 1969. Focillon, Henri: Život oblika (La vie des formes, 1970), biblioteka Ariel, Zagreb, 1995. Hartmann, Nikolai: Ästhetik, BIGZ, Beograd, 1978. izvornik Walter de Gruyter & Co. Berlin, 1953. Schultz, Christian Norberg: Genius loci, Academi editions, London, 1980. Zumthor, Peter: Misliti arhitekturu, AGM, Zagreb 2003.</p>		
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 605	Course Name: CONSTRUCTION ECONOMICS			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The purpose of this course is to provide an introduction to those aspects of construction which can help students of architecture to become aware of the economic concerns of other parties in the construction process and be able to respond constructively these problems in their design decisions.			
Course Objectives	<ul style="list-style-type: none"> • Understand and apply connection of build and benefit • Financial feasibility analysis for construction projects • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines with focus on the importance of economics in Construction • Explore, critically analyze and contribute to initial cost of construction projects • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); • Explore and critically analyze concepts of cost estimates, construction and finance, future performance of buildings, services <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)				
Teaching Methods Description	Interactive teaching Discussions or individual / group work presentations			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	20 %
	Project	25 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	10 %
	Presentation	20 %	Final Exam	25 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Understand and apply economic concepts in architecture and construction • Understand and critically apply to handle a tax-cost problems • Understand the importance of cash flow in the architectural and construction projects • Get fully familiar about relationship between time and money • Pursue research of significance in the discipline or an interdisciplinary or creative project • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; <p>Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals. (Communication).</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				
Recommended Literature	<p>1. DeGarmo, E.P., Sullivan, W.G., Canada, J.R., "Engineering Economy", 7th edition, Macmillian, USA.</p> <p>2. Blank, L.T., Tarquin, A.J., "Engineering Economy", Fifth edition, McGraw-Hill, USA</p> <p>3. Osman Okka, "Engineering Economy", Nobel Publishing, Ankara.</p>			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	

Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 615	Course Name: THEORY, PROCESS AND FORMAL LANGUAGE IN ARCHITECTURAL DESIGN			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	This course enables students to recognize the structure of architectural components and elements. The subject deals with the teaching of formal languages and styles in architecture.			
Course Objectives	<p>Acquiring recognition of analyzing the structure of spatial design in relation to the design process Knowledge of the relationship between thinking and building through reading texts of selected architects and analyzing physical form. Understanding the history of architecture as a history of cultural beliefs, ideas and values. Understanding the different formal languages, styles and theories that have shaped the history of architecture.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	Introduction, Theory of architectural design, Elements of the program, space-program organization, Elements and Structures, Form and content. The realization of ideas. Technology and materials, The process of designing, The structure of the creative process, Development of ideas, Methodological concepts the design phase. Evaluation: selection, cases and iterative methods, Formal languages in architecture, Architectural Styles, Purizan and Brutalism, Postmodern languages			
Teaching Methods Description	<ol style="list-style-type: none"> 1. Interactive teaching and discussion 2. Analysing the general and specific literature Consultations 3. The study of specific topics, preparing for defence projects. 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	60 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	20 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Demonstrate the systematical and critical understanding of theories and principles of design • Creatively apply contemporary theory, processes and tools, and developing and evaluating solutions to architectural problems, • Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of architecture, interior design and urban planning; • Recognize the importance of the relationship between architectural theory and praxis; • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of sustainable architecture; • Pursue research of significance in the discipline or an interdisciplinary or creative project; • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; <p>Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals. (Communication).</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				

Recommended Literature	<ol style="list-style-type: none"> 1. Brawne, Michael, Architectural thought: Design process and the expectant eye, Architectural Press, 2003; 1 edition, 192 pp. ISBN-13: 978-0750658515 2. Arnheim, Rudolf: Art and Visual Perception:A Psychology of the Creative Eye. University of California Press, (1954) 2004-518 pages. ISBN: 9780520243835 3. Arnheim, Rudolf: Visual Thinking, Volume 35. University of California Press, (1969) 2004-352 pages. ISBN: 9780520242265 4. Pressman, Andrew: Designing Architecture: The Elements of Process. Routledge, 2012 – 208 pp. ISBN-13: 978-0415595162 <p>Pallasmaa, Juhani: The Thinking Hand (Architectural Design Primer)Wiley, 2009 – 160 pp. ISBN-13: 978-0470779293</p>		
ECTS (ALLOCATED BASED ON STUDENT’S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 620	Course Name: PHENOMENA OF MODERN ARCHITECTURE IN LIBRARY SPACES		
Level: PhD	Year:	Semester:	ECTS Credits: 6
Status: Elective	Hours/Week: 3+0		Total Hours: 45
Course Description	Public buildings at the end of the 20th century experienced capital changes. Libraries are becoming the city and collectively place of the city. In connection with this phenomenon, the subject is formed in two major methodological units are the first of which deals with the general phenomena of contemporary architecture (generation of programs and local hot spots, architecture and the search for an event, the idea of size), while the second unit applied to specific topics of contemporary architectural creativity; (modernist ideas lighting, Kahn's light, transformation library - from clay tablets to electronic records, exclusivity library mediathèque and new technology, the experience of the Sarajevo City Hall, the anticipation of the development of space programs and libraries).		
Course Objectives	<ul style="list-style-type: none"> • Evaluation of quality architecture library in global relations. • Affirmation and critical evaluation of the world's examples of architecture library. • The specific contribution of BiH architecture libraries in the European cultural context. • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines of library facilities • Explore, critically analyze and contribute to broad area of theories of architecture of library facilities; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants</p>		
Course Content (weekly plan)	<p>Introductory lecture. View methodical units, the meaning of phenomena in the context of contemporary world architecture on programs and library spaces.</p> <p>Interpretation and transposition of memory space to the surface and the Semperovog Bekleidung principle (Eberswalde Library - Herzog & de Meuron, Seattle Public Library and dormitory at IIT in Chicago - OMA).</p> <p>Positioning of modern architectural projects in the revolutionary French school 17/18 century (JF Blondel, EL Boullée, Mies van der Rohe, L. Kahn, H. Scharoun).</p> <p>Architectural projects as urban library - generative problems of the 20th century (library, Berlin, London, Paris).</p> <p>The integration of the idea of "free public libraries" (American Library in Berlin - S. Holl, Viipuri - A. Aalto, Exeter - L. Kahn, Ulm - G. Bohm).</p> <p>Miterranand national cultural projects, 80-years and the idea of size (La Bibliotheque de France, L'Opera de la Bastille, L'Institut du Monde Arabe, Le Musée d'Orsay, La Grande Arche, "La Villette").</p> <p>Generation of local hot spots and programs, campus and university libraries (Utrecht, Delft, Dresden, Cambridge, Aveiro, Cottbus, Karlsruhe, Kobenhavn, Rostock, Zagreb).</p> <p>Spatial-typological transformation future library (library-museum, library-archives, Yale University, New Haven - SOM, Marbach - D. Chiperfield).</p> <p>Specific topics of contemporary architectural creativity</p> <p>Modernity in the modernist idea of lighting area libraries and museums (L. Kahn, A. Aalto, Le Corbusier).</p> <p>Kahn's light in museums and libraries (Philips Exeter - Exeter, Yale Center for British Art - New Haven, Yale University Art Gallery - New Haven).</p> <p>Architectural Concepts Library - controversy and aspirations (competition for ZKM, Karlsruhe - OMA, Tschumi, the competition for the library Jussieu in Paris - OMA, Herzog & de Meuron).</p> <p>Transformation libraries of clay tablets to electronic records. (from Ephesos and to MEDIA).</p> <p>13th New tendency to library facilities; mediathèque and new technologies (Sendai, Cottbus, Karlsruhe).</p> <p>14th Sarajevo City Hall</p> <p>15th Anticipation Development Library (synthesis thematic sections, perspectives on the future).</p>		
Teaching Methods Description	Interactive lectures Discussions Research		
	Quiz	0 %	Lab/Practical Exam 20 %

Assessment Methods Description (%)	Homework	0 %	Term Paper	0 %
	Project	20 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	10 %
	Presentation	50 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> Understand and detect high levels of integration processes of physical phenomena libraries and install them in the scientific and artistic domain of architectural present. Pursue research of significance in the discipline or an interdisciplinary or creative project Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of architectural studies Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards <p>Express skills in oral and written communication sufficient to publish and present work</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				
Recommended Literature	<p>Curtis, William (1987); Modern Architecture since 1900, Phaidon, Oxford Frampton, Kenneth (1993); Grundlagen der Architektur, Studien zur Kultur des Tektonischen; Oktagon, Stuttgart, Pevsner, Nicolaus (1986); A history of building types. Thames and Hudson, London Rossi, Aldo (1999); Arhitektura grada</p>			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	
Literature review (15 weeks x hours/week)	15	3	45	
Research /Laboratory/ field work	1	2	25	
Reporting	1	2	30	
Seminar / Presentation	1	20	50	
Total Workload				
ECTS Credit (Total Workload / 25)				

Course Code: ARC 621	Course Name: URBAN ECOLOGY			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	Within the semester, students are working on research that record the default cases of environmental damage during construction, buildings and complexes recorded, analyzed and doing critical analysis. Critical analysis of the students present in the form of written text, oral presentation.			
Course Objectives	<p>Enabling architects to work independently and managing teams that handle environmental damage during construction in spatial and urban planning, which presents problems of pollution by building the professional public and the mass media, which will deal with the rehabilitation projects and to develop the necessary policies to protect the environment from the devastation of construction and architecture development high values.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural discipline of urban ecology • Explore, critically analyze and contribute to broad area of theories of urban ecology • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants</p>			
Course Content (weekly plan)	<p>Analysis, recording and collection of data on a given zone or in a compound caused environmental damage during construction. Consideration of damage and formulate conclusions Preparation for various presentations and media presentation Data processing and critical analysis of the introduction of urban and spatial plans. Design of repairs or theoretical analysis of the social aspects of the problem of pollution during construction.</p>			
Teaching Methods Description	<p>Interactive lectures Discussions Group work Presentations Research</p>			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	20 %
	Homework	0 %	Term Paper	0 %
	Project	60 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	20 %
	Presentation	0 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of architecture • Recognize the importance of the relationship between architectural theory and praxis; • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of architectural studies • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards <p>Express skills in oral and written communication sufficient to publish and present work</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				
Recommended Literature	Morsan, B.: Kako liječiti arhitekturu - prinos analizi sociopatologije građenja, Prostor			

Semper, G.: The Four elements of Architecture, Cambridge University Press, 1989.
 Marina Alberti, 1965, Advances in Urban Ecology: Integrating Humans and Ecological Processes in Urban Ecosystems
 Wilfried Endlicher, 2011, Perspectives in Urban Ecology: Ecosystems and Interactions between Humans and Nature in the Metropolis of Berlin
 George A. Gonzalez, 2005, The Politics of Air Pollution: Urban Growth, Ecological Modernization, and Symbolic Inclusion
 Richard T. T. Forman, 2001, Urban Regions: Ecology and Planning Beyond the City (Cambridge Studies in Landscape Ecology)
 Rutherford H. Platt, Rowan A. Rowntree, Pamela C. Muick, 1994, The Ecological city: preserving and restoring urban biodiversity

ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)

Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 627	Course Name: METHODOLOGY OF CONDUCTING CONSERVATION-RESTORATION PROJECTS			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	Presentation of scientific tools, methods and tools used in conducting conservation research and advanced design in this area			
Course Objectives	<ul style="list-style-type: none"> The adoption of the key principles of the methodology of conservation and restoration projects and scientific research in this field Explore, critically analyze and contribute to information requirements of any type of organization of methodology of conducting conservation-restoration projects Understand the basic concepts, tools and processes in the development of methodology of conducting conservation-restoration projects Create mindfulness of global approach to complex scientific and/or technical research problem-solving in conservation-restoration projects Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants in field of conservation-restoration projects</p>			
Course Content (weekly plan)	<ul style="list-style-type: none"> The process of design in the field of architectural conservation Methods and techniques of research Case Studies: Analysis and interpretation of the completed projects Discussions and workshops: analysis of specific problems 			
Teaching Methods Description	<ol style="list-style-type: none"> Interactive teaching and discussion Analysing general and specific literature Consultations <p>The study of specific topics, preparing for defence projects.</p>			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	60 %	Attendance	0 %
	Midterm Exam	30 %	Class Deliverables	10 %
	Presentation	0 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> Get familiar with scientific research in the field of conservation and restoration, and the use of scientific tools in the development of conservation - restoration projects Implement sophisticated social and ethical sensibilities in the architectural research Understand the ethical issues involved in the formation of professional judgment in architectural heritage Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of arch. Heritage <p>Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				
Recommended Literature	1. Bernard M. Feilden, Conservation of Historic Buildings, Architectural Press /An imprint of Elsevier , Third edition, 2003.			

2. Nermina Mujezinović, Kamen – materijal kontinuiteta i izražajnih mogućnosti, Federalno ministarstvo obrazovanja i nauke, Sarajevo, 2009.
3. Barbara Appelbaum, Conservation Treatment Methodology, Oxford: Butterworth-Heinemann/Elsevier, 2007.
4. Cultural Heritage in Postwar Recovery, ICCROM, 2007.
5. David Andrews, Jon Bedford, Bill Blake, Paul Bryan, Tom Cromwell, Richard Lea, Measured and Drawn, Techniques and practice for the metric survey of historic buildings, second edition, English Heritage, 2009.
6. International Principles of Preservation, Michael Petzet, ICOMOS hendrik Bäbeler verlag, berlin, 2009.
7. Time Honored: A Global View of Architectural Conservation John H. Stubbs, Wiley; 1st edition, 2009.

ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)

Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 623		Course Name: MODULAR AND FLEXIBLE ARCHITECTURE			
Level: PhD		Year:	Semester:	ECTS Credits: 6	
Status: Elective		Hours/Week: 1+2		Total Hours: 45	
Course Description		The course of Modular and Flexible architecture provides advanced knowledge about the sustainable architecture, recycling, reuse, reconditioning and maintenance of building in order to achieve energy efficiency of buildings, materials used and method of modular and flexible construction of sustainable buildings			
Course Objectives		<p>To introduce students to advanced concepts and assumptions of sustainable and flexible approach to architecture is their application in architectural the context of national, regional and local design and planning, with display and analysis of recent national and international projects and achievements.</p> <ul style="list-style-type: none"> - Introduce the students to methods of holistic interdisciplinary strategic planning approaches and methods of planning and maintenance. -Introduce and work with different simulation software using different data about waste management and climate characteristic as a starting point and framework for urban planning and architectural design. - Challenge students to think outside the box and to understand and take ad innovative approach in planning, reconstructions and innovation. - Develop the student capability to design multifunctional regional, local or buildings designated for special group of users from conceptual to final project including all necessary elements of the sustainable modular and flexible building materials and elements as well as building and cities - Develop students with up to date analyses, software tools, waste data, recycling/reuse, architectural presentational and communication skills - Present social, environment and ethical responsibilities of building sector changes and reconstructions - Provide students with ongoing opportunities to reach innovative solutions by hypothesizing, experimenting, criticizing and learning from both good and bad examples; - Understanding the difference of fixed and flexible constructions and elements and their impact on EEA and latest nZEB requirements - Understanding of all Influencing factors of total energy use in buildings and LCA - Materials as a focus of holistic approach in sustainable design (traditional, natural, renewable) - Building as a bank of materials philosophy - Healthy building, better quality of life 			
Course Content (weekly plan)		<p>Presentation: Introduction to the Modular and Flexible architecture latest requirements and directives, Methods, latest news and products of Waste sources and overall situation and development strategy. Software for simulation by using of different Specific region and climate condition source analyses including wind rouse, sun path, moisture control. Site needs. Simulations of waste management and data based projects (SUPER use)</p> <p>Durability of building stock, trends and sustainable requirements</p> <p>Modularity and flexibility in constructions, materials and buildings</p> <p>Flexible cities</p> <p>Buildings as a bank of the materials</p> <p>Circular economy</p> <p>Calculation methods, dimensioning, design and simulation</p> <p>Transformability and mobility</p> <p>Healthy building, hygiene materials</p> <p>Community Involvement</p>			
Teaching Methods Description		<p>Lectures, readings, workshops, discussions, individual research</p> <p>Practical Sessions / Project based learning: applying the principles and knowledge acquired through the practical work / concrete design task</p> <p>Exercises</p> <p>Assignments</p> <p>Demonstration</p>			
Assessment Methods Description (%)		Quiz	0 %	Lab/Practical Exam	0 %
		Homework	0 %	Term Paper	0 %

	Project	0 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	30 %
	Presentation	0 %	Final Exam	50 %
	Total	100 %		
Learning Outcomes	<ul style="list-style-type: none"> - Respond to complex program requirements and functional standards; - Solve real world challenges by exploring, assessing and critiquing existing proposals of learning from past successes and failures and identifying new or unexplored opportunities; - Demonstrate an ability to reach innovative design solutions by iteratively proposing ideas, receiving feedback, incorporating feedback and learning from failed proposals; with the scope of bringing to a successful outcome of a design project, including researching, programming, modelling, exploring alternatives, evaluating, selecting, developing, presenting, critiquing, testing, revising, refining, and improving; - Demonstrate a systematic and critical understanding of the theories, principles and practices of Mobility and flexibility - Prepare a comprehensive program for an architectural project, including assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and assessment of their implication for the project, and a definition of site selection and design assessment criteria; climate conditions, energy requirements including all requirements for comprehensive sustainable architecture design. - Creatively application and perception of the nature and energy needs - Critically review the role of the designer and architect in sustainable architecture - Creatively application of the knowledge about Modular and Flexible architecture - Demonstrate an ability to collaborate with others on developing an innovative analysis, project, or solution, by incorporating different viewpoints and experiences for effective interdisciplinary approach; - Recognize how the design process affects or is affected by social, cultural, environmental, circular economy, and ethical dimensions - Critical analyse and actively participate in, green technics, and take responsibility for, personal learning and development, within a framework of lifelong learning and continued professional development; <p>Present issues and solutions in appropriate form to communicate effectively with colleagues and future investors and other stakeholders</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	1. Durmišević E. (2006); „Tranformable building structure“, CEDRIS M&CC, Netherlands 2. Dynamic Architecture BC E. Durmišević, A. Pašić University of Twente, Netherlands			
Recommended Literature	1. Daniel E. E. Williams; (2010), Sustainable design, Ecology, Architecture and Planning, FAIA 2. C. Snell, T. Collahan; (2009); Building Green, Lark, ISBN 978-157990-532-32009			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	
Literature review (15 weeks x hours/week)	15	3	45	
Research /Laboratory/ field work	1	2	25	
Midterm Examination (1 week)	1	2	2	
Final Examination (1 week)	1	2	2	
Preparation for Midterm Examination	1	20	20	
Preparation for Final Examination	1	40	40	
Seminar / Presentation	1	40	40	
Total Workload			159	
ECTS Credit (Total Workload / 25)			6	

Course Code: ARC 632	Course Name: AESTHETICS OF ARCHITECTURE			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	This course is attempting to put abstract concept of aesthetics put into framework of architecture. It examines development of theories of aesthetics through history, not only of western thinkers but also relates the development with impacts of Islamic philosophers. Concept of aesthetics will be examined, through notions of perception, individualism, with particular focus on the connection between culture and form as well as its aesthetic evaluation.			
Course Objectives	<ul style="list-style-type: none"> • Introduce students with the abstract concept of aesthetics • Identify the major milestones in development of theories of aesthetics through history • Introduce students with the concept of culture and its impact on architecture • Introduce students with the correlation between anthropology and visual expression in architecture 			
Course Content (weekly plan)	<ul style="list-style-type: none"> • Introduction (Syllabus review; course content, requirements, policies; teaching methods) • Development of Aesthetic Theory • Islamic Aesthetics • Architecture and Aesthetics • Anthropology of Art in Architecture • Case Studies 			
Teaching Methods Description	<ul style="list-style-type: none"> • Lectures • Readings, workshops • Individual research • Class work 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	50 %	Class Deliverables	0 %
	Presentation	0 %	Final Exam	50 %
	Total	100 %		
Learning Outcomes	<ul style="list-style-type: none"> • Understand the nature of the abstract notion of culture • Understand the abstract notion of aesthetics • Understand the correlation between form and culture • Understand the correlation between culture and aesthetic evaluation • Develop knowledge related to preference, choice and design 			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	20th Century Architecture2006Koln Fifty Chairs that Changed the World: Design Museum Fifty 2009 Furniture Design 2015Poznanpringer International Publishing Furniture Design2012New JerseyJohn Wiley & Sons, Inc Modern Furniture1949New YorkReinhold Publishing			
Recommended Literature				
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	
Lecture (14 weeks x hours/week)	15	3	45	
Laboratory / Practice (14 weeks x Laboratory / Practice hours per week)	0	0	0	
Midterm Examination (1 week)	1	2	2	
Final Examination (1 week)	1	2	2	
Preparation for Midterm Examination	1	50	40	

Preparation for Final Examination	1	90	90
Assignment / Homework / Project			
Seminar / Presentation			
Total Workload			179
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 693	Course Name: SEMINAR I			
Level: PhD	Year: 1	Semester: 1	ECTS Credits: 6	
Status: Mandatory	Hours/Week: 3+0		Total Hours: 45	
Course Description	Seminar I is intended to assist PhD students in the preparation of a thesis proposal and to facilitate the transition from course work to thesis. This course will review of proposal components, with particular emphasis on research design and developing the literature review, and will also focus on key issues such as thesis format standards, psychological and time management demands, committee formation, and project management.			
Course Objectives	Objective of this course is to attempt to apply students' cumulative understanding and skills to specific research situation. From the perspective of one's program of study, however, this course poses a real-world test helping to make a realistic transition from coursework to dissertation.			
Course Content	<ul style="list-style-type: none"> • Overview of the Master's Degree and Thesis • Thesis: What to Expect? • Selecting a Research Topic • Using the Literature to Research Problem • Literature Review (1) • Literature Review (2) • Conducting Ethical Research • Presentation • Research Design • Introduction • Literature Review • Methods • Results • Discussion • Presentation and Wrap up 			
Teaching Methods Description	<ul style="list-style-type: none"> • Interactive lectures • Tutorial 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	10 %
	Midterm Exam	0 %	Class Deliverables	50 %
	Presentation	40 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ol style="list-style-type: none"> 1. Apply your theoretical and methodological understanding and skills into devising researchable ideas and specific research questions and hypotheses. 2. Conduct a focused review of the relevant literature and create appropriate conceptual framework. 3. Develop a realistic research design with specific research strategies. 4. Think through and articulate a chapter-by-chapter outline of the intended dissertation. 5. Communicate research ideas and their appropriate theoretical and methodological issues effectively and efficiently. 6. Critique other's ideas paying particular attention to both theoretical and methodological rigor and reality. 7. Gain understanding of the process of thesis including stress, time, and project management, committee formation, thesis proposition and defense, and human subjects reviews. 			
Prerequisite Course(s)	-			
Language of Instruction	English			
Mandatory Literature	<ul style="list-style-type: none"> • How to Write a Master's Thesis Second Edition by Yvonne N. (Nguyen) Bui, ISBN-13: 978-1452203515 			
Recommended Literature				
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				

Activities	Quantity	Duration	Workload
Lecture (15 weeks x Lecture hours per week)	15	3	45
Laboratory / Practice (15 weeks x Laboratory / Practice hours per week)	0	0	0
Midterm Examination (1 week)	0	0	0
Final Examination (1 week)	0	0	0
Preparation for Midterm Examination	0	0	0
Preparation for Final Examination	0	0	0
Assignment / Homework / Project	5	10	50
Seminar / Presentation	5	10	50
Total Workload			145
ECTS Credit (Total Workload / 25)			6

Level: PhD	Year: 1	Semester: 2	ECTS Credits: 6	
Status: Mandatory	Hours/Week: 3+0		Total Hours: 45	
Course Description	Seminar II is continuation of Seminar I. It is intended to assist master students in the preparation of a thesis proposal and to facilitate the transition from course work to thesis. This course will review of proposal components, with particular emphasis on research design and developing the literature review, and will also focus on key issues such as thesis format standards, psychological and time management demands, committee formation, and project management.			
Course Objectives	Objective of this course is to attempt to apply students' cumulative understanding and skills to specific research situation. From the perspective of one's program of study, however, this course poses a real-world test helping to make a realistic transition from coursework to dissertation.			
Course Content	<ul style="list-style-type: none"> • Overview of the Master's Degree and Thesis • Thesis: What to Expect? • Selecting a Research Topic • Using the Literature to Research Problem • Literature Review (1) • Literature Review (2) • Conducting Ethical Research • Presentation • Research Design • Introduction • Literature Review • Methods • Results • Discussion • Presentation and Wrap up 			
Teaching Methods Description	<ul style="list-style-type: none"> • Interactive lectures • Tutorial 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	10 %
	Midterm Exam	0 %	Class Deliverables	50 %
	Presentation	40 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ol style="list-style-type: none"> 1. Apply your theoretical and methodological understanding and skills into devising researchable ideas and specific research questions and hypotheses. 2. Conduct a focused review of the relevant literature and create appropriate conceptual framework. 3. Develop a realistic research design with specific research strategies. 4. Think through and articulate a chapter-by-chapter outline of the intended dissertation. 5. Communicate research ideas and their appropriate theoretical and methodological issues effectively and efficiently. 6. Critique other's ideas paying particular attention to both theoretical and methodological rigor and reality. 7. Gain understanding of the process of thesis including stress, time, and project management, committee formation, thesis proposition and defense, and human subjects reviews. 			
Prerequisite Course(s)	-			
Language of Instruction	English			
Mandatory Literature	<ul style="list-style-type: none"> • How to Write a Master's Thesis Second Edition by Yvonne N. (Nguyen) Bui, ISBN-13: 978-1452203515 			
Recommended Literature				
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	
Lecture (15 weeks x Lecture hours per week)	15	3	45	
Laboratory / Practice (15 weeks x Laboratory / Practice hours per week)	0	0	0	
Midterm Examination (1 week)	0	0	0	
Final Examination (1 week)	0	0	0	
Preparation for Midterm Examination	0	0	0	
Preparation for Final Examination	0	0	0	

Assignment / Homework / Project	5	10	50
Seminar / Presentation	5	10	50
Total Workload			145
ECTS Credit (Total Workload / 25)			6

Level: PhD	Year: 2	Semester: 1	ECTS Credits: 30	
Status: Mandatory	Hours/Week: 0		Total Hours: 0	
Course Description	PhD dissertation is done through four semesters/two academic years. During that time, each graduate student is expected to independently work on a chosen research project and apply practically most of the IT methods in their research work. Students are expected to widen their theoretical and practical knowledge in the area of study and to publish scientific papers in recognized scientific journals. At the end of their doctoral studies, each student should submit a PhD dissertation and defend it in the form of oral presentation in front of a committee consisted of five juries.			
Course Objectives	The cognitive, affective and behavioral objectives of this course are following: Providing and outline of how to perform a literature review; Explaining the scientific approach to research questions; Teaching how to carry out a scientific study and appropriately manage its data; Giving an overview of ethics involved in animal and/or human research; Explaining how to express oneself clearly in science (when speaking and writing).			
Course Content	<ul style="list-style-type: none"> ▪ Chapter 1: The Research Process ▪ Chapter 2: Selecting a Suitable Topic ▪ Chapter 3: Methods of Inquiry: Quantitative and Qualitative Approaches ▪ Chapter 4: Literature Review and Statement of the Problem ▪ Chapter 5: The Method Chapter: Describing Your Research Plan ▪ Chapter 6: Presenting the Results of Quantitative Studies ▪ Chapter 7: Presenting the Results of Qualitative Research ▪ Chapter 8: Discussion ▪ Chapter 9: Overcoming Barriers: Becoming an Expert While Controlling Your Own Destiny ▪ Chapter 10: Writing ▪ Chapter 11: How to Complete Your Dissertation Using Online Data Access and Collection ▪ Chapter 12: Guidelines for the Presentation of Numbers in the Dissertation ▪ Chapter 13: Informed Consent and Other Ethical Concerns 			
Teaching Methods Description	<ul style="list-style-type: none"> • Interactive lectures • Tutorial 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	0 %
	Presentation	50 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ol style="list-style-type: none"> 1. Apply your theoretical and methodological understanding and skills into devising researchable ideas and specific research questions and hypotheses. 2. Conduct a focused review of the relevant literature and create appropriate conceptual framework. 3. Develop a realistic research design with specific research strategies. 4. Think through and articulate a chapter-by-chapter outline of the intended dissertation. 5. Communicate research ideas and their appropriate theoretical and methodological issues effectively and efficiently. 6. Critique other's ideas paying particular attention to both theoretical and methodological rigor and reality. 			

	7. Gain understanding of the process of dissertation including stress, time, and project management, committee formation, dissertation proposition and defense, and human subjects reviews.		
Prerequisite Course(s)	-		
Language of Instruction	English		
Mandatory Literature	<ul style="list-style-type: none"> Rudestam, K.E. & Newton, R.R. 2007. Surviving Your Dissertation: A Comprehensive Guide to Content and Process (3rd ed.). Thousand Oaks: Sage Publications. [ISBN: 9781412916790] 		
Recommended Literature			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review and consultation	1	200	200
Research / Laboratory / field work	1	250	250
Thesis writing process	1	100	100
Data analysis and reporting	0	150	150
Seminar / Presentation (including defense)	4	12	48
Total Workload			748
ECTS Credit (Total Workload / 25)			30

Course Code: ARC 696	Course Name: PHD DISSERTATION II			
Level: PhD	Year: 2	Semester: 2	ECTS Credits: 30	
Status: Mandatory	Hours/Week: 0		Total Hours: 0	
Course Description	PhD dissertation is done through four semesters/two academic years. During that time, each graduate student is expected to independently work on a chosen research project and apply practically most of the IT methods in their research work. Students are expected to widen their theoretical and practical knowledge in the area of study and to publish scientific papers in recognized scientific journals. At the end of their doctoral studies, each student should submit a PhD dissertation and defend it in the form of oral presentation in front of a committee consisted of five juries.			
Course Objectives	The cognitive, affective and behavioral objectives of this course are following: Providing and outline of how to perform a literature review; Explaining the scientific approach to research questions; Teaching how to carry out a scientific study and appropriately manage its data; Giving an overview of ethics involved in animal and/or human research; Explaining how to express oneself clearly in science (when speaking and writing).			
Course Content	<ul style="list-style-type: none"> ▪ Chapter 1: The Research Process ▪ Chapter 2: Selecting a Suitable Topic ▪ Chapter 3: Methods of Inquiry: Quantitative and Qualitative Approaches ▪ Chapter 4: Literature Review and Statement of the Problem ▪ Chapter 5: The Method Chapter: Describing Your Research Plan ▪ Chapter 6: Presenting the Results of Quantitative Studies ▪ Chapter 7: Presenting the Results of Qualitative Research ▪ Chapter 8: Discussion ▪ Chapter 9: Overcoming Barriers: Becoming an Expert While Controlling Your Own Destiny ▪ Chapter 10: Writing ▪ Chapter 11: How to Complete Your Dissertation Using Online Data Access and Collection ▪ Chapter 12: Guidelines for the Presentation of Numbers in the Dissertation ▪ Chapter 13: Informed Consent and Other Ethical Concerns 			
Teaching Methods Description	<ul style="list-style-type: none"> • Interactive lectures • Tutorial 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	0 %
	Presentation	50 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ol style="list-style-type: none"> 8. Apply your theoretical and methodological understanding and skills into devising researchable ideas and specific research questions and hypotheses. 9. Conduct a focused review of the relevant literature and create appropriate conceptual framework. 10. Develop a realistic research design with specific research strategies. 11. Think through and articulate a chapter-by-chapter outline of the intended dissertation. 12. Communicate research ideas and their appropriate theoretical and methodological issues effectively and efficiently. 13. Critique other's ideas paying particular attention to both theoretical and methodological rigor and reality. 			

	14. Gain understanding of the process of dissertation including stress, time, and project management, committee formation, dissertation proposition and defense, and human subjects reviews.		
Prerequisite Course(s)	-		
Language of Instruction	English		
Mandatory Literature	<ul style="list-style-type: none"> Rudestam, K.E. & Newton, R.R. 2007. Surviving Your Dissertation: A Comprehensive Guide to Content and Process (3rd ed.). Thousand Oaks: Sage Publications. [ISBN: 9781412916790] 		
Recommended Literature			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review and consultation	1	200	200
Research / Laboratory / field work	1	250	250
Thesis writing process	1	100	100
Data analysis and reporting	0	150	150
Seminar / Presentation (including defense)	4	12	48
Total Workload			748
ECTS Credit (Total Workload / 25)			30

Course Code: ARC 697	Course Name: PHD DISSERTATION III			
Level: PhD	Year: 3	Semester: 1	ECTS Credits: 30	
Status: Mandatory	Hours/Week: 0		Total Hours: 0	
Course Description	PhD dissertation is done through four semesters/two academic years. During that time, each graduate student is expected to independently work on a chosen research project and apply practically most of the IT methods in their research work. Students are expected to widen their theoretical and practical knowledge in the area of study and to publish scientific papers in recognized scientific journals. At the end of their doctoral studies, each student should submit a PhD dissertation and defend it in the form of oral presentation in front of a committee consisted of five juries.			
Course Objectives	The cognitive, affective and behavioral objectives of this course are following: Providing and outline of how to perform a literature review; Explaining the scientific approach to research questions; Teaching how to carry out a scientific study and appropriately manage its data; Giving an overview of ethics involved in animal and/or human research; Explaining how to express oneself clearly in science (when speaking and writing).			
Course Content	<ul style="list-style-type: none"> ▪ Chapter 1: The Research Process ▪ Chapter 2: Selecting a Suitable Topic ▪ Chapter 3: Methods of Inquiry: Quantitative and Qualitative Approaches ▪ Chapter 4: Literature Review and Statement of the Problem ▪ Chapter 5: The Method Chapter: Describing Your Research Plan ▪ Chapter 6: Presenting the Results of Quantitative Studies ▪ Chapter 7: Presenting the Results of Qualitative Research ▪ Chapter 8: Discussion ▪ Chapter 9: Overcoming Barriers: Becoming an Expert While Controlling Your Own Destiny ▪ Chapter 10: Writing ▪ Chapter 11: How to Complete Your Dissertation Using Online Data Access and Collection ▪ Chapter 12: Guidelines for the Presentation of Numbers in the Dissertation ▪ Chapter 13: Informed Consent and Other Ethical Concerns 			
Teaching Methods Description	<ul style="list-style-type: none"> • Interactive lectures • Tutorial 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	0 %
	Presentation	50 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ol style="list-style-type: none"> 15. Apply your theoretical and methodological understanding and skills into devising researchable ideas and specific research questions and hypotheses. 16. Conduct a focused review of the relevant literature and create appropriate conceptual framework. 17. Develop a realistic research design with specific research strategies. 18. Think through and articulate a chapter-by-chapter outline of the intended dissertation. 19. Communicate research ideas and their appropriate theoretical and methodological issues effectively and efficiently. 20. Critique other's ideas paying particular attention to both theoretical and methodological rigor and reality. 			

	21. Gain understanding of the process of dissertation including stress, time, and project management, committee formation, dissertation proposition and defense, and human subjects reviews.		
Prerequisite Course(s)	-		
Language of Instruction	English		
Mandatory Literature	<ul style="list-style-type: none"> Rudestam, K.E. & Newton, R.R. 2007. Surviving Your Dissertation: A Comprehensive Guide to Content and Process (3rd ed.). Thousand Oaks: Sage Publications. [ISBN: 9781412916790] 		
Recommended Literature			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review and consultation	1	200	200
Research / Laboratory / field work	1	250	250
Thesis writing process	1	100	100
Data analysis and reporting	0	150	150
Seminar / Presentation (including defense)	4	12	48
Total Workload			748
ECTS Credit (Total Workload / 25)			30

Course Code: ARC 698	Course Name: PHD DISSERTATION IV			
Level: PhD	Year: 3	Semester: 2	ECTS Credits: 30	
Status: Mandatory	Hours/Week: 0		Total Hours: 0	
Course Description	PhD dissertation is done through four semesters/two academic years. During that time, each graduate student is expected to independently work on a chosen research project and apply practically most of the IT methods in their research work. Students are expected to widen their theoretical and practical knowledge in the area of study and to publish scientific papers in recognized scientific journals. At the end of their doctoral studies, each student should submit a PhD dissertation and defend it in the form of oral presentation in front of a committee consisted of five juries.			
Course Objectives	The cognitive, affective and behavioral objectives of this course are following: Providing and outline of how to perform a literature review; Explaining the scientific approach to research questions; Teaching how to carry out a scientific study and appropriately manage its data; Giving an overview of ethics involved in animal and/or human research; Explaining how to express oneself clearly in science (when speaking and writing).			
Course Content	<ul style="list-style-type: none"> ▪ Chapter 1: The Research Process ▪ Chapter 2: Selecting a Suitable Topic ▪ Chapter 3: Methods of Inquiry: Quantitative and Qualitative Approaches ▪ Chapter 4: Literature Review and Statement of the Problem ▪ Chapter 5: The Method Chapter: Describing Your Research Plan ▪ Chapter 6: Presenting the Results of Quantitative Studies ▪ Chapter 7: Presenting the Results of Qualitative Research ▪ Chapter 8: Discussion ▪ Chapter 9: Overcoming Barriers: Becoming an Expert While Controlling Your Own Destiny ▪ Chapter 10: Writing ▪ Chapter 11: How to Complete Your Dissertation Using Online Data Access and Collection ▪ Chapter 12: Guidelines for the Presentation of Numbers in the Dissertation ▪ Chapter 13: Informed Consent and Other Ethical Concerns 			
Teaching Methods Description	<ul style="list-style-type: none"> • Interactive lectures • Tutorial 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	0 %
	Presentation	50 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ol style="list-style-type: none"> 22. Apply your theoretical and methodological understanding and skills into devising researchable ideas and specific research questions and hypotheses. 23. Conduct a focused review of the relevant literature and create appropriate conceptual framework. 24. Develop a realistic research design with specific research strategies. 25. Think through and articulate a chapter-by-chapter outline of the intended dissertation. 26. Communicate research ideas and their appropriate theoretical and methodological issues effectively and efficiently. 27. Critique other's ideas paying particular attention to both theoretical and methodological rigor and reality. 			

	28. Gain understanding of the process of dissertation including stress, time, and project management, committee formation, dissertation proposition and defense, and human subjects reviews.		
Prerequisite Course(s)	-		
Language of Instruction	English		
Mandatory Literature	<ul style="list-style-type: none"> Rudestam, K.E. & Newton, R.R. 2007. Surviving Your Dissertation: A Comprehensive Guide to Content and Process (3rd ed.). Thousand Oaks: Sage Publications. [ISBN: 9781412916790] 		
Recommended Literature			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review and consultation	1	200	200
Research / Laboratory / field work	1	250	250
Thesis writing process	1	100	100
Data analysis and reporting	0	150	150
Seminar / Presentation (including defense)	4	12	48
Total Workload			748
ECTS Credit (Total Workload / 25)			30

Course Code: ARC 617	Course Name: ARCHITECTURE OF INFORMATION SOCIETY			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	<p>The course provides a framework for thinking about the development of modern information and communication technologies and their impact on changes in contemporary society, the development of cities and the role of architecture as well as on the process of architectural creation. Until recently, concepts such as virtual reality, artificial intelligence, hypermedia content, smart house a reality on which modern society and the architectural profession has to create new cultural forms. In the lectures, especially in the seminar will present and analyze the current situation and the vision of the future to discuss elements of the vision and its relevance to the current moment.</p>			
Course Objectives	<p>The subject tends to become aware of aspects of modern students of technological development in the field of information and communication technologies and their impact on social relations and development, especially in the architectural profession.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	<p>Classes are held as a block of lectures. Seminars related to the lecture and discuss of views in lectures: Introduction to the subject Modern development of information and communication technologies The socio cultural changes New Reality (artificial intelligence, hypermedia, smart home, ...) visions of the future Architecture between the real and virtual Living Space Future Changed the process of architectural creation</p>			
Teaching Methods Description	Lectures and seminars are held to the teaching unit. Lectures will be conducted with a slide show, and seminars are conducted in the form of discourse or individual.			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	20 %
	Project	70 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	10 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of IT in architecture • Recognize the importance of the relationship between architectural theory and praxis; • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of IT in architecture; • Pursue research of significance in the discipline or an interdisciplinary or creative project; • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; • Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals. (Communication). <p>Implement sophisticated social and ethical sensibilities in the architectural design process;</p>			
Prerequisite Course(s) (if any)				

Language of Instruction	English		
Mandatory Literature			
Recommended Literature	<ol style="list-style-type: none"> 1. William J Mitchell: Me++ : The Cyborg Self and the Networked City, MIT Press, 2003. 2. William J Mitchell: City of Bits: Space, Place, and the Infobahn, MIT Press, 1996. 3. William J Mitchell: e-topia, MIT Press, 2000. 4. Howard Rheingold: Smart Mobs - The Next Social Revolution, Basic Books, 2000. 5. Marie-Ange Brayer, Beatrice Simonot: Archilabs's Futurehouse, Thames and Hudson, 2002 		
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 613	Course Name: SUSTAINABLE URBAN DEVELOPMENT			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	<p>The subject of sustainable urban development offers meeting and mastering the problems of sustainability and urban development in accordance with the principles and criteria of sustainability. Throughout the course students are trained to participate in professional activities, urban planning, designing sustainable cities and other urban areas.</p> <p>Exploring the relationship of urban planning, urban design and planning in the context of sustainability. Understanding the basic elements of the preparation of planning documents, methods and processes in the context of sustainability.</p> <p>Through the course it is expected for students to get the depth of knowledge about the various ideas that enable discussion of sustainability, and understanding how these ideas work in practice and real situations.</p> <p>Also, students should develop a detailed understanding of how options and limitations offered by different contexts and results, customize and redefine the viability of a permanent development.</p>			
Course Objectives	<p>Understanding the methodology and planning process in the context of sustainability.</p> <p>Exploring urban locations and identifying and solving complex connections between the criteria and requirements of the function / object content, and different characteristics and values of the environment in which development takes place,</p> <p>Understanding, defining and using sustainability criteria in order to identify the elements of sustainability solutions, as well as determining the effects of these changes on the environment</p> <p>Understanding the complexity of the application of the principles of theoretical contextually specific projects</p> <p>Be familiar with a wide range of design and policy in response to the challenge of sustainability</p> <p>Be familiar with the well-known and lesser-known cases of sustainable urban development</p>			
Course Content (weekly plan)	<p>Understanding the basic issues of the role, scope and domain of sustainability.</p> <p>Understanding the elements and content of relations planning the physical space in the context of sustainability.</p> <p>Acquiring knowledge on sustainable development and sustainable city, as well as ways and methods of directing development in accordance with the doctrine of sustainability.</p> <p>Acquiring knowledge about the processes determining the purpose and construction of the city's location, relative to the environment, the life of the physical structures and their replacement, changing the functional and physical structure of the village. Acquiring knowledge about the functional and spatial parameters.</p> <p>Sustainability of the environment / social sustainability / physical viability of the settlements;</p> <p>Participants in the "sustainable competition" - interests and conflicts. Benefits and barriers;</p> <p>Sustainable Communities;</p> <p>Sustainable City: features, benefits, barriers, form;</p> <p>Sustainable urban design - sustainability criteria and standards;</p> <p>Urban renewal in the context of sustainable development</p>			
Teaching Methods Description	<ol style="list-style-type: none"> 1. Interactive lectures and communications with students 2. Discussion and group work 3. Presentations (4-5 per semester) 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	20 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	20 %
	Presentation	20 %	Final Exam	40 %
	Total	100 %		
Learning Outcomes				
Prerequisite Course(s) (if any)				
Language of Instruction				

Mandatory Literature			
Recommended Literature	Beatley ,Timothy. GreenUrbanism: Learning from European Cities, Washington, 2000 Farr, Douglas. Sustainable Urbanism: Urban Design with Nature, Chichester: Wiley, 2008. Moore, Steven A. Pragmatic Sustainability : Theoretical and Practical Tools, London , 2009 Ritchie , Adrian and Randall Thomas, Sustainable Urban Design: An Enviromenta Approach, London , 2008.		
ECTS (ALLOCATED BASED ON STUDENT’S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 608	Course Name: PERFORMANCE OF BUILDING ELEMENTS UNDER THE ENVIRONMENTAL EFFECTS			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	This course studies the behavior of structural elements in the event of disasters such as earthquakes or storms. Explains the process of designing the behavior of materials and their performance. Based on the anticipated performance of elements, their dimensions are adopted and thus process design is more associated with the economic demands of consumers.			
Course Objectives	<ul style="list-style-type: none"> • To familiarize students with the process that is based on the behavior of structural elements • Understand and apply behavior of materials • Get familiar with characteristics of construction elements • Understand and explore the effects of the earthquake and storm the building • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	<ul style="list-style-type: none"> • introduction • Type and type of load • Inelastic behavior of structural elements • Using software Xtract • Methods of analysis of inelastic behavior • The procedure is based on performance • earthquakes • storm • Performance elements due to the impact of earthquakes • Performance elements due to the influence of storm • Elementals performance due to the impact of chemicals • Using software ETABS • Evaluation of performance 			
Teaching Methods Description	Interactive teaching Discussions or individual / group work Presentations			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	40 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	20 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Understand the process that is based on the performance elements and its advantages and disadvantages, • To calculate inelastic behavior of elements, • Assess the impact of the earthquake and storm the building • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of sustainable architecture; • Pursue research of significance in the discipline or an interdisciplinary or creative project; • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; 			

	Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals. (Communication).		
Prerequisite Course(s) (if any)			
Language of Instruction	English		
Mandatory Literature			
Recommended Literature	Shauna Mallory-Hill, Wolfgang P. E. Preiser, Christopher G. Watson , Enhancing Building Performance Ajla Aksamija, Sustainable Facades: Design Methods for High-Performance Building Envelopes Mark Price, Walter Mores, Hundley M. Elliotte, Building High Performance Government Through Lean Six Sigma: A Leader's Guide to Creating Speed, Agility, and Efficiency		
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 669	Course Name: CRITICISM IN ARCHITECTURE			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The subject is an introduction to the practice of criticism generated and designed architectural works. The course is directed toward the current new phenomenon of massive environmental damage during construction. Students go through a process of observation, interpretation and systematic interpretation of default and selected examples. The subject is preparation for the practice of recording and interpretation. It is also the basis for the action of architects in a wide range - from construction law to practice design and construction course students offering introduction to contemporary critical texts by eminent architectural structures.			
Course Objectives	<ul style="list-style-type: none"> • Get familiar students to the criteria of architectural criticism • To lead students into knowledge and understanding the problem of critical analysis and production of selected works of criticism through the analysis of the formal development, as well as through traditional stylistic periodization. • Critically analyze all contemporary theoretical aspects with different approaches to architectural criticism • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in different approaches and aspects with different approaches to architectural criticism • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	<p>Introduction, criticism as part of the creative process, aesthetics, art theory, philosophy of art Creativity and methods, the difference of linear and complex Methods of architectural criticism - Work and analysis, interpretation and presentation Systematic presentation, clarity, order and concise presentation Concept and design principles, the hierarchy of values, composition - directions, linear structure, surfaces, volumes The spatial relations, spatial situation, light and color, materials, proportions and measures. Motives and unrelated images, the process of ordering as an artistic creation; environmental damage during construction; Evaluation of quantity rather than quality. Unconsciously evaluation and rational interpretation, V. Frankl. Modern and postmodern, mass construction, degenerate modern.</p> <p>Analysis of case studies</p>			
Teaching Methods Description	<p>Interactive lectures Discussions and group work Presentations</p>			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	10 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • To enable students to formulate critical judgment and judgment as a basis for work on the recording of environmental damage during construction and development of urban ecology in urban planning. • Understand and apply the information related to interpreting and interpreting as an indispensable part needed for the design 			

	<ul style="list-style-type: none"> • Attain the knowledge of design methods in architecture as well as other aspects that are directly related to this profession • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards <p>Pursue research of significance in the discipline or an interdisciplinary or creative project.</p>		
Prerequisite Course(s) (if any)			
Language of Instruction	English		
Mandatory Literature			
Recommended Literature	<p>Frye,N.: Anatomy of Criticism,Princeton Univ.Press. 1957 Ghirardo, Diane : Architecture After Modernism, Thames and.Hudson,, 1996. Martin Pawley, The Strange Death of Architectural Criticism</p>		
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 668	Course Name: ISLAMIC ART AND ARCHITECTURE			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The purpose of this course is to introduce the historical development of art and architecture under the inspiration of faith of Islam.			
Course Objectives	<ul style="list-style-type: none"> To lead students into knowledge and understanding of the historical Islamic architecture through the analysis of the formal development, as well as through traditional stylistic periodization. Critically analyze all contemporary theoretical aspects of the historical Islamic architecture Create mindfulness of global approach to complex scientific and/or technical research problem-solving in different approaches and aspects of the historical Islamic architecture Explore, critically analyze and contribute to broad area of theories of architecture; Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	<p>Understand the characteristics / methodology of historical research. Acquisition of the ability to understand the process of continuity and discontinuity in Islamic architecture.</p> <p>Acquiring the ability to recognize and read specific architectural language through a careful analysis of the formal values within Islamic architecture.</p>			
Teaching Methods Description	<p>Interactive lectures Discussions and group work Presentations</p>			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	20 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> Formulate critical judgment of Islamic art and architecture Demonstrate a systematic understanding of the theory and principles of Islamic art and architecture. Understand the information related to interpreting and interpreting as an indispensable part needed for the design Attain the knowledge of design methods in terms of Islamic art as well as other aspects that are directly related to this profession Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards <p>Pursue research of significance in the discipline or an interdisciplinary or creative project.</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				
Recommended Literature	<p>Markus Hattstein and Peter Delius, ISLAM Art And Architecture, Koneman 2000 Robert Hillenbrand, Islamic Art and Architecture, Thames and Hudson, 2004</p>			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				

Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 634	Course Name: ARCHI-TEXTS OF SPACE AND PLACE			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	<p>This course aims to present the interdisciplinary zone of spatial studies in an <i>archi-textual</i> context. The course will offer students an opportunity to combine the social aspect of space with architecture and spatial design. The main focus of the course will be on spatial theories in social sciences and the works of various spatial thinkers and geophilosophers. An array of texts and concepts will be evaluated and discussed during the course, and students will be given an opportunity to bring various spatial notions and theories into their projects in architecture.</p> <p>The course does not require any background or familiarity of the subject matter, but students' critical attention and willingness to pre-read the critical texts provided by the instructor, and their participation in class discussions, and merging the conceptual framework of the course with their projects.</p>			
Course Objectives	<ul style="list-style-type: none"> • Describe and identify steps in building project monitoring and evaluation framework • Understand the concept, tools, methods for monitoring and evaluation • Identify strategies for addressing challenges to successful monitoring • Identify key stakeholders • Develop monitoring indicators for assessing project/program outputs and outcomes <p>Conduct monitoring and evaluation process using appropriate design, methods and analytic models</p>			
Course Content (weekly plan)	<p>Week 1 Course Introduction Week 2 Space and Place: Subjective Experience Week 3 Space and Architecture Week 4 Urban Planning and Privatopias Week 5 Postmodern Space Week 6 Topophilia Week 7 Making More Sense of a Place: Polysensoriality Week 8 Heterotopias Week 9 Panopticon: Entrapment of Visibility Week 10 Liminal Places and Fluid Spaces Week 11 Private and Public Domains Week 12 Non-places Week 13 Geophilosophy: Deleuze and Space of Architecture Week 14 Geophilosophy: Deleuze and Space of Architecture</p>			
Teaching Methods Description	<ul style="list-style-type: none"> • Interactive lectures and communications with students • Discussions and group work • Projects with Presentation 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	40 %	Attendance	10 %
	Midterm Exam	20 %	Class Deliverables	0 %
	Presentation	0 %	Final Exam	30 %
	Total	100 %		
Learning Outcomes				
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	<p>Arnold Van Gennep, <i>The Rites of Passage</i>. London: Routledge, 2004. Arpad Szakolczai. "Liminality and Experience: Structuring transitory situations and transformative events." <i>International Political Anthropology</i> 2.1 (2009): 141-172. Bertrand Westphal, <i>Geocriticism: Real and Fictional Spaces</i>. New York: Palgrave Macmillan, 2011. David Harvey, <i>The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change</i>. Cambridge, USA, and Oxford UK: Blackwell, 1992.</p>			

	<p>Edward W. Soja, <i>Postmodern Geographies: The Reassertion of Space in Critical Social Theory</i>. London and New York: Verso, 1989.</p> <p>Gilles Deleuze, Felix Guattari. <i>A Thousand Plateaus: Capitalism and Schizophrenia</i>. Minneapolis: The University of Minnesota Press, 2005.</p> <p>Helene Frichot and Stephen Loo, <i>Deleuze and Architecture</i>. Edinburgh: Edinburgh University Press, 2013.</p> <p>Herman Hertzberger. <i>Space and the Architect: Lessons for Students in Architecture 2</i>. Rotterdam: nai010 publishers, 2013.</p> <p>Marc Auge. <i>Non-Places: Introduction to an Anthropology of Supermodernity</i>. London and New York: Verso, 1995.</p> <p>Michel Foucault, "Of Other Spaces." <i>Heterotopia and the City: Public Space in a Postcivil Society</i>. Ed. Michiel Dehaene and Lieven De Cauter. New York: Routledge, 2008.</p> <p>Michel Foucault, <i>Discipline and Punish: the Birth of the Prison</i>. New York: Vintage Books, 1995.</p> <p>Robert T. Jr. Tally, <i>Spatiality</i>. New York: Routledge, 2013.</p> <p>Tim Cresswell, <i>Place: A Short Introduction</i>. Malden: Blackwell Publishing, 2004.</p> <p>Victor W. Turner, "Betwixt and Between: The Liminal Period in Rites de Passage." Symposium on New Approaches to the Study of Religion. The Proceedings of the American Ethnological Society, (1964): 46-55.</p> <p>Yi-Fu Tuan, <i>Space and Place: The Perspective of Experience</i>. Minneapolis and London: University of Minnesota Press, 2001.</p> <p>Yi-Fu Tuan, <i>Topophilia: A Study of Environmental Perception, Attitudes, and Values</i>. New York: Columbia University Press, 1990.</p>		
Recommended Literature			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Lecture (14 weeks x hours/week)	15	3	42
Laboratory / Practice (14 weeks x Laboratory / Practice hours per week)	0	0	
Midterm Examination (1 week)	1	2	2
Final Examination (1 week)	1	2	2
Preparation for Midterm Examination	1	20	20
Preparation for Final Examination	1	35	35
Assignment / Homework / Project	2	20	40
Seminar / Presentation	2	5	10
Total Workload			151
ECTS Credit (Total Workload / 25)			6
Course Code: ARC 634	Course Name: ARCHI-TEXTS OF SPACE AND PLACE		
Level: PhD	Year:	Semester:	ECTS Credits: 6
Status: Elective	Hours/Week: 3+0		Total Hours: 45
Course Description	<p>This course aims to present the interdisciplinary zone of spatial studies in an <i>archi-textual</i> context. The course will offer students an opportunity to combine the social aspect of space with architecture and spatial design. The main focus of the course will be on spatial theories in social sciences and the works of various spatial thinkers and geophilosophers. An array of texts and concepts will be evaluated and discussed during the course, and students will be given an opportunity to bring various spatial notions and theories into their projects in architecture.</p> <p>The course does not require any background or familiarity of the subject matter, but students' critical attention and willingness to pre-read the critical texts provided by the instructor, and their participation in class discussions, and merging the conceptual framework of the course with their projects.</p>		
Course Objectives	<ul style="list-style-type: none"> • Describe and identify steps in building project monitoring and evaluation framework • Understand the concept, tools, methods for monitoring and evaluation • Identify strategies for addressing challenges to successful monitoring • Identify key stakeholders • Develop monitoring indicators for assessing project/program outputs and outcomes <p>Conduct monitoring and evaluation process using appropriate design, methods and analytic models</p>		

Course Content (weekly plan)	Week 1 Course Introduction Week 2 Space and Place: Subjective Experience Week 3 Space and Architecture Week 4 Urban Planning and Privatopias Week 5 Postmodern Space Week 6 Topophilia Week 7 Making More Sense of a Place: Polysensoriality Week 8 Heterotopias Week 9 Panopticon: Entrapment of Visibility Week 10 Liminal Places and Fluid Spaces Week 11 Private and Public Domains Week 12 Non-places Week 13 Geophilosophy: Deleuze and Space of Architecture Week 14 Geophilosophy: Deleuze and Space of Architecture			
Teaching Methods Description	<ul style="list-style-type: none"> • Interactive lectures and communications with students • Discussions and group work • Projects with Presentation 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	40 %	Attendance	10 %
	Midterm Exam	20 %	Class Deliverables	0 %
	Presentation	0 %	Final Exam	30 %
	Total	100 %		
Learning Outcomes				
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	Arnold Van Gennep, <i>The Rites of Passage</i> . London: Routledge, 2004. Arpad Szokolczai. "Liminality and Experience: Structuring transitory situations and transformative events." <i>International Political Anthropology</i> 2.1 (2009): 141-172. Bertrand Westphal, <i>Geocriticism: Real and Fictional Spaces</i> . New York: Palgrave Macmillan, 2011. David Harvey, <i>The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change</i> . Cambridge, USA, and Oxford UK: Blackwell, 1992. Edward W. Soja, <i>Postmodern Geographies: The Reassertion of Space in Critical Social Theory</i> . London and New York: Verso, 1989. Gilles Deleuze, Felix Guattari. <i>A Thousand Plateaus: Capitalism and Schizophrenia</i> . Minneapolis: The University of Minnesota Press, 2005. Helene Frichot and Stephen Loo, <i>Deleuze and Architecture</i> . Edinburgh: Edinburgh University Press, 2013. Herman Hertzberger. <i>Space and the Architect: Lessons for Students in Architecture 2</i> . Rotterdam: nai010 publishers, 2013. Marc Auge. <i>Non-Places: Introduction to an Anthropology of Supermodernity</i> . London and New York: Verso, 1995. Michel Foucault, "Of Other Spaces." <i>Heterotopia and the City: Public Space in a Postcivil Society</i> . Ed. Michiel Dehaene and Lieven De Caeter. New York: Routledge, 2008. Michel Foucault, <i>Discipline and Punish: the Birth of the Prison</i> . New York: Vintage Books, 1995. Robert T. Jr. Tally, <i>Spatiality</i> . New York: Routledge, 2013. Tim Cresswell, <i>Place: A Short Introduction</i> . Malden: Blackwell Publishing, 2004. Victor W. Turner, "Betwixt and Between: The Liminal Period in Rites de Passage." <i>Symposium on New Approaches to the Study of Religion. The Proceedings of the American Ethnological Society</i> , (1964): 46-55. Yi-Fu Tuan, <i>Space and Place: The Perspective of Experience</i> . Minneapolis and London: University of Minnesota Press, 2001. Yi-Fu Tuan, <i>Topophilia: A Study of Environmental Perception, Attitudes, and Values</i> . New York: Columbia University Press, 1990.			

Recommended Literature				
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	
Lecture (14 weeks x hours/week)	15	3	42	
Laboratory / Practice (14 weeks x Laboratory / Practice hours per week)	0	0		
Midterm Examination (1 week)	1	2	2	
Final Examination (1 week)	1	2	2	
Preparation for Midterm Examination	1	20	20	
Preparation for Final Examination	1	35	35	
Assignment / Homework / Project	2	20	40	
Seminar / Presentation	2	5	10	
Total Workload			151	
ECTS Credit (Total Workload / 25)			6	

Course Code: ARC 603	Course Name: QUANTATIVE DECISION MAKING TECHNIQUES IN CONSTRUCTION MANAGEMENT			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	This course provides students with an introduction to the decision-making process and the impact of quantitative methods to the final decision and their precision.			
Course Objectives	Recognizing the importance of quantitative methods in decision-making. Using quantitative methods in construction management and architectural practice. The study and use of mathematical models to find the optimal fixes.			
Course Content (weekly plan)	<ul style="list-style-type: none"> • Introduce students to the methodology of solving problems and decision-making; • To lead students into knowledge and understanding the problem of quantitative analysis and decision-making; • Critically analyze of all contemporary methodology for mathematical models for decision analysis; • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in different approaches and aspects with different approaches to topology method for decision analysis; • Explore, critically analyze and contribute to broad area of the theory of value; • Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants. <p>Introduction to decision making;</p> <p>The application of quantitative methods in construction industry as well how to recognize the optimum solutions.</p>			
Teaching Methods Description	Interactive lectures Discussions and group work Presentations			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	10 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Understand and use of mathematical models and tools in the process of analyzing the decision. • Understand and apply quantitative methods in decision-making in the construction industry. • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards • Pursue research of significance in the discipline or an interdisciplinary or creative project. <p>Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of architectural studies</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				
Recommended Literature	M.P. Gupta, R.B. Khanna. Quantitative techniques for decision making, 3rd edition, New Delhi 2009 Glyn Davis, Branko Pecar. Quantitative methods for decision making using excel, Oxford 2013 S.L. Tang, Irtishad U.Ahmed, Syed M.Ahmed, Ming Lu. Quantitative techniques for decision making in construction, Hong Kong 2004			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				

Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 611	Course Name: COMPOSITE BUILDING MATERIALS AND DESIGN PRINCIPLES			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	Composite materials are composed of a combination of two or more materials. Connected together, to enhance their properties, enabling their use where traditional materials fail. The process of composing a more physical process, but chemical so that new materials are getting all the properties of materials that make them.			
Course Objectives	<ul style="list-style-type: none"> • Acquire knowledge about composite materials for construction that are commonly in use. • Acquire and apply the knowledge about advantages and disadvantages. • Understand how and where applications can use them. • Acquire knowledge how architects can design with this type of material. • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	Introduction to Composite Materials Definitions Types and classification of composite materials Applications in architecture Advantages and disadvantages principles of design Modern methods of use of composite materials Case studies			
Teaching Methods Description	Interactive teaching Discussions or individual / group work presentations			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	60 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	20 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	After completion of this course, students should be able to: <ul style="list-style-type: none"> • Understand and apply design with composite materials • Understand and apply composite materials and their advantages and disadvantages • Understand the methods of testing of composite materials • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of architectural studies • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards • Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals. (Communication). 			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				

Recommended Literature	<p>R.W.Cahn, P.Haasen, E.J.Kramer, Materials Science and Technology, A Comprehensive Treatment, Structure and Properties of Ceramics, Volume 11, 1994, ISBN 3-527-26824-3</p> <p>R.W.Cahn, P.Haasen, E.J.Kramer, Materials Science and Technology, A Comprehensive Treatment, Structure and Properties of Polymers, Volume 12, 1993, ISBN 3-527-26825-1</p> <p>R.W.Cahn, P.Haasen, E.J.Kramer, Materials Science and Technology, A Comprehensive Treatment, Structure and Properties of Composites, Volume 13, 1993, ISBN 3-527-26826-X</p> <p>Michael F Ashbly, Materials Selection in Mechanical Design, Second edition, 1999, ISBN 0-7506-4357-9</p> <p>Fuad Catovic, Nauka o Materijalima, Polimeri, Keramike i Kompoziti, 2001, ISBN 9958-604-03-5</p> <p>Kenneth G. Budinski, Michael K. Budinski, Engineering Materials, Properties and Selection, Sixth edition, 1999, ISBN 0-13-904715-8</p> <p>James P. Schaffer, Ashok Saxena, Stephan D. Antolovich, Thomas H. Sanders, Jr. Steven B. Warner, The Science and Design of Engineering Materials, Second edition, 1999, ISBN 0-256-24766-8</p> <p>J. L. Figueiredo, C. A. Bernardo, R. T. K. Baker and K. J. Huttinger, Carbon Fibers Filaments and Composites, 1989, ISBN 0-7923-0602-3</p> <p>Samil Galijasevic, Savremena Keramika, Ekonomsko-tehnoloski aspekti, Dio I, Tesanj 2003, ISBN 9958-792-38-9</p> <p>J. A. Charles, F. A. A. Crane, J. A. G. Furness, Selection and Use of Engineering Materials, Third edition, 1997, ISBN 0-7506-3277-1</p> <p>James F. Shackelford, Introduction to Materials Science for Engineers, Fourth edition, 1998, ISBN 0-13-807125-X</p> <p>William D. Callister, Jr. , Materials Science and Engineering. An Introduction, Fourth edition, 1997, ISBN 0-471-13459-7</p> <p>Andrija Djurekovic, Cement, Cementni kompozit i dodaci za beton, Prvo izdanje, Zagreb 1996, ISBN 953-6085-04-6</p> <p>Lars Eric Janson, Plastics Pipes for Water Supply and Sewage Disposal, 3rd edition, Stockholm 1999</p>
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ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)

Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 633		Course Name: PRINCIPLES OF PROJECT MONITORING AND EVALUATION		
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The focus of the course is the introduction and application of monitoring and evaluation as a technique to oversee project implementation and to make performance based decisions during the project or program implementation on the higher level. Application of monitoring and evaluation techniques is essential in determination if the project or intervention is on track, describing implementation, fidelity and needed modifications, as well as determination of needed intervention or program. Monitoring and evaluation tools assist in project planning identifying models that achieve desired outcomes and estimating the degree to which objectives/results are being met. The application of monitoring and evaluation tools is also used in judging overall value of the program in effectiveness, efficiency, value and cost.			
Course Objectives	<ul style="list-style-type: none"> Describe and identify steps in building project monitoring and evaluation framework Understand the concept, tools, methods for monitoring and evaluation Identify strategies for addressing challenges to successful monitoring Identify key stakeholders Develop monitoring indicators for assessing project/program outputs and outcomes Conduct monitoring and evaluation process using appropriate design, methods and analytic models			
Course Content (weekly plan)	<ul style="list-style-type: none"> Monitoring and Evaluation Introduction and Review Monitoring and Evaluation Purpose and Scope Theory of Change M&E Indicators & Project Objectives Monitoring and Evaluation Frameworks and Targets Key Performance Indicators and Metrics Collecting Data Measuring Progress and Success Transition: Monitoring to Evaluation Change –Baseline and Counterfactual Knowledge Management and Dissemination 			
Teaching Methods Description	<ul style="list-style-type: none"> Interactive lectures and communications with students Discussions and group work Projects with Presentation 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	60 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	20 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<ul style="list-style-type: none"> Identify theory of change of the project/program Select the appropriate quantitative performance indicators Select the appropriate qualitative performance indicators Select and apply monitoring and evaluation tools Design monitoring and evaluation plan of the project/program Conduct baseline and regular surveys Conduct evaluations on project/program objectives 			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	Gudda Patrick, A Guide to Project Monitoring and Evaluation, AuthorHouse, Bloomington, USA, 2011			
Recommended Literature	IFRC, Project/Programme Monitoring and Evaluation, Geneva, Switzerland, 2011			
ECTS (ALLOCATED BASED ON STUDENT’S WORKLOAD)				

Activities	Quantity	Duration	Workload
Lecture (14 weeks x hours/week)	15	3	45
Laboratory / Practice (14 weeks x Laboratory / Practice hours per week)	1	2	25
Midterm Examination (1 week)	1	2	2
Final Examination (1 week)	1	2	2
Preparation for Midterm Examination	1	30	30
Preparation for Final Examination	1	35	35
Assignment / Homework / Project	1	20	40
Seminar / Presentation	1	5	10
Total Workload			151
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 616	Course Name: POPULAR CULTURE AND TOPOGRAPHY OF IDENTITIY			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	Inform doctoral candidates on some important theoretical aspects of popular culture, from the perspective of the problem of identity of persons, groups, objects and space. This interdisciplinary project, the methods of art history, design theory and cultural studies, in particular topics of great importance for understanding the semantic horizon social reality. Immediate area is different phenomena of popular culture, as these types of practices occurring in the physical and symbolic environment. Critical analysis of these two levels, with particular emphasis on the theory of the environment that have opposed the ideology of popular culture,. We want to give doctoral students a broader framework for understanding identity potential space in which to intervene architectural design.			
Course Objectives	<p>The aim of the course is to inform students of doctoral studies on some important theoretical aspects of popular culture, from the perspective of the problem of identity of persons, groups, objects and space.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	<p>Mass culture as a mechanism for liberal economics The idea of avant-garde and industrial modernization Pop culture and cultural industries Semantic fields modernization process Postindustrial myth: B. Fuller and Ulm School City as an identity system Identity edge modernization Hybrid Identities and paralyzing tradition</p>			
Teaching Methods Description	<ol style="list-style-type: none"> 1. Interactive lectures 2. Discussions 3. Research 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	60 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	20 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of architecture, culture, topography and identity • Recognize the importance of the relationship between architectural theory and praxis; • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of architecture heritage; • Pursue research of significance in the discipline or an interdisciplinary or creative project; • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; <p>Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals.</p>			
Prerequisite Course(s) (if any)				

Language of Instruction	English		
Mandatory Literature			
Recommended Literature	<ol style="list-style-type: none"> 1. Barthes R., Mitologije, Pelago, Zagreb 2009. 2. Banham R., Theory and Design in the first Machine Age, Academy, 1960. 3. Lindinger H. (ed.), Ulm design, The Morality of Objects, MIT Pres 1991. 4. Vukic F., Socialist Lifestyle and Mass Consumption, Transition as Condition, Blau, Rupnik (ur.), Harvard University, Graduate School of Design, Aktar Publications, 2007. p.234-2380470779293 		
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 665	Course Name: INTRODUCTION TO CONTEMPORARAY THEORETICAL ASPECTS			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The subject explores the theoretical tendencies in modern architecture through reading and discussion of original texts. The subject is an introduction to the practice of criticism generated and designed architectural works. Students go through a process of observation, interpretation and systematic interpretation of default and selected examples. The subject offers students to meet with contemporary critical texts by eminent architectural structures as well as a retrospective understanding of the continuity and development of architecture in general.			
Course Objectives	<ul style="list-style-type: none"> • Critically analyze all contemporary theoretical aspects of the architecture • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in different approaches and aspects of architecture • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants</p>			
Course Content (weekly plan)	<ul style="list-style-type: none"> • Introduction, criticism as part of the creative process, aesthetics, art theory, philosophy of art • Creativity and methods • Methods of the theory of architecture - Work and analysis, interpretation and presentation <p>Motives and unrelated images, the process of ordering as artistic creation, analysis of case studies.</p>			
Teaching Methods Description	Interactive lectures Discussions and group work Presentations			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	50 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	10 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Formulate critical judgment and judgment as a basis for work • Understand the information related to interpreting and interpreting as an indispensable part needed for the design • Attain the knowledge of design methods in terms of the history of architecture as well as other aspects that are directly related to this profession • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards <p>Pursue research of significance in the discipline or an interdisciplinary or creative project.</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				
Recommended Literature	Colin Davies, Thinking about Architecture: An Introduction to Architectural Theory, 1999-2004 K. Michael Hays, Architecture Theory Since 1968, Cambridge, MIT Press, 1998			
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	
Literature review (15 weeks x hours/week)	15	3	45	

Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 624	Course Name: EMERGENT SUSTAINABLE NATURAL MATERIALS TECHNOLOGIES			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 1+2		Total Hours: 45	
Course Description	The course, Emergent Sustainable Natural materials Technologies present the basic knowledge of innovative renewable natural materials as a building materials. Through this course it will be covered all necessary information for understanding of renewable natural material performances, structures, engineering and projects. Accent is on physical and mechanical properties of the materials, its application and exposure in specific environment. Renewable building materials performances in architecture are very important as well as the selection of the methods and technologies, so this course gives the main principles in selection and interaction between material and environment.			
Course Objectives	<ul style="list-style-type: none"> • Advance students' knowledge related to innovative renewable natural building materials in architecture, its properties and relationships among the other materials, • Develop the student capability and knowledge related to natural and artificial building materials, used in practice, contemporary application and possibilities • Enable students to develop refine professional design proposals towards a comprehensive environmental EE requirements Present social and ethical responsibilities impacting upon production of architecture			
Course Content (weekly plan)	Historic design typologies Natural materials performances and characteristic Natural materials constructions typologies Innovative Natural materials products and elements Development in innovative construction materials New technologies and methods Innovative production for structure Public building examples made of natural materials Experimental and temporary structure Case studies			
Teaching Methods Description	1. Interactive lectures and communication with students 2. Discussions and individual/group work 3. Presentations 4. Projections			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	30 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	10 %
	Presentation	0 %	Final Exam	50 %
	Total	100 %		
Learning Outcomes	<ul style="list-style-type: none"> • Produce conceptually and technically precise choice of natural innovative renewable building materials regarding all aspects that affects the choice of a material. • Assess, select and conceptually integrate innovative construction materials into building design. • Critically analyze current practice the fundamentals of building materials, cost estimation and life cycle cost; • Effectively present traditional and contemporary renewable natural materials with all their advantages and disadvantages with a precise preview about where and when should they be used. • Advanced knowledge of innovative natural building materials with regards to their lifetime and fatigue. • Understand the material performances under different cases and loads. • Understanding of modern technologies and application of modern technologies in buildings, • Assess, select, and conceptually integrate complex structural systems, construction materials, life-safety and building service systems into building design; • Opportunity of application and combination of different materials. Circular economy			
Prerequisite Course(s) (if any)				

Language of Instruction	English		
Mandatory Literature	1. M. Kitek Kuzman (2012); Lesene konstrukcije; University of Ljubljana, ISBN 978-961-6144-32-2 Sanela Klarić, (2015) 2. Održivo stanovanje, drvo, ovčja vuna i slama izazovi i potencijali tradicionalnih prirodnih materijala, ISBN 978-9958-834-46-2; COBISS BH-ID 22439174		
Recommended Literature	<ul style="list-style-type: none"> - Randall Thomas, Max Fordham, (2009), Environmental Design, Taylor & Francis, ISBN 0-415-36334-9 - Berge B. (2000. 2001); „The Ecology of Building Materials“, Reed Educational and Professional Publishing Ltd - M. Kitek Kuzman (2008); Gradnja s lesom; University of Ljubljana 		
ECTS (ALLOCATED BASED ON STUDENT’S WORKLOAD)			
Activities	Quantity	Duration	Workload
Lecture (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	15	2	30
Midterm Examination (1 week)	1	1	2
Final Examination (1 week)	1	2	2
Preparation for Midterm Examination	1	15	15
Preparation for Final Examination	1	60	60
Seminar / Presentation	1	30	20
Total Workload			154
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 625	Course Name: TENTATIVE IDENTITIES OF CITY: GLOBALIZATION AND CULTURE			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	<p>Twentieth and twenty-first century architecture is defined by its rhetorical subservience to something called "technology." The course explore architecture that relates to technology in multiple forms, as the organizational basis of society, as production system, as formal inspiration, as mode of temporization, as communicational vehicle, and so on. This course will consider some of the key ways in which questions of technology have been absorbed into architectural and cultural practice. The program examines the tensions and complexities of transnational cultural flows in terms of homogenization, fragmentation, hybridity and commodification.</p>			
Course Objectives	<ul style="list-style-type: none"> To introduce creative solutions to global challenges by encouraging long-term thinking and designing alternative global futures To investigate culture through a range of social phenomena, institutions and symbolic expressions Enable students to develop a comprehensive way towards phenomenon globalization Analyze urban arenas for cultural contestation and ideological dissent 			
Course Content (weekly plan)	<p>Introduction (Syllabus review; course content, practical work assignment, requirements, policies; teaching methods) Transforming identities and subjectivities Culture and ideology Techno politics and Oppositional Political Movements Social Movements and Techno politics Material Cultures Preparation for exam</p>			
Teaching Methods Description	<ol style="list-style-type: none"> Interactive lectures and communication with students Discussions and individual/group work Presentations Projections 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	30 %
	Project	0 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	0 %
	Presentation	0 %	Final Exam	40 %
	Total	100 %		
Learning Outcomes	<ul style="list-style-type: none"> Demonstrate a clear grasp of the concept of globalization and contending definitions of it Articulate an appreciation of the importance of historical perspective for understanding globalization Investigates culture through a range of social phenomena, institutions and symbolic expressions <p>Use diverse methodologies in order to understand how globalization impacts upon cultural expression and how culture manifests in urban settings.</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	Heidegger, Martin. "The Question Concerning Technology." In The Question Concerning Technology and Other Essays. Translated by William Lovitt. Harper and Row, 1977, pp. 3–35.			
Recommended Literature	<p>Frampton, Kenneth. "The Status of Man and the Status of his Objects: A Reading of the Human Condition." In Hannah Arendt: The Recovery of the Public World. Edited by Melvyn A. Hill. St. Martin's Press, 1979. ISBN: 9780312360726.</p> <p>Otero–Pailos, Jorge. "Surplus Experience: Kenneth Frampton and the Subterfuges of Bourgeois Taste." In Architecture's Historical Turn: Phenomenology and the Rise of the Postmodern. University of Minnesota Press, 2010, pp. 183–249. ISBN: 9780816666034.</p> <p>Lefebvre, Henri. "Social Space." In The Production of Space. Translated by Donald Nicholson–Smith. Blackwell Publishers, 1991. ISBN: 9780631140481.</p>			

Brenner, Neil. "Theses on Urbanization." In *Implosions / Explosions: Towards a Study of Planetary Urbanization*. Jovis, 2014. ISBN: 9783868593174.

Foucault, Michel. "Governmentality," "Space, Knowledge, and Power," and "The Political Technology of Individuals." In *Power: Essential Works of Foucault, 1954–1984*. Vol. 3. Edited by James D. Faubion. The New Press, 2000, pp. 201–22, 349–64, and 403–14. ISBN: 9781565842571.

ECTS (ALLOCATED BASED ON STUDENT’S WORKLOAD)

Activities	Quantity	Duration	Workload
Lecture (15 weeks x hours/week)	15	3	45
Laboratory / Practice (14 week x Laboratory / Practi	1	0	0
Midterm Examination (1 week)	1	2	2
Final Examination (1 week)	1	10	2
Preparation for Midterm Examination	1	20	20
Preparation for Final Examination	1	20	50
Assignment / Homework / Project	1	2	35
Seminar / Presentation	1	20	50
Total Workload			
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 626	Course Name: ART, ARCHITECTURE, AND URBANISM IN DIALOGUE			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The course will examine how the idea of the city has been "translated" by artists, architects, and other diverse disciplines. It is considered how collaborations between artists and architects might provide opportunities for rethinking / redesigning urban spaces. Thematically investigates ideas of ecologically engaged practices, environmental remediation, and critical site intervention. Includes examples of artistic praxis along with architectural and urban approaches. Focuses on interventions by practitioners who intertwine the three disciplines.			
Course Objectives	<ul style="list-style-type: none"> • Introduce students to relevant precedents from historical and contemporary architectural, art, and urbanism work • Develop the student capability to think about visual language and its correlation with art and architecture • Enable students to develop a comprehensive way towards city image Provide students with ongoing opportunities to reach innovative approach by hypothesizing, experimenting, and learning from both good and bad examples			
Course Content (weekly plan)	Introduction (Syllabus review; course content, practical work assignment, requirements, policies; teaching methods) Artists and thinkers who will be covered include: Simon Starling, Marjetica Potrc, N55, Gyorgy Kepes, Tomas Saraceno, Eduardo Kac, Critical Art Ensemble, Arts Catalyst, et al. Preparation for exam			
Teaching Methods Description	1. Interactive lectures and communication with students 2. Discussions and individual/group work 3. Presentations 4. Projections			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	30 %	Class Deliverables	0 %
	Presentation	20 %	Final Exam	50 %
	Total	100 %		
Learning Outcomes	<ul style="list-style-type: none"> • To understand ideas ranging from the early modernist practices to the contemporary • Demonstrate an ability to reach innovative solutions by iteratively proposing ideas, receiving feedback, incorporating feedback • Critically analyze current practice in architectural design and urban planning Develop and test possibilities of how to create with limited means a variety of spatial narratives			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	Hayden, Dolores. "The Sense of Place and the Politics of Space." In <i>The Power of Place: Urban Landscapes as Public History</i> . Cambridge, MA: MIT Press, 1995, pp. 14-29. ISBN: 9780262581523. Hollier, Denis. "Introduction: Bloody Sundays." In <i>Against Architecture: The Writings of Georges Bataille</i> . Translated by Betsy Wing. Cambridge, MA: MIT Press, 1989, pp. ix-xxiii. ISBN: 9780262581134. Bachelard, Gaston. <i>The Poetics of Space</i> . Translated by Maria Jolas. Foreword by Etienne Gilson. Boston, MA: Beacon Press , 1994, Introduction, pp. xi-xxxv and, chapter 1, pp. 3-37. ISBN: 9780807064733. Defert, Daniel. "Foucault, the Space and the Architects." In <i>Documenta X</i> . Edited by Jean François Chevrier. Ostfildern-Ruit, Germany: Cantz, 1997, pp. 274-283. ISBN: 9783893229116.			
Recommended Literature	Bourdieu, Pierre. <i>Distinction: A Social Critique of the Judgement of Taste</i> . Translated by Richard Nice. Cambridge, MA: Harvard University Press, 1984. ISBN: 9780674212770. Habermas, Jurgen. <i>The Theory of Communicative Action</i> . Translated by Thomas McCarthy. Boston, MA: Beacon Press, 1984, pp. 114-151. ISBN: 9780745607702.			

De Zegher, Catherine, and Mark Wigley, eds. *The Activist Drawing: Retracing Situationist Architectures from Constant's New Babylon to Beyond*. Cambridge, MA: MIT Press, 2001. ISBN: 9780262041911

Lefebvre, Henri. *The Urban Revolution*. Translated by Robert Bononno. Foreword by Neil Smith. Minneapolis, MN: University of Minnesota Press, 2003. ISBN: 9780816641604

ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)

Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			
ECTS Credit (Total Workload / 25)			

Course Code: ARC 630		Course Name: ANTROPOLOGY OF ARCHITECTURE		
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The aim of this course is to provide an understanding of the importance of social and cultural impact on architecture, and vice versa. Employing a holistic and processual approach to architecture, this course will deal with the dynamic interrelationship of material, social and symbolic aspects of all forms of buildings and settlements, regardless of their size, function, form and geographical, environmental or cultural context. Discussions made will aim to indicate the value of an anthropological approach to the interdisciplinary discourse on the contemporary production and consumption of all forms of architecture, in view of the current challenges posed by globalisation, modernisation and environmental change.			
Course Objectives	<ul style="list-style-type: none"> Identify the nature and the role of environmental behavioral studies in architecture Introduce students with the importance and level of cultural impact in design Introduce students with the definitions and nature of abstract concept of culture Identify the correlation between architecture and culture 			
Course Content (weekly plan)	<ul style="list-style-type: none"> Introduction (Syllabus review; course content, requirements, policies; teaching methods) The nature and Role of EBS The Importance of Culture The Variability of Environment Culture Ecology House Form and Culture Preference Choice and Design The Nature of Culture The Scale of Culture Making Culture Usable The Importance of Meaning The Meanings of Environments Users' Meanings and Designers' Meanings Perceptual and Associational Aspects of the Environment 			
Teaching Methods Description	<ul style="list-style-type: none"> Lectures Readings, workshops Individual research 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	50 %	Class Deliverables	0 %
	Presentation	0 %	Final Exam	50 %
	Total	100 %		
Learning Outcomes	<ul style="list-style-type: none"> Understand the nature of the abstract notion of culture Understand fundamental relationship between culture and architecture Understand the correlation of design and meaning within the cultural context Develop knowledge related to preference, choice and design <p>Develop understanding between the nonverbal communication and environmental meaning</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	20th Century Architecture 2006 Koln Fifty Chairs that Changed the World: Design Museum Fifty 2009 Furniture Design 2015 Poznan pringer International Publishing Furniture Design 2012 New Jersey John Wiley & Sons, Inc Modern Furniture 1949 New York Reinhold Publishing			
Recommended Literature				
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	

Lecture (14 weeks x hours/week)	15	3	45
Laboratory / Practice (14 weeks x Laboratory / Practice hours per week)	1	2	25
Midterm Examination (1 week)	1	2	2
Final Examination (1 week)	1	2	2
Preparation for Midterm Examination	1	30	30
Preparation for Final Examination	1	70	70
Assignment / Homework / Project			
Seminar / Presentation			
Total Workload			149
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 631	Course Name: LIVING UNIT DESIGN			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The aim of this course is to investigate the architectural and spatial properties of residential unit design. It is focused on the being's effect on architectural development, the possibility of simplifying living space to its basic minimum, identifying main factors influencing the space layout and space definition, etc. Reference examples will be studied including Bosnian house, Turkish house, Moroccan house etc. and compared with examples of residential design within the western societies.			
Course Objectives	<ul style="list-style-type: none"> Identify architectural and spatial properties of residential unit design Identify basic human needs Identify mechanisms connecting and defining relations between user and design 			
Course Content (weekly plan)	<ul style="list-style-type: none"> Introduction (Syllabus review; course content, requirements, policies; teaching methods) Spatial properties of residential design Universal Architectural Properties Influencing Design Basic Human Needs Flexibility, Adaptability, Development Case Studies 			
Teaching Methods Description	<ul style="list-style-type: none"> Lectures Readings, workshops Individual research Class work 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	50 %	Class Deliverables	0 %
	Presentation	0 %	Final Exam	50 %
	Total	100 %		
Learning Outcomes	<ul style="list-style-type: none"> Understand the spatial properties of residential design Understand the factors influencing the design Understand the correlation between the user and design Understand how the user-design correlation changes through space and time Develop knowledge related to preference, choice and needs related to space and time 			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature	20th Century Architecture2006Koln Fifty Chairs that Changed the World: Design Museum Fifty 2009 Furniture Design 2015Poznanpringer International Publishing Furniture Design2012New JerseyJohn Wiley & Sons, Inc Modern Furniture1949New YorkReinhold Publishing 20th Century Architecture2006Koln Fifty Chairs that Changed the World: Design Museum Fifty 2009 Furniture Design 2015Poznanpringer International Publishing Furniture Design2012New JerseyJohn Wiley & Sons, Inc Modern Furniture1949New YorkReinhold Publishing			
Recommended Literature				
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)				
Activities	Quantity	Duration	Workload	
Lecture (14 weeks x hours/week)	15	3	45	
Laboratory / Practice (14 weeks x Laboratory / Practice hours per week)	1	2	25	
Midterm Examination (1 week)	1	2	2	
Final Examination (1 week)	1	2	2	
Preparation for Midterm Examination	1	30	30	

Preparation for Final Examination	1	70	70
Assignment / Homework / Project			
Seminar / Presentation			
Total Workload			149
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 606	Course Name: INFORMATION SYSTEMS IN CONSTRUCTION PROJECTS MANAGEMENT			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	The purpose of this course is to introduce modern tools and approaches for information handling in construction, the use of newly discovered IT programs and methods for projects construction. Course made an introduction to a more efficient approach to architectural design.			
Course Objectives	<ul style="list-style-type: none"> • Understand the use of modern tools and access to information handling in construction industry • Explore, critically analyze and contribute to information requirements of any type of organization • Understand the basic concepts, tools and processes in the development of an information system in cooperation with IT professionals • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in IT • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants</p>			
Course Content (weekly plan)	<p>Basic concepts, components, IS / IT, the development process of IS / IT by periods and Modern architecture for software development: Central, two and web-oriented, three-storey building software architecture,</p> <p>The concept of system modeling, modeling languages for information systems: UML, EXPRESS, EXPRESS-G, IDEF0</p> <p>Types of models: product procesa. Models, project model - reference models, application models. Efforts to standardize the information in the project and construction. Area of management (ISO-STEP, AIA)</p> <p>Information requirements of professionals in the current level of IS / IT support wider world, web-orjenisan information system in construction project management</p> <p>Integrated information systems in construction, architecture, references and application of developed model for the construction industry: COMBINE, COMMIT, ICON, space, OSCON, IRMA, etc.</p> <p>Components of information systems: data processing system DPS, Management Information System MIS, OAS Office Automation Systems, Expert Systems ES,</p> <p>Database: The database architecture, relational database, relational database components.</p> <p>Systems analysis and model development: definition content term projects, system analysis and model development.</p>			
Teaching Methods Description	<ol style="list-style-type: none"> 1. Interactive lectures 2. Discussions and group work 3. Presentations 4. Research 			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	20 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	20 %
	Presentation	0 %	Final Exam	40 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Critically apply theories, methodologies, and knowledge of the components of IS / IT; development process • Use contemporary architecture for software development, • Recognize the importance of system modeling, modeling languages for IS. • Understand the analysis, design, and implementation process development of IT system required of architectural organization 			

	<ul style="list-style-type: none"> • Pursue research of significance in the discipline • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; <p>Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals.</p>		
Prerequisite Course(s) (if any)			
Language of Instruction	English		
Mandatory Literature			
Recommended Literature	Graham M. Winch, Managing Construction Projects		
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 602		Course Name: CRITICAL PATH ANALYSIS IN PROJECT MANAGEMENT		
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	In this course you will study the phases and processes essential for successful project management. You will practice the critical tasks associated with managing a single project, and analyze the opportunities and constraints of managing several projects concurrently. You will evaluate a project portfolio, and make recommendations for projects to best accomplish corporate strategic objectives.			
Course Objectives	<p>You will use common project management planning techniques and tools, including critical path analysis, cost estimation, scheduling and risk analysis to create a project plan presentation of your project and present it in the class. This is an individual effort and should be at least a 12 slide presentation. The presentation should be on the background of your project, how you came up with the cost estimate, how you came up with the resource plan and how did you do resource loading and resource leveling. What are the project constraints around your project and how you will accomplish the. The elements considered in evaluating your participation include:</p> <ul style="list-style-type: none"> • relevance of comments to the topics discussed; • timely preparation for each class session; • respectful communication skills demonstrated; • contributions toward the positive development of the class; • Questions and comments that are relevant to the topics discussed. 			
Course Content (weekly plan)	<ul style="list-style-type: none"> • Problem Definition • Main Ideas for a Project Plan • Main Ideas for a Project Plan • Main Ideas for a Project Plan • Develop the Project Plan • Create a budget estimate • Draw Conclusions, Make Recommendations/Decisions, Summarize Results of the Whole Case Study 			
Teaching Methods Description	Interactive lectures Discussions Research			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	%
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	30 %
	Presentation	20 %	Final Exam	30 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Understand and detect high levels of integration processes of physical phenomena libraries and install them in the scientific and artistic domain of architectural present. • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of architectural studies • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards <p>Express skills in oral and written communication sufficient to publish and present work</p>			

Prerequisite Course(s) (if any)	<ul style="list-style-type: none"> • Objectively assess individual projects based on their performance and/or potential performance against organization priorities; • Prioritize a portfolio of projects and programs based on alignment with organizational strategy, relative importance, budget constraints and appropriate sequencing / timing of project completion; • Implement a portfolio project management system to enable an organization to effectively manage and track performance of multiple projects; • Manage projects successfully through effective resource allocation, use of technology and cross-functional awareness; • Maximize talent and work effort by effectively managing human resources in a matrixed environment. 		
Language of Instruction	English		
Mandatory Literature			
Recommended Literature	1. Chris Hendrickson. 1998. Project management for construction – fundamental concepts for Owners, Engineers, Architects and Builders. Second edition. Carnegie Mellon University, Pittsburgh.		
ECTS (ALLOCATED BASED ON STUDENT’S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 622	Course Name: 20TH CENTURY ARCHITECTURE OF THE WORLD			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	This course provides students with the form and methodology discussions and presentations of individual research. The content of the course of world architecture 20th century architectural holdings placed 20th century in its social, cultural, technical and historical context. Explain the main directions of development of architectural creation from the beginning of the second industrial revolution to the reflections of architecture in the phenomenon of environmental sustainability at the turn of the 3rd millennium. The course provides an insight into the thoughts, aspirations and credo protagonist architectural creativity.			
Course Objectives	<p>Presentation and historical understanding of the period, Enhance and develop a meaningful framework for assessing contemporary issues in architecture.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	The architecture of the welfare state, Traces of the cities, Megastructures and Superstudio, Cultural Forum, The ambiance megapolis, Shopping centers, Large projects, Architecture and deconstructionism, Curves and formless architecture campus, Regional cultures			
Teaching Methods Description	Interactive teaching Discussions or individual / group work presentations Projections			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	20 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	20 %
	Presentation	0 %	Final Exam	40 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Demonstrate about systematic and critical understanding of theories and principles of architecture of the 20th century • Creatively apply the theories and principles of modern architecture design • Critically apply theories, methodologies, and knowledge to address fundamental questions in the field of modern architecture, interior design and urban planning; • Recognize the importance of the relationship between architectural theory and praxis; • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of sustainable architecture; • Pursue research of significance in the discipline or an interdisciplinary or creative project; • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; <p>Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals.</p>			
Prerequisite Course(s) (if any)				
Language of Instruction	English			

Mandatory Literature			
Recommended Literature	<ol style="list-style-type: none"> 1. Frampton Kenneth: Modern Architecture - a Critical History, 4th. ed., Thames and Hudson, 2007. 2. Giedion, Sigfried: Space, Time and Architecture - The Growth of a New Tradition, 5th. rev. & enl. ed., Harvard University Press, 2009. 3. Hertzberger, Herman: Space and Learning, 010 Uitgeverij, 2008. 4. Kostof, Spiro, Greg Castillo: A History of Architecture, Settings and Rituals, Oxford University Press, 1995 5. Copplestone, Trewin (ed): World architecture - An illustrated history. Hamlyn, London, 1963 6. Norberg-Schulz, Christian: Principles of Modern Architecture, Andreas Papadakis Publisher, 2000 7. Jencks, Charles and Karl Kropf (eds.):Theories and Manifestoes of Contemporary Architecture. Academy Editions, 1997 8. Miles, Malcolm and Tim Hall with Iain Borden, (Eds.): The City Cultures Reader (Routledge Urban Reader Series), 2nd edition. Routledge, 2003 9. Studio Greg Lynn: Foundations. Selected Theory Texts. University of Applied Arts Vienna / Universität für Angewandte Kunst Wien, 2012 10. Hays, K. Michael (ed.): Architecture Theory since 1968. The MIT Press, 1998 		
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 618	Course Name: CONSTRUCTIVE LOGICS OF SPACE			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	This course develops the knowledge of the architect's capacity and global stability of the connection to modern structural systems, and the design of structures made of various materials, and combinations there of, with different characteristics and load security			
Course Objectives	<p>Acquiring knowledge about the functional, technological and architectural aspects of the structural design of complex programs.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	<p>Introduction - classification and explanation of certain elements of structures - connection design, performance and materials</p> <p>Interdependence of structure and materials: a construction material and the material structure</p> <p>The philosophy of structural design: principled difference between the pressure force and tensile force, the parameters to select 'ispravanog' material</p> <p>New materials - polymers, composites and future</p> <p>Qualitative optimization of structures</p> <p>Quantitative optimization of structures (elements subjected to bending)</p> <p>Apparatus for sizing</p>			
Teaching Methods Description	Lectures Exercises Consultations Workshops			
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	0 %	Attendance	0 %
	Midterm Exam	20 %	Class Deliverables	10 %
	Presentation	20 %	Final Exam	50 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of architectural studies • Pursue research of significance in the discipline or an interdisciplinary or creative project. • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards • Express skills in oral and written communication sufficient to publish and present work • Gather, assess, record, and apply relevant information in architectural research 			
Prerequisite Course(s) (if any)				
Language of Instruction	English			
Mandatory Literature				
Recommended Literature	<ol style="list-style-type: none"> 1. Führer, Ingendaaij, Stein: Der Entwurf von Tragwerken, Rudolf Müller, Köln 1995. 2. Engel: Tragsysteme, Deutsche Verlagsanstalt, Stuttgart, 1967 (njemačko – englesko izdanje) 3. Millais: Building Structures 4. Gordon: Structures or Why Things don't Fall down, Plenum Press 1978 5. Podhorsky, Ukrainczyk: više članaka posvećenih primjeni lakog MEPS betona 			

ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)			
Activities	Quantity	Duration	Workload
Literature review (15 weeks x hours/week)	15	3	45
Research /Laboratory/ field work	1	2	25
Reporting	1	2	30
Seminar / Presentation	1	20	50
Total Workload			150
ECTS Credit (Total Workload / 25)			6

Course Code: ARC 628	Course Name: STONE IN ARCHITECTURE AND ARCHITECTURAL CONSERVATION			
Level: PhD	Year:	Semester:	ECTS Credits: 6	
Status: Elective	Hours/Week: 3+0		Total Hours: 45	
Course Description	<p>Since prehistoric times people used the stone for its unique durability, making the monuments of great importance. Due to the lack of transport and related technologies, until the 19th century, local stone was mainly used, or the stone from the available quarry. Only in rare cases, decorative stone, such as, marble transported from great distances, when stone of the same color and beauty, was not available in the immediate vicinity. Playing with stone is one of the essential elements of design in architecture from the beginning. Many historic buildings are made out of stone. All this makes this material is one of the most important topics for research in architecture: design, conservation.</p>			
Course Objectives	<p>Introduce PhD candidates with the different ways to use stone in architecture and capabilities in design</p> <p>Introduce PhD candidates with a value of heritage buildings and vernacular architecture made out of stone, and with available methods of their preservation.</p> <ul style="list-style-type: none"> • Create mindfulness of global approach to complex scientific and/or technical research problem-solving in architectural disciplines; • Explore, critically analyze and contribute to broad area of theories of architecture; • Plan and conduct research under the guidance of an advisor while developing the intellectual independence that typifies true scholarship. (Research, Critical and Creative Thinking); <p>Exercise oral and written methodological principles in order to develop comprehensive hypotheses, differentiate research design and/or statistics, evaluate rightness of research conclusions, adhering to ethical guidelines for collection, storage, and use of data from human or non-human participants.</p>			
Course Content (weekly plan)	<p>Detailed analysis of the different modes of use of stone in architecture in different historical periods and contemporary architecture</p> <p>Detailed analysis of the heritage buildings and the vernacular architecture constructed of stone, analysis of their values and methods of protection</p>			
Teaching Methods Description				
Assessment Methods Description (%)	Quiz	0 %	Lab/Practical Exam	0 %
	Homework	0 %	Term Paper	0 %
	Project	60 %	Attendance	0 %
	Midterm Exam	0 %	Class Deliverables	20 %
	Presentation	20 %	Final Exam	0 %
	Total	100 %		
Learning Outcomes	<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> • Acquire necessary knowledge for the improvement of design with stone • Understand and gain acquisition of relevant scientific research base for improving the quality of research on this subject • Critically analyze current practice in architectural design • Understand the ethical issues involved in the formation of professional judgment in architectural design and practice; • Recognize how the design process affects or is affected by social, cultural, environmental, economic, and ethical dimensions • Recognize the importance of the relationship between architectural theory and praxis; • Critically apply theories, methodologies, and knowledge to address fundamental questions in the area of sustainable architecture; • Pursue research of significance in the discipline or an interdisciplinary or creative project; • Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards; <p>Express skills in oral and written communication sufficient to publish and present work in their field, advocacy and to prepare grant proposals.</p>			
Prerequisite Course(s)				

(if any)		
Language of Instruction	English	
Mandatory Literature		
Recommended Literature	<p>Nermina Mujezinović, Kamen – materijal kontinuiteta i izražajnih mogućnosti, Federalno ministarstvo obrazovanja i nauke, Sarajevo, 2009.</p> <p>David Dornie, New Stone Architecture, McGraw-Hill Professional, 1 edition, 2003.</p> <p>Alfonso Acocella, Stone Architecture, Skira, 2006.</p> <p>Peter Gössel, Gabriele Leuthäuser, Architecture in the 20th Century, Taschen; 2nd US edition, 2005.</p> <p>John Ashurst, Francis G Dimes, Conservation of Building and Decorative Stone, Butterworth Heinemann, 1999.</p> <p>Erhard Winkler, Stone in Architecture: Properties, Durability, Springer; 3rd complete rev. and extended edition, 1994.</p> <p>Dimension Stone Cladding: Design, Construction, Evaluation, and Repair, Symposium on Dimension Stone Cladding, ASTM International, 2000.</p> <p>Marco Bussagli, Understanding Architecture, I.B. Tauris, 2005</p>	
ECTS (ALLOCATED BASED ON STUDENT'S WORKLOAD)		
Activities	Quantity Duration Workload	
Literature review (15 weeks x hours/week)	15 3 45	
Research /Laboratory/ field work	1 2 25	
Reporting	1 2 30	
Seminar / Presentation	1 20 50	
Total Workload		
ECTS Credit (Total Workload / 25)		
6		